

SAR TEST REPORT

Applicant	TCL Communication Ltd.
FCC ID	2ACCJH182
Product	GSM/UMTS/LTE/NR Mobile phone
Brand	TCL
Model	T613P
Report No.	R2401A0062-S1V2
Issue Date	March 12, 2024

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **IEEE 1528-2013, ANSI C95.1: 1992, IEEE C95.1: 1991**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Version	Revision Description	Issue Date
Rev.0	Initial issue of report.	February 23, 2024
Rev.1	Update description.	March 12, 2024
Rev.2	Update description.	March 12, 2024
<p>Note: This revised report (Report No.: R2401A0062-S1V2) supersedes and replaces the previously issued report (Report No.: R2401A0062-S1V1). Please discard or destroy the previously issued report and dispose of it accordingly.</p>		

1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
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1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 20%, Max. = 80%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for the EUT are as follows:

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)			
	1g SAR Head	1g SAR Body-worn	1g SAR Hotspot	Product Specific 10-g SAR
GSM 850	0.99	0.50	0.76	NA
GSM 1900	0.13	0.35	0.99	NA
WCDMA Band II	0.20	0.44	1.14	2.90
WCDMA Band IV	0.18	0.63	1.08	3.13
WCDMA Band V	0.66	0.42	0.47	NA
LTE FDD 7	1.19	0.63	1.12	NA
LTE FDD 12 (LTE FDD 17)	0.90	0.42	0.42	NA
LTE FDD 13	0.92	0.37	0.39	NA
LTE FDD 25 (LTE FDD 2)	0.28	0.59	1.36	NA
LTE FDD 26 (LTE FDD 5)	0.98	0.50	0.50	NA
LTE TDD 41 (LTE TDD 38)	0.57	0.54	0.72	NA
LTE TDD 48	1.03	0.43	0.70	NA
LTE FDD 66 (LTE FDD 4)	0.18	0.50	1.31	2.72
NR FDD n2	0.15	0.41	1.35	3.37
NR FDD n7	1.26	0.56	0.96	NA
NR FDD n26 (NR FDD n5)	1.14	0.38	0.38	NA
NR TDD n41 (NR FDD n38)	1.21	0.71	0.67	NA
NR TDD n48	1.16	0.70	0.95	2.97
NR FDD n66	0.10	0.67	1.26	3.22
NR FDD n71	0.67	0.26	0.26	NA
NR FDD n77 (NR FDD n78)	1.17	0.72	0.80	2.80
Wi-Fi (2.4G)	0.59	0.22	0.64	NA
Wi-Fi (5G)	0.78	0.37	1.07	NA

Bluetooth	0.14	0.06	0.06	NA
Date of Testing: January 19, 2024 ~ February 19, 2024				
Date of Sample Received: January 19, 2024				
Note: 1. The device is in compliance with SAR for Uncontrolled Environment /General Population exposure limits (1.6 W/kg and 4.0 W/kg) specified in ANSI C95.1: 1992/IEEE C95.1: 1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013. 2. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.				

Table 2: Highest Simultaneous Transmission SAR

Exposure Configuration	1g SAR Head	1g SAR Body-worn	1g SAR Hotspot	Product Specific 10-g SAR
Highest Simultaneous Transmission SAR (W/kg)	1.320	1.372	1.395	3.365
Note: The detail for simultaneous transmission consideration is described in chapter 10.3.				

Note:

According to TCB workshop April, 2015 RF Exposure Procedures Update (Overlapping LTE /NR Bands):

WWAN Antenna SAR for LTE Band 17 (Frequency range: 704-716 MHz) is covered by LTE Band 12 (Frequency range 699-716 MHz);

LTE Band 2 (Frequency range: 1850-1910 MHz) is covered by LTE Band 25 (Frequency range 1850-1915 MHz);

LTE Band 5 (Frequency range: 824-849 MHz) is covered by LTE Band 26 (Frequency range 814-849 MHz);

LTE Band 38 (Frequency range: 2570-2620 MHz) is covered by LTE Band 41 (Frequency range 2496-2690 MHz);

LTE Band 4 (Frequency range: 1710-1755 MHz) is covered by LTE Band 66 (Frequency range 1710-1780 MHz);

NR n5 (Frequency range 824-849 MHz) is covered by NR n26 (Frequency range: 814-849 MHz);

NR n38 (Frequency range: 2570-2620 MHz) is covered by NR n41 (Frequency range 2496-2690 MHz);

NR n78 (Frequency range: 3300-3800 MHz) is covered by NR n77 (Frequency range 3300-4200 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.

3 Description of Equipment Under Test

Client Information

Applicant	TCL Communication Ltd.
Applicant address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Manufacturer	TCL Communication Ltd.
Manufacturer address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

General Technologies

EUT Stage	Identical Prototype
Model	T613P
IMEI	IMEI 1: 356497200001962 IMEI 2: 356497200002036
Hardware Version	05
Software Version	6FSE
Antenna Type	Embedded Antenna
Wi-Fi Hotspot	Wi-Fi 2.4G Wi-Fi 5G U-NII-1& U-NII-2A& U-NII-2C&U-NII-3
Power Class	GSM 850: 4 GSM 1900: 1 WCDMA Band II/IV/V: 3 LTE FDD 2/4/5/7/12/13/17/25/26/66: 3 LTE TDD 38/41/48: 3 NR FDD n2/n5/n7/n26/n66/n71: 3 NR TDD n38/n41/n77/n78: 3
Power Level	GSM 850: level 5 GSM 1900: level 0 WCDMA Band II/IV/V: all up bits LTE FDD 2/4/5/7/12/13/17/25/26/66: max power LTE TDD 38/41/48: max power NR FDD n2/n5/n7/n26/n66/n71: max power NR TDD n38/n41/n77/n78: max power
EUT Accessory	
Battery	Manufacturer: Guangdong Fenghua New Energy Co., Ltd. Model: TLp049C9 (PN: BL-A64CT)
Earphone	Manufacturer: Weiwanda Model: HF-B0469A10
Note: The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.	

Wireless Technology and Frequency Range

Wireless Technology		Modulation	Operating mode	Tx (MHz)	Rx (MHz)
GSM	850	Voice(GMSK) GPRS(GMSK) EGPRS(GMSK,8PSK)	<input type="checkbox"/> Multi-slot Class:8-1UP <input type="checkbox"/> Multi-slot Class:10-2UP <input checked="" type="checkbox"/> Multi-slot Class:12-4UP <input type="checkbox"/> Multi-slot Class:33-4UP	824 ~ 849	869 ~ 894
	1900			1850 ~ 1910	1930 ~ 1990
	Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
WCDMA	Band II	QPSK, 16QAM	HSDPA UE Category:24 HSUPA UE Category:7	1850 ~ 1910	1930 ~ 1990
	Band IV			1710 ~ 1755	2110 ~ 2155
	Band V			824 ~ 849	869 ~ 894
LTE	FDD 2	QPSK, 16QAM, 64QAM, 256QAM	Rel.15 /Category 7	1850 ~ 1910	1930 ~ 1990
	FDD 4			1710 ~ 1755	2110 ~ 2155
	FDD 5			824 ~ 849	869 ~ 894
	FDD 7			2500 ~ 2570	2620 ~ 2690
	FDD 12			699 ~ 716	729 ~ 746
	FDD 13			777 ~ 787	746 ~ 756
	FDD 17			704 ~ 716	734 ~ 746
	FDD 25			1850 ~ 1915	1930 ~ 1995
	FDD 26			814 ~ 849	859 ~ 894
	TDD 38			2570 ~ 2620	2570 ~ 2620
	TDD 41			2496 ~ 2690	2496 ~ 2690
	TDD 48			3650 ~ 3700	3650 ~ 3700
	FDD 66			1710 ~ 1780	2110 ~ 2180
Does this device support Carrier Aggregation (CA) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
NR	n2	CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM; DFT-s OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	/	1850 ~ 1910	1850 ~ 1910
	n5			824 ~ 849	869 ~ 894
	n7			2500 ~ 2570	2500 ~ 2570
	n26			814 ~ 849	814 ~ 849
	n38			2570 ~ 2620	2570 ~ 2620
	n41			2496 ~ 2690	2496 ~ 2690
	n48			3650 ~ 3700	3650 ~ 3700
	n66			1710 ~ 1780	1710 ~ 1780
	n71			663 ~ 698	663 ~ 698

	n77			3300 ~ 4200	3300 ~ 4200
	n78			3300 ~ 3800	3300 ~ 3800
Bluetooth	2.4G	Version 5.2 BR/EDR + LE		2402 ~2480	2402 ~2480
Wi-Fi	2.4G	DSSS, OFDM	802.11b/g/n HT20	2412 ~ 2462	2412 ~ 2462
		OFDM	802.11n HT40	2422 ~ 2452	2422 ~ 2452
	5G	OFDM	802.11a/n HT20/ HT40/ ac VHT20/ VHT40/ VHT80	5150 ~ 5250	5150 ~ 5250
				5250 ~ 5350	5250 ~ 5350
	Does this device support MIMO <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
NFC	13.56MHz				
Note: Radio equipment in band n77 is only allowed to operate from 3450 MHz to 3550 MHz for Subset 1; 3700 MHz to 3980 MHz for Subset 2 for the transmitter and receiver.					

4 Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE 1528- 2013, ANSI C95.1: 1992, IEEE C95.1: 1991, the following FCC Published RF exposure KDB procedures:

Reference Standards

KDB 248227 D01 802.11Wi-Fi SAR v02r02

KDB 447498 D01 General RF Exposure Guidance v06

KDB 648474 D04 Handset SAR v01r03

KDB 690783 D01 SAR Listings on Grants v01r03

KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04

KDB 865664 D02 RF Exposure Reporting v01r02

KDB 941225 D01 3G SAR Procedures v03r01

KDB 941225 D05 SAR for LTE Devices v02r05

KDB 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02

KDB 941225 D06 Hotspot Mode v02r01

5 Operational Conditions during Test

5.1 Test Positions

5.1.1 Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left head and right head sides of the phantom.

The positions used in the measurements were according to IEEE 1528 - 2013 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

5.1.2 Body Worn Configuration

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations.

Per FCC KDB Publication 648474 D04, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

5.1.3 Phablet SAR Test Considerations

For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, that can provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets and support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

a) The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

b) The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for product specific 10-g SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. The 1-g SAR at 5 mm for UMPC mini-tablets is not required. When hotspot mode applies, product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold. The normal tablet procedures in KDB Publication 616217 are required when the overall diagonal dimension of the device is > 20.0 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Product specific 10-g SAR is also not required for the front (top) surface of larger form factor full size tablets. The more conservative normal tablet SAR results can be used to support phablet mode product specific 10-g SAR.

c) The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions.

5.2 Measurement Variability

Per FCC KDB Publication 865664 D01, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

- 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
- 2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
- 3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
- 4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

5.3 Test Configuration

5.3.1 GSM Test Configuration

According to specification 3GPP TS 51.010, the maximum power of the GSM can do the power reduction for the multi-slot. The allowed power reduction in the multi-slot configuration is as following:

Output power of reductions:

Table 3: The allowed power reduction in the multi-slot configuration

Number of timeslots in uplink assignment	Permissible nominal reduction of maximum output power (dB)
1	0
2	0 to 3,0
3	1,8 to 4,8
4	3,0 to 6,0

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. GSM voice and GPRS data use GMSK, which is a constant amplitude modulation with minimal peak to average power difference within the time-slot burst. For EDGE, GMSK is used for MCS 1 – MCS 4 and 8-PSK is used for MCS 5 – MCS 9; where 8-PSK has an inherently higher peak-to-average power ratio. The GMSK and 8-PSK EDGE configurations are considered separately for SAR compliance. The GMSK EDGE configurations are grouped with GPRS and considered with respect to time-averaged maximum output power to determine compliance. The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode.

5.3.2 WCDMA Test Configuration

5.3.2.1 3G SAR Test Reduction Procedure

The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations modes according to output power, exposure conditions and device operating capabilities. Maximum output power is verified by applying the applicable versions of 3GPP TS 34.121.

5.3.2.2 Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest SAR configuration in 12.2 kbps RMC for head exposure.

5.3.2.3 Body-worn Accessory SAR

SAR for body-worn accessory configurations is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the EUT with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or DPDCHn, for the highest reported body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When more than 2 DPDCHn are supported by the EUT, it may be necessary to configure additional DPDCHn using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC

5.3.2.4 Release 5 HSDPA Test Configuration

The 3G SAR test reduction procedure is applied to HSDPA body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the “Release 5 HSDPA Data Devices” section of this document, for the highest SAR body-worn accessory exposure configuration in 12.2 kbps RMC. EUT with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

HSDPA should be configured according to the UE category of a test device. The number of HSDSCH/HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors (β_c , β_d), and HS-DPCCH power offset parameters (Δ_{ACK} , Δ_{NACK} , Δ_{CQI}) should be set according to values indicated in the Table below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Table 4: Subtests for WCDMA Release 5 HSDPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (note 1, note 2)	CM(dB) (note 3)	MPR(dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (note 4)	15/15 (note 4)	64	12/15 (note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$
 Note 2: CM=1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$.
 Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

5.3.2.5 Release 6 HSUPA Test Configuration

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices” section of this document, for the highest body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn accessory measurements is tested for next to the ear head exposure.

Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in Table 2 and other applicable procedures described in the ‘WCDMA EUT’ and ‘Release 5 HSDPA Data Devices’ sections of this document

Table 5: Sub-Test 5 Setup for Release 6 HSUPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM ⁽²⁾ (dB)	MPR (dB)	AG ⁽⁴⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	15/15 ⁽⁴⁾	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$.

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Figure 5.1g.

Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

Table 6: HSUPA UE Category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCHTTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185

	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	11484	5.76
	4	4	10		20000	2.00
7 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	22996	?
	4	4	10		20000	?

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4. UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM. (TS25.306-7.3.0)

5.3.2.6 HSPA, HSPA+ and DC-HSDPA Test Configuration

SAR test exclusion may apply to 3GPP Rel. 6 HSPA and Rel. 8 DC-HSDPA. When SAR measurement is required for HSPA or DC-HSDPA, a KDB inquiry is required to confirm that the wireless mode configurations in the test setup have remained stable throughout the SAR measurements. Without prior KDB confirmation to determine the SAR results are acceptable, a PAG is required for equipment approval.

SAR test exclusion for HSPA, HSPA+ and DC-HSDPA is determined according to the following:

1) The HSPA procedures are applied to configure 3GPP Rel. 6 HSPA devices in the required sub-test mode(s) to determine SAR test exclusion.

2) SAR is required for Rel. 7 HSPA+ when SAR is required for Rel. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (uplink) HSPA+ with 12.2 kbps RMC as the primary mode. Power is measured for HSPA+ that supports uplink 16 QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

3) SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

4) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA, HSPA+ or DC-HSDPA:

a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121.

Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.

b) The power measurement results are in agreement with the individual device implementation and specifications. When Enhanced MPR (E-MPR) applies, the normal MPR targets may be modified according to the Cubic Metric (CM) measured by the device, which must be taken into consideration.

c) The UE category, operating parameters, such as the β and Δ values used to configure the device for testing, power setback procedures described in 3GPP TS 34.121 for the power measurements, and HSPA/HSPA+ channel conditions (active and stable) for the entire duration of the measurement according to the required E-TFCI and AG index values.

5) When SAR measurement is required, the test configurations, procedures and power measurement results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

Table 7: HS-DSCH UE Category

HS-DSCH category	Maximum number of HS-DSCH codes received	Minimum inter-TTI interval	Maximum number of bits of an HS-DSCH transport block received within an HS-DSCH TTI NOTE 1	Total number of soft channel bits	Supported modulations without MIMO operation or dual cell operation	Supported modulations with MIMO operation and without dual cell operation	Supported modulations with dual cell operation	
Category 1	5	3	7298	19200	QPSK, 16QAM	Not applicable (MIMO not supported)	Not applicable (dual cell operation not supported)	
Category 2	5	3	7298	28800				
Category 3	5	2	7298	28800				
Category 4	5	2	7298	38400				
Category 5	5	1	7298	57600				
Category 6	5	1	7298	67200				
Category 7	10	1	14411	115200				
Category 8	10	1	14411	134400				
Category 9	15	1	20251	172800				
Category 10	15	1	27952	172800				
Category 11	5	2	3630	14400	QPSK	Not applicable (dual cell operation not supported)		
Category 12	5	1	3630	28800	QPSK, 16QAM, 64QAM			
Category 13	15	1	35280	259200				
Category 14	15	1	42192	259200				
Category 15	15	1	23370	345600	QPSK, 16QAM		Not applicable (dual cell operation not supported)	
Category 16	15	1	27952	345600	QPSK, 16QAM			
Category 17 NOTE 2	15	1	35280	259200	QPSK, 16QAM, 64QAM	-		
			23370	345600	-	QPSK, 16QAM		
Category 18 NOTE 3	15	1	42192	259200	QPSK, 16QAM, 64QAM	-		
			27952	345600	-	QPSK, 16QAM		
Category 19	15	1	35280	518400	QPSK, 16QAM, 64QAM			
Category 20	15	1	42192	518400	QPSK, 16QAM, 64QAM			
Category 21	15	1	23370	345600	-	-		QPSK, 16QAM
Category 22	15	1	27952	345600				
Category 23	15	1	35280	518400				
Category 24	15	1	42192	518400				

5.3.3 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The R&S CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

A) Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

B) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer

target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

C) A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

D) Largest Channel Bandwidth Standalone SAR Test Requirements

1) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

2) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

3) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100% RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

4) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

E) Other Channel Bandwidth Standalone SAR Test Requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

5.3.4 Additional Requirements for TDD LTE Specification

For Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

TDD LTE Band supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table: Uplink-downlink configurations for uplink-downlink configurations and Table: Configuration of special

subframe (lengths of DwPTS/GP/UpPTS) for Special subframe configurations.

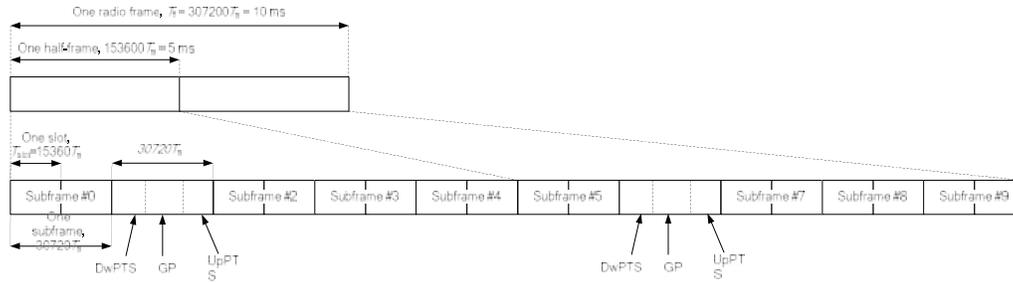


Figure 1: Frame structure type 2

Table 8: Configuration of Special Subframe (Lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$	-	-	-	-	-
9	$13168 \cdot T_s$	-	-	-	-	-

Table 9: Uplink-Downlink Configurations

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

According to Figure 1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below. The count of Uplink subframes are according to Table: Uplink-downlink configurations:

$$\text{Duty cycle} = (30720\text{Ts} * \text{Ups} + \text{Uplink Component} * \text{Specials}) / (307200\text{Ts})$$

About the uplink component of Special subframes, we can figure out by Table: Configuration of special subframe (lengths of DwPTS/GP/UpPTS):

$$\text{Uplink Component} = \text{UpPTS}$$

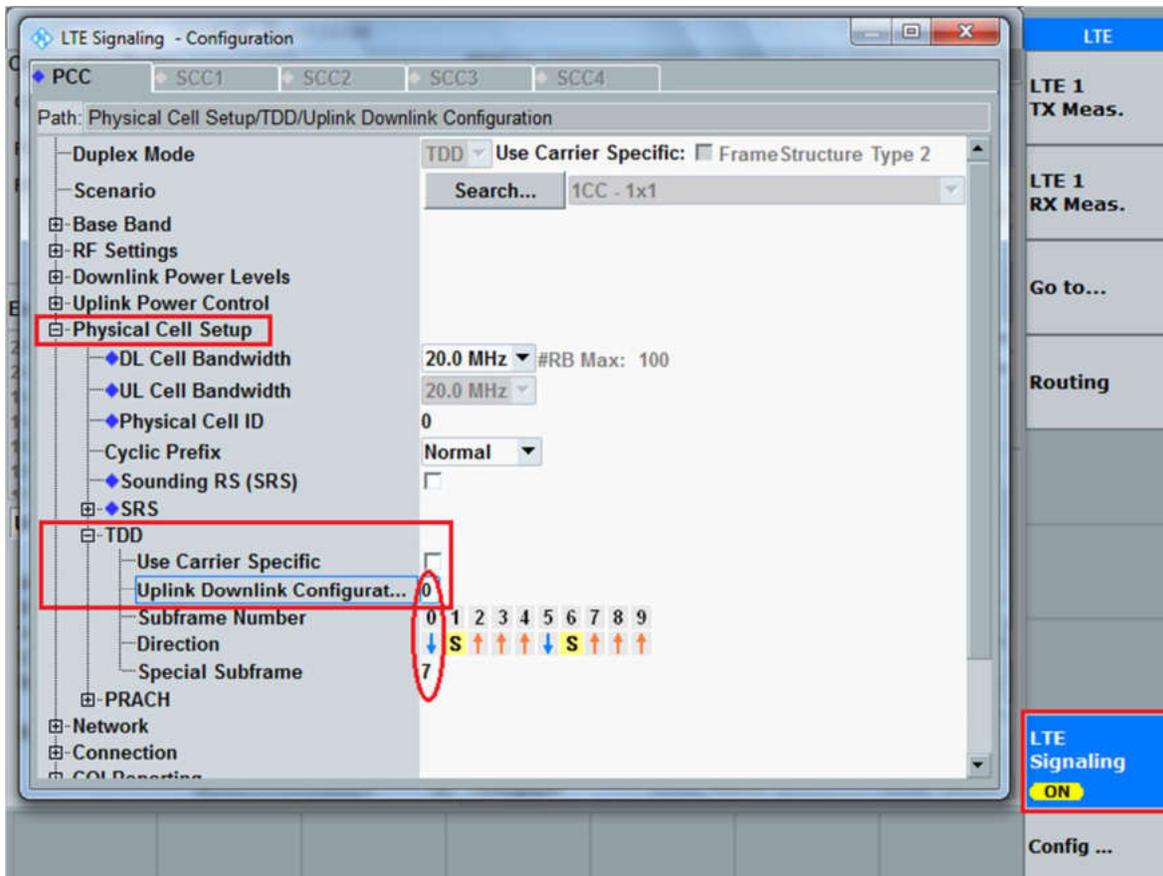
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

$$\text{Duty cycle} = [(30720\text{Ts} * \text{Ups}) + \text{UpPTS} * \text{Specials}] / (307200\text{Ts})$$

And we can get different Duty cycles under different configurations:

Uplink-downlink configuration	Subframe number			Configuration of special subframe							
				Normal cyclic prefix in downlink				Extended cyclic prefix in downlink			
	D	S	U	Normal cyclic prefix in uplink		Extended cyclic prefix in uplink		Normal cyclic prefix in uplink		Extended cyclic prefix in uplink	
				configuration 0-4	configuration 5-9	configuration 0-4	configuration 5-9	configuration 0-3	configuration 4-7	configuration 0-3	configuration 4-7
0	2	2	6	61.43%	62.85%	61.67%	63.33%	61.43%	62.85%	61.67%	63.33%
1	4	2	4	41.43%	42.85%	41.67%	43.33%	41.43%	42.85%	41.67%	43.33%
2	6	2	2	21.43%	22.85%	21.67%	23.33%	21.43%	22.85%	21.67%	23.33%
3	6	1	3	30.71%	31.43%	30.83%	31.67%	30.71%	31.43%	30.83%	31.67%
4	7	1	2	20.71%	21.43%	20.83%	21.67%	20.71%	21.43%	20.83%	21.67%
5	8	1	1	10.71%	11.43%	10.83%	11.67%	10.71%	11.43%	10.83%	11.67%
6	3	2	5	51.43%	52.85%	51.67%	53.33%	51.43%	52.85%	51.67%	53.33%

SAR test Plan: For TDD LTE, SAR should be tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7 for Frame structure type



5.3.5 5G NR Test Configuration

For 5G NR SAR testing, due to test setup limitations, SAR testing for NR was performed using factory test mode software to establish the connection and perform SAR with 100% transmission.

The DFT-s-OFDM and CP-OFDM waveforms were investigated, and DFT-s-OFDM was found to be the worst case.

The worst-case scenario for all measurements is based on an engineering evaluation and QPSK was observed as the worst one and set for all conducted and radiated. Output power measurements were measured on QPSK, 16QAM, 64QAM, 256QAM, and BPSK, modulations.

For TDD NR Band operation and final implementation, TDD NR slot configuration extended cyclic prefix uplink duty cycle =100%; However, EN-DC transmission on test EUT is only possible using FTM mode with continuous transmission (duty cycle =100%).

For EN-DC SAR, as the existing SAR test system can not test the multiple different frequency bands simultaneous Transmission SAR at the same time , we suggest that the conservative "max tune-up + max tune-up" for hotspot multi-Tx and SAR scaling method can be used to evaluate the inter-band Uplink EN-DC SAR from standalone SAR test results of each LTE and NR EN-DC component band and the conservative "max tune-up + max tune-up" for hotspot multi-Tx method to combine the scaled SAR value from each EN-DC component band as the inter-band Uplink EN-DC SAR. All Simultaneous Transmission Scenarios will be evaluated independently in the final SAR report.

5.3.6 Wi-Fi Test Configuration

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; These are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the *initial test position(s)* by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The *initial test position(s)* is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). When the *reported SAR* for the *initial test position* is:

- ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the *initial test position* to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the *reported SAR* is ≤ 0.8 W/kg or all required test positions are tested.
 - ✧ For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
 - ✧ When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the *initial test position* and subsequent test positions, when the *reported SAR* is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the *reported SAR* is ≤ 1.2 W/kg or all required test channels are considered.
 - ✧ The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.

To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

5.3.7 Bluetooth Test Configuration

For Bluetooth SAR testing, Bluetooth engineering testing software installed on the EUT can provide continuous transmitting RF signal with maximum output power. And the CBT control the EUT operating with hopping off and data rate set for DH5.

The SAR measurement takes full account of the Bluetooth duty cycle and is reflected in the report, and the duty factor of the device is as follow:



Note: Duty factor= Ton (ms)/ T(on+off) (ms)=2.840/3.740*100%=75.9%

5.3.8 LTE CA specification

The device supports LTE advanced Rel. 15, Carrier Aggregation (CA) is supported for intra-band, Inter-band, more details information is provided in tables below:

1) UL CA intra-band contiguous

E-UTRA CA configuration / Bandwidth combination set								
E-UTRA CA configuration	Uplink CA configurations (NOTE 1)	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_7C	CA_7C	15	15				40	0
		20	20					
		10	20				40	1
		15	15, 20					
		20	10, 15, 20					
		15	10, 15				40	2

		20	15, 20					
CA_41C	CA_41C	10	20				40	0
		15	15, 20					
		20	10, 15, 20					
		5, 10	20				40	1
		15	15, 20					
		20	5, 10, 15, 20					
		10	15, 20				40	2
		15	10, 15, 20					
		20	10, 15, 20					
		10	20				40	3
20	20							

NOTE 1: Uplink CA configurations are the configurations supported by the present release of specifications.

2) DL CA intra-band contiguous

E-UTRA CA configuration / Bandwidth combination set							
E-UTRA CA configuration	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_2C	5	20				40	0
	10	15, 20					
	15	10, 15, 20					
	20	5, 10, 15, 20					
CA_7C	15	15				40	0
	20	20					
	10	20					
	15	15, 20				40	1
	20	10, 15, 20					
	15	10, 15					
CA_41C	20	15, 20				40	2
	10	20					
	15	15, 20					
	20	10, 15, 20				40	0
	5, 10	20					
	15	15, 20					
	20	5, 10, 15, 20				40	1
	10	15, 20					
	15	10, 15, 20					
20	10, 15, 20				40	2	
10	20						

	20	20					
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3) DL CA Intra band non-contiguous

E-UTRA CA configuration / Bandwidth combination set							
E-UTRACA configuration	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_7A-7A	5	15				40	0
	10	10, 15					
	15	15, 20					
	20	20				40	1
	5, 10, 15, 20	5, 10, 15, 20					
	5, 10, 15, 20	5, 10					
	10, 15, 20	10, 15, 20				40	3
CA_41A-41A	10, 15, 20	10, 15, 20				40	0
	5, 10, 15, 20	5, 10, 15, 20				40	1

4) DL CA Inter-band

E-UTRA CA configuration / Bandwidth combination set									
E-UTRA CA Configuration	E-UTRA Bands	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Maximum aggregated bandwidth [MHz]	Bandwidth combination set
CA_2A-7A	2			Yes	Yes	Yes	Yes	40	0
	7			Yes	Yes	Yes	Yes		
CA_4A-5A	4			Yes	Yes			20	0
	5			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	1
CA_4A-7A	4			Yes	Yes			30	0
	7			Yes	Yes	Yes	Yes		
	4			Yes	Yes	Yes	Yes	40	1
	7			Yes	Yes	Yes	Yes		
CA_4A-12A	4	Yes	Yes	Yes	Yes			20	0
	12			Yes	Yes				
	4	Yes	Yes	Yes	Yes	Yes	Yes	30	1
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	2
	12		Yes	Yes	Yes				

	4			Yes	Yes			20	3
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	4
	12			Yes	Yes				
	4			Yes	Yes	Yes		20	5
	12			Yes					
CA_4A-17A	4			Yes	Yes			20	0
	17			Yes	Yes				
CA_4A-48A	4			Yes	Yes	Yes	Yes	40	0
	48			Yes	Yes	Yes	Yes		
CA_5A-7A	5	Yes	Yes	Yes	Yes			30	0
	7				Yes	Yes	Yes		
	5			Yes	Yes			30	1
	7				Yes	Yes	Yes		
CA_5A-41A	5			Yes	Yes			30	0
	41						Yes		
CA_5A-48A	5			Yes	Yes			30	0
	48			Yes	Yes	Yes	Yes		
CA_5A-66A	5			Yes	Yes			30	0
	66			Yes	Yes	Yes	Yes		
CA_12A-66A	12			Yes	Yes			20	0
	66	Yes	Yes	Yes	Yes				
	12			Yes	Yes			30	1
	66	Yes	Yes	Yes	Yes	Yes	Yes		
	12		Yes	Yes	Yes			30	2
	66			Yes	Yes	Yes	Yes		
	12			Yes	Yes			20	3
	66			Yes	Yes				
	12			Yes	Yes			30	4
	66			Yes	Yes	Yes	Yes		
	12			Yes				20	5
66			Yes	Yes	Yes				
CA_41A-48A	41				Yes	Yes	Yes	40	0
	48			Yes	Yes	Yes	Yes		
CA_48A-66A	48			Yes	Yes	Yes	Yes	40	0
	66			Yes	Yes	Yes	Yes		

For downlink carrier aggregation, SAR is not required for downlink carrier aggregation in active uplink maximum output power not more than 1/4dB higher than the maximum output power measured when downlink carrier aggregation inactive.

5.3.9 Power Reduction Configuration

This mobile phone supports G-Sensor function. When G-sensor function is turned on, the DUT be set to normal state and is in full power condition. When G-sensor function is turned off, the mobile phone meets SAR requirements by accurately reducing the power of various scenes. Mainly the following scenarios:

- 1) Head SAR is mainly determined by whether the Receiver on.
- 2) Body SAR is mainly determined by whether the Receiver off or Receiver off + Hotspot on.

Refer to **WWAN and WLAN Reduced Power Table** for details. Normal power corresponds to the condition for enabling the G-Sensor function on. And refer to Chapter 9 for functional verification results.

In order to judge whether the mobile phone is on the person's body, the method of using G-sensor is proposed as follows.

The Detailed G-senso Refer to *T613P_G-sensor for SAR KDB inquiry.*

WWAN Reduced Power Level Overview

Antenna	Position	Receiver State	Hotspot State	Transmitting conditions
ANT0	Head SAR	On	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Hotspot SAR	Off	On	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Body-worn/Product-specific 10g SAR	Off	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
ANT1	Head SAR	On	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Hotspot SAR	Off	On	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Body-worn/Product-specific 10g SAR	Off	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
ANT3	Head SAR	On	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Hotspot SAR	Off	On	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Body-worn/Product-specific 10g SAR	Off	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
ANT4	Head SAR	On	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Hotspot SAR	Off	On	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Body-worn/Product-specific 10g SAR	Off	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
ANT7	Head SAR	On	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Hotspot SAR	Off	On	WWAN Only

				WWAN+WLAN2.4G
				WWAN+WLAN5G
	Body-worn/Product-specific 10g SAR	Off	Off	WWAN Only
				WWAN+WLAN2.4G
				WWAN+WLAN5G

WLAN Reduced Power Level Overview

Position	Receiver State	Hotspot State	Transmitting conditions
Head SAR	On	Off	WLAN Only
			WWAN+WLAN2.4G
			WWAN+WLAN5G
Hotspot SAR	Off	Off	WLAN Only
Hotspot SAR	Off	On	WWAN+WLAN2.4G
			WWAN+WLAN5G
Body-worn/Product-specific 10g SAR	Off	Off	WLAN Only
			WWAN+WLAN2.4G
			WWAN+WLAN5G

WWAN Reduced Power Table

Mode	Band	Normal power (dB) (Tune up)	Antenna	Head (Receiver on) (dB)			Body-worn/Product-specific 10g SAR(Receiver off) (dB)			Hotspot(Receiver off+Hotspot on) (dB)		
				Standalone	Simultaneous transmission		Standalone	Simultaneous transmission		Standalone	Simultaneous transmission	
					WWAN+	WWAN+		WWAN+	WWAN+			
					2.4G WLAN	5G WLAN		2.4G WLAN	5G WLAN			
GSM (CS)	GSM 850	34.0	Ant.4	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
GSM (CS)	GSM 1900	31.5	Ant.0	0.0	0.0	0.0	1.0	1.0	1.0	2.0	2.0	2.0
12.2kbps RMC	WCDMA B2	24.5	Ant.0	0.0	0.0	0.0	1.5	1.5	1.5	3.0	3.0	3.0
12.2kbps RMC	WCDMA B4	24.5	Ant.0	0.0	0.0	0.0	2.0	2.0	2.0	3.0	3.0	3.0
12.2kbps RMC	WCDMA B5	24.5	Ant.4	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE Bands	LTE B2	25.0	Ant.0	0.0	0.0	0.0	3.5	3.5	3.5	3.5	3.5	3.5
	LTE B4	25.0	Ant.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
	LTE B5	25.0	Ant.4	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B7	25.0	Ant.1	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0
		25.0	Ant.3	4.5	4.5	4.5	2.5	2.5	2.5	3.5	3.5	3.5
	LTE B12	25.0	Ant.4	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B13	25.0	Ant.4	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B17	25.0	Ant.4	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B25	25.0	Ant.0	0.0	0.0	0.0	3.5	3.5	3.5	3.5	3.5	3.5
	LTE B26	25.0	Ant.4	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B41	25.0	Ant.3	2.5	2.5	2.5	0.0	0.0	0.0	2.0	2.0	2.0
		24.5	Ant.1	0.0	0.0	0.0	2.0	2.0	2.0	3.0	3.0	3.0
	LTE B38	25.0	Ant.3	2.5	2.5	2.5	0.0	0.0	0.0	2.0	2.0	2.0
		24.5	Ant.1	0.0	0.0	0.0	2.0	2.0	2.0	3.0	3.0	3.0
LTE B48	24.0	Ant.7	2.0	2.0	2.0	0.0	0.0	0.0	1.0	1.0	1.0	
LTE B66	25.0	Ant.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	
SA Bands	n 2	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
	n 5	24.5	Ant.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	n 7	24.5	Ant.3	3.5	3.5	3.5	1.0	1.0	1.0	2.0	2.0	2.0
	n 26	24.5	Ant.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	n 41	24.5	Ant.3	3.5	3.5	3.5	1.0	1.0	1.0	3.5	3.5	3.5
	n 38	24.5	Ant.3	3.5	3.5	3.5	1.0	1.0	1.0	3.5	3.5	3.5
	n 48	24.0	Ant.7	6.0	6.0	6.0	0.0	0.0	0.0	2.5	2.5	2.5
	n 66	24.5	Ant.0	0.0	0.0	0.0	1.0	1.0	1.0	2.0	2.0	2.0
	n 71	24.5	Ant.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	n 77	24.0	Ant.7	6.0	6.0	6.0	0.0	0.0	0.0	2.5	2.5	2.5
n 78	24.0	Ant.7	6.0	6.0	6.0	0.0	0.0	0.0	2.5	2.5	2.5	
EN-DC	LTE B41	24.5	Ant.1	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	3.0
(B41+N41)	n 41	24.5	Ant.3	5.5	5.5	5.5	2.5	2.5	2.5	5.5	5.5	5.5
EN-DC	LTE B7	25.0	Ant.3	7.0	7.0	7.0	3.0	3.0	3.0	6.0	6.0	6.0

(B7+N5)	n 5	24.5	Ant.4	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B7	25.0	Ant.1	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0
(B7+N7)	n 7	25.0	Ant.3	5.5	5.5	5.5	2.0	2.0	2.0	3.5	3.5	3.5
EN-DC	LTE B5	25.0	Ant.4	6.0	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
(B5+N41)	n 41	24.5	Ant.3	3.5	3.5	3.5	1.0	1.0	1.0	3.5	3.5	3.5
EN-DC	LTE B4	25.0	Ant.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
(B4+N78)	n 78	24.0	Ant.7	7.5	7.5	7.5	2.5	2.5	2.5	6.0	6.0	6.0
EN-DC	LTE B5	25.0	Ant.4	6.0	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
(B5+N78)	n 78	24.0	Ant.7	7.5	7.5	7.5	2.5	2.5	2.5	6.0	6.0	6.0
EN-DC	LTE B7	25.0	Ant.1	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0
(B7+N78)	n 78	24.0	Ant.7	7.5	7.5	7.5	2.5	2.5	2.5	6.0	6.0	6.0
EN-DC	LTE B38	24.5	Ant.1	0.0	0.0	0.0	2.0	2.0	2.0	3.0	3.0	3.0
(B38+N78)	n 78	24.0	Ant.7	7.5	7.5	7.5	2.5	2.5	2.5	6.0	6.0	6.0
EN-DC	LTE B41	24.5	Ant.1	0.0	0.0	0.0	2.0	2.0	2.0	3.0	3.0	3.0
(B41+N78)	n 78	24.0	Ant.7	7.5	7.5	7.5	2.5	2.5	2.5	6.0	6.0	6.0

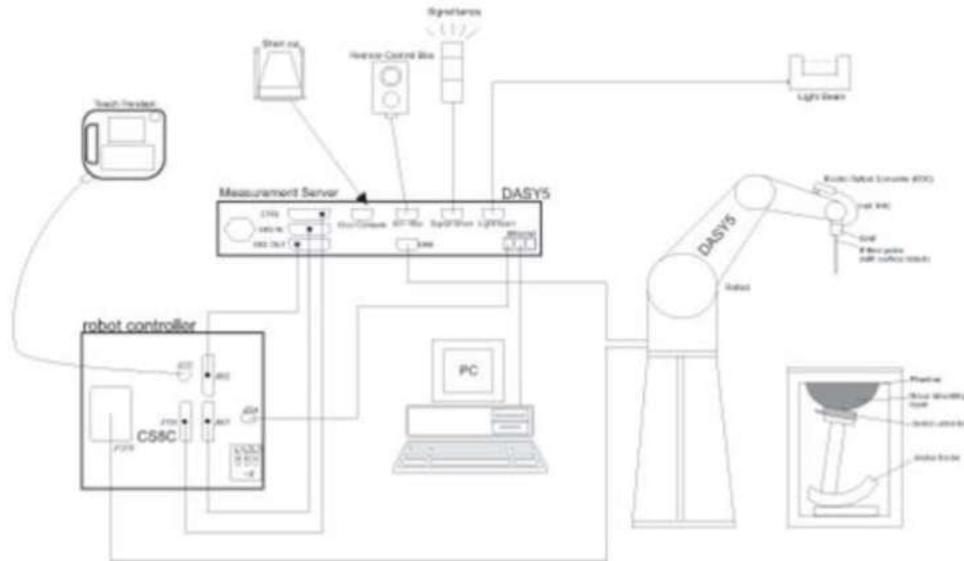
WLAN Reduced Power Table

Mode	Band	Normal power (dB) (Tune up)	Antenna	Head(Receiver on) (dB)		Body-worn/Product-specific 10g SAR(Receiver off) (dB)		Hotspot(Receiver off) (dB)	Hotspot(Hotspot on) (dB)
				Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Standalone	Simultaneous transmission
					WWAN+ 2.4/5G WLAN		WWAN+ 2.4/5G WLAN		WWAN+ 2.4/5G WLAN
2.4G	802.11b	19.0	Ant.6	2.0	7.0	0.0	0.0	0.0	4.0
	802.11g	16.0		0.0	4.0	0.0	0.0	0.0	1.0
	802.11nHT20	15.0		0.0	3.0	0.0	0.0	0.0	0.0
	802.11nHT40	15.0		0.0	3.0	0.0	0.0	0.0	0.0
5G U-NII-1&2A	802.11a	16.0	Ant.6	0.0	3.5	0.0	0.0	0.0	3.5
	802.11nHT20	15.0		0.0	3.0	0.0	0.0	0.0	3.0
	802.11nHT40	15.0		0.0	3.0	0.0	0.0	0.0	3.0
	802.11acVHT20	14.0		0.0	2.0	0.0	0.0	0.0	2.0
	802.11acVHT40	13.0		0.0	1.0	0.0	0.0	0.0	1.0
	802.11acVHT80	12.0		0.0	0.0	0.0	0.0	0.0	0.0
5G U-NII-2C	802.11a	16.0	Ant.6	0.0	3.5	0.0	0.0	0.0	3.5
	802.11nHT20	15.0		0.0	3.0	0.0	0.0	0.0	3.0
	802.11nHT40	15.0		0.0	3.0	0.0	0.0	0.0	3.0
	802.11acVHT20	14.0		0.0	2.0	0.0	0.0	0.0	2.0
	802.11acVHT40	13.0		0.0	1.0	0.0	0.0	0.0	1.0
	802.11acVHT80	12.0		0.0	0.0	0.0	0.0	0.0	0.0
5G U-NII-3	802.11a	16.0	Ant.6	0.0	3.5	0.0	0.0	0.0	3.5
	802.11nHT20	15.0		0.0	3.0	0.0	0.0	0.0	3.0
	802.11nHT40	15.0		0.0	3.0	0.0	0.0	0.0	3.0
	802.11acVHT20	14.0		0.0	2.0	0.0	0.0	0.0	2.0
	802.11acVHT40	13.0		0.0	1.0	0.0	0.0	0.0	1.0
	802.11acVHT80	12.0		0.0	0.0	0.0	0.0	0.0	0.0

6 SAR Measurements System Configuration

6.1 SAR Measurement Set-up

The DASY system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.2 DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure Scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.



E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than ± 0.25 dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\text{SAR} = C \Delta T / \Delta t$$

Where: Δt = Exposure time (30 seconds),
 C = Heat capacity of tissue (brain or muscle),
 ΔT = Temperature increase due to RF exposure.

Or

$$\text{SAR} = I E I^2 \sigma / \rho$$

Where: σ = Simulated tissue conductivity,
 ρ = Tissue density (kg/m^3).

6.3 SAR Measurement Procedure

Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

		≤3GHz	> 3 GHz	
Maximum zoom scan spatial resolution: $\Delta x_{\text{zoom}} \Delta y_{\text{zoom}}$		≤2GHz: ≤8mm 2 – 3GHz: ≤5mm*	3 – 4GHz: ≤5mm* 4 – 6GHz: ≤4mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	Uniform grid: $\Delta z_{\text{zoom}}(n)$	≤5mm	3 – 4GHz: ≤4mm 4 – 5GHz: ≤3mm 5 – 6GHz: ≤2mm	
	Graded grid	$\Delta z_{\text{zoom}}(1)$: between 1 st two points closest to phantom surface	≤4mm	3 – 4GHz: ≤3mm 4 – 5GHz: ≤2.5mm 5 – 6GHz: ≤2mm
		$\Delta z_{\text{zoom}}(n>1)$: between subsequent points	≤1.5• $\Delta z_{\text{zoom}}(n-1)$	
Minimum zoom scan volume	X, y, z	≥30mm	3 – 4GHz: ≥28mm 4 – 5GHz: ≥25mm 5 – 6GHz: ≥22mm	
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <u>reported</u> SAR from the <u>area scan based 1-g SAR estimation</u> procedures of KDB 447498 is ≤ 1.4W/kg, ≤8mm, ≤7mm and ≤5mm zoom scan resolution may be applied, respectively, for 2GHz to 3GHz, 3GHz to 4GHz and 4GHz to 6GHz.				

Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

7 Main Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial Number	Last Cal.	Cal. Due Date
Network Analyzer	Agilent	E5071B	MY42404014	2023-05-12	2024-05-11
Dielectric Probe Kit	SPEAG	DAK-3.5	1332	2023-07-17	2024-07-16
Power Meter	Agilent	E4417A	GB41291714	2023-05-12	2024-05-11
Power Sensor	Agilent	N8481H	MY50350004	2023-05-12	2024-05-11
Power Sensor	Agilent	E9327A	US40441622	2023-05-12	2024-05-11
Signal Generator	Agilent	N5181A	MY50140143	2023-05-12	2024-05-11
Dual Directional Coupler	UCL	UCL-DDC0 56G-S	20010600118	/	/
Amplifier	INDEXSAR	TPA-005060 G01	13030502	2023-05-13	2024-05-12
Wireless Communication Tester	Anritsu	MT8820C	6201342015	2023-12-05	2024-12-04
Wireless Communication Tester	Agilent	E5515C	MY48360988	2023-12-05	2024-12-04
Wireless communication tester	Starpoint	SP9500	20440	2023-05-12	2024-05-11
Wireless Communication Tester	Anritsu	MT8000A	6261844783	2023-05-12	2024-05-11
Wireless Communication Tester	R&S	CMW 500	146734	2023-05-13	2024-05-12
E-field Probe	SPEAG	EX3DV4	3677	2023-07-20	2024-07-19
DAE	SPEAG	DAE4	1317	2023-09-13	2024-09-12
Validation Kit 750MHz	SPEAG	D750V3	1045	2023-09-12	2026-09-11
Validation Kit 835MHz	SPEAG	D835V2	4d020	2023-09-15	2026-09-14
Validation Kit 1750MHz	SPEAG	D1750V2	1023	2022-06-21	2025-06-20
Validation Kit 1900MHz	SPEAG	D1900V2	5d060	2023-09-12	2026-09-11
Validation Kit 2450MHz	SPEAG	D2450V2	786	2023-09-12	2026-09-11
Validation Kit 2600MHz	SPEAG	D2600V2	1025	2021-04-23	2024-04-22
Validation Kit 3500MHz	SPEAG	D3500V2	1083	2022-10-09	2025-10-08
Validation Kit 3700MHz	SPEAG	D3700V2	1048	2022-10-10	2025-10-09
Validation Kit 3900MHz	SPEAG	D3900V2	1027	2022-10-09	2025-10-08
Validation Kit 5GHz	SPEAG	D5GHzV2	1203	2022-12-09	2025-12-08
Software for Tissue	SPEAG	DAK 3.0.4.1	/	/	/

Temperature Probe	Tianjin jinming	JM222	22112737	2023-05-13	2024-05-12
Twin SAM Phantom	SPEAG	SAM1	1667	/	/
Twin SAM Phantom	SPEAG	SAM2	1666	/	/
Hygrothermograph	Anymetr	HTC - 1	TA2023A007	2023-05-13	2024-05-12
TX90 XL	SPEAG	Staubli TX90 XL	/	/	/
Software for Test	SPEAG	DASY52	52.10.4.1527	/	/

8 Tissue Dielectric Parameter Measurements & System Check

8.1 Tissue Verification

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 24 hours of use; or earlier if the dielectric parameters can become out of tolerance.

Target values

Frequency (MHz)	ϵ_r	$\sigma(\text{s/m})$
750	41.9	0.89
835	41.5	0.90
1750	40.1	1.37
1900	40.0	1.40
2450	39.2	1.80
2600	39.0	1.96
3500	37.9	2.91
3700	37.7	3.12
3900	37.5	3.32
5250	35.9	4.71
5600	35.5	5.07
5750	35.4	5.22

Measurements results

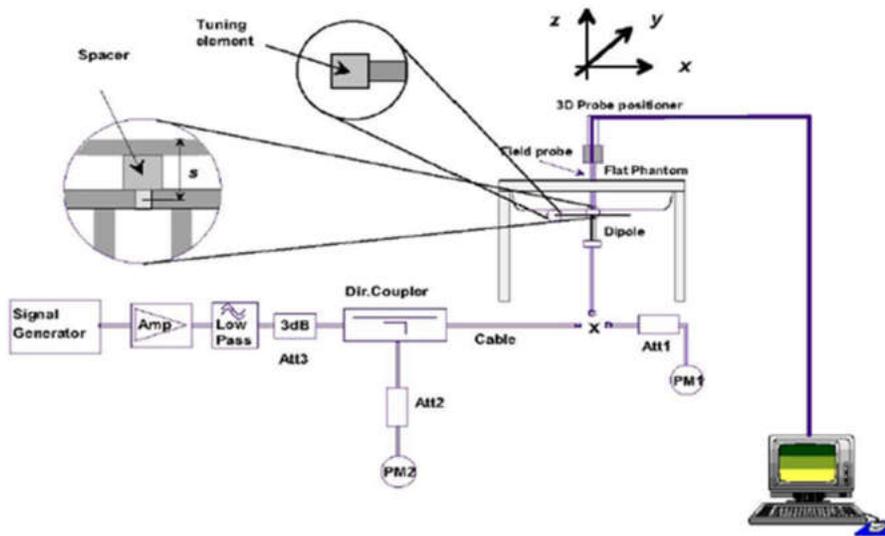
Frequency (MHz)	Test Date	Temp °C	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			ϵ_r	σ (s/m)	ϵ_r	σ (s/m)	Dev ϵ_r (%)	Dev σ (%)
750	2024/1/20	21.5	42.3	0.88	41.9	0.89	0.95	-1.12
835	2024/1/22	21.5	41.4	0.88	41.5	0.90	-0.24	-2.22
	2024/1/23	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
	2024/2/18	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
1750	2024/1/19	21.5	40.2	1.34	40.1	1.37	0.25	-2.19
	2024/1/21	21.5	40.1	1.34	40.1	1.37	0.00	-2.19
1900	2024/2/2	21.5	40.1	1.41	40.0	1.40	0.25	0.71
	2024/2/3	21.5	40.2	1.43	40.0	1.40	0.50	2.14
	2024/2/4	21.5	40.0	1.40	40.0	1.40	0.00	0.00
2450	2024/2/1	21.5	38.6	1.81	39.2	1.80	-1.53	0.56
2600	2024/1/24	21.5	38.2	2.01	39.0	1.96	-2.05	2.55
	2024/1/26	21.5	38.4	1.94	39.0	1.96	-1.54	-1.02
	2024/1/27	21.5	38.3	1.99	39.0	1.96	-1.79	1.53
	2024/1/28	21.5	38.5	1.95	39.0	1.96	-1.28	-0.51
	2024/2/19	21.5	38.3	1.99	39.0	1.96	-1.79	1.53
3500	2024/1/25	21.5	37.1	2.83	37.9	2.91	-2.11	-2.75
3700	2024/1/29	21.5	38.0	3.01	37.7	3.12	0.80	-3.53
	2024/1/30	21.5	38.1	3.03	37.7	3.12	1.06	-2.88
	2024/1/31	21.5	38.0	3.01	37.7	3.12	0.80	-3.53
	2024/2/5	21.5	38.1	3.03	37.7	3.12	1.06	-2.88
3900	2024/2/6	21.5	37.9	3.42	37.5	3.32	1.07	3.01
5250	2024/1/25	21.5	35.5	4.80	35.9	4.71	-1.11	1.91
	2024/2/7	21.5	35.7	4.74	35.9	4.71	-0.56	0.64
5600	2024/1/23	21.5	34.2	5.21	35.5	5.07	-3.66	2.76
5750	2024/2/1	21.5	34.9	5.21	35.4	5.22	-1.41	-0.19

Note: The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm.

8.2 System Check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured using the dielectric probe kit and the network analyzer. A system check measurement for every day was made following the determination of the dielectric parameters of the Tissue simulates, using the dipole validation kit. The dipole antenna was placed under the flat section of the twin SAM phantom.

System check is performed regularly on all frequency bands where tests are performed with the DASY system.



Picture 1 System Check setup



Picture 2 Setup Photo

Justification for Extended SAR Dipole Calibrations

Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss (>20 dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB 865664 D01:

Dipole		Date of Measurement	Return Loss (dB)	Δ %	Impedance (Ω)			
					Real	$\Delta\Omega$	Imaginary	$\Delta\Omega$
Dipole D1750V2 SN: 1023	Head Liquid	6/21/2022	34.0	/	48.6	/	-1.40	/
		6/20/2023	34.2	0.6	48.1	-0.5	-1.43	-0.03
Dipole D2600V2 SN: 1025	Head Liquid	4/23/2021	22.9	/	50.1	/	-7.19	/
		4/22/2022	22.4	-2.2	50.7	0.6	-7.23	-0.04
		4/21/2023	22.0	-1.8	50.9	0.2	-7.28	-0.05
Dipole D3500V2 SN: 1083	Head Liquid	10/9/2022	36.0	/	51.3	/	0.98	/
		10/8/2023	36.2	0.6	51.6	0.3	0.95	-0.03
Dipole D3700V2 SN: 1048	Head Liquid	10/10/2022	24.4	/	44.6	/	-1.96	/
		10/9/2023	24.6	0.8	44.7	0.1	-1.94	0.02
Dipole D3900V2 SN: 1027	Head Liquid	10/9/2022	24.7	/	47.9	/	-5.31	/
		10/8/2023	24.1	-2.4	47.5	-0.4	-5.28	0.03
Dipole D5GHzV2 (5250 MHz) SN: 1203	Head Liquid	12/9/2022	29.0	/	48.5	/	-3.20	/
		12/8/2022	28.4	-2.1	48.4	-0.1	-3.4	-0.2
Dipole D5GHzV2 (5600 MHz) SN: 1203	Head Liquid	12/9/2022	30.4	/	51.7	/	2.60	/
		12/8/2022	30.5	0.3%	51.5	-0.2	2.4	-0.2
Dipole D5GHzV2 (5750 MHz) SN: 1203	Head Liquid	12/9/2022	25.3	/	53.6	/	4.30	/
		12/8/2022	25.7	1.6%	53.1	-0.5	4.7	0.4

System Check Results

Frequency (MHz)	Test Date	Temp °C	250mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
750	2024/1/20	21.5	2.13	8.52	8.47	0.59	1
835	2024/1/22	21.5	2.44	9.76	9.75	0.10	2
	2024/1/23	21.5	2.46	9.84	9.75	0.92	3
	2024/2/18	21.5	2.46	9.84	9.75	0.92	4
1750	2024/1/19	21.5	8.95	35.80	36.80	-2.72	5
	2024/1/21	21.5	9.11	36.44	36.80	-0.98	6
1900	2024/2/2	21.5	9.88	39.52	40.40	-2.18	7
	2024/2/3	21.5	9.85	39.40	40.40	-2.48	8
	2024/2/4	21.5	9.55	38.20	40.40	-5.45	9
2450	2024/2/1	21.5	13.70	54.80	52.60	4.18	10
2600	2024/1/24	21.5	13.90	55.60	56.10	-0.89	11
	2024/1/26	21.5	13.88	55.52	56.10	-1.03	12
	2024/1/27	21.5	13.94	55.76	56.10	-0.61	13
	2024/1/28	21.5	13.90	55.60	56.10	-0.89	14
	2024/2/19	21.5	13.94	55.76	56.10	-0.61	15
Frequency (MHz)	Test Date	Temp °C	100mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
3500	2024/1/25	21.5	6.57	65.70	64.50	1.86	16
3700	2024/1/29	21.5	6.83	68.30	66.80	2.25	17
	2024/1/30	21.5	6.61	66.10	66.80	-1.05	18
	2024/1/31	21.5	6.83	68.30	66.80	2.25	19
	2024/2/5	21.5	6.61	66.10	66.80	-1.05	20
3900	2024/2/6	21.5	6.83	68.30	66.10	3.33	21
5250	2024/1/25	21.5	7.87	78.70	77.70	1.29	22
	2024/2/7	21.5	7.54	75.40	77.70	-2.96	23
5600	2024/1/23	21.5	7.67	76.70	80.30	-4.48	24
5750	2024/2/1	21.5	7.66	76.60	76.80	-0.26	25
Note: Target Values used derive from the calibration certificate data storage and evaluation.							

8.3 SAR System Validation

Per FCC KDB 865664 D02v01, SAR system verification is required to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles are used with the required tissue-equivalent media for system validation, according to the procedures outlined in FCC KDB 865664 D01 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point must be validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status, measurement frequencies, SAR probes, calibrated signal type(s) and tissue dielectric parameters has been included.

Frequency [MHz]	Date	Probe SN	Probe Type	Probe Cal Point		PERM (Er)	COND (Σ)	CW Validation		
								Sensitivity	Probe Linearity	Probe Isotropy
750	2023/07/20	3677	EX3DV4	750	Head	41.9	0.89	PASS	PASS	PASS
835	2023/07/20	3677	EX3DV4	835	Head	41.5	0.90	PASS	PASS	PASS
1750	2023/07/20	3677	EX3DV4	1750	Head	40.1	1.37	PASS	PASS	PASS
1900	2023/07/20	3677	EX3DV4	1900	Head	40.0	1.40	PASS	PASS	PASS
2450	2023/07/20	3677	EX3DV4	2450	Head	39.2	1.80	PASS	PASS	PASS
2600	2023/07/20	3677	EX3DV4	2600	Head	39.0	1.96	PASS	PASS	PASS
3500	2023/07/20	3677	EX3DV4	3500	Head	37.9	2.91	PASS	PASS	PASS
3700	2023/07/20	3677	EX3DV4	3700	Head	37.7	3.12	PASS	PASS	PASS
3900	2023/07/20	3677	EX3DV4	3900	Head	37.5	3.32	PASS	PASS	PASS
5250	2023/07/20	3677	EX3DV4	5250	Head	35.9	4.71	PASS	PASS	PASS
5600	2023/07/20	3677	EX3DV4	5600	Head	35.5	5.07	PASS	PASS	PASS
5750	2023/07/20	3677	EX3DV4	5750	Head	35.4	5.22	PASS	PASS	PASS

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664D01v01 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5dB), such as OFDM according to KDB 865664.

9 Normal and Maximum Output Power

KDB 447498 D01 at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.

9.1 GSM Mode

GSM 850 Normal power& Receiver off& Hotspot on--Main Ant4		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency (MHz)				Tune-up	Channel/Frequency (MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	34.00	32.32	32.38	32.39	9.03	24.97	23.29	23.35	23.36
GPRS/ EGPRS (GMSK)	1 Tx Slot	34.00	32.34	32.39	32.40	9.03	24.97	23.31	23.36	23.37
	2 Tx Slots	33.00	31.50	31.63	31.63	6.02	26.98	25.48	25.61	25.61
	3 Tx Slots	31.50	29.73	29.85	29.89	4.26	27.24	25.47	25.59	25.63
	4 Tx Slots	30.50	28.68	28.84	28.82	3.01	27.49	25.67	25.83	25.81
EGPRS (8PSK)	1 Tx Slot	28.50	26.71	26.81	26.70	9.03	19.47	17.68	17.78	17.67
	2 Tx Slots	27.00	25.53	25.38	25.38	6.02	20.98	19.51	19.36	19.36
	3 Tx Slots	25.00	23.71	23.68	23.15	4.26	20.74	19.45	19.42	18.89
	4 Tx Slots	24.00	22.35	22.06	22.20	3.01	20.99	19.34	19.05	19.19
GSM 850 Receiver on--Main Ant4		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency (MHz)				Tune-up	Channel/Frequency (MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	32.00	30.74	30.90	30.83	9.03	22.97	21.71	21.87	21.80
GPRS/ EGPRS (GMSK)	1 Tx Slot	32.00	30.69	30.80	30.75	9.03	22.97	21.66	21.77	21.72
	2 Tx Slots	31.00	29.75	29.84	29.83	6.02	24.98	23.73	23.82	23.81
	3 Tx Slots	29.50	27.77	27.87	27.86	4.26	25.24	23.51	23.61	23.60
	4 Tx Slots	28.50	26.68	26.81	26.83	3.01	25.49	23.67	23.80	23.82
EGPRS (8PSK)	1 Tx Slot	26.50	24.70	24.54	24.61	9.03	17.47	15.67	15.51	15.58
	2 Tx Slots	25.00	23.39	23.32	23.40	6.02	18.98	17.37	17.30	17.38
	3 Tx Slots	23.00	21.51	21.50	21.55	4.26	18.74	17.25	17.24	17.29
	4 Tx Slots	22.00	20.22	20.49	20.56	3.01	18.99	17.21	17.48	17.55
GSM 1900 Normal power &Receiver on--Main Ant0		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency (MHz)				Tune-up	Channel/Frequency (MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	31.50	30.11	30.14	29.82	9.03	22.47	21.08	21.11	20.79
GPRS/ EGPRS	1 Tx Slot	31.50	30.11	30.18	30.16	9.03	22.47	21.08	21.15	21.13
	2 Tx Slots	30.50	29.15	29.25	29.22	6.02	24.48	23.13	23.23	23.20

(GMSK)	3 Tx Slots	28.50	26.99	27.12	27.18	4.26	24.24	22.73	22.86	22.92
	4 Tx Slots	27.50	25.95	26.09	26.15	3.01	24.49	22.94	23.08	23.14
EGPRS (8PSK)	1 Tx Slot	26.50	25.43	25.44	25.46	9.03	17.47	16.40	16.41	16.43
	2 Tx Slots	25.50	24.34	24.38	24.41	6.02	19.48	18.32	18.36	18.39
	3 Tx Slots	23.50	22.17	21.97	22.10	4.26	19.24	17.91	17.71	17.84
	4 Tx Slots	22.50	20.95	20.80	21.07	3.01	19.49	17.94	17.79	18.06
GSM 1900 Receiver off--Main Ant0		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency (MHz)				Tune-up	Channel/Frequency (MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.50	29.26	29.23	28.90	9.03	21.47	20.23	20.20	19.87
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.18	29.25	29.25	9.03	21.47	20.15	20.22	20.22
	2 Tx Slots	29.50	28.09	28.18	28.21	6.02	23.48	22.07	22.16	22.19
	3 Tx Slots	27.50	26.03	26.13	26.19	4.26	23.24	21.77	21.87	21.93
	4 Tx Slots	26.50	25.07	25.18	25.26	3.01	23.49	22.06	22.17	22.25
EGPRS (8PSK)	1 Tx Slot	25.50	24.47	24.75	24.57	9.03	16.47	15.44	15.72	15.54
	2 Tx Slots	24.50	23.27	23.27	23.35	6.02	18.48	17.25	17.25	17.33
	3 Tx Slots	22.50	20.97	21.20	21.14	4.26	18.24	16.71	16.94	16.88
	4 Tx Slots	21.00	19.44	19.87	19.61	3.01	17.99	16.43	16.86	16.60
GSM 1900 Hotspot on--Main Ant0		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency (MHz)				Tune-up	Channel/Frequency (MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	29.50	28.23	28.19	27.82	9.03	20.47	19.20	19.16	18.79
GPRS/ EGPRS (GMSK)	1 Tx Slot	29.50	27.99	28.10	28.17	9.03	20.47	18.96	19.07	19.14
	2 Tx Slots	28.50	26.99	27.12	27.16	6.02	22.48	20.97	21.10	21.14
	3 Tx Slots	26.50	25.01	25.15	25.23	4.26	22.24	20.75	20.89	20.97
	4 Tx Slots	25.50	23.88	24.04	24.13	3.01	22.49	20.87	21.03	21.12
EGPRS (8PSK)	1 Tx Slot	24.50	23.47	23.34	23.39	9.03	15.47	14.44	14.31	14.36
	2 Tx Slots	23.50	22.32	22.27	22.34	6.02	17.48	16.30	16.25	16.32
	3 Tx Slots	21.50	19.85	19.97	19.59	4.26	17.24	15.59	15.71	15.33
	4 Tx Slots	20.00	18.37	18.45	18.41	3.01	16.99	15.36	15.44	15.40

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:
 Standalone: GSM 850 GMSK (GPRS) mode with 4 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 4 time slots for Max power, based on the output power measurements above.

9.2 WCDMA Mode

The following tests were completed according to the test requirements outlined in the 3GPP TS34.121 specification.

WCDMA Band II					
Normal power& Receiver on--Main Ant0		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	23.25	23.27	23.29	24.50
AMR	12.2k	23.15	23.17	23.23	24.50
HSUPA	Subtest 1	21.08	20.64	20.63	22.00
	Subtest 2	20.58	20.65	20.64	21.50
	Subtest 3	21.62	21.68	21.66	22.50
	Subtest 4	20.14	20.16	20.16	21.00
	Subtest 5	21.59	21.64	21.64	23.00
DC-HSDPA	Subtest 1	22.62	22.69	22.67	23.50
	Subtest 2	22.61	22.71	22.62	23.50
	Subtest 3	22.18	22.27	22.15	23.00
	Subtest 4	22.14	22.23	22.14	23.00
HSPA+	16QAM	21.61	21.63	21.69	22.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

WCDMA Band II					
Receiver off--Main Ant0		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	22.15	22.12	22.13	23.00
AMR	12.2k	22.17	22.14	22.27	23.00
HSUPA	Subtest 1	20.04	20.07	19.58	21.50
	Subtest 2	19.56	19.56	19.57	20.50
	Subtest 3	20.55	20.57	20.57	21.50
	Subtest 4	19.06	19.10	19.09	20.00
	Subtest 5	20.53	20.58	20.56	22.00
DC-HSDPA	Subtest 1	21.59	21.63	21.64	22.50
	Subtest 2	21.57	21.68	21.66	22.50
	Subtest 3	21.13	21.21	21.20	22.00
	Subtest 4	21.10	21.19	21.17	22.00
HSPA+	16QAM	20.55	20.76	20.55	21.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

WCDMA Band II					
Hotspot on--Main Ant0		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	20.18	20.19	20.17	21.50
AMR	12.2k	20.26	20.13	20.15	21.50
HSUPA	Subtest 1	19.57	19.50	20.00	21.00
	Subtest 2	19.58	18.99	19.52	20.50
	Subtest 3	20.58	20.52	20.56	21.50
	Subtest 4	19.00	19.02	19.10	20.00
	Subtest 5	20.47	20.59	20.56	22.00
DC-HSDPA	Subtest 1	19.61	19.67	19.67	20.50
	Subtest 2	19.66	19.24	19.67	20.50
	Subtest 3	19.18	18.84	19.22	20.00
	Subtest 4	19.10	18.78	19.18	20.00
HSPA+	16QAM	18.66	18.61	18.59	19.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

WCDMA Band IV					
Normal power& Receiver on--Main Ant0		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	23.37	23.38	23.37	24.50
AMR	12.2k	23.27	23.22	23.37	24.50
HSUPA	Subtest 1	21.26	20.75	20.70	22.00
	Subtest 2	20.78	20.75	20.71	21.50
	Subtest 3	21.79	21.77	21.73	22.50
	Subtest 4	20.31	20.29	20.25	21.00
	Subtest 5	21.77	21.73	21.71	23.00
DC-HSDPA	Subtest 1	22.80	22.76	22.75	23.50
	Subtest 2	22.79	22.77	22.74	23.50
	Subtest 3	22.32	22.33	22.30	23.00
	Subtest 4	22.36	22.29	22.28	23.00
HSPA+	16QAM	22.04	21.91	21.94	22.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

WCDMA Band IV					
Receiver off--Main Ant0		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	21.36	21.42	21.40	22.50
AMR	12.2k	21.27	21.26	21.13	22.50
HSUPA	Subtest 1	19.59	19.66	19.27	21.00
	Subtest 2	18.78	18.65	19.00	20.00
	Subtest 3	19.95	19.66	19.81	21.00
	Subtest 4	18.71	18.62	18.41	19.50
	Subtest 5	20.09	20.44	20.25	21.50
DC-HSDPA	Subtest 1	20.96	20.49	20.78	21.50
	Subtest 2	20.84	20.83	20.46	21.50
	Subtest 3	20.34	20.13	20.24	21.00
	Subtest 4	20.02	20.41	20.14	21.00
HSPA+	16QAM	19.71	19.78	19.77	20.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

WCDMA Band IV					
Hotspot on--Main Ant0		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	20.31	20.33	20.31	21.50
AMR	12.2k	20.17	20.43	20.21	21.50
HSUPA	Subtest 1	19.69	19.67	19.87	21.00
	Subtest 2	18.77	18.91	18.73	20.50
	Subtest 3	20.27	20.09	20.17	21.50
	Subtest 4	18.87	18.79	18.87	20.00
	Subtest 5	20.61	20.65	20.65	22.00
DC-HSDPA	Subtest 1	19.23	19.31	19.23	20.50
	Subtest 2	19.37	19.41	19.21	20.50
	Subtest 3	18.77	18.87	18.97	20.00
	Subtest 4	18.69	18.99	18.75	20.00
HSPA+	16QAM	18.87	18.93	18.87	19.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

WCDMA Band V					
Normal power& Receiver off& Hotspot on--Main Ant4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	23.34	23.36	23.34	24.50
AMR	12.2k	23.30	23.42	23.28	24.50
HSUPA	Subtest 1	20.86	20.88	20.85	22.00
	Subtest 2	20.38	20.39	20.38	21.50
	Subtest 3	21.40	21.39	21.40	22.50
	Subtest 4	19.90	19.90	19.88	21.00
	Subtest 5	21.38	21.35	21.40	23.00
DC-HSDPA	Subtest 1	22.41	22.40	22.40	23.50
	Subtest 2	22.41	22.40	22.41	23.50
	Subtest 3	21.99	21.98	21.96	23.00
	Subtest 4	21.92	21.91	21.91	23.00
HSPA+	16QAM	22.00	21.98	21.98	22.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

WCDMA Band V					
Receiver on--Main Ant4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	21.14	21.11	21.13	22.50
AMR	12.2k	21.14	20.97	21.07	22.50
HSUPA	Subtest 1	18.88	18.85	18.87	20.50
	Subtest 2	18.37	18.36	18.37	19.50
	Subtest 3	19.40	19.39	19.38	20.50
	Subtest 4	17.89	17.91	17.90	19.00
	Subtest 5	19.37	19.35	19.39	21.00
DC-HSDPA	Subtest 1	20.40	20.40	20.39	21.50
	Subtest 2	20.41	20.39	20.41	21.50
	Subtest 3	19.96	19.96	19.94	21.00
	Subtest 4	19.93	19.92	19.95	21.00
HSPA+	16QAM	19.60	19.61	19.57	20.50

Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

9.3 LTE Mode

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3

Modulation	Channel bandwidth / Transmission bandwidth configuration [RB]						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
256 QAM	≥ 1						≤ 5

LTE Band 7							
Normal power--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	23.60	23.51	23.45	25.00
		1	13	24.06	23.62	23.68	25.00
		1	24	23.91	23.41	23.64	25.00
		12	0	22.94	22.61	22.41	24.00
		12	6	22.80	22.49	22.36	24.00
		12	13	22.75	22.40	22.53	24.00
	16QAM	25	0	22.83	22.39	22.56	24.00
		1	0	22.87	22.87	22.91	24.00
		1	13	22.95	22.97	23.03	24.00
		1	24	22.50	22.36	22.48	24.00
		12	0	21.79	21.43	21.75	23.00
		12	6	21.31	21.37	21.47	23.00
	64QAM	12	13	21.78	21.52	21.60	23.00
		25	0	21.67	21.65	21.69	23.00
		1	0	21.62	21.64	21.70	23.00
		1	13	22.01	21.85	21.83	23.00
		1	24	21.63	21.77	21.73	23.00
		12	0	20.68	20.66	20.64	22.00

		12	6	20.83	20.69	20.65	22.00
		12	13	20.42	20.40	20.46	22.00
		25	0	20.64	20.46	20.40	22.00
	256QAM	1	0	18.87	18.89	18.89	20.00
		1	13	18.95	18.83	19.07	20.00
		1	24	18.81	18.89	18.85	20.00
		12	0	18.71	18.57	18.63	20.00
		12	6	18.65	18.65	18.59	20.00
		12	13	18.81	18.63	18.71	20.00
		25	0	18.70	18.44	18.38	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	23.58	23.53	23.51	25.00
		1	25	24.04	23.36	23.86	25.00
		1	49	23.67	23.51	23.68	25.00
		25	0	22.74	22.61	22.27	24.00
		25	13	22.96	22.53	22.38	24.00
		25	25	22.93	22.56	22.35	24.00
		50	0	22.89	22.53	22.64	24.00
	16QAM	1	0	22.81	22.69	23.05	24.00
		1	25	22.79	22.69	22.77	24.00
		1	49	22.48	22.26	22.34	24.00
		25	0	21.99	21.35	21.81	23.00
		25	13	21.43	21.37	21.53	23.00
		25	25	21.90	21.28	21.78	23.00
		50	0	21.67	21.31	21.43	23.00
	64QAM	1	0	21.60	21.54	21.60	23.00
		1	25	22.07	21.95	21.93	23.00
		1	49	21.75	21.61	21.67	23.00
		25	0	20.58	20.64	20.58	22.00
		25	13	21.03	20.49	20.65	22.00
		25	25	20.42	20.38	20.46	22.00
		50	0	20.84	20.66	20.30	22.00
	256QAM	1	0	19.25	19.13	18.87	20.00
		1	25	19.31	19.13	18.83	20.00
		1	49	19.45	19.23	18.73	20.00
		25	0	18.81	18.91	18.91	20.00
		25	13	18.79	19.03	18.83	20.00
		25	25	18.89	19.13	19.01	20.00
		50	0	18.80	18.38	18.76	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	23.66	23.53	23.49	25.00
		1	38	24.04	23.50	23.66	25.00
		1	74	23.93	23.33	23.74	25.00
		36	0	22.80	22.45	22.51	24.00
		36	18	23.04	22.67	22.54	24.00
		36	39	22.85	22.38	22.55	24.00
		75	0	22.91	22.45	22.60	24.00
	16QAM	1	0	23.15	22.75	22.75	24.00
		1	38	22.77	22.77	22.91	24.00
		1	74	22.52	22.30	22.38	24.00
		36	0	21.95	21.61	21.69	23.00
		36	18	21.53	21.61	21.29	23.00
		36	39	21.66	21.52	21.74	23.00
		75	0	21.51	21.63	21.57	23.00
	64QAM	1	0	21.66	21.62	21.84	23.00
		1	38	21.81	21.67	21.93	23.00
		1	74	21.61	21.57	21.55	23.00
		36	0	20.82	20.70	20.76	22.00
		36	18	21.01	20.73	20.79	22.00
		36	39	20.70	20.54	20.44	22.00
		75	0	20.78	20.62	20.56	22.00
	256QAM	1	0	18.97	18.93	18.87	20.00
		1	38	18.95	18.85	18.85	20.00
		1	74	19.07	18.87	19.03	20.00
		36	0	18.75	18.71	18.89	20.00
		36	18	18.89	18.57	18.99	20.00
		36	39	18.91	18.85	18.95	20.00
		75	0	18.76	18.52	18.46	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
20MHz	QPSK	1	0	23.54	23.39	23.47	25.00
		1	50	24.00	23.48	23.70	25.00
		1	99	23.79	23.43	23.62	25.00
		50	0	22.84	22.45	22.37	24.00
		50	25	22.86	22.51	22.46	24.00
		50	50	22.85	22.46	22.47	24.00
		100	0	22.83	22.45	22.42	24.00
	16QAM	1	0	22.97	22.71	22.87	24.00

		1	50	22.83	22.85	22.89	24.00
		1	99	22.48	22.42	22.48	24.00
		50	0	21.77	21.43	21.59	23.00
		50	25	21.41	21.47	21.39	23.00
		50	50	21.72	21.46	21.58	23.00
		100	0	21.63	21.49	21.59	23.00
		100	0	21.63	21.49	21.59	23.00
	64QAM	1	0	21.72	21.68	21.72	23.00
		1	50	21.89	21.73	21.83	23.00
		1	99	21.55	21.65	21.67	23.00
		50	0	20.72	20.52	20.60	22.00
		50	25	20.89	20.55	20.71	22.00
		50	50	20.52	20.50	20.40	22.00
		100	0	20.66	20.54	20.48	22.00
	256QAM	1	0	19.05	18.97	18.95	20.00
		1	50	19.01	18.93	19.07	20.00
		1	99	18.89	19.03	18.89	20.00
		50	0	18.71	18.77	18.73	20.00
		50	25	18.71	18.93	18.75	20.00
		50	50	18.65	18.69	18.85	20.00
		100	0	18.62	18.48	18.56	20.00

LTE Band 7							
Receiver on--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	19.61	19.49	19.21	20.50
		1	13	19.50	19.45	19.24	20.50
		1	24	19.76	19.50	19.25	20.50
		12	0	19.74	19.38	19.34	20.50
		12	6	19.84	19.59	19.43	20.50
		12	13	19.67	19.52	19.36	20.50
		25	0	19.72	19.57	19.46	20.50
	16QAM	1	0	19.99	20.05	19.75	20.50
		1	13	19.84	20.04	19.92	20.50
		1	24	20.29	20.15	20.11	20.50
		12	0	19.63	19.35	19.71	20.50
		12	6	19.86	19.46	19.52	20.50
		12	13	19.44	19.50	19.50	20.50
		25	0	19.65	19.53	19.61	20.50
64QAM	1	0	19.70	19.72	19.56	20.50	

		1	13	19.58	19.56	19.56	20.50
		1	24	19.84	19.78	20.00	20.50
		12	0	19.68	19.34	19.46	20.50
		12	6	19.46	19.52	19.52	20.50
		12	13	19.47	19.41	19.23	20.50
		25	0	19.45	19.55	19.41	20.50
	256QAM	1	0	19.01	19.17	18.99	20.00
		1	13	18.83	19.19	19.05	20.00
		1	24	18.95	19.29	18.99	20.00
		12	0	18.71	18.75	18.83	20.00
		12	6	18.83	18.73	18.99	20.00
		12	13	18.71	18.69	18.97	20.00
	25	0	18.56	18.54	18.52	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	19.81	19.35	19.39	20.50
		1	25	19.40	19.41	19.46	20.50
		1	49	19.92	19.44	19.55	20.50
		25	0	19.66	19.54	19.20	20.50
		25	13	19.62	19.53	19.49	20.50
		25	25	19.83	19.30	19.34	20.50
	16QAM	50	0	19.64	19.29	19.52	20.50
		1	0	20.11	20.13	20.01	20.50
		1	25	19.82	19.98	20.00	20.50
		1	49	20.13	20.23	20.37	20.50
		25	0	19.59	19.31	19.65	20.50
		25	13	19.88	19.66	19.68	20.50
	64QAM	25	25	19.48	19.30	19.66	20.50
		50	0	19.43	19.67	19.63	20.50
		1	0	19.72	19.82	19.86	20.50
		1	25	19.74	19.56	19.42	20.50
		1	49	19.74	19.88	19.90	20.50
		25	0	19.62	19.54	19.34	20.50
	256QAM	25	13	19.56	19.62	19.38	20.50
		25	25	19.51	19.21	19.43	20.50
		50	0	19.55	19.35	19.31	20.50
		1	0	18.79	19.19	18.79	20.00
		1	25	18.95	19.21	18.73	20.00
		1	49	18.65	19.07	18.79	20.00
25		0	18.75	19.01	18.81	20.00	
25		0	18.75	19.01	18.81	20.00	

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
		25	13	18.85	18.95	18.69	20.00
		25	25	18.71	19.07	18.83	20.00
		50	0	18.72	18.76	18.54	20.00
15MHz	QPSK	1	0	19.77	19.53	19.35	20.50
		1	38	19.68	19.43	19.18	20.50
		1	74	19.70	19.42	19.43	20.50
		36	0	19.82	19.40	19.44	20.50
		36	18	19.62	19.59	19.27	20.50
		36	39	19.67	19.52	19.52	20.50
		75	0	19.84	19.57	19.38	20.50
	16QAM	1	0	19.85	20.03	19.89	20.50
		1	38	20.08	20.12	20.06	20.50
		1	74	20.27	20.17	20.27	20.50
		36	0	19.61	19.47	19.59	20.50
		36	18	19.72	19.56	19.76	20.50
		36	39	19.34	19.40	19.56	20.50
		75	0	19.49	19.43	19.63	20.50
	64QAM	1	0	19.76	19.52	19.78	20.50
		1	38	19.52	19.80	19.72	20.50
		1	74	19.92	19.70	20.02	20.50
		36	0	19.66	19.42	19.50	20.50
		36	18	19.58	19.62	19.28	20.50
		36	39	19.57	19.45	19.31	20.50
		75	0	19.63	19.61	19.37	20.50
	256QAM	1	0	18.89	19.21	19.03	20.00
		1	38	18.99	19.19	19.05	20.00
		1	74	18.87	19.09	19.13	20.00
		36	0	18.65	18.81	18.87	20.00
		36	18	18.73	18.87	18.87	20.00
		36	39	18.79	18.95	18.99	20.00
		75	0	18.72	18.54	18.40	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	19.59	19.45	19.17	20.50
		1	50	19.50	19.43	19.28	20.50
		1	99	19.76	19.44	19.33	20.50
		50	0	19.64	19.46	19.26	20.50
		50	25	19.70	19.51	19.33	20.50

		50	50	19.71	19.48	19.42	20.50
		100	0	19.68	19.47	19.34	20.50
	16QAM	1	0	19.93	19.91	19.83	20.50
		1	50	19.94	20.08	19.98	20.50
		1	99	20.15	20.05	20.19	20.50
		50	0	19.63	19.45	19.55	20.50
		50	25	19.78	19.50	19.60	20.50
		50	50	19.46	19.44	19.44	20.50
		100	0	19.51	19.49	19.57	20.50
		64QAM	1	0	19.66	19.64	19.66
	1		50	19.62	19.62	19.60	20.50
	1		99	19.78	19.68	19.84	20.50
	50		0	19.60	19.44	19.42	20.50
	50		25	19.42	19.44	19.38	20.50
	50		50	19.43	19.37	19.25	20.50
	100		0	19.49	19.43	19.45	20.50
	256QAM		1	0	18.89	19.03	18.91
		1	50	18.87	18.93	18.93	20.00
		1	99	18.85	19.09	19.01	20.00
		50	0	18.67	18.85	18.75	20.00
		50	25	18.67	18.79	18.85	20.00
		50	50	18.47	18.95	18.69	20.00
		100	0	18.64	18.62	18.50	20.00

LTE Band 7							
Hotspot on--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	20.67	20.56	20.26	21.50
		1	13	20.83	20.63	20.52	21.50
		1	24	20.95	20.58	20.49	21.50
		12	0	20.99	20.48	20.55	21.50
		12	6	20.80	20.67	20.42	21.50
		12	13	20.85	20.73	20.40	21.50
		25	0	21.02	20.51	20.40	21.50
		16QAM	1	0	20.54	20.60	20.42
	1		13	20.60	20.54	20.46	21.50
	1		24	20.39	20.35	20.39	21.50
	12		0	20.50	20.38	20.44	21.50
	12		6	20.49	20.61	20.53	21.50

		12	13	20.90	20.72	20.62	21.50
		25	0	20.58	20.34	20.46	21.50
	64QAM	1	0	20.46	20.68	20.42	21.50
		1	13	20.72	20.96	20.68	21.50
		1	24	20.93	20.81	20.79	21.50
		12	0	20.35	20.49	20.41	21.50
		12	6	20.67	20.85	20.53	21.50
		12	13	20.56	20.58	20.66	21.50
		25	0	20.30	20.54	20.38	21.50
	256QAM	1	0	19.06	19.14	19.20	20.00
		1	13	19.18	19.08	19.36	20.00
		1	24	18.96	19.02	19.26	20.00
		12	0	18.57	18.39	18.57	20.00
		12	6	18.73	18.35	18.69	20.00
12		13	18.47	18.31	18.61	20.00	
25		0	18.67	18.51	18.83	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	20.93	20.84	20.16	21.50
		1	25	20.89	20.65	20.38	21.50
		1	49	20.95	20.64	20.45	21.50
		25	0	20.75	20.56	20.23	21.50
		25	13	20.78	20.45	20.48	21.50
		25	25	20.97	20.61	20.50	21.50
		50	0	20.70	20.51	20.38	21.50
	16QAM	1	0	20.68	20.60	20.34	21.50
		1	25	20.50	20.52	20.36	21.50
		1	49	20.55	20.21	20.33	21.50
		25	0	20.58	20.16	20.36	21.50
		25	13	20.45	20.55	20.29	21.50
		25	25	20.86	20.72	20.66	21.50
		50	0	20.54	20.62	20.48	21.50
	64QAM	1	0	20.58	20.40	20.58	21.50
		1	25	20.70	20.88	20.86	21.50
		1	49	20.69	20.67	20.85	21.50
		25	0	20.37	20.65	20.65	21.50
		25	13	20.79	20.61	20.71	21.50
		25	25	20.62	20.38	20.66	21.50
		50	0	20.26	20.20	20.38	21.50
256QAM	1	0	19.14	19.08	19.10	20.00	

		1	25	19.22	18.90	18.96	20.00
		1	49	19.22	18.90	19.08	20.00
		25	0	18.53	18.79	18.45	20.00
		25	13	18.45	18.71	18.49	20.00
		25	25	18.61	18.81	18.55	20.00
		50	0	18.73	18.51	18.73	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	20.85	20.80	20.20	21.50
		1	38	20.99	20.59	20.62	21.50
		1	74	20.89	20.36	20.51	21.50
		36	0	20.89	20.54	20.53	21.50
		36	18	21.02	20.79	20.46	21.50
		36	39	21.03	20.57	20.50	21.50
		75	0	21.04	20.71	20.32	21.50
	16QAM	1	0	20.48	20.72	20.46	21.50
		1	38	20.48	20.44	20.52	21.50
		1	74	20.49	20.41	20.37	21.50
		36	0	20.34	20.28	20.46	21.50
		36	18	20.57	20.65	20.53	21.50
		36	39	20.68	20.62	20.52	21.50
		75	0	20.62	20.42	20.60	21.50
	64QAM	1	0	20.38	20.64	20.58	21.50
		1	38	20.84	20.92	20.56	21.50
		1	74	20.85	20.93	20.69	21.50
		36	0	20.55	20.35	20.47	21.50
		36	18	20.67	20.61	20.61	21.50
		36	39	20.42	20.38	20.52	21.50
		75	0	20.38	20.28	20.66	21.50
	256QAM	1	0	19.12	19.18	19.08	20.00
		1	38	19.30	19.32	19.24	20.00
		1	74	19.06	19.36	19.20	20.00
		36	0	18.71	18.59	18.37	20.00
		36	18	18.87	18.53	18.37	20.00
		36	39	18.63	18.51	18.39	20.00
		75	0	18.55	18.75	18.97	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	20.73	20.62	20.32	21.50
		1	50	20.81	20.71	20.54	21.50

		1	99	20.87	20.46	20.47	21.50
		50	0	20.85	20.48	20.39	21.50
		50	25	20.90	20.63	20.48	21.50
		50	50	20.91	20.57	20.50	21.50
		100	0	20.88	20.55	20.44	21.50
	16QAM	1	0	20.56	20.58	20.52	21.50
		1	50	20.60	20.56	20.50	21.50
		1	99	20.35	20.39	20.41	21.50
		50	0	20.42	20.30	20.38	21.50
		50	25	20.59	20.49	20.45	21.50
		50	50	20.78	20.68	20.56	21.50
		100	0	20.56	20.42	20.46	21.50
	64QAM	1	0	20.48	20.52	20.48	21.50
		1	50	20.82	20.82	20.64	21.50
		1	99	20.77	20.85	20.71	21.50
		50	0	20.43	20.43	20.47	21.50
		50	25	20.73	20.69	20.51	21.50
		50	50	20.40	20.44	20.54	21.50
		100	0	20.34	20.38	20.48	21.50
	256QAM	1	0	19.18	19.14	19.10	20.00
		1	50	19.36	19.32	19.24	20.00
		1	99	19.20	19.36	19.22	20.00
		50	0	18.65	18.59	18.49	20.00
		50	25	18.75	18.69	18.65	20.00
		50	50	18.57	18.67	18.53	20.00
		100	0	18.59	18.67	18.81	20.00

LTE Band 7							
Receiver off--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	21.94	21.45	21.49	22.50
		1	13	21.86	21.47	21.59	22.50
		1	24	22.00	21.58	21.68	22.50
		12	0	22.00	21.67	21.37	22.50
		12	6	21.99	21.68	21.68	22.50
		12	13	21.92	21.72	21.57	22.50
		25	0	22.00	21.67	21.62	22.50
	16QAM	1	0	22.22	22.16	22.00	22.50
		1	13	22.14	22.04	21.92	22.50

		1	24	22.11	22.09	22.47	22.50	
		12	0	21.83	21.97	21.79	22.50	
		12	6	22.00	21.96	21.78	22.50	
		12	13	22.05	22.07	21.77	22.50	
		25	0	22.03	21.83	21.87	22.50	
	64QAM	1	0	22.09	22.07	21.97	22.50	
		1	13	22.27	22.17	22.11	22.50	
		1	24	22.26	22.26	22.42	22.50	
		12	0	20.92	20.98	21.00	22.00	
		12	6	20.91	21.13	20.87	22.00	
		12	13	20.94	21.06	21.28	22.00	
		25	0	21.01	20.81	20.79	22.00	
	256QAM	1	0	18.88	19.04	18.98	20.00	
		1	13	18.94	19.22	19.02	20.00	
		1	24	18.84	19.22	19.06	20.00	
		12	0	18.73	18.55	18.65	20.00	
		12	6	18.63	18.55	18.87	20.00	
		12	13	18.87	18.47	18.53	20.00	
		25	0	18.64	18.54	18.66	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
					20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	21.86	21.65	21.57	22.50	
		1	25	22.14	21.39	21.51	22.50	
		1	49	22.04	21.68	21.82	22.50	
		25	0	22.02	21.77	21.53	22.50	
		25	13	22.21	21.54	21.38	22.50	
		25	25	21.86	21.62	21.69	22.50	
		50	0	22.24	21.63	21.48	22.50	
	16QAM	1	0	22.06	22.34	21.98	22.50	
		1	25	22.06	22.18	21.86	22.50	
		1	49	22.03	21.95	22.17	22.50	
		25	0	21.93	21.71	21.71	22.50	
		25	13	22.06	21.98	21.90	22.50	
		25	25	21.83	22.03	22.03	22.50	
		50	0	21.91	21.95	21.93	22.50	
	64QAM	1	0	22.09	22.21	22.03	22.50	
		1	25	22.03	22.21	21.99	22.50	
		1	49	22.46	22.42	22.15	22.50	
		25	0	20.78	21.20	20.96	22.00	
		25	13	21.17	21.05	21.17	22.00	

		25	25	21.16	21.16	21.06	22.00
		50	0	20.79	20.63	20.93	22.00
	256QAM	1	0	18.90	19.18	18.82	20.00
		1	25	19.02	19.28	18.76	20.00
		1	49	18.88	19.06	18.98	20.00
		25	0	18.63	18.55	18.69	20.00
		25	13	18.65	18.53	18.73	20.00
		25	25	18.59	18.61	18.81	20.00
50	0	18.76	18.62	18.56	20.00		
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	21.78	21.45	21.55	22.50
		1	38	22.12	21.71	21.65	22.50
		1	74	22.14	21.50	21.60	22.50
		36	0	22.00	21.61	21.63	22.50
		36	18	22.03	21.64	21.68	22.50
		36	39	21.86	21.80	21.51	22.50
		75	0	21.96	21.57	21.42	22.50
	16QAM	1	0	22.20	22.08	21.96	22.50
		1	38	22.24	22.08	21.98	22.50
		1	74	22.05	22.03	22.38	22.50
		36	0	22.03	21.83	21.85	22.50
		36	18	22.08	21.86	21.74	22.50
		36	39	22.01	22.25	21.75	22.50
		75	0	21.91	21.73	21.99	22.50
	64QAM	1	0	22.15	22.05	21.85	22.50
		1	38	22.03	22.13	22.27	22.50
		1	74	22.26	22.40	22.40	22.50
		36	0	20.80	20.88	20.96	22.00
		36	18	20.83	21.07	20.85	22.00
		36	39	20.94	21.16	21.28	22.00
		75	0	20.95	20.87	20.79	22.00
	256QAM	1	0	18.94	18.90	19.06	20.00
		1	38	19.00	18.94	18.88	20.00
		1	74	19.12	18.84	19.18	20.00
		36	0	18.71	18.61	18.71	20.00
		36	18	18.65	18.61	18.65	20.00
		36	39	18.55	18.81	18.55	20.00
		75	0	18.78	18.64	18.76	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	21.90	21.55	21.45	22.50
		1	50	21.94	21.53	21.53	22.50
		1	99	22.08	21.50	21.62	22.50
		50	0	21.90	21.67	21.47	22.50
		50	25	22.03	21.66	21.52	22.50
		50	50	21.92	21.62	21.55	22.50
		100	0	22.04	21.61	21.50	22.50
	16QAM	1	0	22.12	22.20	21.96	22.50
		1	50	22.10	22.04	22.00	22.50
		1	99	22.09	21.97	22.35	22.50
		50	0	21.85	21.89	21.81	22.50
		50	25	21.92	21.92	21.82	22.50
		50	50	21.95	22.11	21.81	22.50
		100	0	21.93	21.83	21.95	22.50
	64QAM	1	0	22.01	21.99	21.83	22.50
		1	50	22.11	22.19	22.17	22.50
		1	99	22.24	22.24	22.40	22.50
		50	0	20.86	21.00	20.94	22.00
		50	25	20.95	21.11	20.95	22.00
		50	50	21.04	21.00	21.14	22.00
		100	0	20.93	20.81	20.77	22.00
	256QAM	1	0	18.82	18.96	19.00	20.00
		1	50	18.88	19.02	18.92	20.00
		1	99	18.90	19.02	19.04	20.00
		50	0	18.61	18.45	18.57	20.00
		50	25	18.73	18.47	18.69	20.00
		50	50	18.57	18.47	18.47	20.00
		100	0	18.60	18.60	18.58	20.00

LTE Band 12							
Normal power&Receiver off&Hotspot on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	23.53	23.64	23.34	25.00
		1	2	23.69	23.36	23.60	25.00
		1	5	23.49	23.53	23.46	25.00
		3	0	23.35	23.16	23.33	25.00

		3	2	23.11	23.45	23.17	25.00	
		3	3	23.23	23.14	23.28	25.00	
		6	0	22.59	22.23	22.44	24.00	
		16QAM	1	0	22.59	22.62	22.46	24.00
			1	2	22.57	22.59	22.60	24.00
			1	5	22.58	22.65	22.35	24.00
			3	0	22.16	22.43	22.17	24.00
			3	2	22.40	22.46	22.34	24.00
			3	3	22.22	22.43	22.23	24.00
	6		0	21.29	21.27	21.18	23.00	
	64QAM	1	0	21.57	21.52	21.76	23.00	
		1	2	21.55	21.65	21.40	23.00	
		1	5	21.78	21.57	21.63	23.00	
		3	0	21.49	21.20	21.32	23.00	
		3	2	21.27	21.37	21.27	23.00	
		3	3	21.16	21.24	21.32	23.00	
		6	0	20.33	20.25	20.28	22.00	
	256QAM	1	0	18.70	18.48	18.38	20.00	
		1	2	18.84	18.66	18.26	20.00	
		1	5	18.76	18.54	18.44	20.00	
		3	0	19.06	18.80	18.82	20.00	
		3	2	19.20	18.98	18.90	20.00	
		3	3	18.96	18.96	18.86	20.00	
		6	0	18.67	18.65	18.89	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
	3MHz	QPSK			23025/700.5	23095/707.5	23165/714.5	
			1	0	23.19	23.64	23.52	25.00
			1	7	23.59	23.52	23.54	25.00
1			14	23.35	23.33	23.40	25.00	
8			0	22.35	22.48	22.15	24.00	
8			4	22.43	22.21	22.23	24.00	
8			7	22.25	22.40	22.44	24.00	
15		0	22.29	22.55	22.40	24.00		
16QAM		1	0	22.67	22.58	22.42	24.00	
		1	7	22.55	22.31	22.60	24.00	
		1	14	22.70	22.47	22.55	24.00	
		8	0	21.34	21.57	21.29	23.00	
		8	4	21.32	21.54	21.14	23.00	
		8	7	21.34	21.55	21.47	23.00	
		15	0	21.41	21.59	21.40	23.00	

	64QAM	1	0	21.47	21.86	21.86	23.00
		1	7	21.57	21.59	21.68	23.00
		1	14	21.62	21.51	21.53	23.00
		8	0	20.39	20.32	20.18	22.00
		8	4	20.27	20.33	20.43	22.00
		8	7	20.48	20.42	20.36	22.00
		15	0	20.43	20.39	20.44	22.00
	256QAM	1	0	18.66	18.62	18.56	20.00
		1	7	18.84	18.64	18.44	20.00
		1	14	18.70	18.62	18.70	20.00
		8	0	18.88	18.74	18.84	20.00
		8	4	18.76	18.64	18.96	20.00
		8	7	18.98	18.74	18.98	20.00
		15	0	18.81	18.59	18.89	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
5MHz	QPSK	1	0	23.39	23.52	23.26	25.00
		1	13	23.59	23.62	23.26	25.00
		1	24	23.33	23.25	23.56	25.00
		12	0	22.51	22.46	22.21	24.00
		12	6	22.33	22.29	22.33	24.00
		12	13	22.41	22.36	22.44	24.00
		25	0	22.45	22.57	22.38	24.00
	16QAM	1	0	22.55	22.56	22.54	24.00
		1	13	22.77	22.35	22.60	24.00
		1	24	22.52	22.55	22.51	24.00
		12	0	21.50	21.49	21.33	23.00
		12	6	21.52	21.56	21.36	23.00
		12	13	21.46	21.27	21.31	23.00
		25	0	21.31	21.47	21.26	23.00
	64QAM	1	0	21.51	21.78	21.62	23.00
		1	13	21.59	21.69	21.40	23.00
		1	24	21.60	21.55	21.69	23.00
		12	0	20.53	20.40	20.38	22.00
		12	6	20.19	20.43	20.19	22.00
		12	13	20.40	20.52	20.24	22.00
		25	0	20.51	20.43	20.34	22.00
	256QAM	1	0	18.60	18.54	18.34	20.00
		1	13	18.56	18.70	18.52	20.00
		1	24	18.64	18.66	18.40	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23060/704	23095/707.5	23130/711	
		12	0	18.82	18.44	18.88	20.00
		12	6	19.00	18.56	18.76	20.00
		12	13	18.84	18.52	18.94	20.00
		25	0	18.49	18.59	18.69	20.00
10MHz	QPSK	1	0	23.37	23.48	23.34	25.00
		1	25	23.45	23.52	23.38	25.00
		1	49	23.29	23.37	23.54	25.00
		25	0	22.43	22.42	22.33	24.00
		25	13	22.39	22.37	22.37	24.00
		25	25	22.43	22.36	22.32	24.00
		50	0	22.39	22.39	22.32	24.00
	16QAM	1	0	22.47	22.48	22.50	24.00
		1	25	22.61	22.43	22.54	24.00
		1	49	22.62	22.41	22.41	24.00
		25	0	21.42	21.37	21.39	23.00
		25	13	21.34	21.44	21.30	23.00
		25	25	21.40	21.37	21.35	23.00
		50	0	21.43	21.37	21.30	23.00
	64QAM	1	0	21.47	21.66	21.72	23.00
		1	25	21.51	21.73	21.46	23.00
		1	49	21.66	21.43	21.55	23.00
		25	0	20.41	20.46	20.24	22.00
		25	13	20.29	20.37	20.29	22.00
		25	25	20.40	20.44	20.34	22.00
		50	0	20.39	20.33	20.34	22.00
	256QAM	1	0	18.54	18.52	18.42	20.00
		1	25	18.44	18.50	18.50	20.00
		1	49	18.58	18.40	18.52	20.00
		25	0	18.90	18.62	18.78	20.00
		25	13	18.58	18.48	18.48	20.00
		25	25	19.00	18.74	18.88	20.00
		50	0	18.65	18.65	18.77	20.00

LTE Band 12							
Receiver on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	21.39	21.34	21.23	22.50
		1	2	21.51	21.51	21.33	22.50
		1	5	21.46	21.44	21.29	22.50
		3	0	21.30	21.53	21.28	22.50
		3	2	21.47	21.43	21.16	22.50
		3	3	21.42	21.50	21.22	22.50
		6	0	21.30	21.46	21.27	22.50
	16QAM	1	0	21.25	21.77	21.33	22.50
		1	2	21.32	21.50	21.08	22.50
		1	5	21.37	21.65	21.22	22.50
		3	0	21.20	21.57	21.11	22.50
		3	2	21.32	21.35	21.14	22.50
		3	3	21.32	21.56	21.03	22.50
		6	0	21.37	21.36	21.16	22.50
	64QAM	1	0	21.44	21.35	21.43	22.50
		1	2	21.46	21.45	21.39	22.50
		1	5	21.45	21.55	21.25	22.50
		3	0	21.39	21.60	21.45	22.00
		3	2	21.53	21.31	21.37	22.00
		3	3	21.44	21.64	21.41	22.00
		6	0	20.24	20.38	20.30	22.00
	256QAM	1	0	18.50	18.36	18.52	20.00
		1	2	18.62	18.54	18.54	20.00
		1	5	18.40	18.30	18.68	20.00
3		0	18.35	18.47	18.27	20.00	
3		2	18.27	18.45	18.31	20.00	
3		3	18.27	18.59	18.43	20.00	
6		0	18.70	18.56	18.50	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	21.31	21.58	21.17	22.50
		1	7	21.49	21.67	21.39	22.50
		1	14	21.42	21.26	21.11	22.50
		8	0	21.18	21.49	21.30	22.50
		8	4	21.27	21.27	21.26	22.50

		8	7	21.28	21.52	21.16	22.50	
		15	0	21.56	21.64	21.07	22.50	
	16QAM	1	0	21.21	21.77	21.27	22.50	
		1	7	21.36	21.62	21.16	22.50	
		1	14	21.15	21.65	21.26	22.50	
		8	0	21.42	21.59	21.09	22.50	
		8	4	21.16	21.33	21.32	22.50	
		8	7	21.42	21.62	21.10	22.50	
		15	0	21.25	21.26	21.32	22.50	
	64QAM	1	0	21.24	21.33	21.41	22.50	
		1	7	21.34	21.31	21.57	22.50	
		1	14	21.39	21.43	21.21	22.50	
		8	0	20.26	20.37	20.21	22.00	
		8	4	20.15	20.35	20.28	22.00	
		8	7	20.34	20.36	20.06	22.00	
		15	0	20.14	20.52	20.22	22.00	
	256QAM	1	0	18.38	18.68	18.50	20.00	
		1	7	18.52	18.66	18.68	20.00	
		1	14	18.54	18.80	18.42	20.00	
		8	0	18.45	18.61	18.59	20.00	
		8	4	18.43	18.61	18.59	20.00	
		8	7	18.49	18.57	18.77	20.00	
		15	0	18.54	18.52	18.52	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
					23035/701.5	23095/707.5	23155/713.5	
	5MHz	QPSK	1	0	21.49	21.60	21.21	22.50
			1	13	21.57	21.43	21.17	22.50
			1	24	21.56	21.52	21.23	22.50
12			0	21.38	21.33	21.10	22.50	
12			6	21.55	21.43	21.28	22.50	
12			13	21.40	21.62	21.18	22.50	
25			0	21.34	21.36	21.07	22.50	
16QAM		1	0	21.27	21.75	21.35	22.50	
		1	13	21.38	21.72	21.08	22.50	
		1	24	21.25	21.81	21.22	22.50	
		12	0	21.20	21.33	21.07	22.50	
		12	6	21.18	21.37	21.18	22.50	
		12	13	21.26	21.60	21.17	22.50	
		25	0	21.35	21.36	21.18	22.50	
64QAM		1	0	21.36	21.39	21.53	22.50	

		1	13	21.36	21.55	21.43	22.50
		1	24	21.25	21.35	21.43	22.50
		12	0	20.26	20.45	20.03	22.00
		12	6	20.33	20.37	20.08	22.00
		12	13	20.18	20.18	20.16	22.00
		25	0	20.12	20.24	20.10	22.00
	256QAM	1	0	18.66	18.46	18.66	20.00
		1	13	18.64	18.50	18.60	20.00
		1	24	18.80	18.48	18.56	20.00
		12	0	18.23	18.45	18.43	20.00
		12	6	18.17	18.55	18.37	20.00
		12	13	18.23	18.41	18.41	20.00
	25	0	18.72	18.56	18.54	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	1	0	21.33	21.44	21.23	22.50
		1	25	21.49	21.45	21.23	22.50
		1	49	21.44	21.42	21.27	22.50
		25	0	21.36	21.43	21.20	22.50
		25	13	21.37	21.39	21.22	22.50
		25	25	21.38	21.46	21.16	22.50
		50	0	21.36	21.44	21.19	22.50
	16QAM	1	0	21.31	21.83	21.27	22.50
		1	25	21.38	21.56	21.16	22.50
		1	49	21.33	21.71	21.26	22.50
		25	0	21.26	21.43	21.17	22.50
		25	13	21.20	21.39	21.18	22.50
		25	25	21.26	21.46	21.13	22.50
		50	0	21.29	21.36	21.22	22.50
	64QAM	1	0	21.34	21.37	21.37	22.50
		1	25	21.34	21.47	21.43	22.50
		1	49	21.37	21.45	21.31	22.50
		25	0	20.22	20.41	20.13	22.00
		25	13	20.21	20.31	20.20	22.00
		25	25	20.20	20.30	20.10	22.00
		50	0	20.22	20.34	20.18	22.00
	256QAM	1	0	18.54	18.54	18.56	20.00
		1	25	18.48	18.58	18.60	20.00
		1	49	18.50	18.54	18.62	20.00
25		0	18.35	18.57	18.47	20.00	

		25	13	18.39	18.53	18.51	20.00
		25	25	18.41	18.45	18.61	20.00
		50	0	18.66	18.56	18.52	20.00

LTE Band 13							
Normal power & Receiver off & Hotspot on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	23.28	23.32	23.22	25.00
		1	13	23.20	23.06	23.08	25.00
		1	24	23.36	23.40	23.28	25.00
		12	0	22.07	22.07	22.11	24.00
		12	6	22.45	22.35	22.43	24.00
		12	13	22.34	22.34	22.42	24.00
		25	0	22.39	22.33	22.51	24.00
	16QAM	1	0	22.64	22.50	22.56	24.00
		1	13	22.36	22.44	22.40	24.00
		1	24	22.65	22.77	22.65	24.00
		12	0	21.27	21.25	21.29	23.00
		12	6	21.32	21.22	21.26	23.00
		12	13	21.41	21.25	21.37	23.00
		25	0	21.30	21.32	21.28	23.00
	64QAM	1	0	21.14	21.20	21.14	23.00
		1	13	21.59	21.55	21.59	23.00
		1	24	21.46	21.46	21.54	23.00
		12	0	20.05	20.03	20.03	22.00
		12	6	20.04	20.28	20.16	22.00
		12	13	20.36	20.36	20.48	22.00
		25	0	20.54	20.22	20.40	22.00
	256QAM	1	0	18.88	18.64	18.70	20.00
		1	13	18.88	18.80	18.86	20.00
		1	24	19.06	18.82	18.64	20.00
		12	0	18.91	18.69	18.75	20.00
		12	6	18.97	18.79	18.71	20.00
		12	13	18.95	18.63	18.87	20.00
		25	0	18.72	18.64	18.54	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	/	23230/782	/	25.00

		1	25	/	23.32	/	25.00
		1	49	/	23.50	/	25.00
		25	0	/	22.35	/	24.00
		25	13	/	22.39	/	24.00
		25	25	/	22.36	/	24.00
		50	0	/	22.39	/	24.00
	16QAM	1	0	/	22.74	/	24.00
		1	25	/	22.52	/	24.00
		1	49	/	22.83	/	24.00
		25	0	/	21.33	/	23.00
		25	13	/	21.38	/	23.00
		25	25	/	21.35	/	23.00
	64QAM	50	0	/	21.34	/	23.00
		1	0	/	21.50	/	23.00
		1	25	/	21.57	/	23.00
		1	49	/	21.60	/	23.00
		25	0	/	20.35	/	22.00
		25	13	/	20.44	/	22.00
	256QAM	25	25	/	20.40	/	22.00
		50	0	/	20.32	/	22.00
		1	0	/	18.76	/	20.00
		1	25	/	18.76	/	20.00
		1	49	/	18.60	/	20.00
		25	0	/	18.55	/	20.00
	25	13	/	18.61	/	20.00	
	25	25	/	18.65	/	20.00	
	50	0	/	18.56	/	20.00	

LTE Band 13							
Receiver on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	21.08	21.10	21.05	22.50
		1	13	21.21	21.09	21.15	22.50
		1	24	21.41	21.27	21.17	22.50
		12	0	21.36	21.38	21.34	22.50
		12	6	21.51	21.43	21.33	22.50
		12	13	21.36	21.44	21.26	22.50
		25	0	21.12	21.06	21.07	22.50
	16QAM	1	0	21.12	21.20	21.14	22.50

		1	13	21.02	21.12	21.14	22.50
		1	24	21.05	21.11	21.05	22.50
		12	0	21.45	21.31	21.27	22.50
		12	6	21.31	21.19	21.25	22.50
		12	13	21.14	21.02	21.12	22.50
		25	0	21.31	21.15	21.27	22.50
		25	0	21.31	21.15	21.27	22.50
	64QAM	1	0	21.16	21.18	21.18	22.50
		1	13	21.26	21.28	21.20	22.50
		1	24	21.57	21.49	21.35	22.50
		12	0	20.27	20.27	20.19	22.00
		12	6	20.36	20.20	20.14	22.00
		12	13	20.09	20.10	20.04	22.00
		25	0	20.44	20.26	20.14	22.00
	256QAM	1	0	18.88	18.86	18.70	20.00
		1	13	19.00	18.98	18.82	20.00
		1	24	18.98	18.86	18.70	20.00
		12	0	18.68	18.72	18.56	20.00
		12	6	18.70	18.82	18.72	20.00
		12	13	18.72	18.60	18.54	20.00
		25	0	18.56	18.46	18.56	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
10MHz	QPSK	1	0	/	21.31	/	22.50
		1	25	/	21.57	/	22.50
		1	49	/	21.58	/	22.50
		25	0	/	21.36	/	22.50
		25	13	/	21.39	/	22.50
		25	25	/	21.38	/	22.50
		50	0	/	21.35	/	22.50
	16QAM	1	0	/	21.26	/	22.50
		1	25	/	21.36	/	22.50
		1	49	/	21.37	/	22.50
		25	0	/	21.33	/	22.50
		25	13	/	21.35	/	22.50
		25	25	/	21.34	/	22.50
		50	0	/	21.35	/	22.50
	64QAM	1	0	/	21.44	/	22.50
		1	25	/	21.40	/	22.50
		1	49	/	21.43	/	22.50
		25	0	/	20.33	/	22.00

		25	13	/	20.34	/	22.00
		25	25	/	20.32	/	22.00
		50	0	/	20.40	/	22.00
	256QAM	1	0	/	18.72	/	20.00
		1	25	/	18.60	/	20.00
		1	49	/	18.45	/	20.00
		25	0	/	18.56	/	20.00
		25	13	/	18.54	/	20.00
		25	25	/	18.58	/	20.00
		50	0	/	18.56	/	20.00

LTE Band 25							
Normal power&Receiver on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				26047/1850.7	26365/1882.5	26683/1914.3	
1.4MHz	QPSK	1	0	23.69	23.59	23.46	25.00
		1	2	23.28	23.47	23.44	25.00
		1	5	23.84	23.41	23.69	25.00
		3	0	23.22	23.51	23.51	25.00
		3	2	23.49	23.34	23.25	25.00
		3	3	23.30	23.37	23.49	25.00
		6	0	22.42	22.50	22.78	24.00
	16QAM	1	0	22.98	22.88	22.57	24.00
		1	2	22.91	22.88	22.56	24.00
		1	5	22.78	22.85	22.77	24.00
		3	0	22.33	22.56	22.46	24.00
		3	2	22.61	22.57	22.57	24.00
		3	3	22.44	22.51	22.49	24.00
		6	0	21.38	21.33	21.44	23.00
	64QAM	1	0	21.70	21.28	21.72	23.00
		1	2	21.71	21.69	21.94	23.00
		1	5	21.67	21.58	22.07	23.00
		3	0	21.38	21.34	21.23	23.00
		3	2	21.64	21.64	21.60	23.00
		3	3	21.61	21.45	21.30	23.00
		6	0	20.53	20.54	20.46	22.00
	256QAM	1	0	19.45	19.07	19.31	20.00
		1	2	19.43	19.11	19.35	20.00
		1	5	19.57	19.29	19.41	20.00
		3	0	19.07	19.07	18.99	20.00

		3	2	19.05	19.09	18.89	20.00
		3	3	19.15	19.01	18.91	20.00
		6	0	19.15	19.15	19.03	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26055/1851.5	26365/1882.5	26675/1913.5	
3MHz	QPSK	1	0	23.55	23.31	23.44	25.00
		1	7	23.54	23.43	23.46	25.00
		1	14	23.70	23.37	23.47	25.00
		8	0	22.64	22.41	22.49	24.00
		8	4	22.55	22.52	22.57	24.00
		8	7	22.54	22.59	22.71	24.00
		15	0	22.60	22.56	22.48	24.00
	16QAM	1	0	22.90	22.88	22.57	24.00
		1	7	22.81	22.92	22.80	24.00
		1	14	22.70	22.91	22.57	24.00
		8	0	21.51	21.56	21.68	23.00
		8	4	21.57	21.53	21.47	23.00
		8	7	21.62	21.51	21.57	23.00
		15	0	21.52	21.65	21.48	23.00
	64QAM	1	0	21.82	21.56	21.66	23.00
		1	7	21.63	21.59	21.94	23.00
		1	14	21.53	21.56	22.05	23.00
		8	0	20.66	20.78	20.47	22.00
		8	4	20.68	20.74	20.62	22.00
		8	7	20.51	20.67	20.52	22.00
		15	0	20.61	20.68	20.58	22.00
	256QAM	1	0	19.37	19.19	19.43	20.00
		1	7	19.31	19.37	19.59	20.00
		1	14	19.43	19.07	19.47	20.00
		8	0	18.93	19.03	19.03	20.00
		8	4	18.89	19.11	18.93	20.00
		8	7	18.83	18.97	19.07	20.00
		15	0	19.11	18.99	18.89	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26065/1852.5	26365/1882.5	26665/1912.5	
5MHz	QPSK	1	0	23.65	23.35	23.48	25.00
		1	13	23.52	23.31	23.38	25.00
		1	24	23.50	23.51	23.31	25.00
		12	0	22.54	22.43	22.39	24.00
		12	6	22.41	22.58	22.45	24.00

		12	13	22.52	22.43	22.61	24.00	
		25	0	22.56	22.48	22.36	24.00	
	16QAM	1	0	22.92	22.86	22.51	24.00	
		1	13	22.83	22.70	22.70	24.00	
		1	24	22.86	22.67	22.53	24.00	
		12	0	21.49	21.36	21.66	23.00	
		12	6	21.39	21.47	21.43	23.00	
		12	13	21.36	21.55	21.63	23.00	
		25	0	21.52	21.35	21.36	23.00	
	64QAM	1	0	21.52	21.32	21.60	23.00	
		1	13	21.61	21.43	21.76	23.00	
		1	24	21.55	21.68	21.93	23.00	
		12	0	20.38	20.44	20.51	22.00	
		12	6	20.70	20.70	20.34	22.00	
		12	13	20.57	20.53	20.46	22.00	
		25	0	20.49	20.72	20.62	22.00	
	256QAM	1	0	19.21	19.01	19.39	20.00	
		1	13	19.13	19.09	19.33	20.00	
		1	24	19.33	18.95	19.29	20.00	
		12	0	18.73	18.83	18.91	20.00	
		12	6	18.69	18.79	19.09	20.00	
		12	13	18.75	18.97	19.03	20.00	
		25	0	18.87	18.69	18.69	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
					26090/1855	26365/1882.5	26640/1910	
10MHz	QPSK	1	0	23.41	23.51	23.42	25.00	
		1	25	23.62	23.35	23.34	25.00	
		1	49	23.52	23.43	23.47	25.00	
		25	0	22.60	22.65	22.43	24.00	
		25	13	22.45	22.58	22.45	24.00	
		25	25	22.42	22.65	22.79	24.00	
		50	0	22.40	22.28	22.60	24.00	
	16QAM	1	0	22.96	22.80	22.43	24.00	
		1	25	23.05	23.02	22.78	24.00	
		1	49	22.90	22.93	22.71	24.00	
		25	0	21.45	21.36	21.52	23.00	
		25	13	21.39	21.71	21.57	23.00	
		25	25	21.54	21.51	21.49	23.00	
		50	0	21.46	21.35	21.54	23.00	
	64QAM	1	0	21.82	21.32	21.80	23.00	

		1	25	21.89	21.65	21.96	23.00
		1	49	21.77	21.76	21.99	23.00
		25	0	20.74	20.54	20.39	22.00
		25	13	20.84	20.60	20.48	22.00
		25	25	20.69	20.39	20.70	22.00
		50	0	20.53	20.66	20.64	22.00
	256QAM	1	0	19.55	19.17	19.11	20.00
		1	25	19.67	19.31	19.09	20.00
		1	49	19.69	19.35	19.09	20.00
		25	0	18.77	18.73	18.97	20.00
		25	13	18.75	18.79	19.03	20.00
		25	25	18.81	18.79	18.87	20.00
	50	0	19.19	18.81	18.97	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365/1882.5	26615/1907.5	
15MHz	QPSK	1	0	23.67	23.39	23.56	25.00
		1	38	23.56	23.43	23.58	25.00
		1	74	23.70	23.57	23.47	25.00
		36	0	22.72	22.39	22.57	24.00
		36	18	22.39	22.56	22.59	24.00
		36	39	22.56	22.59	22.73	24.00
		75	0	22.50	22.52	22.44	24.00
	16QAM	1	0	22.88	22.98	22.45	24.00
		1	38	22.89	22.86	22.78	24.00
		1	74	22.86	22.85	22.67	24.00
		36	0	21.41	21.62	21.46	23.00
		36	18	21.45	21.61	21.51	23.00
		36	39	21.64	21.55	21.73	23.00
		75	0	21.50	21.45	21.68	23.00
	64QAM	1	0	21.70	21.30	21.80	23.00
		1	38	21.59	21.63	21.98	23.00
		1	74	21.75	21.48	21.85	23.00
		36	0	20.44	20.82	20.41	22.00
		36	18	20.58	20.72	20.54	22.00
		36	39	20.73	20.47	20.62	22.00
		75	0	20.55	20.72	20.72	22.00
	256QAM	1	0	19.45	19.33	19.37	20.00
		1	38	19.43	19.33	19.49	20.00
		1	74	19.55	19.21	19.21	20.00
		36	0	18.91	19.05	18.77	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up	
				26140/1860	26365/1882.5	26590/1905		
20MHz		36	18	18.97	19.11	18.77	20.00	
		36	39	18.81	18.87	18.77	20.00	
		75	0	18.93	18.93	18.93	20.00	
	QPSK	1	0	23.57	23.37	23.46	25.00	
		1	50	23.44	23.51	23.50	25.00	
		1	99	23.68	23.45	23.45	25.00	
		50	0	22.54	22.51	22.59	24.00	
		50	25	22.51	22.48	22.57	24.00	
		50	50	22.52	22.47	22.57	24.00	
		100	0	22.48	22.44	22.54	24.00	
		16QAM	1	0	22.84	22.86	22.57	24.00
			1	50	22.89	22.88	22.66	24.00
			1	99	22.80	22.77	22.61	24.00
			50	0	21.53	21.48	21.56	23.00
			50	25	21.55	21.49	21.53	23.00
			50	50	21.54	21.47	21.57	23.00
			100	0	21.52	21.49	21.56	23.00
		64QAM	1	0	21.68	21.40	21.72	23.00
			1	50	21.71	21.49	21.90	23.00
			1	99	21.57	21.60	21.95	23.00
			50	0	20.54	20.64	20.53	22.00
			50	25	20.64	20.62	20.54	22.00
			50	50	20.55	20.57	20.58	22.00
			100	0	20.61	20.64	20.60	22.00
		256QAM	1	0	19.35	19.19	19.29	20.00
			1	50	19.33	19.21	19.53	20.00
			1	99	19.23	19.31	19.25	20.00
	50		0	18.83	18.87	18.89	20.00	
	50		25	18.77	18.89	18.77	20.00	
	50		50	19.07	18.85	19.01	20.00	
100	0		19.01	18.89	18.87	20.00		

LTE Band 25							
Receiver off&Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				26047/1850.7	26365/1882.5	26683/1914.3	
1.4MHz	QPSK	1	0	20.53	20.18	20.30	21.50
		1	2	20.48	20.34	20.63	21.50
		1	5	20.12	20.48	20.47	21.50
		3	0	20.24	20.51	20.70	21.50
		3	2	20.11	20.55	20.54	21.50
		3	3	20.36	20.20	20.35	21.50
		6	0	20.50	20.46	20.55	21.50
	16QAM	1	0	20.91	20.97	20.75	21.50
		1	2	20.57	20.53	20.73	21.50
		1	5	20.20	20.78	20.56	21.50
		3	0	20.33	20.47	20.31	21.50
		3	2	20.55	20.59	20.69	21.50
		3	3	20.23	20.65	20.75	21.50
		6	0	20.32	20.36	20.72	21.50
	64QAM	1	0	20.54	20.56	20.62	21.50
		1	2	20.51	20.49	20.57	21.50
		1	5	20.53	20.69	20.97	21.50
		3	0	20.38	20.42	20.68	21.50
		3	2	20.25	20.31	20.53	21.50
		3	3	20.37	20.21	20.29	21.50
		6	0	19.81	20.19	19.75	21.50
	256QAM	1	0	18.76	19.06	19.08	20.00
		1	2	18.68	19.22	19.26	20.00
		1	5	18.90	19.18	18.96	20.00
3		0	18.75	19.05	18.99	20.00	
3		2	18.71	18.93	19.03	20.00	
3		3	18.64	19.22	19.02	20.00	
6		0	18.71	18.83	18.71	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	20.47	20.46	20.44	21.50
		1	7	20.18	20.36	20.43	21.50
		1	14	20.30	20.48	20.53	21.50
		8	0	20.36	20.39	20.40	21.50
		8	4	20.43	20.33	20.62	21.50

		8	7	20.24	20.34	20.39	21.50
		15	0	20.30	20.44	20.51	21.50
	16QAM	1	0	20.97	20.89	20.99	21.50
		1	7	20.73	20.67	20.65	21.50
		1	14	20.42	20.56	20.40	21.50
		8	0	20.61	20.37	20.37	21.50
		8	4	20.39	20.41	20.45	21.50
		8	7	20.61	20.43	20.47	21.50
		15	0	20.20	20.54	20.42	21.50
	64QAM	1	0	20.82	20.88	20.82	21.50
		1	7	20.71	20.65	20.95	21.50
		1	14	20.91	20.91	20.81	21.50
		8	0	20.62	20.46	20.40	21.50
		8	4	20.29	20.35	20.39	21.50
		8	7	20.27	20.31	20.35	21.50
		15	0	19.95	20.19	20.01	21.50
	256QAM	1	0	18.98	19.00	19.06	20.00
		1	7	19.14	18.90	18.96	20.00
		1	14	19.00	19.06	19.18	20.00
		8	0	18.93	18.99	19.09	20.00
		8	4	18.91	18.89	19.09	20.00
		8	7	18.87	18.93	19.07	20.00
		15	0	18.71	18.93	18.97	20.00
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)		
26065/1852.5					26365/1882.5	26665/1912.5	
5MHz	QPSK	1	0	20.31	20.48	20.42	21.50
		1	13	20.20	20.34	20.43	21.50
		1	24	20.20	20.34	20.45	21.50
		12	0	20.32	20.49	20.40	21.50
		12	6	20.45	20.47	20.36	21.50
		12	13	20.22	20.32	20.27	21.50
		25	0	20.34	20.40	20.31	21.50
	16QAM	1	0	20.83	21.01	20.71	21.50
		1	13	20.53	20.59	20.69	21.50
		1	24	20.24	20.58	20.52	21.50
		12	0	20.57	20.33	20.47	21.50
		12	6	20.53	20.33	20.39	21.50
		12	13	20.33	20.45	20.49	21.50
		25	0	20.08	20.48	20.42	21.50
	64QAM	1	0	20.66	20.74	20.56	21.50

		1	13	20.73	20.71	20.63	21.50
		1	24	20.75	20.75	20.67	21.50
		12	0	20.58	20.44	20.36	21.50
		12	6	20.23	20.41	20.45	21.50
		12	13	20.15	20.45	20.35	21.50
		25	0	19.81	19.95	20.15	21.50
	256QAM	1	0	19.06	19.08	18.82	20.00
		1	13	19.10	19.00	18.98	20.00
		1	24	19.08	19.14	18.84	20.00
		12	0	18.93	18.93	18.99	20.00
		12	6	19.05	19.03	18.89	20.00
		12	13	18.87	18.85	19.11	20.00
			25	0	18.81	18.67	18.77
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26090/1855	26365/1882.5	26640/1910	
10MHz	QPSK	1	0	20.49	20.36	20.56	21.50
		1	25	20.44	20.30	20.27	21.50
		1	49	20.36	20.30	20.61	21.50
		25	0	20.18	20.55	20.58	21.50
		25	13	20.51	20.43	20.30	21.50
		25	25	20.50	20.30	20.55	21.50
		50	0	20.46	20.30	20.39	21.50
	16QAM	1	0	21.01	21.05	20.87	21.50
		1	25	20.65	20.75	20.89	21.50
		1	49	20.40	20.60	20.38	21.50
		25	0	20.67	20.45	20.29	21.50
		25	13	20.51	20.59	20.51	21.50
		25	25	20.63	20.21	20.59	21.50
		50	0	20.12	20.32	20.60	21.50
	64QAM	1	0	20.66	20.96	20.74	21.50
		1	25	20.47	20.57	20.95	21.50
		1	49	20.67	20.99	20.95	21.50
		25	0	20.60	20.46	20.48	21.50
		25	13	20.41	20.63	20.37	21.50
		25	25	20.19	20.29	20.29	21.50
		50	0	19.99	20.05	20.19	21.50
	256QAM	1	0	19.02	18.84	18.94	20.00
		1	25	18.94	18.78	19.12	20.00
		1	49	18.98	18.72	18.90	20.00
		25	0	18.89	19.01	19.23	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365/1882.5	26615/1907.5	
15MHz	QPSK	25	13	18.81	19.05	19.41	20.00
		25	25	18.83	19.05	19.37	20.00
		50	0	18.65	18.73	18.93	20.00
		1	0	20.23	20.48	20.30	21.50
		1	38	20.14	20.20	20.47	21.50
		1	74	20.24	20.60	20.43	21.50
		36	0	20.46	20.35	20.30	21.50
	36	18	20.51	20.55	20.58	21.50	
	36	39	20.50	20.56	20.45	21.50	
	75	0	20.40	20.26	20.41	21.50	
	16QAM	1	0	20.83	21.07	21.05	21.50
		1	38	20.73	20.87	20.81	21.50
		1	74	20.16	20.70	20.54	21.50
		36	0	20.47	20.39	20.45	21.50
		36	18	20.63	20.53	20.33	21.50
		36	39	20.43	20.39	20.57	21.50
		75	0	20.16	20.48	20.58	21.50
	64QAM	1	0	20.80	20.94	20.68	21.50
		1	38	20.81	20.85	20.77	21.50
		1	74	20.65	20.87	20.81	21.50
		36	0	20.62	20.40	20.64	21.50
		36	18	20.37	20.53	20.57	21.50
		36	39	20.45	20.57	20.33	21.50
		75	0	19.87	19.91	20.11	21.50
	256QAM	1	0	19.14	19.06	18.92	20.00
		1	38	19.18	19.00	18.84	20.00
		1	74	19.20	19.08	18.90	20.00
36		0	18.73	18.93	18.95	20.00	
36		18	18.69	18.83	18.97	20.00	
36		39	18.79	18.97	18.95	20.00	
75		0	18.87	18.87	18.97	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
20MHz	QPSK	26140/1860		26365/1882.5	26590/1905		
		1	0	20.45	20.44	20.36	21.50
		1	50	20.26	20.30	20.43	21.50
		1	99	20.20	20.42	20.47	21.50
		50	0	20.32	20.39	20.40	21.50
50	25	20.37	20.41	20.48	21.50		

		50	50	20.32	20.40	20.39	21.50
		100	0	20.38	20.38	20.51	21.50
	16QAM	1	0	20.91	20.91	20.89	21.50
		1	50	20.59	20.69	20.73	21.50
		1	99	20.26	20.54	20.42	21.50
		50	0	20.47	20.43	20.41	21.50
		50	25	20.45	20.45	20.41	21.50
		50	50	20.47	20.37	20.47	21.50
		100	0	20.28	20.46	20.44	21.50
	64QAM	1	0	20.72	20.80	20.72	21.50
		1	50	20.65	20.73	20.83	21.50
		1	99	20.75	20.77	20.83	21.50
		50	0	20.56	20.50	20.46	21.50
		50	25	20.37	20.41	20.39	21.50
		50	50	20.33	20.39	20.39	21.50
		100	0	19.91	20.03	20.11	21.50
	256QAM	1	0	18.96	18.98	18.98	20.00
		1	50	18.88	19.00	18.94	20.00
		1	99	18.88	19.14	18.98	20.00
		50	0	18.83	18.87	19.01	20.00
		50	25	18.99	18.91	19.13	20.00
		50	50	18.91	18.83	19.15	20.00
		100	0	18.81	18.81	18.87	20.00

LTE Band 26							
Normal power&Receiver off&Hotspot on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.37	23.36	23.40	25.00
		1	2	23.27	23.43	23.53	25.00
		1	5	23.52	23.44	23.72	25.00
		3	0	23.11	23.08	23.11	25.00
		3	2	23.05	23.13	23.16	25.00
		3	3	23.02	23.17	23.19	25.00
	16QAM	6	0	22.43	22.18	22.22	24.00
		1	0	22.54	22.47	22.61	24.00
		1	2	22.75	22.95	22.48	24.00
		1	5	22.56	22.37	22.16	24.00
		3	0	22.08	22.24	22.01	24.00

	64QAM	3	2	22.22	22.10	22.20	24.00	
		3	3	22.15	22.26	22.07	24.00	
		6	0	21.12	21.40	21.18	23.00	
		1	0	21.47	21.26	21.66	23.00	
		1	2	21.20	21.39	21.25	23.00	
		1	5	21.53	21.63	21.37	23.00	
		3	0	21.17	21.21	21.11	23.00	
		3	2	21.01	21.06	21.10	23.00	
		3	3	21.01	21.18	21.10	23.00	
	6	0	20.29	20.21	20.38	22.00		
	256QAM	1	0	18.99	18.95	18.73	20.00	
		1	2	18.99	18.83	18.67	20.00	
		1	5	18.87	19.01	18.75	20.00	
		3	0	18.74	18.86	18.62	20.00	
		3	2	18.89	19.15	18.79	20.00	
		3	3	19.01	18.77	18.93	20.00	
		6	0	18.71	18.59	18.57	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
					26705/815.5	26865/831.5	27025/847.5	
	3MHz	QPSK	1	0	23.01	23.40	23.30	25.00
			1	7	23.37	23.35	23.39	25.00
1			14	23.16	23.14	23.64	25.00	
8			0	22.25	22.22	22.03	24.00	
8			4	22.16	22.27	22.28	24.00	
8			7	22.18	22.27	22.29	24.00	
15			0	22.07	22.04	22.32	24.00	
16QAM		1	0	22.52	22.39	22.53	24.00	
		1	7	22.61	22.53	22.42	24.00	
		1	14	22.66	22.29	22.10	24.00	
		8	0	21.11	21.24	21.05	23.00	
		8	4	21.26	21.25	21.20	23.00	
		8	7	21.19	21.05	21.09	23.00	
		15	0	21.14	21.26	21.34	23.00	
64QAM		1	0	21.23	21.42	21.46	23.00	
		1	7	21.34	21.41	21.41	23.00	
		1	14	21.49	21.37	21.33	23.00	
		8	0	20.09	20.19	20.09	22.00	
		8	4	20.17	20.22	20.20	22.00	
		8	7	20.07	20.24	20.24	22.00	
		15	0	20.09	20.27	20.06	22.00	

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26715/816.5	26865/831.5	27015/846.5	
5MHz	256QAM	1	0	19.13	18.85	18.63	20.00
		1	7	19.25	19.03	18.79	20.00
		1	14	19.19	19.03	18.67	20.00
		8	0	18.64	18.78	18.70	20.00
		8	4	19.07	18.89	18.73	20.00
		8	7	19.33	18.77	18.45	20.00
		15	0	18.65	18.73	18.55	20.00
5MHz	QPSK	1	0	23.35	23.56	23.26	25.00
		1	13	23.27	23.21	23.43	25.00
		1	24	23.24	23.16	23.70	25.00
		12	0	22.25	22.40	22.21	24.00
		12	6	22.12	22.33	22.36	24.00
		12	13	22.44	22.01	22.37	24.00
		25	0	22.19	22.18	22.24	24.00
	16QAM	1	0	22.34	22.37	22.57	24.00
		1	13	22.63	22.81	22.50	24.00
		1	24	22.60	22.29	22.10	24.00
		12	0	21.07	21.28	21.13	23.00
		12	6	21.18	21.05	21.02	23.00
		12	13	21.23	21.22	21.15	23.00
		25	0	21.06	21.26	21.32	23.00
	64QAM	1	0	21.19	21.50	21.64	23.00
		1	13	21.36	21.41	21.37	23.00
		1	24	21.31	21.29	21.55	23.00
		12	0	20.15	20.27	20.37	22.00
		12	6	20.33	20.38	20.06	22.00
		12	13	20.31	20.42	20.28	22.00
		25	0	20.19	20.11	20.40	22.00
	256QAM	1	0	19.13	18.81	18.85	20.00
		1	13	19.23	18.83	18.77	20.00
		1	24	19.15	18.69	18.83	20.00
		12	0	18.76	18.84	18.60	20.00
		12	6	18.87	18.77	18.89	20.00
		12	13	18.89	18.75	18.89	20.00
		25	0	18.69	18.83	18.63	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
10MHz	QPSK	1	0	23.15	23.30	23.30	25.00

		1	25	23.23	23.17	23.25	25.00
		1	49	23.40	23.18	23.66	25.00
		25	0	22.19	22.28	22.39	24.00
		25	13	22.28	22.23	22.18	24.00
		25	25	22.28	22.35	22.19	24.00
		50	0	22.27	22.08	22.12	24.00
		1	0	22.60	22.51	22.59	24.00
	16QAM	1	25	22.71	22.65	22.66	24.00
		1	49	22.70	22.39	22.22	24.00
		25	0	21.17	21.32	21.13	23.00
		25	13	21.12	21.13	21.08	23.00
		25	25	21.37	21.16	21.31	23.00
		50	0	21.22	21.18	21.16	23.00
		1	0	21.23	21.32	21.62	23.00
	64QAM	1	25	21.50	21.33	21.53	23.00
		1	49	21.27	21.55	21.49	23.00
		25	0	20.17	20.07	20.23	22.00
		25	13	20.25	20.06	20.20	22.00
		25	25	20.13	20.28	20.24	22.00
		50	0	20.31	20.19	20.32	22.00
		1	0	18.99	18.91	18.73	20.00
	256QAM	1	25	18.87	18.89	18.59	20.00
		1	49	18.91	18.83	18.71	20.00
		25	0	18.68	18.88	18.64	20.00
		25	13	18.80	19.06	18.66	20.00
		25	25	18.76	18.88	18.74	20.00
		50	0	18.85	18.69	18.77	20.00
		Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)	
15MHz	QPSK			26765/821.5	26865/831.5	26965/841.5	
		1	0	23.21	23.40	23.22	25.00
		1	38	23.31	23.29	23.33	25.00
		1	74	23.28	23.22	23.54	25.00
		36	0	22.19	22.18	22.23	24.00
		36	18	22.20	22.19	22.22	24.00
		36	39	22.22	22.17	22.21	24.00
	16QAM	75	0	22.21	22.20	22.24	24.00
		1	0	22.42	22.55	22.67	24.00
		1	38	22.81	22.73	22.62	24.00
		1	74	22.60	22.35	22.12	24.00
		36	0	21.17	21.20	21.19	23.00

		36	18	21.18	21.21	21.18	23.00
		36	39	21.21	21.18	21.23	23.00
		75	0	21.24	21.18	21.28	23.00
	64QAM	1	0	21.29	21.42	21.58	23.00
		1	38	21.36	21.45	21.41	23.00
		1	74	21.39	21.41	21.45	23.00
		36	0	20.15	20.13	20.17	22.00
		36	18	20.17	20.16	20.12	22.00
		36	39	20.23	20.24	20.22	22.00
		75	0	20.21	20.19	20.26	22.00
	256QAM	1	0	19.07	18.95	18.77	20.00
		1	38	19.21	18.95	18.73	20.00
		1	74	19.09	19.09	18.91	20.00
		36	0	18.80	18.74	18.62	20.00
		36	18	19.23	19.13	18.89	20.00
36		39	18.99	18.91	18.59	20.00	
75		0	18.73	18.63	18.61	20.00	

LTE Band 26							
Receiver on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	20.13	20.46	20.03	21.50
		1	2	20.08	20.05	20.33	21.50
		1	5	20.31	20.56	20.46	21.50
		3	0	20.02	19.90	20.33	21.50
		3	2	20.36	20.08	19.90	21.50
		3	3	20.12	20.24	20.40	21.50
		6	0	20.48	20.13	19.92	21.50
	16QAM	1	0	20.56	20.50	20.42	21.50
		1	2	20.57	20.45	20.35	21.50
		1	5	20.61	20.79	20.87	21.50
		3	0	19.86	20.08	20.04	21.50
		3	2	20.34	20.22	20.26	21.50
		3	3	20.53	20.35	19.93	21.50
		6	0	20.38	20.38	20.36	21.50
	64QAM	1	0	20.54	20.28	20.58	21.50
		1	2	20.37	20.67	20.41	21.50
		1	5	20.70	20.60	20.26	21.50
		3	0	20.15	19.95	19.85	21.50

		3	2	19.92	20.40	20.02	21.50
		3	3	20.45	20.43	20.33	21.50
		6	0	20.66	20.46	20.10	21.50
	256QAM	1	0	18.97	18.99	19.03	20.00
		1	2	19.11	19.13	19.05	20.00
		1	5	18.93	18.99	19.11	20.00
		3	0	18.76	18.56	18.48	20.00
		3	2	18.87	18.91	19.07	20.00
		3	3	18.93	18.95	18.99	20.00
		6	0	18.87	18.79	18.81	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	20.31	20.10	20.29	21.50
		1	7	20.32	20.01	20.15	21.50
		1	14	20.31	20.34	20.32	21.50
		8	0	20.12	20.04	20.17	21.50
		8	4	20.06	20.26	20.10	21.50
		8	7	20.14	20.04	20.18	21.50
		15	0	20.20	19.99	20.32	21.50
	16QAM	1	0	20.48	20.50	20.38	21.50
		1	7	20.59	20.35	20.49	21.50
		1	14	20.49	20.77	20.81	21.50
		8	0	19.96	20.16	20.00	21.50
		8	4	20.28	20.08	20.38	21.50
		8	7	20.25	20.07	20.25	21.50
		15	0	20.34	20.16	20.28	21.50
	64QAM	1	0	20.42	20.58	20.74	21.50
		1	7	20.37	20.67	20.73	21.50
		1	14	20.52	20.32	20.42	21.50
		8	0	20.09	20.17	20.19	21.50
		8	4	20.12	20.30	19.96	21.50
		8	7	20.49	20.11	20.19	21.50
		15	0	20.34	20.30	20.22	21.50
	256QAM	1	0	18.69	18.75	18.83	20.00
		1	7	18.77	18.71	18.91	20.00
		1	14	18.63	18.65	18.97	20.00
		8	0	18.44	18.54	18.34	20.00
		8	4	18.87	18.75	18.65	20.00
		8	7	18.73	18.69	18.67	20.00
		15	0	18.81	18.63	18.93	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	20.39	20.16	20.23	21.50
		1	13	20.26	20.25	20.11	21.50
		1	24	20.45	20.38	20.48	21.50
		12	0	20.22	20.26	20.21	21.50
		12	6	20.18	20.14	20.28	21.50
		12	13	20.40	20.10	20.40	21.50
		25	0	20.44	20.33	20.26	21.50
	16QAM	1	0	20.40	20.66	20.36	21.50
		1	13	20.69	20.29	20.67	21.50
		1	24	20.57	20.69	20.95	21.50
		12	0	19.90	20.30	19.90	21.50
		12	6	20.20	20.30	20.50	21.50
		12	13	20.27	20.17	20.35	21.50
		25	0	20.52	20.14	20.12	21.50
	64QAM	1	0	20.48	20.46	20.54	21.50
		1	13	20.63	20.57	20.71	21.50
		1	24	20.38	20.60	20.22	21.50
		12	0	20.21	20.23	20.07	21.50
		12	6	20.12	20.10	20.10	21.50
		12	13	20.39	20.05	20.33	21.50
		25	0	20.42	20.32	20.38	21.50
	256QAM	1	0	18.93	18.69	19.17	20.00
		1	13	18.91	18.67	19.21	20.00
		1	24	18.85	18.59	19.29	20.00
		12	0	18.66	18.34	18.62	20.00
		12	6	18.60	18.50	18.62	20.00
		12	13	18.82	18.28	18.64	20.00
		25	0	18.87	18.95	18.81	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	20.23	20.12	20.29	21.50
		1	25	20.18	20.09	20.11	21.50
		1	49	20.21	20.28	20.36	21.50
		25	0	20.36	20.08	20.37	21.50
		25	13	20.14	20.06	20.20	21.50
		25	25	20.42	20.10	20.38	21.50
		50	0	20.20	20.27	20.32	21.50
	16QAM	1	0	20.38	20.40	20.36	21.50

		1	25	20.53	20.47	20.39	21.50
		1	49	20.77	20.83	20.87	21.50
		25	0	19.94	20.30	20.16	21.50
		25	13	20.38	20.34	20.52	21.50
		25	25	20.19	20.23	20.31	21.50
		50	0	20.20	20.10	20.44	21.50
		64QAM	1	0	20.46	20.50	20.66
	64QAM	1	25	20.45	20.55	20.63	21.50
	64QAM	1	49	20.40	20.40	20.42	21.50
	64QAM	25	0	20.27	20.01	20.31	21.50
	64QAM	25	13	20.02	20.26	20.06	21.50
	64QAM	25	25	20.41	20.21	20.51	21.50
	64QAM	50	0	20.34	20.10	20.10	21.50
	256QAM	1	0	18.95	18.85	18.95	20.00
	256QAM	1	25	18.82	18.54	18.70	20.00
	256QAM	1	49	18.84	18.64	18.72	20.00
	256QAM	25	0	18.62	18.70	18.66	20.00
	256QAM	25	13	18.52	18.64	18.62	20.00
	256QAM	25	25	18.58	18.64	18.76	20.00
	256QAM	50	0	18.95	18.77	18.79	20.00
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)		
26765/821.5					26865/831.5	26965/841.5	
15MHz	QPSK	1	0	20.23	20.20	20.25	21.50
		1	38	20.28	20.19	20.17	21.50
		1	74	20.29	20.24	20.34	21.50
		36	0	20.22	20.14	20.23	21.50
		36	18	20.26	20.18	20.18	21.50
		36	39	20.24	20.20	20.22	21.50
		75	0	20.26	20.19	20.22	21.50
	16QAM	1	0	20.46	20.50	20.44	21.50
		1	38	20.49	20.43	20.49	21.50
		1	74	20.69	20.75	20.73	21.50
		36	0	20.02	20.14	20.06	21.50
		36	18	20.24	20.22	20.34	21.50
		36	39	20.31	20.25	20.15	21.50
		75	0	20.32	20.20	20.30	21.50
	64QAM	1	0	20.54	20.54	20.66	21.50
		1	38	20.55	20.61	20.63	21.50
		1	74	20.50	20.50	20.38	21.50
		36	0	20.13	20.11	20.15	21.50

		36	18	20.14	20.20	20.12	21.50
		36	39	20.47	20.23	20.35	21.50
		75	0	20.40	20.20	20.22	21.50
	256QAM	1	0	18.87	18.83	18.99	20.00
		1	38	19.05	18.91	19.13	20.00
		1	74	18.91	18.75	18.99	20.00
		36	0	18.64	18.52	18.50	20.00
		36	18	18.82	18.48	18.44	20.00
		36	39	18.78	18.66	18.50	20.00
		75	0	18.83	18.75	18.87	20.00

LTE Band 41									
Normal power& Receiver off--Main Ant3				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	23.68	23.37	23.09	23.45	23.60	25.00
		1	13	23.57	23.40	23.26	23.57	23.81	25.00
		1	24	23.58	23.37	23.33	23.48	23.58	25.00
		12	0	22.59	22.15	22.06	22.47	22.70	24.00
		12	6	22.67	22.20	22.28	22.47	22.86	24.00
		12	13	22.64	22.41	22.23	22.71	22.74	24.00
		25	0	22.41	22.25	22.39	22.51	22.60	24.00
	16QAM	1	0	22.41	22.43	22.45	22.51	22.75	24.00
		1	13	22.59	22.63	22.61	22.67	22.43	24.00
		1	24	22.56	22.74	22.82	22.68	22.82	24.00
		12	0	21.49	21.55	21.61	21.63	21.49	23.00
		12	6	21.67	21.59	21.89	21.81	21.77	23.00
		12	13	21.78	21.60	21.76	21.62	21.72	23.00
		25	0	21.69	21.37	21.61	21.67	21.59	23.00
	64QAM	1	0	21.59	21.39	21.77	21.49	21.45	23.00
		1	13	21.94	21.88	21.80	22.00	21.80	23.00
		1	24	21.62	21.76	22.00	21.76	21.82	23.00
		12	0	20.65	20.53	20.59	20.75	20.35	22.00
		12	6	20.49	20.55	20.67	20.45	20.75	22.00
		12	13	20.57	20.63	20.47	20.75	20.53	22.00
		25	0	20.52	20.56	20.84	20.64	20.70	22.00
	256QAM	1	0	18.84	18.90	18.70	18.84	18.64	20.00
		1	13	18.80	18.88	18.84	19.02	18.80	20.00
		1	24	18.72	18.90	19.02	18.70	18.80	20.00
		12	0	18.92	18.82	18.94	18.86	18.84	20.00
		12	6	18.68	18.96	19.02	18.78	19.10	20.00
		12	13	19.00	18.88	18.96	18.68	19.04	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
				25	0	19.25	19.05	18.93	
10MHz	QPSK	1	0	23.62	23.49	23.20	23.25	23.56	25.00
		1	25	23.49	23.28	23.24	23.75	23.97	25.00
		1	49	23.38	23.37	23.33	23.52	23.50	25.00
		25	0	22.61	22.27	22.04	22.71	22.70	24.00
		25	13	22.53	22.16	22.22	22.69	22.90	24.00
		25	25	22.74	22.49	22.11	22.77	22.84	24.00
		50	0	22.45	22.09	22.21	22.49	22.56	24.00
	16QAM	1	0	22.65	22.73	22.57	22.65	22.51	24.00
		1	25	22.59	22.71	22.65	22.73	22.37	24.00
		1	49	22.76	22.74	22.84	22.60	22.52	24.00
		25	0	21.31	21.39	21.35	21.49	21.61	23.00
		25	13	21.45	21.77	21.97	22.03	21.89	23.00
		25	25	21.60	21.42	21.90	21.68	21.84	23.00
		50	0	21.65	21.55	21.59	21.47	21.43	23.00
	64QAM	1	0	21.65	21.33	21.65	21.43	21.29	23.00
		1	25	21.86	21.84	21.70	21.96	21.62	23.00
		1	49	21.60	21.84	22.08	21.72	21.78	23.00
		25	0	20.71	20.39	20.85	20.73	20.25	22.00
		25	13	20.65	20.35	20.61	20.67	20.49	22.00
		25	25	20.61	20.55	20.43	20.41	20.81	22.00
		50	0	20.52	20.66	21.02	20.56	20.60	22.00
	256QAM	1	0	18.76	19.02	18.70	18.98	18.66	20.00
		1	25	18.62	19.06	18.52	18.74	18.74	20.00
		1	49	18.98	18.78	18.86	18.48	18.78	20.00
		25	0	18.70	18.84	19.04	18.88	18.74	20.00
		25	13	18.74	18.94	18.94	18.52	19.02	20.00
		25	25	19.16	18.80	18.76	18.88	18.78	20.00
		50	0	19.35	19.21	19.05	19.03	18.65	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
				25	0	19.25	19.05	18.93	
15MHz	QPSK	1	0	23.72	23.41	23.11	23.59	23.60	25.00
		1	38	23.61	23.46	23.38	23.69	23.85	25.00
		1	74	23.60	23.45	23.09	23.52	23.74	25.00
		36	0	22.73	22.13	22.24	22.53	22.58	24.00
		36	18	22.71	22.40	22.20	22.57	22.64	24.00
		36	39	22.70	22.23	22.17	22.79	22.56	24.00
		75	0	22.35	22.15	22.21	22.53	22.78	24.00
	16QAM	1	0	22.35	22.55	22.59	22.65	22.61	24.00
		1	38	22.67	22.49	22.65	22.75	22.43	24.00
1		74	22.54	22.66	22.98	22.80	22.56	24.00	

		36	0	21.29	21.61	21.49	21.39	21.33	23.00
		36	18	21.43	21.71	21.95	21.83	21.79	23.00
		36	39	21.68	21.52	21.60	21.72	21.72	23.00
		75	0	21.73	21.41	21.67	21.69	21.71	23.00
	64QAM	1	0	21.53	21.43	21.71	21.57	21.43	23.00
		1	38	21.72	21.68	21.64	21.84	21.86	23.00
		1	74	21.74	21.80	21.76	21.80	21.96	23.00
		36	0	20.67	20.41	20.83	20.47	20.51	22.00
		36	18	20.69	20.39	20.81	20.57	20.63	22.00
		36	39	20.41	20.65	20.63	20.71	20.61	22.00
		75	0	20.62	20.42	20.92	20.74	20.58	22.00
	256QAM	1	0	18.66	18.82	18.68	18.94	18.70	20.00
		1	38	18.58	19.04	18.78	18.90	18.82	20.00
		1	74	18.78	18.86	18.84	18.70	18.58	20.00
		36	0	18.84	19.02	18.80	18.70	18.66	20.00
		36	18	18.96	19.04	18.92	18.70	19.00	20.00
		36	39	19.08	18.96	18.86	18.76	19.04	20.00
75		0	19.37	18.97	18.87	18.89	18.67	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	23.54	23.29	23.13	23.43	23.66	25.00
		1	50	23.59	23.38	23.26	23.61	23.79	25.00
		1	99	23.50	23.27	23.19	23.56	23.64	25.00
		50	0	22.59	22.25	22.12	22.49	22.70	24.00
		50	25	22.61	22.30	22.20	22.57	22.76	24.00
		50	50	22.64	22.27	22.27	22.61	22.68	24.00
		100	0	22.45	22.23	22.25	22.51	22.66	24.00
	16QAM	1	0	22.43	22.53	22.51	22.57	22.59	24.00
		1	50	22.61	22.51	22.57	22.59	22.47	24.00
		1	99	22.60	22.64	22.84	22.78	22.66	24.00
		50	0	21.41	21.51	21.53	21.51	21.41	23.00
		50	25	21.55	21.57	21.95	21.83	21.69	23.00
		50	50	21.62	21.58	21.72	21.68	21.64	23.00
		100	0	21.57	21.45	21.63	21.55	21.57	23.00
	64QAM	1	0	21.53	21.41	21.65	21.51	21.39	23.00
		1	50	21.78	21.80	21.72	21.84	21.80	23.00
		1	99	21.62	21.78	21.86	21.76	21.82	23.00
		50	0	20.51	20.43	20.69	20.59	20.43	22.00
		50	25	20.55	20.51	20.69	20.55	20.61	22.00
		50	50	20.53	20.49	20.49	20.59	20.63	22.00
		100	0	20.52	20.50	20.84	20.70	20.58	22.00
	256QAM	1	0	18.76	18.88	18.72	18.76	18.58	20.00
		1	50	18.70	18.88	18.68	18.86	18.72	20.00

		1	99	18.80	18.84	18.88	18.60	18.70	20.00
		50	0	18.84	18.84	18.84	18.76	18.76	20.00
		50	25	18.78	18.94	18.94	18.66	18.94	20.00
		50	50	19.00	18.82	18.80	18.76	18.88	20.00
		100	0	19.19	19.05	18.93	18.81	18.69	20.00

LTE Band 41									
Receiver on--Main Ant3				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	21.39	21.23	21.03	21.34	21.73	22.50
		1	13	21.53	21.15	21.20	21.49	21.88	22.50
		1	24	21.49	21.16	21.25	21.35	21.87	22.50
		12	0	21.56	21.42	21.17	21.45	21.65	22.50
		12	6	21.61	21.20	21.19	21.57	21.91	22.50
		12	13	21.71	21.37	21.25	21.44	21.95	22.50
		25	0	21.40	21.16	21.07	21.48	21.65	22.50
	16QAM	1	0	22.06	21.92	22.04	22.14	21.92	22.50
		1	13	21.75	22.07	22.15	21.91	21.77	22.50
		1	24	21.73	21.65	21.77	22.03	21.75	22.50
		12	0	21.84	21.78	21.88	21.94	21.84	22.50
		12	6	22.07	21.95	21.99	22.05	21.77	22.50
		12	13	21.85	22.09	22.11	21.59	21.93	22.50
		25	0	21.83	21.67	21.81	21.93	21.81	22.50
	64QAM	1	0	21.66	21.74	21.90	21.90	21.82	22.50
		1	13	22.08	22.02	22.08	22.12	22.04	22.50
		1	24	21.91	21.57	21.87	21.77	21.81	22.50
		12	0	20.62	20.60	20.68	20.82	20.66	22.00
		12	6	20.77	20.71	20.65	20.73	20.77	22.00
		12	13	20.66	20.66	20.76	20.82	20.56	22.00
		25	0	20.70	20.86	20.90	20.92	20.66	22.00
	256QAM	1	0	18.77	18.53	18.55	18.43	18.47	20.00
		1	13	18.53	18.75	18.65	18.51	18.51	20.00
		1	24	18.69	18.71	18.59	18.51	18.53	20.00
		12	0	19.25	19.35	19.03	19.03	18.87	20.00
		12	6	19.21	19.11	19.07	19.05	19.05	20.00
		12	13	19.31	19.21	19.21	18.85	18.87	20.00
		25	0	18.83	18.71	18.65	18.67	18.75	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	21.55	21.29	21.03	21.50	21.91	22.50
		1	25	21.37	21.03	21.02	21.51	21.82	22.50
		1	49	21.55	21.16	21.05	21.23	21.85	22.50

		25	0	21.56	21.12	21.17	21.63	21.63	22.50	
		25	13	21.53	21.40	21.03	21.41	21.93	22.50	
		25	25	21.79	21.15	21.31	21.40	21.69	22.50	
		50	0	21.34	21.16	21.19	21.48	21.95	22.50	
	16QAM	1	0	22.10	21.94	22.02	22.12	21.70	22.50	
		1	25	21.91	22.03	22.05	21.85	22.09	22.50	
		1	49	21.65	21.95	21.95	21.77	21.63	22.50	
		25	0	21.86	21.70	21.64	21.96	21.86	22.50	
		25	13	21.83	21.77	21.69	22.07	21.99	22.50	
		25	25	21.55	22.11	22.05	21.67	21.69	22.50	
		50	0	21.89	21.73	21.85	21.75	21.83	22.50	
	64QAM	1	0	21.56	21.92	21.96	21.68	21.94	22.50	
		1	25	22.04	21.98	22.16	22.06	21.80	22.50	
		1	49	22.03	21.57	21.91	21.93	21.75	22.50	
		25	0	20.44	20.56	20.52	20.86	20.62	22.00	
		25	13	20.55	20.69	20.61	20.71	20.73	22.00	
		25	25	20.78	20.66	20.74	20.82	20.62	22.00	
		50	0	20.72	21.06	20.68	20.66	20.66	22.00	
	256QAM	1	0	18.85	18.67	18.39	18.27	18.41	20.00	
		1	25	18.45	18.81	18.65	18.51	18.33	20.00	
		1	49	18.75	18.49	18.43	18.55	18.43	20.00	
		25	0	19.17	19.35	19.01	19.01	18.75	20.00	
		25	13	19.15	19.05	18.95	19.25	18.95	20.00	
		25	25	19.19	19.41	19.19	19.09	18.99	20.00	
		50	0	19.07	19.07	18.61	18.71	18.63	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
					39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
	15MHz	QPSK	1	0	21.41	21.15	21.17	21.34	21.73	22.50
1			38	21.41	21.33	21.12	21.35	21.90	22.50	
1			74	21.35	21.10	21.13	21.33	21.83	22.50	
36			0	21.38	21.22	21.31	21.61	21.59	22.50	
36			18	21.59	21.24	21.21	21.33	21.67	22.50	
36			39	21.51	21.17	21.29	21.66	21.71	22.50	
75			0	21.64	21.22	21.03	21.68	21.85	22.50	
16QAM		1	0	21.92	21.96	21.92	22.08	21.76	22.50	
		1	38	21.77	21.93	22.05	22.11	22.01	22.50	
		1	74	21.95	21.71	21.79	21.93	21.95	22.50	
		36	0	22.04	21.74	21.88	22.04	21.72	22.50	
		36	18	21.97	22.03	21.83	22.17	21.85	22.50	
		36	39	21.85	21.97	21.91	21.63	21.91	22.50	
		75	0	21.87	21.85	21.71	21.77	21.69	22.50	
64QAM		1	0	21.86	21.80	21.82	21.98	21.74	22.50	
	1	38	21.98	22.20	22.12	22.04	21.84	22.50		

		1	74	21.81	21.61	21.93	21.81	21.99	22.50		
		36	0	20.80	20.46	20.60	20.68	20.70	22.00		
		36	18	20.79	20.77	20.69	20.93	20.63	22.00		
		36	39	20.60	20.82	20.78	20.62	20.72	22.00		
		75	0	20.96	20.76	20.92	20.80	20.78	22.00		
		1	0	18.71	18.87	18.49	18.35	18.65	20.00		
		1	38	18.55	18.79	18.55	18.43	18.63	20.00		
	256QAM	1	74	18.87	18.75	18.51	18.77	18.41	20.00		
		36	0	19.39	19.15	19.21	18.99	18.87	20.00		
		36	18	19.17	19.23	19.29	19.07	19.09	20.00		
		36	39	19.55	19.35	19.29	19.27	19.05	20.00		
		75	0	18.87	18.83	18.81	18.89	18.59	20.00		
		Channel/Frequency(MHz)									
		Bandwidth	Modulation	RB Allocation	Offset	39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	Tune-up
20MHz	QPSK	1	0	21.35	21.13	21.11	21.30	21.69	22.50		
		1	50	21.47	21.17	21.16	21.43	21.78	22.50		
		1	99	21.45	21.08	21.11	21.35	21.75	22.50		
		50	0	21.42	21.28	21.15	21.47	21.69	22.50		
		50	25	21.53	21.26	21.13	21.45	21.75	22.50		
		50	50	21.59	21.21	21.15	21.54	21.79	22.50		
		100	0	21.46	21.16	21.13	21.52	21.73	22.50		
	16QAM	1	0	21.92	21.98	21.92	22.00	21.76	22.50		
		1	50	21.81	21.99	22.03	21.97	21.87	22.50		
		1	99	21.77	21.75	21.79	21.87	21.79	22.50		
		50	0	21.92	21.80	21.74	21.98	21.74	22.50		
		50	25	21.97	21.85	21.87	22.13	21.85	22.50		
		50	50	21.71	21.93	21.95	21.61	21.81	22.50		
		100	0	21.83	21.67	21.77	21.81	21.79	22.50		
	64QAM	1	0	21.70	21.70	21.82	21.80	21.82	22.50		
		1	50	22.00	22.06	22.04	22.08	21.96	22.50		
		1	99	21.83	21.65	21.77	21.81	21.89	22.50		
		50	0	20.62	20.50	20.52	20.68	20.62	22.00		
		50	25	20.65	20.73	20.67	20.77	20.67	22.00		
		50	50	20.60	20.76	20.76	20.72	20.64	22.00		
		100	0	20.80	20.88	20.86	20.84	20.72	22.00		
	256QAM	1	0	18.67	18.69	18.53	18.43	18.55	20.00		
		1	50	18.59	18.71	18.53	18.51	18.73	20.00		
		1	99	18.75	18.63	18.59	18.49	18.77	20.00		
		50	0	19.27	19.25	19.11	18.93	18.83	20.00		
		50	25	19.09	19.09	19.13	19.07	19.05	20.00		
		50	50	19.37	19.39	19.15	19.01	18.93	20.00		
		100	0	18.95	18.89	18.75	18.79	18.71	20.00		

LTE Band 41									
Hotspot on--Main Ant3				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	22.35	22.15	22.05	22.21	22.54	23.00
		1	13	22.70	22.08	22.35	22.44	22.80	23.00
		1	24	22.62	22.14	22.14	22.47	22.77	23.00
		12	0	22.54	22.34	22.26	22.58	22.83	23.00
		12	6	22.50	22.33	22.21	22.47	22.78	23.00
		12	13	22.57	22.19	22.18	22.59	22.75	23.00
		25	0	22.51	22.22	22.10	22.46	22.68	23.00
	16QAM	1	0	22.56	22.56	22.52	22.44	22.60	23.00
		1	13	22.61	22.81	22.79	22.85	22.75	23.00
		1	24	22.65	22.91	22.93	22.93	22.65	23.00
		12	0	21.50	21.50	21.40	21.52	21.38	22.00
		12	6	21.45	21.37	21.45	21.67	21.79	22.00
		12	13	21.41	21.87	21.89	21.65	21.73	22.00
		25	0	21.65	21.53	21.43	21.39	21.51	22.00
	64QAM	1	0	21.11	21.39	21.31	21.43	21.39	22.00
		1	13	21.45	21.19	21.25	21.11	21.49	22.00
		1	24	21.26	21.44	21.56	21.36	21.54	22.00
		12	0	20.43	20.49	20.55	20.49	20.43	22.00
		12	6	20.50	21.30	21.18	20.86	20.86	22.00
		12	13	20.59	21.17	20.95	20.71	20.67	22.00
		25	0	20.55	20.61	20.55	20.49	20.29	22.00
	256QAM	1	0	18.35	18.33	18.69	18.37	18.39	20.00
		1	13	18.61	18.73	18.83	18.57	18.45	20.00
		1	24	18.63	18.55	18.73	18.53	18.61	20.00
		12	0	19.15	18.93	18.83	19.25	18.97	20.00
		12	6	19.45	19.07	19.07	19.04	18.95	20.00
		12	13	19.29	19.05	18.85	18.88	19.05	20.00
		25	0	18.85	18.57	18.45	18.59	19.03	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
10MHz	QPSK	1	0	22.41	22.29	22.13	22.11	22.84	23.00
		1	25	22.60	22.38	22.07	22.56	22.84	23.00
		1	49	22.56	22.24	22.30	22.33	22.59	23.00
		25	0	22.54	22.12	22.08	22.40	22.63	23.00
		25	13	22.74	22.43	22.13	22.63	22.74	23.00
		25	25	22.65	22.03	22.24	22.31	22.53	23.00
		50	0	22.43	22.36	22.18	22.56	22.58	23.00
	16QAM	1	0	22.40	22.44	22.36	22.54	22.58	23.00
		1	25	22.67	22.61	22.55	22.77	22.83	23.00

		1	49	22.51	22.86	22.90	22.75	22.59	23.00	
		25	0	21.40	21.66	21.42	21.74	21.52	22.00	
		25	13	21.39	21.31	21.51	21.71	21.77	22.00	
		25	25	21.47	21.97	21.61	21.49	21.61	22.00	
		50	0	21.61	21.67	21.35	21.47	21.67	22.00	
		64QAM	1	0	21.33	21.41	21.25	21.19	21.53	22.00
			1	25	21.53	21.06	21.05	21.09	21.37	22.00
	1		49	21.46	21.66	21.46	21.38	21.50	22.00	
	25		0	20.25	20.71	20.65	20.45	20.29	22.00	
	25		13	20.48	21.08	21.06	20.90	20.68	22.00	
	25		25	20.83	20.87	20.71	20.85	20.43	22.00	
	256QAM	50	0	20.63	20.65	20.43	20.59	20.37	22.00	
		1	0	18.45	18.47	18.47	18.73	18.47	20.00	
		1	25	18.63	18.89	18.79	18.29	18.67	20.00	
		1	49	18.59	18.39	18.93	18.59	18.71	20.00	
		25	0	19.39	18.87	19.11	19.29	19.25	20.00	
		25	13	19.21	18.77	18.93	19.32	19.25	20.00	
		25	25	19.59	18.89	18.95	19.10	19.11	20.00	
	50	0	18.95	18.93	18.65	18.65	18.75	20.00		
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
					39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	22.47	22.25	22.27	22.19	22.54	23.00	
		1	38	22.68	22.24	22.13	22.64	22.80	23.00	
		1	74	22.60	22.06	22.14	22.53	22.71	23.00	
		36	0	22.66	22.36	22.08	22.64	22.67	23.00	
		36	18	22.58	22.29	22.29	22.61	22.68	23.00	
		36	39	22.45	22.11	22.30	22.39	22.65	23.00	
		75	0	22.71	22.12	22.26	22.62	22.80	23.00	
	16QAM	1	0	22.44	22.56	22.58	22.68	22.46	23.00	
		1	38	22.61	22.69	22.69	22.93	22.67	23.00	
		1	74	22.71	22.80	22.91	22.95	22.71	23.00	
		36	0	21.46	21.52	21.46	21.48	21.64	22.00	
		36	18	21.45	21.51	21.61	21.47	21.77	22.00	
		36	39	21.51	21.87	21.81	21.77	21.57	22.00	
		75	0	21.63	21.73	21.61	21.53	21.41	22.00	
	64QAM	1	0	21.25	21.43	21.35	21.33	21.37	22.00	
		1	38	21.47	21.19	21.19	21.11	21.51	22.00	
		1	74	21.18	21.40	21.60	21.56	21.50	22.00	
		36	0	20.35	20.57	20.55	20.57	20.31	22.00	
		36	18	20.58	21.26	21.10	20.86	20.84	22.00	
		36	39	20.73	20.91	20.83	20.71	20.67	22.00	
		75	0	20.65	20.41	20.63	20.41	20.57	22.00	
256QAM	1	0	18.51	18.51	18.81	18.65	18.51	20.00		

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	38	18.43	18.61	18.61	18.45	18.47	20.00
		1	74	18.85	18.45	18.91	18.39	18.85	20.00
		36	0	19.37	18.89	18.93	19.19	19.21	20.00
		36	18	19.29	18.83	19.23	19.12	19.15	20.00
		36	39	19.53	18.95	18.97	18.88	18.97	20.00
		75	0	18.75	18.77	18.83	18.81	18.83	20.00
	16QAM	1	0	22.43	22.19	22.13	22.27	22.64	23.00
		1	50	22.60	22.16	22.21	22.48	22.72	23.00
		1	99	22.48	22.12	22.12	22.41	22.63	23.00
		50	0	22.52	22.20	22.14	22.48	22.67	23.00
		50	25	22.54	22.21	22.21	22.43	22.68	23.00
		50	50	22.51	22.17	22.20	22.47	22.61	23.00
	64QAM	100	0	22.53	22.24	22.16	22.54	22.64	23.00
		1	0	22.48	22.52	22.44	22.54	22.54	23.00
		1	50	22.63	22.73	22.73	22.77	22.67	23.00
		1	99	22.65	22.82	22.93	22.87	22.73	23.00
		50	0	21.46	21.46	21.40	21.52	21.46	22.00
		50	25	21.51	21.37	21.45	21.55	21.65	22.00
	256QAM	50	50	21.51	21.75	21.75	21.63	21.65	22.00
		100	0	21.53	21.55	21.45	21.45	21.49	22.00
		1	0	21.19	21.39	21.41	21.37	21.33	22.00
		1	50	21.35	21.07	21.15	21.21	21.33	22.00
		1	99	21.28	21.48	21.44	21.40	21.38	22.00
		50	0	20.41	20.49	20.53	20.41	20.31	22.00
	256QAM	50	25	20.60	21.22	21.04	20.88	20.70	22.00
		50	50	20.61	21.01	20.85	20.71	20.53	22.00
		100	0	20.51	20.47	20.53	20.53	20.39	22.00
		1	0	18.53	18.49	18.65	18.51	18.39	20.00
1		50	18.55	18.69	18.71	18.43	18.53	20.00	
1		99	18.67	18.47	18.79	18.49	18.67	20.00	
256QAM	50	0	19.25	18.95	18.91	19.27	19.07	20.00	
	50	25	19.33	18.93	19.09	19.10	19.05	20.00	
	50	50	19.39	19.07	18.81	18.96	19.09	20.00	
	100	0	18.83	18.71	18.65	18.71	18.93	20.00	

LTE Band 48							
Normal power&Receiver off--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				56265/3652.5	56490/3675	56715/3697.5	
5MHz	QPSK	1	0	22.53	22.65	22.68	24.00
		1	13	22.50	22.94	22.83	24.00
		1	24	22.80	22.69	22.75	24.00
		12	0	21.49	21.59	21.78	23.00
		12	6	21.39	21.70	21.66	23.00
		12	13	21.46	21.74	21.80	23.00
		25	0	21.35	21.81	21.69	23.00
	16QAM	1	0	21.31	21.39	21.41	23.00
		1	13	21.67	21.65	21.67	23.00
		1	24	21.54	21.62	21.74	23.00
		12	0	20.91	20.71	20.79	21.50
		12	6	20.66	20.68	20.58	21.50
		12	13	20.53	20.69	20.77	21.50
		25	0	20.83	20.55	20.73	21.50
	64QAM	1	0	20.05	20.21	20.29	21.50
		1	13	19.96	20.28	20.10	21.50
		1	24	20.28	20.24	20.30	21.50
		12	0	19.44	19.18	19.18	20.50
		12	6	19.09	19.05	19.01	20.50
		12	13	19.02	19.22	19.12	20.50
		25	0	19.12	19.32	19.22	20.50
	256QAM	1	0	17.62	17.56	17.58	19.00
		1	13	17.82	17.60	17.58	19.00
		1	24	17.52	17.66	17.50	19.00
		12	0	18.12	18.16	17.98	19.00
		12	6	18.18	18.20	17.92	19.00
		12	13	18.22	18.00	17.96	19.00
		25	0	18.25	17.95	17.85	19.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				56290/3655	56490/3675	56690/3695	
10MHz	QPSK	1	0	22.45	22.47	22.48	24.00
		1	25	22.76	22.84	22.65	24.00
		1	49	22.60	22.71	22.79	24.00
		25	0	21.27	21.59	21.66	23.00
		25	13	21.49	21.70	21.74	23.00

		25	25	21.42	21.80	21.56	23.00	
		50	0	21.47	21.79	21.83	23.00	
	16QAM	1	0	21.39	21.29	21.23	23.00	
		1	25	21.69	21.51	21.43	23.00	
		1	49	21.74	21.72	21.72	23.00	
		25	0	20.71	20.81	20.93	21.50	
		25	13	20.54	20.70	20.64	21.50	
		25	25	20.45	20.45	20.65	21.50	
		50	0	20.75	20.61	20.67	21.50	
		64QAM	1	0	20.15	20.17	20.27	21.50
	1		25	20.00	20.18	19.96	21.50	
	1		49	20.26	20.24	20.36	21.50	
	25		0	19.48	19.32	19.32	20.50	
	25		13	19.21	19.09	19.03	20.50	
	25		25	18.98	19.08	18.84	20.50	
	50		0	19.10	19.28	19.36	20.50	
	256QAM		1	0	17.70	17.54	17.74	19.00
		1	25	17.78	17.54	17.86	19.00	
		1	49	17.44	17.56	17.46	19.00	
		25	0	18.06	18.04	17.82	19.00	
		25	13	18.04	18.04	17.90	19.00	
		25	25	18.50	17.92	18.10	19.00	
		50	0	18.25	18.25	17.99	19.00	
		Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)		
	56315/3657.5					56490/3675	56665/3692.5	
	15MHz	QPSK	1	0	22.35	22.75	22.68	24.00
1			38	22.70	22.94	22.81	24.00	
1			74	22.68	22.73	22.91	24.00	
36			0	21.53	21.71	21.84	23.00	
36			18	21.39	21.60	21.82	23.00	
36			39	21.62	21.70	21.68	23.00	
75			0	21.51	21.75	21.59	23.00	
16QAM			1	0	21.49	21.29	21.17	23.00
		1	38	21.45	21.69	21.73	23.00	
		1	74	21.64	21.52	21.60	23.00	
		36	0	20.71	20.71	20.73	21.50	
		36	18	20.84	20.74	20.64	21.50	
		36	39	20.79	20.75	20.49	21.50	
		75	0	20.85	20.67	20.85	21.50	
		64QAM	1	0	20.01	20.29	20.29	21.50

		1	38	19.90	20.04	19.96	21.50
		1	74	20.40	20.40	20.08	21.50
		36	0	19.52	19.08	19.26	20.50
		36	18	19.19	19.09	19.09	20.50
		36	39	19.02	19.14	19.14	20.50
		75	0	19.14	19.16	19.22	20.50
	256QAM	1	0	17.58	17.64	17.72	19.00
		1	38	17.88	17.80	17.76	19.00
		1	74	17.72	17.64	17.48	19.00
		36	0	18.18	18.20	17.96	19.00
		36	18	18.34	18.24	17.98	19.00
		36	39	18.32	18.18	18.20	19.00
		75	0	18.23	18.17	17.83	19.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				56340/3660	56490/3675	56640/3690	
20MHz	QPSK	1	0	22.43	22.63	22.64	24.00
		1	50	22.56	22.80	22.71	24.00
		1	99	22.64	22.77	22.83	24.00
		50	0	21.39	21.67	21.74	23.00
		50	25	21.41	21.68	21.70	23.00
		50	50	21.54	21.70	21.72	23.00
		100	0	21.43	21.69	21.71	23.00
	16QAM	1	0	21.37	21.41	21.29	23.00
		1	50	21.53	21.63	21.61	23.00
		1	99	21.64	21.58	21.66	23.00
		50	0	20.81	20.69	20.79	21.50
		50	25	20.72	20.72	20.64	21.50
		50	50	20.61	20.57	20.61	21.50
		100	0	20.83	20.65	20.69	21.50
	64QAM	1	0	20.13	20.13	20.19	21.50
		1	50	19.98	20.12	20.00	21.50
		1	99	20.26	20.22	20.14	21.50
		50	0	19.42	19.12	19.26	20.50
		50	25	19.07	19.11	19.03	20.50
		50	50	19.02	19.14	19.02	20.50
		100	0	19.14	19.20	19.24	20.50
	256QAM	1	0	17.70	17.54	17.54	19.00
		1	50	17.72	17.68	17.66	19.00
		1	99	17.54	17.50	17.40	19.00
50		0	18.14	18.02	17.92	19.00	

		50	25	18.20	18.06	17.88	19.00
		50	50	18.30	18.08	18.06	19.00
		100	0	18.15	18.05	17.93	19.00

LTE Band 48							
Receiver on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				56265/3652.5	56490/3675	56715/3697.5	
5MHz	QPSK	1	0	20.36	20.66	20.56	22.00
		1	13	20.57	20.72	20.72	22.00
		1	24	20.45	20.49	20.75	22.00
		12	0	20.53	20.62	20.81	22.00
		12	6	20.54	20.68	20.62	22.00
		12	13	20.68	20.56	20.75	22.00
		25	0	20.47	20.53	20.84	22.00
	16QAM	1	0	20.28	20.52	20.42	22.00
		1	13	20.39	20.65	20.45	22.00
		1	24	20.66	20.52	20.78	22.00
		12	0	20.91	20.51	20.63	22.00
		12	6	20.93	20.73	20.59	22.00
		12	13	20.68	20.72	20.44	22.00
		25	0	20.47	20.59	20.55	22.00
	64QAM	1	0	20.08	20.18	20.10	22.00
		1	13	20.62	20.22	20.32	22.00
		1	24	20.23	20.21	20.27	22.00
		12	0	19.37	19.21	19.15	20.50
		12	6	19.31	19.23	19.35	20.50
		12	13	19.45	19.29	19.53	20.50
		25	0	19.18	19.30	19.30	20.50
	256QAM	1	0	17.66	17.58	17.42	19.00
		1	13	17.83	17.53	17.61	19.00
		1	24	17.87	17.71	17.29	19.00
		12	0	17.64	17.82	17.68	19.00
		12	6	17.86	17.92	17.96	19.00
		12	13	18.00	18.20	17.86	19.00
		25	0	18.07	18.09	17.77	19.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				56290/3655	56490/3675	56690/3695	
10MHz	QPSK	1	0	20.16	20.50	20.60	22.00
		1	25	20.41	20.44	20.76	22.00

		1	49	20.57	20.51	20.73	22.00	
		25	0	20.51	20.58	20.57	22.00	
		25	13	20.68	20.42	20.62	22.00	
		25	25	20.62	20.64	20.71	22.00	
		50	0	20.51	20.45	20.90	22.00	
	16QAM	1	0	20.36	20.40	20.38	22.00	
		1	25	20.21	20.41	20.25	22.00	
		1	49	20.66	20.76	20.48	22.00	
		25	0	20.69	20.67	20.91	22.00	
		25	13	20.83	20.47	20.79	22.00	
		25	25	20.70	20.54	20.36	22.00	
		50	0	20.43	20.49	20.69	22.00	
	64QAM	1	0	20.04	20.18	20.38	22.00	
		1	25	20.44	20.10	20.62	22.00	
		1	49	20.23	20.07	20.05	22.00	
		25	0	19.31	19.21	19.39	20.50	
		25	13	19.53	19.21	19.29	20.50	
		25	25	19.33	19.09	19.41	20.50	
		50	0	19.06	19.28	19.14	20.50	
	256QAM	1	0	17.49	17.31	17.55	19.00	
		1	25	17.81	17.55	17.55	19.00	
		1	49	17.67	17.49	17.15	19.00	
		25	0	17.92	17.70	17.94	19.00	
		25	13	18.02	18.10	18.02	19.00	
		25	25	17.88	18.06	17.98	19.00	
		50	0	17.93	17.95	17.87	19.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
	15MHz	QPSK	1	0	20.48	20.70	20.50	22.00
1			38	20.31	20.68	20.62	22.00	
1			74	20.69	20.47	20.89	22.00	
36			0	20.37	20.62	20.53	22.00	
36			18	20.40	20.44	20.56	22.00	
36			39	20.62	20.56	20.71	22.00	
75			0	20.31	20.63	20.74	22.00	
16QAM		1	0	20.38	20.38	20.38	22.00	
		1	38	20.35	20.51	20.55	22.00	
		1	74	20.68	20.66	20.60	22.00	
		36	0	20.97	20.69	20.87	22.00	
		36	18	20.65	20.71	20.63	22.00	

		36	39	20.76	20.78	20.52	22.00
		75	0	20.51	20.63	20.61	22.00
	64QAM	1	0	20.00	20.16	20.20	22.00
		1	38	20.60	20.22	20.28	22.00
		1	74	20.15	20.13	20.17	22.00
		36	0	19.25	19.05	19.37	20.50
		36	18	19.41	19.35	19.41	20.50
		36	39	19.49	19.35	19.31	20.50
		75	0	19.10	19.18	19.28	20.50
	256QAM	1	0	17.71	17.53	17.55	19.00
		1	38	17.87	17.65	17.43	19.00
		1	74	17.73	17.71	17.35	19.00
		36	0	17.60	17.88	17.80	19.00
		36	18	17.82	17.78	17.88	19.00
36		39	18.00	18.12	17.76	19.00	
75		0	18.27	18.13	17.89	19.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				56340/3660	56490/3675	56640/3690	
20MHz	QPSK	1	0	20.32	20.54	20.56	22.00
		1	50	20.41	20.62	20.64	22.00
		1	99	20.51	20.57	20.81	22.00
		50	0	20.43	20.64	20.65	22.00
		50	25	20.50	20.56	20.58	22.00
		50	50	20.54	20.54	20.81	22.00
		100	0	20.37	20.55	20.68	22.00
	16QAM	1	0	20.24	20.44	20.34	22.00
		1	50	20.35	20.51	20.41	22.00
		1	99	20.52	20.56	20.64	22.00
		50	0	20.81	20.57	20.73	22.00
		50	25	20.77	20.63	20.61	22.00
		50	50	20.60	20.60	20.52	22.00
		100	0	20.51	20.55	20.53	22.00
	64QAM	1	0	20.08	20.12	20.18	22.00
		1	50	20.52	20.24	20.40	22.00
		1	99	20.27	20.21	20.15	22.00
		50	0	19.37	19.13	19.21	20.50
		50	25	19.39	19.23	19.31	20.50
		50	50	19.31	19.25	19.37	20.50
		100	0	19.06	19.24	19.16	20.50
256QAM	1	0	17.67	17.49	17.43	19.00	

		1	50	17.69	17.51	17.55	19.00
		1	99	17.73	17.57	17.25	19.00
		50	0	17.70	17.82	17.74	19.00
		50	25	17.84	17.90	17.80	19.00
		50	50	17.90	18.04	17.82	19.00
		100	0	18.09	17.97	17.81	19.00

LTE Band 48							
Hotspot on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				56265/3652.5	56490/3675	56715/3697.5	
5MHz	QPSK	1	0	21.28	21.67	21.61	23.00
		1	13	21.57	21.73	21.71	23.00
		1	24	21.53	21.62	21.96	23.00
		12	0	21.46	21.50	21.82	23.00
		12	6	21.54	21.62	21.78	23.00
		12	13	21.49	21.76	21.77	23.00
		25	0	21.55	21.75	21.71	23.00
	16QAM	1	0	21.43	21.27	21.29	23.00
		1	13	21.79	21.53	21.83	23.00
		1	24	21.69	21.41	21.51	23.00
		12	0	20.34	20.62	20.46	22.00
		12	6	20.53	20.65	20.43	22.00
		12	13	20.58	20.48	20.56	22.00
		25	0	20.55	20.55	20.71	22.00
	64QAM	1	0	20.37	20.11	20.35	22.00
		1	13	20.20	20.30	20.24	22.00
		1	24	20.60	20.26	20.48	22.00
		12	0	19.04	19.00	19.16	20.50
		12	6	19.54	19.26	19.32	20.50
		12	13	19.06	19.24	19.16	20.50
		25	0	19.45	19.23	19.21	20.50
	256QAM	1	0	17.47	17.43	17.35	19.00
		1	13	17.81	17.41	17.37	19.00
		1	24	17.77	17.59	17.43	19.00
		12	0	17.87	17.85	17.85	19.00
		12	6	17.91	17.91	17.93	19.00
		12	13	18.05	18.15	18.09	19.00
		25	0	17.86	17.76	17.78	19.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				56290/3655	56490/3675	56690/3695	
10MHz	QPSK	1	0	21.46	21.41	21.71	23.00
		1	25	21.41	21.65	21.65	23.00
		1	49	21.71	21.80	21.66	23.00
		25	0	21.22	21.74	21.76	23.00
		25	13	21.30	21.66	22.00	23.00
		25	25	21.29	21.50	21.67	23.00
		50	0	21.29	21.79	21.85	23.00
	16QAM	1	0	21.13	21.23	21.39	23.00
		1	25	21.51	21.45	21.73	23.00
		1	49	21.55	21.41	21.43	23.00
		25	0	20.62	20.60	20.46	22.00
		25	13	20.65	20.65	20.55	22.00
		25	25	20.38	20.72	20.72	22.00
		50	0	20.75	20.65	20.65	22.00
	64QAM	1	0	20.49	20.33	20.13	22.00
		1	25	20.26	20.12	20.03	22.00
		1	49	20.54	20.36	20.48	22.00
		25	0	19.08	19.08	18.86	20.50
		25	13	19.62	18.98	19.48	20.50
		25	25	19.04	19.14	19.14	20.50
		50	0	19.13	19.07	19.35	20.50
	256QAM	1	0	17.41	17.23	17.47	19.00
		1	25	17.87	17.35	17.59	19.00
		1	49	17.65	17.65	17.37	19.00
		25	0	18.07	17.73	17.79	19.00
		25	13	18.13	18.03	17.77	19.00
		25	25	18.11	18.13	18.11	19.00
		50	0	17.96	18.04	17.64	19.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				56315/3657.5	56490/3675	56665/3692.5	
15MHz	QPSK	1	0	21.44	21.41	21.51	23.00
		1	38	21.51	21.51	21.77	23.00
		1	74	21.43	21.66	21.94	23.00
		36	0	21.34	21.58	21.80	23.00
		36	18	21.42	21.56	21.78	23.00
		36	39	21.55	21.72	21.89	23.00
		75	0	21.45	21.59	21.79	23.00
	16QAM	1	0	21.35	21.33	21.41	23.00

		1	38	21.59	21.49	21.85	23.00
		1	74	21.73	21.41	21.69	23.00
		36	0	20.46	20.48	20.32	22.00
		36	18	20.59	20.51	20.63	22.00
		36	39	20.74	20.72	20.66	22.00
		75	0	20.77	20.65	20.65	22.00
		64QAM	1	0	20.19	20.35	20.27
	1	38	20.06	20.20	20.30	22.00	
	1	74	20.62	20.24	20.42	22.00	
	36	0	19.16	19.08	19.08	20.50	
	36	18	19.54	19.26	19.44	20.50	
	36	39	19.34	19.34	19.08	20.50	
	75	0	19.47	19.13	19.21	20.50	
	256QAM	1	0	17.65	17.29	17.51	19.00
	1	38	17.65	17.51	17.29	19.00	
	1	74	17.61	17.65	17.39	19.00	
	36	0	18.03	17.81	17.99	19.00	
	36	18	17.91	18.09	17.87	19.00	
	36	39	18.09	18.03	17.95	19.00	
	75	0	18.12	17.96	17.90	19.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)		
56340/3660					56490/3675	56640/3690	
20MHz	QPSK	1	0	21.34	21.51	21.59	23.00
		1	50	21.47	21.63	21.71	23.00
		1	99	21.55	21.72	21.80	23.00
		50	0	21.34	21.56	21.78	23.00
		50	25	21.40	21.54	21.80	23.00
		50	50	21.47	21.68	21.83	23.00
		100	0	21.41	21.67	21.81	23.00
	16QAM	1	0	21.27	21.37	21.27	23.00
		1	50	21.65	21.59	21.77	23.00
		1	99	21.57	21.51	21.53	23.00
		50	0	20.40	20.52	20.42	22.00
		50	25	20.57	20.63	20.51	22.00
		50	50	20.56	20.56	20.64	22.00
		100	0	20.65	20.63	20.63	22.00
	64QAM	1	0	20.27	20.19	20.29	22.00
		1	50	20.06	20.16	20.12	22.00
		1	99	20.68	20.36	20.52	22.00
		50	0	19.12	19.02	19.04	20.50

		50	25	19.40	19.16	19.34	20.50
		50	50	19.16	19.20	19.14	20.50
		100	0	19.29	19.13	19.13	20.50
	256QAM	1	0	17.57	17.39	17.47	19.00
		1	50	17.67	17.37	17.37	19.00
		1	99	17.65	17.57	17.49	19.00
		50	0	17.91	17.85	17.85	19.00
		50	25	17.97	17.95	17.77	19.00
		50	50	18.01	18.07	18.05	19.00
		100	0	18.04	17.94	17.78	19.00

LTE Band 66							
Normal power&Receiver on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	24.10	23.65	23.69	25.00
		1	2	23.71	23.85	23.86	25.00
		1	5	23.64	23.87	23.57	25.00
		3	0	23.61	23.49	23.54	25.00
		3	2	23.68	23.45	23.26	25.00
		3	3	23.38	23.36	23.28	25.00
		6	0	22.57	22.56	22.59	24.00
	16QAM	1	0	23.28	22.78	22.71	24.00
		1	2	23.19	22.74	22.37	24.00
		1	5	22.88	22.94	22.82	24.00
		3	0	22.53	22.45	22.50	24.00
		3	2	22.67	22.50	22.19	24.00
		3	3	22.56	22.25	22.21	24.00
		6	0	21.72	21.67	21.74	23.00
	64QAM	1	0	22.06	22.19	21.98	23.00
		1	2	21.93	22.00	21.84	23.00
		1	5	21.90	21.98	21.79	23.00
		3	0	21.48	21.50	21.43	23.00
		3	2	21.37	21.60	21.58	23.00
		3	3	21.56	21.42	21.39	23.00
		6	0	20.88	20.45	20.38	22.00
	256QAM	1	0	19.46	19.38	19.52	20.00
		1	2	19.02	19.40	19.64	20.00
		1	5	18.96	19.30	19.34	20.00
		3	0	18.65	18.71	18.69	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	3	2	18.79	18.99	18.97	20.00
		3	3	18.81	18.55	18.79	20.00
		6	0	18.95	18.85	18.81	20.00
		1	0	24.00	23.63	23.65	25.00
		1	7	23.87	23.87	23.64	25.00
		1	14	23.96	23.93	23.43	25.00
		8	0	22.75	22.63	22.36	24.00
	8	4	22.68	22.71	22.40	24.00	
	8	7	22.62	22.48	22.48	24.00	
	15	0	22.69	22.70	22.35	24.00	
	1	0	23.00	22.60	22.57	24.00	
	1	7	23.03	22.72	22.63	24.00	
	1	14	23.10	22.68	22.86	24.00	
	8	0	21.75	21.55	21.60	23.00	
	8	4	21.77	21.74	21.67	23.00	
	8	7	21.74	21.61	21.43	23.00	
	15	0	21.86	21.73	21.48	23.00	
	1	0	22.02	22.07	21.76	23.00	
	1	7	22.01	21.80	21.58	23.00	
	1	14	21.88	21.98	21.73	23.00	
	8	0	20.70	20.60	20.45	22.00	
	8	4	20.65	20.62	20.72	22.00	
	8	7	20.54	20.46	20.39	22.00	
	15	0	20.74	20.57	20.48	22.00	
	1	0	19.28	19.20	19.28	20.00	
	1	7	19.28	19.36	19.54	20.00	
	1	14	19.32	19.28	19.34	20.00	
8	0	18.91	18.87	18.77	20.00		
8	4	18.85	18.75	18.99	20.00		
8	7	19.07	18.81	18.81	20.00		
15	0	18.93	18.77	18.91	20.00		
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	23.78	23.73	23.69	25.00
		1	13	23.91	23.79	23.70	25.00
		1	24	23.70	23.65	23.51	25.00
		12	0	22.55	22.63	22.56	24.00
		12	6	22.58	22.55	22.56	24.00

		12	13	22.80	22.60	22.32	24.00	
		25	0	22.47	22.36	22.29	24.00	
	16QAM	1	0	22.84	22.64	22.75	24.00	
		1	13	23.19	22.72	22.47	24.00	
		1	24	22.84	22.58	22.60	24.00	
		12	0	21.69	21.41	21.62	23.00	
		12	6	21.79	21.68	21.43	23.00	
		12	13	21.68	21.45	21.31	23.00	
		25	0	21.80	21.61	21.56	23.00	
	64QAM	1	0	21.96	21.93	21.74	23.00	
		1	13	22.11	21.62	21.58	23.00	
		1	24	21.70	21.84	21.61	23.00	
		12	0	20.60	20.74	20.35	22.00	
		12	6	20.73	20.64	20.38	22.00	
		12	13	20.60	20.40	20.43	22.00	
		25	0	20.60	20.37	20.28	22.00	
	256QAM	1	0	19.30	19.12	19.18	20.00	
		1	13	19.10	19.24	19.38	20.00	
		1	24	19.18	19.18	19.34	20.00	
		12	0	18.63	18.85	18.63	20.00	
		12	6	18.75	18.67	19.01	20.00	
		12	13	18.99	18.81	18.83	20.00	
		25	0	18.89	18.69	18.73	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
					132022/1715	132322/1745	132622/1775	
	10MHz	QPSK	1	0	23.84	23.77	23.63	25.00
			1	25	24.01	23.83	23.66	25.00
			1	49	23.70	23.91	23.65	25.00
25			0	22.73	22.59	22.60	24.00	
25			13	22.82	22.39	22.60	24.00	
25			25	22.62	22.54	22.36	24.00	
50			0	22.61	22.40	22.31	24.00	
16QAM		1	0	23.04	22.64	22.71	24.00	
		1	25	23.01	22.54	22.45	24.00	
		1	49	22.78	22.90	23.00	24.00	
		25	0	21.99	21.59	21.60	23.00	
		25	13	21.85	21.72	21.63	23.00	
		25	25	21.86	21.67	21.45	23.00	
		50	0	21.74	21.57	21.48	23.00	
64QAM		1	0	21.96	21.97	21.98	23.00	

		1	25	22.07	21.82	21.64	23.00
		1	49	21.84	22.00	21.55	23.00
		25	0	20.94	20.48	20.65	22.00
		25	13	20.71	20.52	20.74	22.00
		25	25	20.72	20.62	20.59	22.00
		50	0	20.70	20.67	20.56	22.00
	256QAM	1	0	19.04	19.14	19.26	20.00
		1	25	19.12	19.46	19.64	20.00
		1	49	19.28	19.22	19.38	20.00
		25	0	18.69	18.87	18.77	20.00
		25	13	18.73	18.93	18.83	20.00
		25	25	18.87	19.05	18.85	20.00
	50	0	18.87	19.03	18.65	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	23.92	23.79	23.85	25.00
		1	38	23.89	23.91	23.56	25.00
		1	74	23.82	23.75	23.71	25.00
		36	0	22.79	22.71	22.36	24.00
		36	18	22.78	22.71	22.46	24.00
		36	39	22.74	22.42	22.40	24.00
		75	0	22.77	22.46	22.53	24.00
	16QAM	1	0	22.96	22.60	22.73	24.00
		1	38	23.13	22.62	22.69	24.00
		1	74	22.94	22.62	22.76	24.00
		36	0	21.95	21.77	21.58	23.00
		36	18	21.93	21.82	21.43	23.00
		36	39	21.66	21.75	21.63	23.00
		75	0	21.62	21.67	21.52	23.00
	64QAM	1	0	22.06	21.89	21.68	23.00
		1	38	22.23	21.64	21.60	23.00
		1	74	21.78	22.00	21.51	23.00
		36	0	20.82	20.64	20.43	22.00
		36	18	20.67	20.64	20.50	22.00
		36	39	20.80	20.56	20.37	22.00
		75	0	20.62	20.61	20.46	22.00
	256QAM	1	0	19.22	19.40	19.28	20.00
		1	38	19.20	19.28	19.52	20.00
		1	74	19.14	19.12	19.44	20.00
		36	0	18.89	18.95	18.71	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up	
				132072/1720	132322/1745	132572/1770		
20MHz		36	18	18.99	18.87	18.81	20.00	
		36	39	18.91	18.93	19.05	20.00	
		75	0	18.73	18.91	18.93	20.00	
	QPSK	1	0	23.86	23.69	23.69	25.00	
		1	50	23.87	23.79	23.68	25.00	
		1	99	23.80	23.77	23.53	25.00	
		50	0	22.75	22.61	22.46	24.00	
		50	25	22.66	22.55	22.48	24.00	
		50	50	22.70	22.52	22.42	24.00	
		100	0	22.67	22.54	22.45	24.00	
		16QAM	1	0	23.04	22.70	22.65	24.00
			1	50	23.11	22.66	22.51	24.00
			1	99	22.96	22.72	22.80	24.00
			50	0	21.81	21.61	21.56	23.00
			50	25	21.75	21.68	21.51	23.00
			50	50	21.68	21.57	21.49	23.00
			100	0	21.72	21.57	21.50	23.00
		64QAM	1	0	22.02	21.95	21.78	23.00
			1	50	22.05	21.76	21.66	23.00
			1	99	21.80	21.82	21.63	23.00
			50	0	20.72	20.66	20.49	22.00
			50	25	20.67	20.56	20.58	22.00
			50	50	20.62	20.50	20.41	22.00
			100	0	20.66	20.57	20.46	22.00
	256QAM	1	0	19.22	19.26	19.36	20.00	
		1	50	19.18	19.26	19.44	20.00	
		1	99	19.18	19.14	19.44	20.00	
		50	0	18.75	18.81	18.77	20.00	
50		25	18.87	18.81	18.91	20.00		
50		50	18.97	18.83	18.87	20.00		
100		0	18.85	18.83	18.77	20.00		

LTE Band 66							
Receiver off&Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	20.30	20.39	20.27	21.00
		1	2	20.61	20.39	20.36	21.00
		1	5	20.53	20.20	20.30	21.00
		3	0	20.57	20.22	20.34	21.00
		3	2	20.44	20.40	20.37	21.00
		3	3	20.57	20.42	20.17	21.00
		6	0	20.36	20.18	20.25	21.00
	16QAM	1	0	20.43	20.43	20.53	21.00
		1	2	20.80	20.72	20.74	21.00
		1	5	20.20	20.32	20.32	21.00
		3	0	20.56	20.34	20.62	21.00
		3	2	20.65	20.35	20.55	21.00
		3	3	20.56	20.46	20.56	21.00
		6	0	20.40	20.32	20.28	21.00
	64QAM	1	0	20.75	20.79	20.89	21.00
		1	2	20.62	20.54	20.60	21.00
		1	5	20.68	20.82	20.64	21.00
		3	0	20.39	20.45	20.35	21.00
		3	2	20.55	20.33	20.35	21.00
		3	3	20.17	20.37	20.17	21.00
		6	0	20.45	20.43	20.53	21.00
	256QAM	1	0	19.31	19.27	19.39	20.00
		1	2	18.75	18.67	18.87	20.00
		1	5	18.95	19.01	19.15	20.00
3		0	18.41	18.85	18.65	20.00	
3		2	18.81	19.03	18.83	20.00	
3		3	18.51	18.81	18.47	20.00	
6		0	18.99	18.59	18.97	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	131987/1711.5	132322/1745	132657/1778.5	21.00
		1	7	20.43	20.37	20.56	21.00
		1	14	20.23	20.04	20.52	21.00
		8	0	20.81	20.26	20.06	21.00
		8	4	20.36	20.38	20.45	21.00

		8	7	20.73	20.60	20.57	21.00	
		15	0	20.28	20.32	20.49	21.00	
	16QAM	1	0	20.59	20.45	20.31	21.00	
		1	7	20.66	20.70	20.90	21.00	
		1	14	20.10	20.20	20.36	21.00	
		8	0	20.60	20.48	20.44	21.00	
		8	4	20.87	20.63	20.53	21.00	
		8	7	20.36	20.32	20.54	21.00	
		15	0	20.40	20.12	20.26	21.00	
	64QAM	1	0	20.67	20.85	20.71	21.00	
		1	7	20.38	20.64	20.60	21.00	
		1	14	20.94	20.58	20.66	21.00	
		8	0	20.51	20.59	20.43	21.00	
		8	4	20.59	20.25	20.57	21.00	
		8	7	20.33	20.25	20.43	21.00	
		15	0	20.59	20.61	20.41	21.00	
	256QAM	1	0	19.27	19.03	19.13	20.00	
		1	7	18.69	18.57	18.83	20.00	
		1	14	19.27	19.33	19.35	20.00	
		8	0	18.61	18.63	18.85	20.00	
		8	4	18.81	18.81	18.71	20.00	
		8	7	18.73	18.87	18.73	20.00	
		15	0	18.59	18.61	18.87	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
					131997/1712.5	132322/1745	132647/1777.5	
	5MHz	QPSK	1	0	20.54	20.53	20.49	21.00
			1	13	20.57	20.25	20.62	21.00
			1	24	20.37	20.38	20.54	21.00
12			0	20.59	20.34	20.28	21.00	
12			6	20.46	20.54	20.35	21.00	
12			13	20.63	20.34	20.23	21.00	
25			0	20.54	20.48	20.59	21.00	
16QAM		1	0	20.65	20.49	20.63	21.00	
		1	13	20.86	20.86	20.98	21.00	
		1	24	20.34	20.32	20.40	21.00	
		12	0	20.42	20.46	20.46	21.00	
		12	6	20.83	20.43	20.47	21.00	
		12	13	20.58	20.48	20.44	21.00	
		25	0	20.46	20.44	20.40	21.00	
64QAM		1	0	20.89	20.76	20.99	21.00	

		1	13	20.56	20.82	20.76	21.00
		1	24	20.76	20.80	20.64	21.00
		12	0	20.59	20.43	20.47	21.00
		12	6	20.69	20.51	20.35	21.00
		12	13	20.39	20.21	20.25	21.00
		25	0	20.61	20.49	20.65	21.00
	256QAM	1	0	19.31	19.11	19.41	20.00
		1	13	18.81	18.71	18.85	20.00
		1	24	19.03	19.25	19.47	20.00
		12	0	18.75	18.59	18.73	20.00
		12	6	18.57	18.79	18.67	20.00
		12	13	18.79	18.85	18.59	20.00
			25	0	18.93	18.61	18.83
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	20.68	20.63	20.65	21.00
		1	25	20.55	20.49	20.56	21.00
		1	49	20.53	20.18	20.40	21.00
		25	0	20.63	20.46	20.40	21.00
		25	13	20.46	20.38	20.47	21.00
		25	25	20.63	20.14	20.47	21.00
		50	0	20.76	20.44	20.55	21.00
	16QAM	1	0	20.65	20.67	20.81	21.00
		1	25	20.90	20.62	20.92	21.00
		1	49	20.06	20.38	20.12	21.00
		25	0	20.48	20.60	20.46	21.00
		25	13	20.59	20.31	20.69	21.00
		25	25	20.42	20.34	20.62	21.00
		50	0	20.32	20.32	20.26	21.00
	64QAM	1	0	20.83	20.62	20.88	21.00
		1	25	20.76	20.68	20.58	21.00
		1	49	20.94	20.82	20.76	21.00
		25	0	20.79	20.35	20.49	21.00
		25	13	20.83	20.45	20.27	21.00
		25	25	20.29	20.21	20.13	21.00
		50	0	20.69	20.27	20.51	21.00
	256QAM	1	0	19.33	18.99	19.15	20.00
		1	25	18.67	18.79	18.97	20.00
		1	49	19.39	19.23	19.25	20.00
		25	0	18.73	18.75	18.67	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
		25	13	18.91	18.89	18.73	20.00
		25	25	18.91	18.97	18.87	20.00
		50	0	18.65	18.85	18.83	20.00
15MHz	QPSK	1	0	20.46	20.45	20.45	21.00
		1	38	20.63	20.37	20.44	21.00
		1	74	20.39	20.30	20.48	21.00
		36	0	20.69	20.52	20.42	21.00
		36	18	20.68	20.48	20.35	21.00
		36	39	20.39	20.38	20.33	21.00
		75	0	20.60	20.24	20.55	21.00
	16QAM	1	0	20.73	20.49	20.57	21.00
		1	38	20.70	20.70	20.92	21.00
		1	74	20.32	20.42	20.24	21.00
		36	0	20.38	20.66	20.60	21.00
		36	18	20.85	20.63	20.47	21.00
		36	39	20.34	20.32	20.54	21.00
		75	0	20.34	20.42	20.28	21.00
	64QAM	1	0	20.80	20.92	20.84	21.00
		1	38	20.66	20.64	20.90	21.00
		1	74	20.74	20.84	20.66	21.00
		36	0	20.75	20.63	20.51	21.00
		36	18	20.55	20.29	20.41	21.00
		36	39	20.43	20.49	20.49	21.00
		75	0	20.63	20.51	20.47	21.00
	256QAM	1	0	19.35	19.29	19.39	20.00
		1	38	18.73	18.57	18.65	20.00
		1	74	19.07	19.17	19.43	20.00
		36	0	18.81	18.75	18.69	20.00
		36	18	18.81	19.01	18.87	20.00
		36	39	18.79	18.73	18.67	20.00
		75	0	18.91	18.87	18.87	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	20.48	20.51	20.45	21.00
		1	50	20.53	20.35	20.50	21.00
		1	99	20.43	20.32	20.44	21.00
		50	0	20.57	20.42	20.30	21.00
		50	25	20.50	20.40	20.33	21.00

		50	50	20.49	20.32	20.31	21.00
		100	0	20.54	20.34	20.43	21.00
	16QAM	1	0	20.63	20.57	20.61	21.00
		1	50	20.76	20.70	20.88	21.00
		1	99	20.18	20.34	20.26	21.00
		50	0	20.46	20.50	20.56	21.00
		50	25	20.67	20.45	20.51	21.00
		50	50	20.46	20.36	20.52	21.00
		100	0	20.34	20.42	20.38	21.00
	64QAM	1	0	20.93	20.95	20.97	21.00
		1	50	20.66	20.66	20.76	21.00
		1	99	20.76	20.74	20.74	21.00
		50	0	20.57	20.51	20.43	21.00
		50	25	20.61	20.39	20.45	21.00
		50	50	20.37	20.31	20.31	21.00
		100	0	20.63	20.43	20.55	21.00
	256QAM	1	0	19.21	19.11	19.27	20.00
		1	50	18.75	18.65	18.75	20.00
		1	99	19.17	19.17	19.37	20.00
		50	0	18.67	18.69	18.71	20.00
		50	25	18.69	18.85	18.71	20.00
		50	50	18.81	18.77	18.67	20.00
		100	0	18.77	18.71	18.87	20.00

9.4 CA Mode

UL CA

CA Combination	Test Scenario	Modulation	PCC							SCC					output power		
			PCC Band	PCC Bandwidth (MHz)	PCC UL RB size	PCC UL RB offset	PCC UL Channel	f _{UL} [MHz]	PCC DL Channel	SCC Band	SCC Bandwidth (MHz)	SCC UL Channel	f _{UL} [MHz]	SCC UL RB size	SCC UL RB offset	conducted power (dbm)	Tune up (dbm)
CA_7C ANT3 MAIN	Normal power	QPSK	7	20	1	99	20850	2510	2850	7	20	21048	2529.8	1	0	24.42	25.00
		QPSK	7	20	1	99	21001	2525.1	3001	7	20	21199	2544.9	1	0	23.84	25.00
		QPSK	7	20	1	0	21350	2560	3350	7	20	21152	2540.2	1	99	23.32	25.00
CA_7C ANT3 MAIN	Receiver on	QPSK	7	20	1	99	20850	2510	2850	7	20	21048	2529.8	1	0	20.41	20.50
		QPSK	7	20	1	99	21001	2525.1	3001	7	20	21199	2544.9	1	0	19.97	20.50
		QPSK	7	20	1	0	21350	2560	3350	7	20	21152	2540.2	1	99	19.22	20.50
CA_7C ANT3 MAIN	Receiver off	QPSK	7	20	1	99	20850	2510	2850	7	20	21048	2529.8	1	0	22.42	22.50
		QPSK	7	20	1	99	21001	2525.1	3001	7	20	21199	2544.9	1	0	21.94	22.50
		QPSK	7	20	1	0	21350	2560	3350	7	20	21152	2540.2	1	99	21.22	22.50
CA_7C ANT3 MAIN	Hotspot on	QPSK	7	20	1	99	20850	2510	2850	7	20	21048	2529.8	1	0	21.46	21.50
		QPSK	7	20	1	99	21001	2525.1	3001	7	20	21199	2544.9	1	0	20.95	21.50
		QPSK	7	20	1	0	21350	2560	3350	7	20	21152	2540.2	1	99	20.25	21.50
CA_41C ANT3 MAIN	Normal power&Receiver off	QPSK	41	20	1	99	39750	2506	39750	41	20	39948	2525.8	1	0	24.51	25.00
		QPSK	41	20	1	99	40521	2583.1	40521	41	20	40719	2602.9	1	0	23.02	25.00
		QPSK	41	20	1	0	41490	2680	41490	41	20	41292	2660.2	1	99	24.22	25.00
CA_41C ANT3 MAIN	Receiver on	QPSK	41	20	1	99	39750	2506	39750	41	20	39948	2525.8	1	0	22.44	22.50
		QPSK	41	20	1	99	40521	2583.1	40521	41	20	40719	2602.9	1	0	20.70	22.50
		QPSK	41	20	1	0	41490	2680	41490	41	20	41292	2660.2	1	99	22.31	22.50
CA_41C ANT3 MAIN	Hotspot on	QPSK	41	20	1	99	39750	2506	39750	41	20	39948	2525.8	1	0	22.62	23.00
		QPSK	41	20	1	99	40521	2583.1	40521	41	20	40719	2602.9	1	0	21.01	23.00
		QPSK	41	20	1	0	41490	2680	41490	41	20	41292	2660.2	1	99	22.31	23.00

DL CA

DL Intra Band Contiguous Measured Results																			
CA configuration	CC1 UL					CC2 DL			CC3 DL			CC4 DL			Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta
	Modle	BW (MHz)	Channel	Fre (MHz)	RB, Offset	BW (MHz)	Channel	Fre (MHz)	BW (MHz)	Channel	Fre (MHz)	BW (MHz)	Channel	Fre (MHz)					
CA_2C	QPSK	20	18801	1870.1	1,50	20	999	1969.9	/	/	/	/	/	/	40	0	23.68	23.68	0
CA_7C	QPSK	20	21001	2525.1	1,50	20	3199	2664.9	/	/	/	/	/	/	40	0	23.92	24.00	-0.08
CA_48B	QPSK	15	56391	3665.1	1,38	5	56589	3684.9	/	/	/	/	/	/	20	0	22.94	22.94	0
CA_41C	QPSK	20	40521	2583.1	1,50	20	40719	2602.9	/	/	/	/	/	/	40	0	23.70	23.79	-0.09
DL Intra Band Non-Contiguous Measured Results																			
CA configuration	CC1 UL					CC2 DL			CC3 DL			CC4 DL			Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta
	Modle	BW (MHz)	Channel	Fre (MHz)	RB, Offset	BW (MHz)	Channel	Fre (MHz)	BW (MHz)	Channel	Fre (MHz)	BW(MHz)	Channel	Fre(MHz)					
CA_7A-7A	QPSK	20	20850	2510	1,50	20	3350	2680	/	/	/	/	/	/	40	0	24.00	24.00	0
CA_41A-41A	QPSK	20	39750	2506	1,50	20	41490	2680	/	/	/	/	/	/	40	0	23.79	23.79	0
DL Inter Band(2 Bands)Measured Results																			
CA configuration	CC1 UL					CC2 DL			CC3 DL			CC4 DL			Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta
	Modle	BW (MHz)	Channel	Fre (MHz)	RB, Offset	BW (MHz)	Channel	Fre (MHz)	BW (MHz)	Channel	Fre (MHz)	BW(MHz)	Channel	Fre(MHz)					
CA_2A-7A	QPSK	20	18900	1880	1,0	20	3100	2655	/	/	/	/	/	/	40	0	23.55	23.68	-0.13
CA_2A-38A	QPSK	20	18900	1880	1,0	20	38000	2595	/	/	/	/	/	/	40	0	23.68	23.68	0
CA_4A-5A	QPSK	20	20175	1732.5	1,0	10	2525	881.5	/	/	/	/	/	/	30	0	23.72	23.79	-0.07
CA_4A-7A	QPSK	20	20175	1732.5	1,0	20	3100	2655	/	/	/	/	/	/	40	0	23.79	23.79	0
CA_4A-12A	QPSK	20	20175	1732.5	1,0	10	5095	737.5	/	/	/	/	/	/	30	0	23.75	23.79	-0.04
CA_4A-17A	QPSK	20	20175	1732.5	1,0	10	5790	740	/	/	/	/	/	/	30	0	23.79	23.79	0
CA_4A-48A	QPSK	20	20175	1732.5	1,0	20	56490	3675	/	/	/	/	/	/	40	0	23.79	23.79	0
CA_5A-7A	QPSK	10	20525	836.5	1,0	20	3100	2655	/	/	/	/	/	/	30	0	23.36	23.40	-0.04
CA_5A-66A	QPSK	10	20525	836.5	1,0	20	66786	2145	/	/	/	/	/	/	30	0	23.40	23.40	0
CA_5A-41A	QPSK	10	20525	836.5	1,0	20	40620	2593	/	/	/	/	/	/	30	0	23.40	23.40	0
CA_5A-48A	QPSK	10	20525	836.5	1,0	20	56490	3675	/	/	/	/	/	/	30	0	23.37	23.40	-0.03
CA_12A-66A	QPSK	10	23095	707.5	1,0	20	66786	2145	/	/	/	/	/	/	30	0	23.40	23.48	-0.08
CA_41A-48A	QPSK	20	40620	2593	1,50	20	56490	3675	/	/	/	/	/	/	40	0	23.21	23.26	-0.05
CA_48A-66A	QPSK	20	56490	3675	1,50	20	66786	1745	/	/	/	/	/	/	40	0	22.80	22.80	0

9.5 NR Mode

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS 138.521-1 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS138.521-1.

Table 6.2.2.3-1: Maximum Power Reduction (MPR) for Power 3

Modulation	MPR (dB)		
	Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM Pi/2 BPSK	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
DFT-s-OFDM QPSK	$\leq 0.5^2$		0 ²
DFT-s-OFDM 16 QAM	≤ 1		0
DFT-s-OFDM 64 QAM	≤ 2		≤ 1
DFT-s-OFDM 256 QAM		≤ 2.5	
CP-OFDM QPSK	≤ 3	≤ 4.5	≤ 1.5
CP-OFDM 16 QAM	≤ 3		≤ 2
CP-OFDM 64 QAM		≤ 3.5	
CP-OFDM 256 QAM		≤ 6.5	

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0dB MPR is 26dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40% of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01"

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network Signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01		Table 5.2-1	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Table 5.3.2-1	N/A

EN-DC Antenna Configuration

EN-DC Configurations	E-UTRA	NR	Antenna Configurations				
	Band	Band	Mode	1	2	3	4
DC_41A-n41A	LTE Band 41	n41	LTE	Ant 1	/	/	/
			NR	Ant 3	/	/	/
DC_7A-n5 A	LTE Band 7	n5	LTE	Ant 3	/	/	/
			NR	Ant 4	/	/	/
DC_7A-n7 A	LTE Band 7	n7	LTE	Ant 1	/	/	/
			NR	Ant 4	/	/	/
DC_4A-n78 A	LTE Band 4	n78	LTE	Ant 0	/	/	/
			NR	Ant 7	/	/	/
DC_5A-n78 A	LTE Band 5	n78	LTE	Ant 4	/	/	/
			NR	Ant 7	/	/	/

DC_7A-n78 A	LTE Band 7	n78	LTE	Ant 1	/	/	/
			NR	Ant 7	/	/	/
DC_38A-n78 A	LTE Band 38	n78	LTE	Ant 1	/	/	/
			NR	Ant 7	/	/	/
DC_41A-n7 A	LTE Band 41	n78	LTE	Ant 1	/	/	/
			NR	Ant 7	/	/	/
Note: The EN-DC mode maximum power for LTE are same as LTE standalone mode, so this section only list 5G NR conducted power.							

9.5.1 NR (SA & EN-DC)

NR n2 (SA)							
Normal power&Receiver on&Receiver off--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376000/1880	381500/1907.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.36	23.27	23.44	24.50
		1	23	23.28	23.26	23.45	24.50
		12	6	23.47	23.25	23.34	24.50
		25	0	22.93	22.85	22.89	24.00
	DFT-s-OFDM QPSK	1	1	23.15	23.31	23.45	24.50
		1	23	23.36	23.27	23.30	24.50
		12	6	23.25	23.21	23.36	24.50
		25	0	22.43	22.23	22.40	23.50
	DFT-s-OFDM 16QAM	1	1	22.01	22.16	22.12	23.50
		1	23	22.05	22.03	22.17	23.50
		12	6	22.19	22.43	22.35	23.50
	DFT-s-OFDM 64QAM	1	1	20.64	20.56	20.62	22.00
		1	23	20.85	20.57	20.81	22.00
		12	6	20.95	20.97	21.01	22.00
	DFT-s-OFDM 256QAM	1	1	19.31	19.29	19.13	20.00
		1	23	19.16	19.26	19.44	20.00
12		6	18.92	19.02	18.92	20.00	
CP-OFDM QPSK	1	1	21.76	21.74	21.90	22.50	
CP-OFDM 16QAM	1	1	21.48	21.52	21.76	22.50	
CP-OFDM 64QAM	1	1	19.88	20.06	19.94	21.00	
CP-OFDM 256QAM	1	1	16.88	16.68	16.72	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376000/1880	381000/1905	
10MHz	DFT-s-OFDM BPSK	1	1	23.28	23.15	23.48	24.50
		1	50	23.28	23.30	23.27	24.50
		25	12	23.29	23.31	23.30	24.50
		50	0	23.13	22.65	22.77	24.00
	DFT-s-OFDM QPSK	1	1	23.05	23.01	23.21	24.50
		1	50	23.22	23.19	23.36	24.50
		25	12	23.37	23.13	23.48	24.50
		50	0	22.21	22.53	22.22	23.50
	DFT-s-OFDM 16QAM	1	1	22.10	22.18	22.18	23.50
		1	50	22.09	22.17	22.31	23.50
		25	12	22.47	22.35	22.47	23.50

	DFT-s-OFDM 64QAM	1	1	20.52	20.54	20.58	22.00
		1	50	20.77	20.85	20.73	22.00
		25	12	21.11	20.99	20.97	22.00
	DFT-s-OFDM 256QAM	1	1	19.31	19.13	19.21	20.00
		1	50	19.08	19.44	19.36	20.00
		25	12	19.06	18.78	18.74	20.00
	CP-OFDM QPSK	1	1	21.68	21.88	21.84	22.50
	CP-OFDM 16QAM	1	1	21.42	21.64	21.52	22.50
	CP-OFDM 64QAM	1	1	20.14	20.12	20.18	21.00
CP-OFDM 256QAM	1	1	16.58	16.58	16.70	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376000/1880	380500/1902.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.14	23.25	23.58	24.50
		1	77	23.24	23.34	23.25	24.50
		36	18	23.41	23.37	23.48	24.50
		75	0	23.03	22.73	22.89	24.00
	DFT-s-OFDM QPSK	1	1	23.07	23.27	23.45	24.50
		1	77	23.48	23.31	23.50	24.50
		36	18	23.27	23.19	23.50	24.50
		75	0	22.45	22.49	22.44	23.50
	DFT-s-OFDM 16QAM	1	1	22.05	22.12	22.32	23.50
		1	77	22.01	22.19	22.03	23.50
		36	18	22.17	22.41	22.55	23.50
	DFT-s-OFDM 64QAM	1	1	20.60	20.76	20.55	22.00
		1	77	20.81	20.67	20.79	22.00
		36	18	20.99	20.97	21.09	22.00
	DFT-s-OFDM 256QAM	1	1	19.45	19.25	19.05	20.00
		1	77	19.22	19.16	19.24	20.00
		36	18	18.96	18.88	18.84	20.00
	CP-OFDM QPSK	1	1	21.80	21.82	21.94	22.50
	CP-OFDM 16QAM	1	1	21.62	21.74	21.62	22.50
	CP-OFDM 64QAM	1	1	19.94	20.04	19.92	21.00
CP-OFDM 256QAM	1	1	16.78	16.76	16.86	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376000/1880	380000/1900	
20MHz	DFT-s-OFDM BPSK	1	1	23.22	23.21	23.42	24.50
		1	104	23.32	23.32	23.37	24.50
		50	25	23.47	23.31	23.42	24.50
		100	0	22.99	22.83	22.91	24.00
	DFT-s-OFDM	1	1	23.15	23.17	23.33	24.50

	QPSK	1	104	23.30	23.29	23.34	24.50
		50	25	23.33	23.27	23.38	24.50
		100	0	22.39	22.31	22.40	23.50
	DFT-s-OFDM 16QAM	1	1	22.09	22.10	22.14	23.50
		1	104	22.09	22.01	22.15	23.50
		50	25	22.25	22.29	22.45	23.50
	DFT-s-OFDM 64QAM	1	1	20.60	20.58	20.58	22.00
		1	104	20.73	20.65	20.83	22.00
		50	25	20.95	20.89	20.93	22.00
	DFT-s-OFDM 256QAM	1	1	19.35	19.19	19.11	20.00
		1	104	19.26	19.28	19.34	20.00
		50	25	19.00	18.88	18.92	20.00
	CP-OFDM QPSK	1	1	21.66	21.74	21.80	22.50
	CP-OFDM 16QAM	1	1	21.56	21.58	21.64	22.50
CP-OFDM 64QAM	1	1	19.94	19.90	20.04	21.00	
CP-OFDM 256QAM	1	1	16.74	16.62	16.74	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372500/1862.5	376000/1880	379500/1897.5	
25MHz	DFT-s-OFDM BPSK	1	1	23.28	23.25	23.48	24.50
		1	131	23.20	23.26	23.39	24.50
		64	32	23.31	23.19	23.40	24.50
		128	0	22.89	22.83	22.79	24.00
	DFT-s-OFDM QPSK	1	1	23.11	23.17	23.25	24.50
		1	131	23.20	23.35	23.28	24.50
		64	32	23.43	23.19	23.26	24.50
		128	0	22.31	22.29	22.46	23.50
	DFT-s-OFDM 16QAM	1	1	22.19	21.98	22.22	23.50
		1	131	22.09	22.07	21.99	23.50
		64	32	22.25	22.37	22.37	23.50
	DFT-s-OFDM 64QAM	1	1	20.52	20.46	20.42	22.00
		1	131	20.77	20.71	20.83	22.00
		64	32	20.99	20.97	20.89	22.00
	DFT-s-OFDM 256QAM	1	1	19.41	19.17	19.13	20.00
		1	131	19.16	19.16	19.30	20.00
		64	32	18.84	18.72	18.96	20.00
	CP-OFDM QPSK	1	1	21.54	21.62	21.70	22.50
	CP-OFDM 16QAM	1	1	21.60	21.44	21.52	22.50
	CP-OFDM 64QAM	1	1	19.96	19.80	20.08	21.00
CP-OFDM 256QAM	1	1	16.60	16.66	16.78	18.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				373000/1865	376000/1880	379000/1895	
30MHz	DFT-s-OFDM BPSK	1	1	23.36	23.03	23.42	24.50
		1	158	23.18	23.34	23.41	24.50
		80	40	23.23	23.27	23.50	24.50
		160	0	23.09	22.65	22.87	24.00
	DFT-s-OFDM QPSK	1	1	23.23	23.27	23.19	24.50
		1	158	23.36	23.31	23.10	24.50
		80	40	23.41	23.25	23.30	24.50
		160	0	22.53	22.23	22.54	23.50
	DFT-s-OFDM 16QAM	1	1	22.13	22.16	21.98	23.50
		1	158	22.01	21.85	21.93	23.50
		80	40	22.07	22.33	22.37	23.50
	DFT-s-OFDM 64QAM	1	1	20.62	20.50	20.44	22.00
		1	158	20.59	20.73	20.97	22.00
		80	40	20.89	20.83	20.71	22.00
	DFT-s-OFDM 256QAM	1	1	19.13	19.27	18.91	20.00
		1	158	19.26	19.08	19.18	20.00
80		40	18.84	18.94	18.86	20.00	
CP-OFDM QPSK	1	1	21.46	21.50	21.64	22.50	
CP-OFDM 16QAM	1	1	21.54	21.46	21.74	22.50	
CP-OFDM 64QAM	1	1	20.02	19.80	19.80	21.00	
CP-OFDM 256QAM	1	1	16.50	16.64	16.56	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				374000/1870	376000/1880	378000/1890	
40MHz	DFT-s-OFDM BPSK	1	1	23.32	23.29	23.36	24.50
		1	214	23.28	23.14	23.45	24.50
		108	54	23.53	23.39	23.44	24.50
		216	0	23.09	22.85	22.81	24.00
	DFT-s-OFDM QPSK	1	1	22.99	23.25	23.45	24.50
		1	214	23.30	23.10	23.46	24.50
		108	54	23.33	23.31	23.39	24.50
		216	0	22.22	22.37	22.45	23.50
	DFT-s-OFDM 16QAM	1	1	22.19	22.14	22.24	23.50
		1	214	22.07	22.09	21.99	23.50
		108	54	22.31	22.37	22.41	23.50
	DFT-s-OFDM 64QAM	1	1	20.70	20.68	20.62	22.00
		1	214	20.83	20.73	20.65	22.00
		108	54	21.01	20.87	20.87	22.00
	DFT-s-OFDM	1	1	19.31	19.11	18.97	20.00

	256QAM	1	214	19.24	19.26	19.18	20.00
		108	54	19.08	18.70	18.94	20.00
	CP-OFDM QPSK	1	1	21.52	21.56	21.64	22.50
	CP-OFDM 16QAM	1	1	21.48	21.70	21.62	22.50
	CP-OFDM 64QAM	1	1	20.02	19.82	19.88	21.00
	CP-OFDM 256QAM	1	1	16.84	16.62	16.82	18.00

NR n2 (SA)							
Hotspot on-Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376000/1880	381500/1907.5	
5MHz	DFT-s-OFDM BPSK	1	1	20.72	20.98	20.88	22.50
		1	23	21.23	20.91	21.01	22.50
		12	6	21.14	20.98	20.94	22.50
		25	0	21.30	21.10	21.26	22.50
	DFT-s-OFDM QPSK	1	1	20.91	20.89	21.03	22.50
		1	23	21.04	21.03	20.81	22.50
		12	6	20.97	21.01	21.16	22.50
		25	0	20.94	21.12	21.07	22.50
	DFT-s-OFDM 16QAM	1	1	20.70	20.60	20.82	22.00
		1	23	20.87	20.53	20.71	22.00
		12	6	21.11	20.91	20.91	22.00
	DFT-s-OFDM 64QAM	1	1	20.02	20.26	20.22	22.00
		1	23	20.36	20.28	20.38	22.00
		12	6	20.54	20.52	20.52	22.00
	DFT-s-OFDM 256QAM	1	1	19.06	18.84	19.08	20.00
		1	23	18.94	19.00	18.70	20.00
		12	6	18.87	18.66	18.87	20.00
	CP-OFDM QPSK	1	1	21.34	21.16	21.14	22.50
	CP-OFDM 16QAM	1	1	21.36	21.38	21.32	22.50
	CP-OFDM 64QAM	1	1	19.51	19.59	19.65	21.00
CP-OFDM 256QAM	1	1	16.40	16.40	16.56	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376000/1880	381000/1905	
10MHz	DFT-s-OFDM BPSK	1	1	20.82	20.92	20.82	22.50
		1	50	21.11	20.97	21.07	22.50
		25	12	21.24	21.08	20.94	22.50
		50	0	21.20	21.00	21.02	22.50
	DFT-s-OFDM QPSK	1	1	21.01	20.71	20.99	22.50
		1	50	20.98	20.85	20.95	22.50

		25	12	21.03	21.09	21.04	22.50
		50	0	21.02	21.08	20.93	22.50
	DFT-s-OFDM 16QAM	1	1	20.68	20.72	20.62	22.00
		1	50	20.73	20.59	20.55	22.00
		25	12	20.87	20.81	21.07	22.00
	DFT-s-OFDM 64QAM	1	1	20.06	20.30	20.12	22.00
		1	50	20.30	20.10	20.32	22.00
		25	12	20.60	20.40	20.52	22.00
	DFT-s-OFDM 256QAM	1	1	19.00	18.82	19.10	20.00
		1	50	19.00	18.66	18.64	20.00
		25	12	18.93	18.57	18.75	20.00
	CP-OFDM QPSK	1	1	21.12	20.98	21.00	22.50
	CP-OFDM 16QAM	1	1	21.40	21.30	21.34	22.50
	CP-OFDM 64QAM	1	1	19.25	19.69	19.39	21.00
CP-OFDM 256QAM	1	1	16.30	16.22	16.32	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376000/1880	380500/1902.5	
15MHz	DFT-s-OFDM BPSK	1	1	20.86	20.84	20.98	22.50
		1	77	21.23	20.89	20.99	22.50
		36	18	21.06	21.14	21.06	22.50
		75	0	21.24	20.92	21.14	22.50
	DFT-s-OFDM QPSK	1	1	20.87	20.97	21.09	22.50
		1	77	21.00	21.07	20.79	22.50
		36	18	20.91	20.91	21.12	22.50
		75	0	21.18	21.14	21.01	22.50
	DFT-s-OFDM 16QAM	1	1	20.86	20.88	20.66	22.00
		1	77	20.79	20.57	20.67	22.00
		36	18	21.13	21.09	21.11	22.00
	DFT-s-OFDM 64QAM	1	1	20.26	20.16	20.36	22.00
		1	77	20.34	20.36	20.34	22.00
		36	18	20.72	20.46	20.48	22.00
	DFT-s-OFDM 256QAM	1	1	19.10	18.96	18.94	20.00
		1	77	18.84	18.96	18.68	20.00
		36	18	19.05	18.69	18.77	20.00
	CP-OFDM QPSK	1	1	21.30	21.14	21.06	22.50
	CP-OFDM 16QAM	1	1	21.52	21.40	21.42	22.50
	CP-OFDM 64QAM	1	1	19.49	19.69	19.63	21.00
CP-OFDM 256QAM	1	1	16.44	16.32	16.56	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376000/1880	380000/1900	

20MHz	DFT-s-OFDM BPSK	1	1	20.80	20.88	20.92	22.50
		1	104	21.19	20.89	21.07	22.50
		50	25	21.16	21.02	20.98	22.50
		100	0	21.30	21.04	21.16	22.50
	DFT-s-OFDM QPSK	1	1	20.91	20.91	20.91	22.50
		1	104	20.98	20.89	20.99	22.50
		50	25	21.01	21.03	21.04	22.50
		100	0	21.02	21.04	21.03	22.50
	DFT-s-OFDM 16QAM	1	1	20.80	20.70	20.68	22.00
		1	104	20.81	20.63	20.65	22.00
		50	25	21.07	21.01	21.01	22.00
	DFT-s-OFDM 64QAM	1	1	20.08	20.20	20.18	22.00
		1	104	20.32	20.20	20.34	22.00
		50	25	20.56	20.52	20.42	22.00
	DFT-s-OFDM 256QAM	1	1	19.12	18.92	19.04	20.00
		1	104	18.90	18.86	18.80	20.00
50		25	18.89	18.57	18.73	20.00	
CP-OFDM QPSK	1	1	21.30	21.02	21.16	22.50	
CP-OFDM 16QAM	1	1	21.44	21.32	21.32	22.50	
CP-OFDM 64QAM	1	1	19.43	19.63	19.55	21.00	
CP-OFDM 256QAM	1	1	16.32	16.32	16.42	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372500/1862.5	376000/1880	379500/1897.5	
25MHz	DFT-s-OFDM BPSK	1	1	20.73	20.75	20.89	22.50
		1	131	21.20	20.78	21.06	22.50
		64	32	21.19	20.95	21.05	22.50
		128	0	21.17	21.09	21.05	22.50
	DFT-s-OFDM QPSK	1	1	20.96	20.76	20.86	22.50
		1	131	20.91	20.74	21.08	22.50
		64	32	20.94	21.04	20.97	22.50
		128	0	20.91	21.09	21.06	22.50
	DFT-s-OFDM 16QAM	1	1	20.71	20.81	20.65	22.00
		1	131	20.82	20.56	20.64	22.00
		64	32	20.96	21.04	20.88	22.00
	DFT-s-OFDM 64QAM	1	1	20.19	20.29	20.29	22.00
		1	131	20.21	20.13	20.29	22.00
		64	32	20.43	20.61	20.39	22.00
	DFT-s-OFDM 256QAM	1	1	19.21	18.83	19.05	20.00
		1	131	18.99	18.83	18.87	20.00
64		32	18.76	18.62	18.82	20.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				373000/1865	376000/1880	379000/1895		
	CP-OFDM QPSK	1	1	21.21	21.01	21.07	22.50	
	CP-OFDM 16QAM	1	1	21.37	21.37	21.43	22.50	
	CP-OFDM 64QAM	1	1	19.44	19.66	19.50	21.00	
	CP-OFDM 256QAM	1	1	16.29	16.21	16.45	18.00	
30MHz	DFT-s-OFDM BPSK	1	1	20.93	20.79	20.91	22.50	
		1	158	21.00	21.06	21.06	22.50	
		80	40	21.33	21.09	20.93	22.50	
		160	0	21.09	20.99	21.19	22.50	
	DFT-s-OFDM QPSK	1	1	20.84	20.76	20.68	22.50	
		1	158	20.95	20.94	21.16	22.50	
		80	40	21.18	20.92	21.11	22.50	
		160	0	21.13	20.85	21.02	22.50	
	DFT-s-OFDM 16QAM	1	1	20.85	20.71	20.63	22.00	
		1	158	20.90	20.64	20.62	22.00	
		80	40	20.86	21.02	20.88	22.00	
	DFT-s-OFDM 64QAM	1	1	20.13	20.13	20.21	22.00	
		1	158	20.37	20.17	20.41	22.00	
		80	40	20.33	20.47	20.29	22.00	
	DFT-s-OFDM 256QAM	1	1	19.13	19.01	19.09	20.00	
		1	158	18.91	18.95	18.69	20.00	
		80	40	18.72	18.74	18.60	20.00	
	CP-OFDM QPSK	1	1	21.23	20.83	21.25	22.50	
	CP-OFDM 16QAM	1	1	21.25	21.13	21.39	22.50	
	CP-OFDM 64QAM	1	1	19.34	19.44	19.68	21.00	
	CP-OFDM 256QAM	1	1	16.09	16.45	16.29	18.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					374000/1870	376000/1880	378000/1890	
	40MHz	DFT-s-OFDM BPSK	1	1	20.67	20.75	20.95	22.50
			1	214	21.14	20.84	21.16	22.50
			108	54	21.17	20.99	21.03	22.50
			216	0	21.27	21.07	21.23	22.50
		DFT-s-OFDM QPSK	1	1	21.00	21.02	20.76	22.50
1			214	21.02	21.00	21.04	22.50	
108			54	20.90	20.88	20.95	22.50	
216			0	20.93	21.17	21.04	22.50	
DFT-s-OFDM 16QAM		1	1	20.81	20.55	20.77	22.00	
		1	214	20.80	20.52	20.62	22.00	
		108	54	21.20	21.02	21.06	22.00	

	DFT-s-OFDM 64QAM	1	1	20.07	20.07	20.27	22.00
		1	214	20.21	20.21	20.29	22.00
		108	54	20.47	20.51	20.53	22.00
	DFT-s-OFDM 256QAM	1	1	18.99	18.93	19.03	20.00
		1	214	18.81	18.91	18.63	20.00
		108	54	18.78	18.56	18.74	20.00
	CP-OFDM QPSK	1	1	21.27	21.01	21.27	22.50
	CP-OFDM 16QAM	1	1	21.49	21.17	21.19	22.50
	CP-OFDM 64QAM	1	1	19.28	19.54	19.58	21.00
	CP-OFDM 256QAM	1	1	16.17	16.15	16.53	18.00

NR n7 (SA)							
Normal power--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500500/2502.5	507000/2535	513500/2567.5	
5MHz	DFT-s-OFDM BPSK	1	1	22.90	22.90	22.70	24.50
		1	23	23.07	22.77	22.81	24.50
		12	6	23.17	22.87	23.00	24.50
		25	0	22.54	22.24	22.50	24.00
	DFT-s-OFDM QPSK	1	1	23.06	23.03	22.67	24.50
		1	23	23.06	22.77	22.90	24.50
		12	6	23.12	22.98	22.91	24.50
		25	0	21.99	21.85	21.74	23.50
	DFT-s-OFDM 16QAM	1	1	21.72	21.65	21.55	23.50
		1	23	21.62	21.59	21.72	23.50
		12	6	22.04	21.96	21.93	23.50
	DFT-s-OFDM 64QAM	1	1	20.29	20.33	20.13	22.00
		1	23	20.18	20.02	20.03	22.00
		12	6	20.76	20.44	20.45	22.00
	DFT-s-OFDM 256QAM	1	1	18.92	18.95	18.81	20.00
		1	23	19.02	18.71	18.53	20.00
		12	6	18.63	18.42	18.40	20.00
	CP-OFDM QPSK	1	1	21.56	21.34	21.31	22.50
	CP-OFDM 16QAM	1	1	21.29	21.16	21.03	22.50
	CP-OFDM 64QAM	1	1	19.52	19.58	19.35	21.00
CP-OFDM 256QAM	1	1	16.27	16.23	16.10	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501000/2505	507000/2535	513000/2565	
10MHz	DFT-s-OFDM	1	1	22.84	22.78	22.64	24.50
	BPSK	1	50	22.91	22.57	22.89	24.50

		25	12	23.01	22.85	22.68	24.50
		50	0	22.76	22.50	22.52	24.00
	DFT-s-OFDM QPSK	1	1	22.94	23.17	22.93	24.50
		1	50	22.90	22.91	22.82	24.50
		25	12	23.30	22.78	22.93	24.50
	DFT-s-OFDM 16QAM	50	0	22.09	21.80	21.70	23.50
		1	1	21.62	21.83	21.60	23.50
		1	50	21.80	21.62	21.55	23.50
	DFT-s-OFDM 64QAM	25	12	22.20	21.82	21.87	23.50
		1	1	20.13	20.11	20.19	22.00
		1	50	20.48	20.04	20.16	22.00
	DFT-s-OFDM 256QAM	25	12	20.82	20.42	20.47	22.00
		1	1	18.82	18.67	18.87	20.00
		1	50	18.86	18.65	18.85	20.00
	CP-OFDM QPSK	25	12	18.53	18.26	18.50	20.00
1		1	21.56	21.64	21.13	22.50	
CP-OFDM 16QAM		1	1	21.25	21.12	21.01	22.50
CP-OFDM 64QAM		1	1	19.66	19.52	19.43	21.00
CP-OFDM 256QAM		1	1	16.45	16.21	16.10	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
15MHz	DFT-s-OFDM BPSK	1	1	22.86	22.70	22.78	24.50
		1	77	23.11	22.87	22.77	24.50
		36	18	23.23	22.83	23.02	24.50
		75	0	22.66	22.40	22.38	24.00
	DFT-s-OFDM QPSK	1	1	22.96	23.11	22.79	24.50
		1	77	22.88	22.73	22.82	24.50
		36	18	23.04	22.98	22.91	24.50
		75	0	22.03	21.77	21.96	23.50
	DFT-s-OFDM 16QAM	1	1	21.76	21.61	21.63	23.50
		1	77	21.66	21.60	21.56	23.50
		36	18	22.20	21.94	21.91	23.50
	DFT-s-OFDM 64QAM	1	1	20.19	20.21	20.15	22.00
		1	77	20.20	20.20	20.03	22.00
		36	18	20.60	20.40	20.35	22.00
	DFT-s-OFDM 256QAM	1	1	18.76	18.87	18.81	20.00
		1	77	19.00	18.61	18.65	20.00
		36	18	18.79	18.62	18.32	20.00
	CP-OFDM QPSK	1	1	21.56	21.38	21.37	22.50
	CP-OFDM 16QAM	1	1	21.19	21.34	21.17	22.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	
				CP-OFDM 64QAM	1	1	
CP-OFDM 256QAM	1	1	16.23	16.19	16.18	18.00	
20MHz	DFT-s-OFDM BPSK	1	1	22.94	22.80	22.74	24.50
		1	104	22.93	22.75	22.83	24.50
		50	25	23.09	22.91	22.84	24.50
		100	0	22.58	22.34	22.34	24.00
	DFT-s-OFDM QPSK	1	1	23.04	22.97	22.71	24.50
		1	104	22.94	22.73	22.78	24.50
		50	25	23.10	22.88	22.77	24.50
		100	0	22.09	21.87	21.82	23.50
	DFT-s-OFDM 16QAM	1	1	21.60	21.63	21.54	23.50
		1	104	21.68	21.51	21.55	23.50
		50	25	22.08	21.84	21.77	23.50
	DFT-s-OFDM 64QAM	1	1	20.21	20.21	20.03	22.00
		1	104	20.26	20.10	20.06	22.00
		50	25	20.62	20.42	20.33	22.00
	DFT-s-OFDM 256QAM	1	1	18.84	18.85	18.65	20.00
		1	104	18.90	18.71	18.63	20.00
		50	25	18.63	18.44	18.38	20.00
	CP-OFDM QPSK	1	1	21.42	21.42	21.27	22.50
	CP-OFDM 16QAM	1	1	21.21	21.22	21.07	22.50
	CP-OFDM 64QAM	1	1	19.54	19.56	19.37	21.00
CP-OFDM 256QAM	1	1	16.29	16.15	16.10	18.00	

NR n7 (SA)							
Receiver off--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500500/2502.5	507000/2535	513500/2567.5	
5MHz	DFT-s-OFDM BPSK	1	1	22.36	22.14	22.24	23.50
		1	23	22.18	21.94	22.08	23.50
		12	6	22.14	22.16	22.10	23.50
		25	0	22.10	21.96	22.00	23.50
	DFT-s-OFDM QPSK	1	1	22.26	22.01	21.84	23.50
		1	23	22.16	21.88	21.63	23.50
		12	6	22.36	21.89	21.77	23.50
		25	0	22.16	21.91	21.92	23.50
	DFT-s-OFDM 16QAM	1	1	22.17	21.87	22.05	23.00
		1	23	21.53	21.71	21.83	23.00

	DFT-s-OFDM 64QAM	12	6	22.07	22.15	21.89	23.00
		1	1	20.65	20.51	20.39	21.50
		1	23	20.19	20.19	20.53	21.50
		12	6	20.86	20.64	20.66	21.50
	DFT-s-OFDM 256QAM	1	1	19.19	18.95	19.39	20.00
		1	23	19.11	18.91	19.07	20.00
		12	6	18.73	18.63	18.73	20.00
	CP-OFDM QPSK	1	1	21.67	21.73	21.83	22.50
	CP-OFDM 16QAM	1	1	21.12	21.46	21.32	22.50
	CP-OFDM 64QAM	1	1	19.92	19.68	19.76	21.00
CP-OFDM 256QAM	1	1	16.63	16.57	16.53	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501000/2505	507000/2535	513000/2565	
10MHz	DFT-s-OFDM BPSK	1	1	22.32	22.18	22.28	23.50
		1	50	22.10	22.16	22.06	23.50
		25	12	22.32	22.20	22.08	23.50
		50	0	22.36	22.04	22.18	23.50
	DFT-s-OFDM QPSK	1	1	22.04	22.07	22.10	23.50
		1	50	22.10	21.88	21.67	23.50
		25	12	22.28	21.93	22.15	23.50
	DFT-s-OFDM 16QAM	50	0	22.26	21.99	21.92	23.50
		1	1	22.27	21.73	22.09	23.00
		1	50	21.61	21.63	21.91	23.00
	DFT-s-OFDM 64QAM	25	12	22.03	22.19	21.85	23.00
		1	1	20.41	20.69	20.31	21.50
		1	50	20.23	20.25	20.53	21.50
	DFT-s-OFDM 256QAM	25	12	20.98	20.56	21.00	21.50
		1	1	19.45	19.09	19.25	20.00
		1	50	19.35	18.95	19.15	20.00
	CP-OFDM	25	12	18.45	18.79	18.83	20.00
		1	1	21.87	21.85	21.99	22.50
		1	1	21.26	21.62	21.50	22.50
		1	1	19.70	19.88	19.88	21.00
1		1	16.69	16.67	16.47	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
15MHz	DFT-s-OFDM BPSK	1	1	22.34	22.08	22.52	23.50
		1	77	22.18	22.24	22.32	23.50
		36	18	22.12	22.14	21.94	23.50
		75	0	22.20	22.02	22.34	23.50

	DFT-s-OFDM QPSK	1	1	22.34	22.27	21.90	23.50
		1	77	22.30	21.88	21.87	23.50
		36	18	22.48	22.19	22.15	23.50
		75	0	22.34	22.19	21.92	23.50
	DFT-s-OFDM 16QAM	1	1	22.27	21.91	21.95	23.00
		1	77	21.73	21.75	21.87	23.00
		36	18	22.15	22.07	21.91	23.00
	DFT-s-OFDM 64QAM	1	1	20.57	20.65	20.45	21.50
		1	77	20.25	20.29	20.49	21.50
		36	18	20.92	20.58	20.92	21.50
	DFT-s-OFDM 256QAM	1	1	19.37	19.23	19.35	20.00
		1	77	19.07	19.11	19.01	20.00
		36	18	18.53	18.77	18.93	20.00
	CP-OFDM QPSK	1	1	21.83	21.61	21.79	22.50
CP-OFDM 16QAM	1	1	21.20	21.68	21.26	22.50	
CP-OFDM 64QAM	1	1	19.88	19.92	20.08	21.00	
CP-OFDM 256QAM	1	1	16.73	16.55	16.71	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	
20MHz	DFT-s-OFDM BPSK	1	1	22.32	22.16	22.38	23.50
		1	104	22.10	22.06	22.22	23.50
		50	25	22.14	22.16	22.06	23.50
		100	0	22.30	22.14	22.18	23.50
	DFT-s-OFDM QPSK	1	1	22.20	22.09	21.96	23.50
		1	104	22.22	21.98	21.81	23.50
		50	25	22.32	22.09	21.97	23.50
		100	0	22.30	22.09	22.02	23.50
	DFT-s-OFDM 16QAM	1	1	22.19	21.89	22.03	23.00
		1	104	21.73	21.77	21.73	23.00
		50	25	22.03	22.09	21.99	23.00
	DFT-s-OFDM 64QAM	1	1	20.57	20.47	20.43	21.50
		1	104	20.33	20.37	20.43	21.50
		50	25	20.80	20.66	20.80	21.50
	DFT-s-OFDM 256QAM	1	1	19.37	19.11	19.29	20.00
		1	104	19.13	18.99	19.13	20.00
		50	25	18.63	18.71	18.75	20.00
	CP-OFDM QPSK	1	1	21.69	21.69	21.79	22.50
	CP-OFDM 16QAM	1	1	21.32	21.50	21.38	22.50
	CP-OFDM 64QAM	1	1	19.82	19.84	19.94	21.00
CP-OFDM 256QAM	1	1	16.57	16.55	16.57	18.00	

NR n7 (SA)							
Receiver on-Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500500/2502.5	507000/2535	513500/2567.5	
5MHz	DFT-s-OFDM BPSK	1	1	20.01	20.15	20.17	21.00
		1	23	20.10	19.84	19.96	21.00
		12	6	20.34	20.22	20.12	21.00
		25	0	20.10	20.18	20.10	21.00
	DFT-s-OFDM QPSK	1	1	19.97	20.08	19.87	21.00
		1	23	20.09	19.95	19.65	21.00
		12	6	20.18	20.08	19.96	21.00
		25	0	20.20	20.03	20.02	21.00
	DFT-s-OFDM 16QAM	1	1	19.68	19.98	19.70	21.00
		1	23	19.86	19.72	19.92	21.00
		12	6	20.01	20.17	19.93	21.00
	DFT-s-OFDM 64QAM	1	1	19.72	19.90	19.88	21.00
		1	23	19.85	19.75	19.85	21.00
		12	6	20.03	20.15	20.29	21.00
	DFT-s-OFDM 256QAM	1	1	18.80	19.12	19.10	20.00
		1	23	18.98	18.82	18.98	20.00
12		6	18.45	18.79	18.57	20.00	
CP-OFDM QPSK	1	1	20.06	20.08	20.04	21.00	
CP-OFDM 16QAM	1	1	20.40	20.44	20.36	21.00	
CP-OFDM 64QAM	1	1	20.23	19.69	19.99	20.50	
CP-OFDM 256QAM	1	1	16.69	16.51	16.67	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501000/2505	507000/2535	513000/2565	
10MHz	DFT-s-OFDM BPSK	1	1	20.29	20.09	19.95	21.00
		1	50	20.16	20.24	20.06	21.00
		25	12	20.38	20.04	20.38	21.00
		50	0	20.08	20.24	19.98	21.00
	DFT-s-OFDM QPSK	1	1	20.29	20.28	19.95	21.00
		1	50	20.37	19.91	19.73	21.00
		25	12	20.40	20.08	20.12	21.00
		50	0	20.38	20.27	20.14	21.00
	DFT-s-OFDM 16QAM	1	1	19.60	19.92	19.94	21.00
		1	50	19.84	19.90	19.74	21.00
		25	12	19.95	20.35	20.05	21.00
	DFT-s-OFDM	1	1	19.84	19.82	19.90	21.00

	64QAM	1	50	20.09	20.03	19.89	21.00
		25	12	20.19	20.19	20.29	21.00
	DFT-s-OFDM 256QAM	1	1	18.78	19.28	19.20	20.00
		1	50	19.12	18.96	18.74	20.00
		25	12	18.31	18.55	18.57	20.00
	CP-OFDM QPSK	1	1	20.30	20.18	20.32	21.00
	CP-OFDM 16QAM	1	1	20.30	20.40	20.44	21.00
	CP-OFDM 64QAM	1	1	20.31	19.65	20.07	20.50
CP-OFDM 256QAM	1	1	16.87	16.33	16.75	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
15MHz	DFT-s-OFDM BPSK	1	1	20.31	20.17	20.07	21.00
		1	77	20.22	20.02	20.06	21.00
		36	18	20.41	20.32	20.30	21.00
		75	0	20.20	20.04	20.24	21.00
	DFT-s-OFDM QPSK	1	1	20.15	20.00	19.97	21.00
		1	77	20.33	20.17	19.73	21.00
		36	18	20.22	20.16	20.00	21.00
		75	0	20.42	20.17	19.88	21.00
	DFT-s-OFDM 16QAM	1	1	19.96	19.92	19.98	21.00
		1	77	19.84	19.88	19.80	21.00
		36	18	20.01	20.17	20.11	21.00
	DFT-s-OFDM 64QAM	1	1	19.96	19.94	20.08	21.00
		1	77	19.95	19.97	20.05	21.00
		36	18	20.09	20.27	20.33	21.00
	DFT-s-OFDM 256QAM	1	1	19.06	19.10	19.10	20.00
		1	77	19.28	18.90	19.10	20.00
		36	18	18.65	18.59	18.59	20.00
	CP-OFDM QPSK	1	1	20.02	20.34	20.28	21.00
	CP-OFDM 16QAM	1	1	20.42	20.36	20.40	21.00
	CP-OFDM 64QAM	1	1	20.23	19.87	20.11	20.50
CP-OFDM 256QAM	1	1	16.85	16.47	16.77	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	
20MHz	DFT-s-OFDM BPSK	1	1	20.19	20.11	20.13	21.00
		1	104	20.14	20.04	20.04	21.00
		50	25	20.42	20.16	20.16	21.00
		100	0	20.02	20.14	20.06	21.00
	DFT-s-OFDM QPSK	1	1	20.13	20.10	19.99	21.00
		1	104	20.15	20.01	19.77	21.00

		50	25	20.28	20.12	19.92	21.00
		100	0	20.28	20.17	20.00	21.00
	DFT-s-OFDM 16QAM	1	1	19.78	19.92	19.90	21.00
		1	104	19.90	19.80	19.92	21.00
		50	25	20.13	20.19	20.07	21.00
	DFT-s-OFDM 64QAM	1	1	19.92	19.98	19.98	21.00
		1	104	20.01	19.87	19.97	21.00
		50	25	20.07	20.17	20.19	21.00
	DFT-s-OFDM 256QAM	1	1	18.94	19.10	19.04	20.00
		1	104	19.10	18.98	18.92	20.00
		50	25	18.47	18.71	18.59	20.00
	CP-OFDM QPSK	1	1	20.10	20.20	20.22	21.00
	CP-OFDM 16QAM	1	1	20.40	20.48	20.48	21.00
	CP-OFDM 64QAM	1	1	20.13	19.79	19.95	20.50
CP-OFDM 256QAM	1	1	16.69	16.51	16.65	18.00	

NR n7 (SA)							
Hotspot on-Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500500/2502.5	507000/2535	513500/2567.5	
5MHz	DFT-s-OFDM BPSK	1	1	21.38	21.34	21.46	22.50
		1	23	21.35	21.21	21.29	22.50
		12	6	21.35	21.37	21.39	22.50
		25	0	21.32	21.28	21.50	22.50
	DFT-s-OFDM QPSK	1	1	21.38	21.27	21.26	22.50
		1	23	21.37	21.24	21.09	22.50
		12	6	21.53	21.33	21.26	22.50
		25	0	21.59	21.30	21.14	22.50
	DFT-s-OFDM 16QAM	1	1	21.40	21.14	21.26	22.50
		1	23	21.07	20.79	20.85	22.50
		12	6	21.27	21.35	21.19	22.50
	DFT-s-OFDM 64QAM	1	1	20.80	20.60	20.84	22.00
		1	23	20.39	20.55	20.55	22.00
		12	6	20.66	20.72	20.80	22.00
	DFT-s-OFDM 256QAM	1	1	19.26	19.24	19.18	20.00
		1	23	19.04	19.04	19.42	20.00
		12	6	18.92	18.82	18.82	20.00
	CP-OFDM QPSK	1	1	21.23	21.35	21.29	22.50
	CP-OFDM 16QAM	1	1	21.47	21.49	21.49	22.50
	CP-OFDM 64QAM	1	1	19.75	19.83	19.89	21.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501000/2505	507000/2535	513000/2565	
				16.71	16.69	16.49	
10MHz	DFT-s-OFDM BPSK	1	1	21.30	21.24	21.20	22.50
		1	50	21.21	21.21	21.12	22.50
		25	12	21.43	21.05	21.29	22.50
		50	0	21.38	21.10	21.40	22.50
	DFT-s-OFDM QPSK	1	1	21.22	21.41	21.06	22.50
		1	50	21.31	21.14	21.09	22.50
		25	12	21.33	21.27	21.18	22.50
		50	0	21.53	21.13	21.18	22.50
	DFT-s-OFDM 16QAM	1	1	21.24	21.02	21.32	22.50
		1	50	20.81	20.75	20.97	22.50
		25	12	21.31	21.25	21.23	22.50
	DFT-s-OFDM 64QAM	1	1	20.60	20.48	20.62	22.00
		1	50	20.25	20.53	20.27	22.00
		25	12	20.82	20.54	20.68	22.00
	DFT-s-OFDM 256QAM	1	1	19.26	19.26	19.22	20.00
		1	50	19.04	19.06	19.36	20.00
		25	12	18.66	18.70	18.76	20.00
	CP-OFDM QPSK	1	1	21.35	21.41	21.21	22.50
	CP-OFDM 16QAM	1	1	21.27	21.39	21.37	22.50
	CP-OFDM 64QAM	1	1	19.67	19.91	19.81	21.00
CP-OFDM 256QAM	1	1	16.69	16.47	16.47	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
				21.40	21.38	21.32	
15MHz	DFT-s-OFDM BPSK	1	1	21.40	21.38	21.32	22.50
		1	77	21.23	21.01	21.23	22.50
		36	18	21.35	21.23	21.47	22.50
		75	0	21.28	21.36	21.56	22.50
	DFT-s-OFDM QPSK	1	1	21.24	21.35	21.08	22.50
		1	77	21.37	21.08	21.19	22.50
		36	18	21.61	21.11	21.28	22.50
	DFT-s-OFDM 16QAM	75	0	21.63	21.38	21.30	22.50
		1	1	21.38	21.28	21.38	22.50
		1	77	20.97	20.79	20.89	22.50
	DFT-s-OFDM 64QAM	36	18	21.41	21.11	21.13	22.50
		1	1	20.70	20.76	20.70	22.00
		1	77	20.39	20.59	20.31	22.00
	36	18	20.84	20.82	20.96	22.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	
	DFT-s-OFDM 256QAM	1	1	19.20	19.42	19.08	20.00
		1	77	19.04	19.14	19.44	20.00
		36	18	18.82	18.82	18.88	20.00
	CP-OFDM QPSK	1	1	21.27	21.39	21.25	22.50
	CP-OFDM 16QAM	1	1	21.47	21.35	21.59	22.50
	CP-OFDM 64QAM	1	1	19.97	19.85	19.83	21.00
	CP-OFDM 256QAM	1	1	16.77	16.69	16.49	18.00
20MHz	DFT-s-OFDM BPSK	1	1	21.48	21.32	21.30	22.50
		1	104	21.19	21.13	21.13	22.50
		50	25	21.37	21.21	21.35	22.50
		100	0	21.40	21.20	21.38	22.50
	DFT-s-OFDM QPSK	1	1	21.24	21.25	21.10	22.50
		1	104	21.27	21.14	21.15	22.50
		50	25	21.45	21.23	21.10	22.50
		100	0	21.45	21.20	21.14	22.50
	DFT-s-OFDM 16QAM	1	1	21.28	21.10	21.26	22.50
		1	104	20.95	20.89	20.89	22.50
		50	25	21.31	21.23	21.25	22.50
	DFT-s-OFDM 64QAM	1	1	20.70	20.66	20.78	22.00
		1	104	20.41	20.45	20.39	22.00
		50	25	20.76	20.74	20.80	22.00
	DFT-s-OFDM 256QAM	1	1	19.26	19.28	19.14	20.00
		1	104	19.14	19.10	19.30	20.00
		50	25	18.76	18.82	18.92	20.00
	CP-OFDM QPSK	1	1	21.31	21.39	21.37	22.50
	CP-OFDM 16QAM	1	1	21.41	21.45	21.57	22.50
	CP-OFDM 64QAM	1	1	19.83	19.85	19.93	21.00
	CP-OFDM 256QAM	1	1	16.59	16.61	16.59	18.00

NR n7 (NSA)							
Normal power--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500500/2502.5	507000/2535	513500/2567.5	
5MHz	DFT-s-OFDM BPSK	1	1	22.90	22.90	22.70	24.50
		1	23	23.07	22.77	22.81	24.50
		12	6	23.17	22.87	23.00	24.50
		25	0	22.54	22.24	22.50	24.00
	DFT-s-OFDM	1	1	23.06	23.03	22.67	24.50

	QPSK	1	23	23.06	22.77	22.90	24.50
		12	6	23.12	22.98	22.91	24.50
		25	0	21.99	21.85	21.74	23.50
	DFT-s-OFDM 16QAM	1	1	21.72	21.65	21.55	23.50
		1	23	21.62	21.59	21.72	23.50
		12	6	22.04	21.96	21.93	23.50
	DFT-s-OFDM 64QAM	1	1	20.29	20.33	20.13	22.00
		1	23	20.18	20.02	20.03	22.00
		12	6	20.76	20.44	20.45	22.00
	DFT-s-OFDM 256QAM	1	1	18.92	18.95	18.81	20.00
		1	23	19.02	18.71	18.53	20.00
		12	6	18.63	18.42	18.40	20.00
	CP-OFDM QPSK	1	1	21.56	21.34	21.31	22.50
CP-OFDM 16QAM	1	1	21.29	21.16	21.03	22.50	
CP-OFDM 64QAM	1	1	19.52	19.58	19.35	21.00	
CP-OFDM 256QAM	1	1	16.27	16.23	16.10	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501000/2505	507000/2535	513000/2565	
10MHz	DFT-s-OFDM BPSK	1	1	22.84	22.78	22.64	24.50
		1	50	22.91	22.57	22.89	24.50
		25	12	23.01	22.85	22.68	24.50
		50	0	22.76	22.50	22.52	24.00
	DFT-s-OFDM QPSK	1	1	22.94	23.17	22.93	24.50
		1	50	22.90	22.91	22.82	24.50
		25	12	23.30	22.78	22.93	24.50
	DFT-s-OFDM 16QAM	50	0	22.09	21.80	21.70	23.50
		1	1	21.62	21.83	21.60	23.50
		1	50	21.80	21.62	21.55	23.50
	DFT-s-OFDM 64QAM	25	12	22.20	21.82	21.87	23.50
		1	1	20.13	20.11	20.19	22.00
		1	50	20.48	20.04	20.16	22.00
	DFT-s-OFDM 256QAM	25	12	20.82	20.42	20.47	22.00
		1	1	18.82	18.67	18.87	20.00
		1	50	18.86	18.65	18.85	20.00
	CP-OFDM QPSK	25	12	18.53	18.26	18.50	20.00
		1	1	21.56	21.64	21.13	22.50
CP-OFDM 16QAM	1	1	21.25	21.12	21.01	22.50	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
15MHz	CP-OFDM 64QAM	1	1	19.66	19.52	19.43	21.00
		1	1	16.45	16.21	16.10	18.00
	DFT-s-OFDM BPSK	1	1	22.86	22.70	22.78	24.50
		1	77	23.11	22.87	22.77	24.50
		36	18	23.23	22.83	23.02	24.50
		75	0	22.66	22.40	22.38	24.00
	DFT-s-OFDM QPSK	1	1	22.96	23.11	22.79	24.50
		1	77	22.88	22.73	22.82	24.50
		36	18	23.04	22.98	22.91	24.50
		75	0	22.03	21.77	21.96	23.50
	DFT-s-OFDM 16QAM	1	1	21.76	21.61	21.63	23.50
		1	77	21.66	21.60	21.56	23.50
		36	18	22.20	21.94	21.91	23.50
	DFT-s-OFDM 64QAM	1	1	20.19	20.21	20.15	22.00
		1	77	20.20	20.20	20.03	22.00
		36	18	20.60	20.40	20.35	22.00
	DFT-s-OFDM 256QAM	1	1	18.76	18.87	18.81	20.00
		1	77	19.00	18.61	18.65	20.00
		36	18	18.79	18.62	18.32	20.00
	CP-OFDM QPSK	1	1	21.56	21.38	21.37	22.50
CP-OFDM 16QAM	1	1	21.19	21.34	21.17	22.50	
CP-OFDM 64QAM	1	1	19.58	19.50	19.37	21.00	
CP-OFDM 256QAM	1	1	16.23	16.19	16.18	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	
20MHz	DFT-s-OFDM BPSK	1	1	22.94	22.80	22.74	24.50
		1	104	22.93	22.75	22.83	24.50
		50	25	23.09	22.91	22.84	24.50
		100	0	22.58	22.34	22.34	24.00
	DFT-s-OFDM QPSK	1	1	23.04	22.97	22.71	24.50
		1	104	22.94	22.73	22.78	24.50
		50	25	23.10	22.88	22.77	24.50
	DFT-s-OFDM 16QAM	100	0	22.09	21.87	21.82	23.50
		1	1	21.60	21.63	21.54	23.50
		1	104	21.68	21.51	21.55	23.50

		50	25	22.08	21.84	21.77	23.50
DFT-s-OFDM 64QAM		1	1	20.21	20.21	20.03	22.00
		1	104	20.26	20.10	20.06	22.00
		50	25	20.62	20.42	20.33	22.00
DFT-s-OFDM 256QAM		1	1	18.84	18.85	18.65	20.00
		1	104	18.90	18.71	18.63	20.00
		50	25	18.63	18.44	18.38	20.00
CP-OFDM QPSK		1	1	21.42	21.42	21.27	22.50
CP-OFDM 16QAM		1	1	21.21	21.22	21.07	22.50
CP-OFDM 64QAM		1	1	19.54	19.56	19.37	21.00
CP-OFDM 256QAM		1	1	16.29	16.15	16.10	18.00

NR n7 (NSA)								
Receiver off-Main Ant3				Maximum Output Power (dBm)			Tune-up	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)				
				500500/2502.5	507000/2535	513500/2567.5		
5MHz	DFT-s-OFDM BPSK	1	1	21.38	21.34	21.46	22.50	
		1	23	21.35	21.21	21.29	22.50	
		12	6	21.35	21.37	21.39	22.50	
		25	0	21.32	21.28	21.50	22.50	
	DFT-s-OFDM QPSK	1	1	21.38	21.27	21.26	22.50	
		1	23	21.37	21.24	21.09	22.50	
		12	6	21.53	21.33	21.26	22.50	
	DFT-s-OFDM 16QAM	25	0	21.59	21.30	21.14	22.50	
		1	1	21.40	21.14	21.26	22.50	
		1	23	21.07	20.79	20.85	22.50	
	DFT-s-OFDM 64QAM	12	6	21.27	21.35	21.19	22.50	
		1	1	20.80	20.60	20.84	22.00	
		1	23	20.39	20.55	20.55	22.00	
	DFT-s-OFDM 256QAM	12	6	20.66	20.72	20.80	22.00	
		1	1	19.26	19.24	19.18	20.00	
		1	23	19.04	19.04	19.42	20.00	
	CP-OFDM QPSK	12	6	18.92	18.82	18.82	20.00	
		1	1	21.23	21.35	21.29	22.50	
		1	1	21.47	21.49	21.49	22.50	
	CP-OFDM 16QAM		1	1	19.75	19.83	19.89	21.00
	CP-OFDM 64QAM		1	1				

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501000/2505	507000/2535	513000/2565	
				CP-OFDM 256QAM	1	1	
10MHz	DFT-s-OFDM BPSK	1	1	21.30	21.24	21.20	22.50
		1	50	21.21	21.21	21.12	22.50
		25	12	21.43	21.05	21.29	22.50
		50	0	21.38	21.10	21.40	22.50
	DFT-s-OFDM QPSK	1	1	21.22	21.41	21.06	22.50
		1	50	21.31	21.14	21.09	22.50
		25	12	21.33	21.27	21.18	22.50
	DFT-s-OFDM 16QAM	50	0	21.53	21.13	21.18	22.50
		1	1	21.24	21.02	21.32	22.50
		1	50	20.81	20.75	20.97	22.50
	DFT-s-OFDM 64QAM	25	12	21.31	21.25	21.23	22.50
		1	1	20.60	20.48	20.62	22.00
		1	50	20.25	20.53	20.27	22.00
	DFT-s-OFDM 256QAM	25	12	20.82	20.54	20.68	22.00
		1	1	19.26	19.26	19.22	20.00
		1	50	19.04	19.06	19.36	20.00
	CP-OFDM QPSK	25	12	18.66	18.70	18.76	20.00
		1	1	21.35	21.41	21.21	22.50
	CP-OFDM 16QAM	1	1	21.27	21.39	21.37	22.50
	CP-OFDM 64QAM	1	1	19.67	19.91	19.81	21.00
CP-OFDM 256QAM	1	1	16.69	16.47	16.47	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
				15MHz	DFT-s-OFDM BPSK	1	
1	77	21.23	21.01			21.23	22.50
36	18	21.35	21.23			21.47	22.50
75	0	21.28	21.36			21.56	22.50
DFT-s-OFDM QPSK	1	1	21.24		21.35	21.08	22.50
	1	77	21.37		21.08	21.19	22.50
	36	18	21.61		21.11	21.28	22.50
	75	0	21.63		21.38	21.30	22.50
DFT-s-OFDM 16QAM	1	1	21.38		21.28	21.38	22.50
	1	77	20.97		20.79	20.89	22.50
	36	18	21.41		21.11	21.13	22.50
DFT-s-OFDM	1	1	20.70		20.76	20.70	22.00

	64QAM	1	77	20.39	20.59	20.31	22.00
		36	18	20.84	20.82	20.96	22.00
	DFT-s-OFDM 256QAM	1	1	19.20	19.42	19.08	20.00
		1	77	19.04	19.14	19.44	20.00
		36	18	18.82	18.82	18.88	20.00
	CP-OFDM QPSK	1	1	21.27	21.39	21.25	22.50
	CP-OFDM 16QAM	1	1	21.47	21.35	21.59	22.50
	CP-OFDM 64QAM	1	1	19.97	19.85	19.83	21.00
CP-OFDM 256QAM	1	1	16.77	16.69	16.49	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	
20MHz	DFT-s-OFDM BPSK	1	1	21.48	21.32	21.30	22.50
		1	104	21.19	21.13	21.13	22.50
		50	25	21.37	21.21	21.35	22.50
		100	0	21.40	21.20	21.38	22.50
	DFT-s-OFDM QPSK	1	1	21.24	21.25	21.10	22.50
		1	104	21.27	21.14	21.15	22.50
		50	25	21.45	21.23	21.10	22.50
		100	0	21.45	21.20	21.14	22.50
	DFT-s-OFDM 16QAM	1	1	21.28	21.10	21.26	22.50
		1	104	20.95	20.89	20.89	22.50
		50	25	21.31	21.23	21.25	22.50
	DFT-s-OFDM 64QAM	1	1	20.70	20.66	20.78	22.00
		1	104	20.41	20.45	20.39	22.00
		50	25	20.76	20.74	20.80	22.00
	DFT-s-OFDM 256QAM	1	1	19.26	19.28	19.14	20.00
		1	104	19.14	19.10	19.30	20.00
		50	25	18.76	18.82	18.92	20.00
	CP-OFDM QPSK	1	1	21.31	21.39	21.37	22.50
	CP-OFDM 16QAM	1	1	21.41	21.45	21.57	22.50
	CP-OFDM 64QAM	1	1	19.83	19.85	19.93	21.00
CP-OFDM 256QAM	1	1	16.59	16.61	16.59	18.00	

NR n7 (NSA)							
Receiver on-Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500500/2502.5	507000/2535	513500/2567.5	
5MHz	DFT-s-OFDM BPSK	1	1	18.16	18.04	18.30	19.00
		1	23	18.05	18.09	17.93	19.00
		12	6	18.29	18.17	18.25	19.00
		25	0	18.21	18.13	18.19	19.00
	DFT-s-OFDM QPSK	1	1	18.00	18.17	17.90	19.00
		1	23	18.05	17.87	17.74	19.00
		12	6	18.11	18.08	17.85	19.00
	DFT-s-OFDM 16QAM	1	1	17.76	17.89	17.90	19.00
		1	23	18.21	17.64	18.35	19.00
		12	6	17.88	18.21	18.00	19.00
	DFT-s-OFDM 64QAM	1	1	18.01	17.92	18.09	19.00
		1	23	18.18	17.95	18.12	19.00
		12	6	18.06	18.12	18.28	19.00
	DFT-s-OFDM 256QAM	1	1	18.58	18.73	18.63	19.00
		1	23	18.35	18.49	17.97	19.00
		12	6	18.44	18.19	18.22	19.00
	CP-OFDM QPSK	1	1	18.31	18.26	18.31	19.00
	CP-OFDM 16QAM	1	1	18.34	18.51	18.34	19.00
CP-OFDM 64QAM	1	1	18.10	18.38	18.13	19.00	
CP-OFDM 256QAM	1	1	16.56	16.43	16.29	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	DFT-s-OFDM BPSK	1	1	18.14	17.98	18.28	19.00
		1	50	17.83	18.21	17.99	19.00
		25	12	18.19	18.27	18.23	19.00
		50	0	18.35	18.09	18.09	19.00
	DFT-s-OFDM QPSK	1	1	17.98	17.93	18.10	19.00
		1	50	17.93	18.07	17.62	19.00
		25	12	18.05	17.86	17.89	19.00
	DFT-s-OFDM 16QAM	50	0	18.20	18.25	18.04	19.00
		1	1	17.58	18.03	17.92	19.00
		1	50	18.33	17.88	18.23	19.00
	25	12	17.68	18.25	17.66	19.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
	DFT-s-OFDM 64QAM	1	1	18.01	18.02	18.17	19.00
		1	50	18.26	17.89	17.98	19.00
		25	12	18.12	18.24	18.30	19.00
	DFT-s-OFDM 256QAM	1	1	18.40	18.75	18.65	19.00
		1	50	18.19	18.49	18.03	19.00
		25	12	18.30	18.31	18.16	19.00
	CP-OFDM QPSK	1	1	18.59	18.34	18.31	19.00
	CP-OFDM 16QAM	1	1	18.62	18.65	18.36	19.00
	CP-OFDM 64QAM	1	1	18.04	18.36	18.29	19.00
CP-OFDM 256QAM	1	1	16.60	16.63	16.11	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
15MHz	DFT-s-OFDM BPSK	1	1	18.36	18.02	18.08	19.00
		1	77	18.09	18.17	17.95	19.00
		36	18	18.37	18.21	18.21	19.00
		75	0	18.25	18.11	18.33	19.00
	DFT-s-OFDM QPSK	1	1	17.96	18.17	18.06	19.00
		1	77	18.11	17.85	17.82	19.00
		36	18	18.33	17.90	17.93	19.00
	DFT-s-OFDM 16QAM	75	0	18.16	18.17	17.94	19.00
		1	1	17.72	18.01	17.74	19.00
		1	77	18.27	17.88	18.31	19.00
	DFT-s-OFDM 64QAM	36	18	17.76	18.01	17.84	19.00
		1	1	18.11	17.94	18.13	19.00
		1	77	17.92	17.81	18.26	19.00
	DFT-s-OFDM 256QAM	36	18	18.14	18.10	18.34	19.00
		1	1	18.48	18.61	18.59	19.00
		1	77	18.13	18.49	17.95	19.00
	CP-OFDM QPSK	36	18	18.42	18.03	18.36	19.00
		1	1	18.33	18.10	18.33	19.00
		1	1	18.46	18.47	18.30	19.00
	CP-OFDM 16QAM	1	1	18.04	18.28	18.29	19.00
		1	1	16.74	16.47	16.35	18.00
1		1	16.74	16.47	16.35	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	

20MHz	DFT-s-OFDM BPSK	1	1	18.22	18.06	18.14	19.00
		1	104	17.95	17.99	17.99	19.00
		50	25	18.31	18.07	18.25	19.00
		100	0	18.19	18.05	18.21	19.00
	DFT-s-OFDM QPSK	1	1	18.08	18.03	17.88	19.00
		1	104	18.07	17.95	17.72	19.00
		50	25	18.15	18.02	17.87	19.00
		100	0	18.18	18.07	17.94	19.00
	DFT-s-OFDM 16QAM	1	1	17.74	17.83	17.84	19.00
		1	104	18.17	17.72	18.25	19.00
		50	25	17.76	18.09	17.84	19.00
	DFT-s-OFDM 64QAM	1	1	17.95	17.90	18.01	19.00
		1	104	18.04	17.83	18.08	19.00
		50	25	18.06	18.10	18.22	19.00
	DFT-s-OFDM 256QAM	1	1	18.54	18.59	18.61	19.00
		1	104	18.23	18.49	18.05	19.00
		50	25	18.34	18.11	18.30	19.00
	CP-OFDM QPSK	1	1	18.41	18.14	18.39	19.00
	CP-OFDM 16QAM	1	1	18.44	18.49	18.32	19.00
	CP-OFDM 64QAM	1	1	18.10	18.22	18.13	19.00
CP-OFDM 256QAM	1	1	16.60	16.43	16.25	18.00	

NR n7 (NSA)							
Hotspot on-Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500500/2502.5	507000/2535	513500/2567.5	
5MHz	DFT-s-OFDM BPSK	1	1	20.01	20.15	20.17	21.00
		1	23	20.10	19.84	19.96	21.00
		12	6	20.34	20.22	20.12	21.00
		25	0	20.10	20.18	20.10	21.00
	DFT-s-OFDM QPSK	1	1	19.97	20.08	19.87	21.00
		1	23	20.09	19.95	19.65	21.00
		12	6	20.18	20.08	19.96	21.00
		25	0	20.20	20.03	20.02	21.00
	DFT-s-OFDM 16QAM	1	1	19.68	19.98	19.70	21.00
		1	23	19.86	19.72	19.92	21.00
		12	6	20.01	20.17	19.93	21.00
	DFT-s-OFDM 64QAM	1	1	19.72	19.90	19.88	21.00
		1	23	19.85	19.75	19.85	21.00

		12	6	20.03	20.15	20.29	21.00
	DFT-s-OFDM 256QAM	1	1	18.80	19.12	19.10	20.00
		1	23	18.98	18.82	18.98	20.00
		12	6	18.45	18.79	18.57	20.00
	CP-OFDM QPSK	1	1	20.06	20.08	20.04	21.00
	CP-OFDM 16QAM	1	1	20.40	20.44	20.36	21.00
	CP-OFDM 64QAM	1	1	20.23	19.69	19.99	20.50
CP-OFDM 256QAM	1	1	16.69	16.51	16.67	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501000/2505	507000/2535	513000/2565	
10MHz	DFT-s-OFDM BPSK	1	1	20.29	20.09	19.95	21.00
		1	50	20.16	20.24	20.06	21.00
		25	12	20.38	20.04	20.38	21.00
		50	0	20.08	20.24	19.98	21.00
	DFT-s-OFDM QPSK	1	1	20.29	20.28	19.95	21.00
		1	50	20.37	19.91	19.73	21.00
		25	12	20.40	20.08	20.12	21.00
		50	0	20.38	20.27	20.14	21.00
	DFT-s-OFDM 16QAM	1	1	19.60	19.92	19.94	21.00
		1	50	19.84	19.90	19.74	21.00
		25	12	19.95	20.35	20.05	21.00
	DFT-s-OFDM 64QAM	1	1	19.84	19.82	19.90	21.00
		1	50	20.09	20.03	19.89	21.00
		25	12	20.19	20.19	20.29	21.00
	DFT-s-OFDM 256QAM	1	1	18.78	19.28	19.20	20.00
		1	50	19.12	18.96	18.74	20.00
		25	12	18.31	18.55	18.57	20.00
	CP-OFDM QPSK	1	1	20.30	20.18	20.32	21.00
	CP-OFDM 16QAM	1	1	20.30	20.40	20.44	21.00
	CP-OFDM 64QAM	1	1	20.31	19.65	20.07	20.50
CP-OFDM 256QAM	1	1	16.87	16.33	16.75	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501500/2507.5	507000/2535	512500/2562.5	
15MHz	DFT-s-OFDM	1	1	20.31	20.17	20.07	21.00
	BPSK	1	77	20.22	20.02	20.06	21.00

		36	18	20.41	20.32	20.30	21.00
		75	0	20.20	20.04	20.24	21.00
	DFT-s-OFDM QPSK	1	1	20.15	20.00	19.97	21.00
		1	77	20.33	20.17	19.73	21.00
		36	18	20.22	20.16	20.00	21.00
		75	0	20.42	20.17	19.88	21.00
		1	1	19.96	19.92	19.98	21.00
	DFT-s-OFDM 16QAM	1	77	19.84	19.88	19.80	21.00
		36	18	20.01	20.17	20.11	21.00
		1	1	19.96	19.94	20.08	21.00
	DFT-s-OFDM 64QAM	1	77	19.95	19.97	20.05	21.00
		36	18	20.09	20.27	20.33	21.00
		1	1	19.06	19.10	19.10	20.00
	DFT-s-OFDM 256QAM	1	77	19.28	18.90	19.10	20.00
		36	18	18.65	18.59	18.59	20.00
1		1	20.02	20.34	20.28	21.00	
CP-OFDM QPSK	1	1	20.02	20.34	20.28	21.00	
CP-OFDM 16QAM	1	1	20.42	20.36	20.40	21.00	
CP-OFDM 64QAM	1	1	20.23	19.87	20.11	20.50	
CP-OFDM 256QAM	1	1	16.85	16.47	16.77	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502000/2510	507000/2535	512000/2560	
20MHz	DFT-s-OFDM BPSK	1	1	20.19	20.11	20.13	21.00
		1	104	20.14	20.04	20.04	21.00
		50	25	20.42	20.16	20.16	21.00
		100	0	20.02	20.14	20.06	21.00
	DFT-s-OFDM QPSK	1	1	20.13	20.10	19.99	21.00
		1	104	20.15	20.01	19.77	21.00
		50	25	20.28	20.12	19.92	21.00
	DFT-s-OFDM 16QAM	100	0	20.28	20.17	20.00	21.00
		1	1	19.78	19.92	19.90	21.00
		1	104	19.90	19.80	19.92	21.00
	DFT-s-OFDM 64QAM	50	25	20.13	20.19	20.07	21.00
		1	1	19.92	19.98	19.98	21.00
		1	104	20.01	19.87	19.97	21.00
	DFT-s-OFDM 256QAM	50	25	20.07	20.17	20.19	21.00
		1	1	18.94	19.10	19.04	20.00
		1	104	19.10	18.98	18.92	20.00
	CP-OFDM	50	25	18.47	18.71	18.59	20.00
	CP-OFDM	1	1	20.10	20.20	20.22	21.00

	QPSK						
	CP-OFDM 16QAM	1	1	20.40	20.48	20.48	21.00
	CP-OFDM 64QAM	1	1	20.13	19.79	19.95	20.50
	CP-OFDM 256QAM	1	1	16.69	16.51	16.65	18.00

NR n26 (SA)							
Normal power&Receiver on&Receiver off&Hotspot on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				163300/816.5	166300/831.5	169300/846.5	
5MHz	DFT-s-OFDM BPSK	1	1	22.91	22.81	23.08	24.50
		1	23	23.02	22.87	22.96	24.50
		12	6	23.15	23.04	23.12	24.50
		25	0	22.50	22.42	22.44	24.00
	DFT-s-OFDM QPSK	1	1	22.70	22.84	22.93	24.50
		1	23	22.97	22.90	22.86	24.50
		12	6	22.95	23.05	22.92	24.50
		25	0	22.16	22.10	22.05	23.50
	DFT-s-OFDM 16QAM	1	1	21.62	21.52	21.77	23.50
		1	23	21.58	21.52	21.62	23.50
		12	6	22.02	21.96	22.05	23.50
	DFT-s-OFDM 64QAM	1	1	20.17	20.28	20.17	22.00
		1	23	20.31	20.30	20.12	22.00
		12	6	20.54	20.54	20.62	22.00
	DFT-s-OFDM 256QAM	1	1	18.82	18.89	18.95	20.00
		1	23	18.95	18.94	18.81	20.00
12		6	18.64	18.74	18.65	20.00	
	CP-OFDM QPSK	1	1	21.34	21.48	21.56	23.00
	CP-OFDM 16QAM	1	1	21.25	21.21	21.43	22.50
	CP-OFDM 64QAM	1	1	19.38	19.62	19.63	21.00
	CP-OFDM 256QAM	1	1	16.17	16.21	16.43	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				163800/819	166300/831.5	168800/844	
10MHz	DFT-s-OFDM BPSK	1	1	22.97	23.07	23.04	24.50
		1	50	23.04	22.93	22.88	24.50
		25	12	23.23	23.26	23.14	24.50
		50	0	22.46	22.64	22.60	24.00

	DFT-s-OFDM QPSK	1	1	22.96	22.86	22.99	24.50
		1	50	22.79	22.82	22.94	24.50
		25	12	23.23	22.89	23.06	24.50
		50	0	22.08	22.10	21.83	23.50
	DFT-s-OFDM 16QAM	1	1	21.76	21.58	21.65	23.50
		1	50	21.76	21.62	21.55	23.50
		25	12	21.94	22.20	22.07	23.50
	DFT-s-OFDM 64QAM	1	1	20.21	20.16	20.39	22.00
		1	50	20.39	20.24	20.16	22.00
		25	12	20.62	20.62	20.68	22.00
	DFT-s-OFDM 256QAM	1	1	18.72	18.71	18.81	20.00
		1	50	18.93	18.72	18.99	20.00
		25	12	18.42	18.84	18.75	20.00
CP-OFDM QPSK	1	1	21.20	21.32	21.68	23.00	
CP-OFDM 16QAM	1	1	21.33	21.41	21.49	22.50	
CP-OFDM 64QAM	1	1	19.44	19.72	19.63	21.00	
CP-OFDM 256QAM	1	1	16.33	16.11	16.23	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				164300/821.5	166300/831.5	168300/841.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.03	22.81	23.08	24.50
		1	77	23.12	23.01	22.92	24.50
		36	18	23.09	23.16	22.98	24.50
		75	0	22.58	22.66	22.56	24.00
	DFT-s-OFDM QPSK	1	1	22.94	22.74	22.83	24.50
		1	77	22.87	22.72	22.72	24.50
		36	18	23.13	23.13	22.84	24.50
		75	0	21.98	21.96	21.99	23.50
	DFT-s-OFDM 16QAM	1	1	21.70	21.76	21.77	23.50
		1	77	21.62	21.68	21.66	23.50
		36	18	22.04	22.10	21.99	23.50
	DFT-s-OFDM 64QAM	1	1	20.07	20.30	20.33	22.00
		1	77	20.19	20.10	20.22	22.00
		36	18	20.46	20.66	20.62	22.00
	DFT-s-OFDM 256QAM	1	1	18.88	18.83	18.79	20.00
		1	77	18.99	18.92	18.71	20.00
		36	18	18.52	18.66	18.47	20.00
	CP-OFDM QPSK	1	1	21.48	21.38	21.54	23.00
	CP-OFDM 16QAM	1	1	21.21	21.31	21.19	22.50
	CP-OFDM 64QAM	1	1	19.40	19.52	19.65	21.00
CP-OFDM 256QAM	1	1	16.33	16.19	16.39	18.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				164800/824	166300/831.5	167800/839	
20MHz	DFT-s-OFDM BPSK	1	1	22.87	22.91	22.94	24.50
		1	104	22.96	22.89	22.90	24.50
		50	25	23.07	23.04	22.98	24.50
		100	0	22.54	22.52	22.48	24.00
	DFT-s-OFDM QPSK	1	1	22.80	22.86	22.91	24.50
		1	104	22.91	22.84	22.82	24.50
		50	25	23.03	23.01	22.94	24.50
		100	0	22.02	22.00	21.97	23.50
	DFT-s-OFDM 16QAM	1	1	21.54	21.60	21.65	23.50
		1	104	21.66	21.60	21.54	23.50
		50	25	22.00	22.02	21.95	23.50
	DFT-s-OFDM 64QAM	1	1	20.13	20.22	20.23	22.00
		1	104	20.23	20.16	20.10	22.00
		50	25	20.58	20.56	20.50	22.00
	DFT-s-OFDM 256QAM	1	1	18.82	18.83	18.87	20.00
		1	104	18.91	18.86	18.77	20.00
		50	25	18.58	18.68	18.59	20.00
	CP-OFDM QPSK	1	1	21.38	21.42	21.48	23.00
	CP-OFDM 16QAM	1	1	21.17	21.23	21.27	22.50
	CP-OFDM 64QAM	1	1	19.48	19.56	19.59	21.00
CP-OFDM 256QAM	1	1	16.25	16.27	16.39	18.00	

NR n26 (NSA)							
Normal power&Receiver off&Hotspot on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				163300/816.5	166300/831.5	169300/846.5	
5MHz	DFT-s-OFDM BPSK	1	1	22.91	22.81	23.08	24.50
		1	23	23.02	22.87	22.96	24.50
		12	6	23.15	23.04	23.12	24.50
		25	0	22.50	22.42	22.44	24.00
	DFT-s-OFDM QPSK	1	1	22.70	22.84	22.93	24.50
		1	23	22.97	22.90	22.86	24.50
		12	6	22.95	23.05	22.92	24.50
		25	0	22.16	22.10	22.05	23.50
	DFT-s-OFDM 16QAM	1	1	21.62	21.52	21.77	23.50
		1	23	21.58	21.52	21.62	23.50
		12	6	22.02	21.96	22.05	23.50
	DFT-s-OFDM 64QAM	1	1	20.17	20.28	20.17	22.00
		1	23	20.31	20.30	20.12	22.00

		12	6	20.54	20.54	20.62	22.00
	DFT-s-OFDM 256QAM	1	1	18.82	18.89	18.95	20.00
		1	23	18.95	18.94	18.81	20.00
		12	6	18.64	18.74	18.65	20.00
	CP-OFDM QPSK	1	1	21.34	21.48	21.56	23.00
	CP-OFDM 16QAM	1	1	21.25	21.21	21.43	22.50
	CP-OFDM 64QAM	1	1	19.38	19.62	19.63	21.00
CP-OFDM 256QAM	1	1	16.17	16.21	16.43	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				163800/819	166300/831.5	168800/844	
10MHz	DFT-s-OFDM BPSK	1	1	22.97	23.07	23.04	24.50
		1	50	23.04	22.93	22.88	24.50
		25	12	23.23	23.26	23.14	24.50
		50	0	22.46	22.64	22.60	24.00
	DFT-s-OFDM QPSK	1	1	22.96	22.86	22.99	24.50
		1	50	22.79	22.82	22.94	24.50
		25	12	23.23	22.89	23.06	24.50
		50	0	22.08	22.10	21.83	23.50
	DFT-s-OFDM 16QAM	1	1	21.76	21.58	21.65	23.50
		1	50	21.76	21.62	21.55	23.50
		25	12	21.94	22.20	22.07	23.50
	DFT-s-OFDM 64QAM	1	1	20.21	20.16	20.39	22.00
		1	50	20.39	20.24	20.16	22.00
		25	12	20.62	20.62	20.68	22.00
	DFT-s-OFDM 256QAM	1	1	18.72	18.71	18.81	20.00
		1	50	18.93	18.72	18.99	20.00
		25	12	18.42	18.84	18.75	20.00
	CP-OFDM QPSK	1	1	21.20	21.32	21.68	23.00
	CP-OFDM 16QAM	1	1	21.33	21.41	21.49	22.50
	CP-OFDM 64QAM	1	1	19.44	19.72	19.63	21.00
CP-OFDM 256QAM	1	1	16.33	16.11	16.23	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				164300/821.5	166300/831.5	168300/841.5	
15MHz	DFT-s-OFDM	1	1	23.03	22.81	23.08	24.50
	BPSK	1	77	23.12	23.01	22.92	24.50

		36	18	23.09	23.16	22.98	24.50
		75	0	22.58	22.66	22.56	24.00
	DFT-s-OFDM QPSK	1	1	22.94	22.74	22.83	24.50
		1	77	22.87	22.72	22.72	24.50
		36	18	23.13	23.13	22.84	24.50
		75	0	21.98	21.96	21.99	23.50
	DFT-s-OFDM 16QAM	1	1	21.70	21.76	21.77	23.50
		1	77	21.62	21.68	21.66	23.50
		36	18	22.04	22.10	21.99	23.50
	DFT-s-OFDM 64QAM	1	1	20.07	20.30	20.33	22.00
		1	77	20.19	20.10	20.22	22.00
		36	18	20.46	20.66	20.62	22.00
	DFT-s-OFDM 256QAM	1	1	18.88	18.83	18.79	20.00
		1	77	18.99	18.92	18.71	20.00
		36	18	18.52	18.66	18.47	20.00
CP-OFDM QPSK	1	1	21.48	21.38	21.54	23.00	
CP-OFDM 16QAM	1	1	21.21	21.31	21.19	22.50	
CP-OFDM 64QAM	1	1	19.40	19.52	19.65	21.00	
CP-OFDM 256QAM	1	1	16.33	16.19	16.39	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				164800/824	166300/831.5	167800/839	
20MHz	DFT-s-OFDM BPSK	1	1	22.87	22.91	22.94	24.50
		1	104	22.96	22.89	22.90	24.50
		50	25	23.07	23.04	22.98	24.50
		100	0	22.54	22.52	22.48	24.00
	DFT-s-OFDM QPSK	1	1	22.80	22.86	22.91	24.50
		1	104	22.91	22.84	22.82	24.50
		50	25	23.03	23.01	22.94	24.50
	DFT-s-OFDM 16QAM	100	0	22.02	22.00	21.97	23.50
		1	1	21.54	21.60	21.65	23.50
		1	104	21.66	21.60	21.54	23.50
	DFT-s-OFDM 64QAM	50	25	22.00	22.02	21.95	23.50
		1	1	20.13	20.22	20.23	22.00
		1	104	20.23	20.16	20.10	22.00
	DFT-s-OFDM 256QAM	50	25	20.58	20.56	20.50	22.00
		1	1	18.82	18.83	18.87	20.00
		1	104	18.91	18.86	18.77	20.00
	CP-OFDM	50	25	18.58	18.68	18.59	20.00
			1	1	21.38	21.42	21.48

	QPSK						
	CP-OFDM 16QAM	1	1	21.17	21.23	21.27	22.50
	CP-OFDM 64QAM	1	1	19.48	19.56	19.59	21.00
	CP-OFDM 256QAM	1	1	16.25	16.27	16.39	18.00

NR n26 (NSA)							
Receiver on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				163300/816.5	166300/831.5	169300/846.5	
5MHz	DFT-s-OFDM BPSK	1	1	19.98	19.98	19.72	21.50
		1	23	20.08	19.84	19.82	21.50
		12	6	20.23	20.09	20.15	21.50
		25	0	20.28	19.92	20.06	21.50
	DFT-s-OFDM QPSK	1	1	19.77	19.83	19.91	21.50
		1	23	19.96	19.92	19.79	21.50
		12	6	20.08	20.18	20.13	21.50
		25	0	19.93	19.97	20.03	21.50
	DFT-s-OFDM 16QAM	1	1	19.75	19.59	19.79	21.50
		1	23	19.77	19.67	19.67	21.50
		12	6	20.24	20.14	20.08	21.50
	DFT-s-OFDM 64QAM	1	1	20.00	19.66	19.74	21.50
		1	23	20.05	19.79	20.01	21.50
		12	6	20.13	20.07	20.01	21.50
	DFT-s-OFDM 256QAM	1	1	18.97	18.85	18.91	20.00
		1	23	19.12	18.72	18.92	20.00
12		6	18.82	18.50	18.70	20.00	
CP-OFDM QPSK	1	1	19.84	20.06	20.02	21.50	
CP-OFDM 16QAM	1	1	20.51	20.41	20.57	21.50	
CP-OFDM 64QAM	1	1	19.67	19.61	19.57	21.00	
CP-OFDM 256QAM	1	1	16.26	16.30	16.40	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				163800/819	166300/831.5	168800/844	
10MHz	DFT-s-OFDM BPSK	1	1	19.80	19.78	19.72	21.50
		1	50	19.92	19.94	19.96	21.50
		25	12	20.31	19.91	20.01	21.50
		50	0	20.12	20.06	19.96	21.50

	DFT-s-OFDM QPSK	1	1	19.77	20.13	19.85	21.50
		1	50	19.96	19.98	19.85	21.50
		25	12	19.94	19.96	20.17	21.50
		50	0	19.87	20.09	20.19	21.50
	DFT-s-OFDM 16QAM	1	1	19.87	19.89	19.57	21.50
		1	50	19.61	19.81	19.59	21.50
		25	12	20.14	20.08	20.18	21.50
	DFT-s-OFDM 64QAM	1	1	19.80	19.68	19.84	21.50
		1	50	19.79	19.85	19.73	21.50
		25	12	20.35	20.13	19.97	21.50
	DFT-s-OFDM 256QAM	1	1	19.09	19.01	18.69	20.00
		1	50	18.88	18.98	19.10	20.00
		25	12	18.76	18.78	18.64	20.00
	CP-OFDM QPSK	1	1	19.88	20.14	20.10	21.50
CP-OFDM 16QAM	1	1	20.51	20.39	20.57	21.50	
CP-OFDM 64QAM	1	1	19.43	19.69	19.49	21.00	
CP-OFDM 256QAM	1	1	16.34	16.14	16.36	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				164300/821.5	166300/831.5	168300/841.5	
15MHz	DFT-s-OFDM BPSK	1	1	20.00	19.86	19.66	21.50
		1	77	20.06	19.76	19.86	21.50
		36	18	20.37	20.05	19.93	21.50
		75	0	20.08	19.88	20.04	21.50
	DFT-s-OFDM QPSK	1	1	19.95	19.93	19.97	21.50
		1	77	19.96	19.74	19.93	21.50
		36	18	20.16	19.98	20.17	21.50
		75	0	20.15	20.07	20.17	21.50
	DFT-s-OFDM 16QAM	1	1	19.95	19.61	19.83	21.50
		1	77	19.89	19.79	19.63	21.50
		36	18	20.08	20.08	20.16	21.50
	DFT-s-OFDM 64QAM	1	1	20.00	19.62	19.80	21.50
		1	77	19.85	19.89	19.87	21.50
		36	18	20.11	19.91	20.05	21.50
	DFT-s-OFDM 256QAM	1	1	19.01	18.97	18.87	20.00
		1	77	18.90	18.82	18.80	20.00
		36	18	18.54	18.62	18.56	20.00
	CP-OFDM QPSK	1	1	19.88	20.12	19.90	21.50
	CP-OFDM	1	1	20.61	20.35	20.49	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				164800/824	166300/831.5	167800/839	
	16QAM						
	CP-OFDM 64QAM	1	1	19.61	19.53	19.53	21.00
	CP-OFDM 256QAM	1	1	16.36	16.26	16.42	18.00
20MHz	DFT-s-OFDM BPSK	1	1	19.94	19.88	19.76	21.50
		1	104	20.02	19.88	19.84	21.50
		50	25	20.19	19.99	20.03	21.50
		100	0	20.12	19.98	20.06	21.50
	DFT-s-OFDM QPSK	1	1	19.87	19.80	19.89	21.50
		1	104	19.90	19.91	19.87	21.50
		50	25	20.04	20.01	20.01	21.50
		100	0	20.01	19.99	19.99	21.50
	DFT-s-OFDM 16QAM	1	1	19.81	19.67	19.71	21.50
		1	104	19.73	19.65	19.71	21.50
		50	25	20.18	20.00	20.00	21.50
	DFT-s-OFDM 64QAM	1	1	19.98	19.70	19.80	21.50
		1	104	19.89	19.73	19.85	21.50
		50	25	20.15	20.03	19.97	21.50
	DFT-s-OFDM 256QAM	1	1	18.87	18.79	18.81	20.00
		1	104	19.02	18.82	18.88	20.00
		50	25	18.66	18.56	18.58	20.00
	CP-OFDM QPSK	1	1	19.88	19.96	19.92	21.50
	CP-OFDM 16QAM	1	1	20.59	20.25	20.43	21.50
	CP-OFDM 64QAM	1	1	19.59	19.53	19.45	21.00
CP-OFDM 256QAM	1	1	16.32	16.16	16.32	18.00	

NR n41 (SA)							
Normal power--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	22.99	23.07	22.51	24.50
		1	22	22.70	22.53	23.37	24.50
		12	6	22.91	22.79	23.19	24.50
		24	0	22.33	22.06	22.02	24.00
	DFT-s-OFDM	1	1	22.81	22.87	22.55	24.50

	QPSK	1	22	22.62	22.58	23.34	24.50
		12	6	23.05	22.94	22.74	24.50
		24	0	21.60	21.64	22.04	23.50
	DFT-s-OFDM 16QAM	1	1	22.05	21.66	21.15	23.00
		1	22	21.10	21.36	22.00	23.00
		12	6	21.93	21.62	22.17	23.00
	DFT-s-OFDM 64QAM	1	1	20.15	20.22	19.97	21.50
		1	22	19.71	20.13	20.45	21.50
		12	6	20.64	20.21	20.19	21.50
	DFT-s-OFDM 256QAM	1	1	19.09	18.70	18.33	20.00
		1	22	18.16	18.65	19.06	20.00
		12	6	18.50	18.21	18.42	20.00
	CP-OFDM QPSK	1	1	21.69	21.48	21.17	22.50
CP-OFDM 16QAM	1	1	21.18	20.98	20.87	22.50	
CP-OFDM 64QAM	1	1	19.76	19.46	19.12	21.00	
CP-OFDM 256QAM	1	1	16.36	16.13	16.11	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	23.17	22.85	22.57	24.50
		1	36	22.57	22.74	23.19	24.50
		18	9	22.81	22.75	22.81	24.50
		36	0	22.41	22.02	22.30	24.00
	DFT-s-OFDM QPSK	1	1	22.97	22.65	22.59	24.50
		1	36	22.53	22.52	23.34	24.50
		18	9	23.27	22.76	23.06	24.50
		36	0	21.82	21.68	22.10	23.50
	DFT-s-OFDM 16QAM	1	1	21.71	21.58	21.37	23.00
		1	36	21.22	21.46	21.84	23.00
		18	9	21.91	21.96	22.01	23.00
	DFT-s-OFDM 64QAM	1	1	20.25	20.04	19.89	21.50
		1	36	19.83	19.87	20.41	21.50
		18	9	20.30	20.25	20.57	21.50
	DFT-s-OFDM 256QAM	1	1	19.15	18.84	18.47	20.00
		1	36	18.60	18.65	19.00	20.00
		18	9	18.74	18.29	18.54	20.00
	CP-OFDM QPSK	1	1	21.51	21.50	21.37	22.50
CP-OFDM 16QAM	1	1	21.22	21.14	20.95	22.50	
CP-OFDM 64QAM	1	1	19.68	19.52	19.20	21.00	
CP-OFDM 256QAM	1	1	16.42	16.47	16.05	18.00	
Bandwidth	Modulation	RB	offset	Channel/Frequency(MHz)			Tune-up

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
20MHz	DFT-s-OFDM BPSK	1	1	23.07	22.75	22.55	24.50
		1	49	22.63	22.60	23.05	24.50
		25	12	22.83	22.71	22.89	24.50
		50	0	22.37	22.04	22.08	24.00
	DFT-s-OFDM QPSK	1	1	22.81	22.53	22.53	24.50
		1	49	22.62	22.60	23.26	24.50
		25	12	23.03	22.52	22.82	24.50
		50	0	21.70	21.74	21.90	23.50
	DFT-s-OFDM 16QAM	1	1	21.61	21.42	21.21	23.00
		1	49	21.14	21.34	21.62	23.00
		25	12	21.93	21.86	21.85	23.00
	DFT-s-OFDM 64QAM	1	1	20.13	20.04	19.85	21.50
		1	49	19.83	19.69	20.23	21.50
		25	12	20.24	20.23	20.21	21.50
	DFT-s-OFDM 256QAM	1	1	18.93	18.72	18.33	20.00
		1	49	18.50	18.59	18.98	20.00
25		12	18.52	18.15	18.24	20.00	
CP-OFDM QPSK	1	1	21.47	21.42	21.29	22.50	
CP-OFDM 16QAM	1	1	21.14	20.88	21.01	22.50	
CP-OFDM 64QAM	1	1	19.64	19.36	19.08	21.00	
CP-OFDM 256QAM	1	1	16.40	16.49	16.10	18.00	
30MHz	DFT-s-OFDM BPSK	1	1	23.23	22.85	22.54	24.50
		1	76	22.64	22.74	23.09	24.50
		36	18	22.75	22.51	22.97	24.50
		75	0	22.33	22.24	22.46	24.00
	DFT-s-OFDM QPSK	1	1	22.81	22.65	22.58	24.50
		1	76	22.59	22.66	23.06	24.50
		36	18	23.33	22.64	22.86	24.50
		75	0	21.62	21.88	21.90	23.50
	DFT-s-OFDM 16QAM	1	1	21.83	21.46	21.51	23.00
		1	76	21.20	21.48	21.96	23.00
		36	18	22.11	21.82	22.11	23.00
	DFT-s-OFDM 64QAM	1	1	19.99	20.02	19.93	21.50
		1	76	19.97	19.83	20.23	21.50
		36	18	20.24	20.51	20.41	21.50
	DFT-s-OFDM 256QAM	1	1	18.83	18.70	18.31	20.00
		1	76	18.36	18.79	19.00	20.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
		36	18	18.78	18.09	18.38	20.00
	CP-OFDM QPSK	1	1	21.41	21.42	21.39	22.50
	CP-OFDM 16QAM	1	1	21.40	21.12	21.01	22.50
	CP-OFDM 64QAM	1	1	19.60	19.64	19.32	21.00
	CP-OFDM 256QAM	1	1	16.14	16.43	16.06	18.00
40MHz	DFT-s-OFDM BPSK	1	1	23.11	23.03	22.68	24.50
		1	104	22.66	22.60	23.33	24.50
		50	25	22.85	22.73	23.09	24.50
		100	0	22.21	22.22	22.22	24.00
	DFT-s-OFDM QPSK	1	1	23.11	22.67	22.60	24.50
		1	104	22.58	22.58	23.38	24.50
		50	25	23.27	22.72	22.84	24.50
		100	0	21.66	21.80	22.12	23.50
	DFT-s-OFDM 16QAM	1	1	21.81	21.68	21.43	23.00
		1	104	21.30	21.44	21.98	23.00
		50	25	22.07	21.92	22.01	23.00
	DFT-s-OFDM 64QAM	1	1	20.19	20.16	19.67	21.50
		1	104	19.91	19.81	20.59	21.50
		50	25	20.30	20.47	20.59	21.50
	DFT-s-OFDM 256QAM	1	1	19.03	18.76	18.61	20.00
		1	104	18.62	18.63	18.94	20.00
		50	25	18.50	18.11	18.52	20.00
	CP-OFDM QPSK	1	1	21.51	21.28	21.15	22.50
	CP-OFDM 16QAM	1	1	21.22	21.06	21.09	22.50
	CP-OFDM 64QAM	1	1	19.76	19.54	19.28	21.00
CP-OFDM 256QAM	1	1	16.20	16.47	16.15	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	532998/2664.99	
50MHz	DFT-s-OFDM BPSK	1	1	22.95	22.83	22.61	24.50
		1	131	22.66	22.72	23.27	24.50
		64	32	22.83	22.79	22.91	24.50
		128	0	22.55	22.26	22.42	24.00
	DFT-s-OFDM QPSK	1	1	22.91	22.71	22.64	24.50
		1	131	22.62	22.52	23.26	24.50
		64	32	22.85	22.56	22.76	24.50
		128	0	21.88	21.66	21.96	23.50
	DFT-s-OFDM 16QAM	1	1	21.81	21.70	21.31	23.00
		1	131	21.44	21.42	21.82	23.00

		64	32	22.09	21.72	21.79	23.00
	DFT-s-OFDM 64QAM	1	1	20.37	20.06	19.79	21.50
		1	131	19.87	19.79	20.37	21.50
		64	32	20.56	20.15	20.47	21.50
	DFT-s-OFDM 256QAM	1	1	18.79	18.78	18.45	20.00
		1	131	18.46	18.51	19.06	20.00
		64	32	18.40	18.11	18.46	20.00
	CP-OFDM QPSK	1	1	21.43	21.52	21.25	22.50
	CP-OFDM 16QAM	1	1	21.18	21.10	20.89	22.50
CP-OFDM 64QAM	1	1	19.70	19.66	19.18	21.00	
CP-OFDM 256QAM	1	1	16.48	16.23	16.10	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	22.73	22.59	22.53	24.50
		1	160	22.53	22.62	23.21	24.50
		81	40	22.75	22.61	22.83	24.50
		162	0	22.25	22.06	22.44	24.00
	DFT-s-OFDM QPSK	1	1	22.79	22.73	22.54	24.50
		1	160	22.64	22.60	23.20	24.50
		81	40	22.95	22.62	22.64	24.50
	DFT-s-OFDM 16QAM	162	0	21.68	21.66	21.88	23.50
		1	1	21.55	21.56	21.21	23.00
		1	160	21.42	21.34	21.96	23.00
	DFT-s-OFDM 64QAM	81	40	21.81	21.80	21.69	23.00
		1	1	20.19	20.12	19.71	21.50
		1	160	19.67	19.87	20.39	21.50
	DFT-s-OFDM 256QAM	81	40	20.46	20.07	20.13	21.50
		1	1	18.99	18.78	18.57	20.00
		1	160	18.50	18.43	19.12	20.00
	CP-OFDM QPSK	81	40	18.56	18.19	18.12	20.00
		1	1	21.45	21.44	21.03	22.50
1		1	21.24	21.20	20.99	22.50	
CP-OFDM 16QAM	1	1	19.52	19.32	19.08	21.00	
	1	1	16.28	16.15	16.12	18.00	
	1	1	16.28	16.15	16.12	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				506202/2531.01	518598/2595.99	531000 /2655	
70MHz	DFT-s-OFDM BPSK	1	1	23.17	22.83	22.82	24.50
		1	187	22.56	22.79	23.51	24.50
		92	45	22.93	23.05	22.87	24.50
		180	0	22.73	22.24	22.52	24.00

	DFT-s-OFDM QPSK	1	1	23.01	22.97	22.94	24.50
		1	187	22.80	22.60	23.28	24.50
		92	45	22.97	23.02	23.00	24.50
		180	0	21.86	21.80	22.16	23.50
	DFT-s-OFDM 16QAM	1	1	21.67	21.60	21.51	23.00
		1	187	21.46	21.46	21.72	23.00
		92	46	21.95	22.02	21.83	23.00
	DFT-s-OFDM 64QAM	1	1	20.43	20.28	20.17	21.50
		1	187	19.91	20.23	20.49	21.50
		92	46	20.56	20.29	20.53	21.50
	DFT-s-OFDM 256QAM	1	1	18.89	18.92	18.53	20.00
		1	187	18.74	18.39	19.12	20.00
		92	46	18.52	18.25	18.52	20.00
CP-OFDM QPSK	1	1	21.41	21.54	21.35	22.50	
CP-OFDM 16QAM	1	1	21.38	21.18	21.29	22.50	
CP-OFDM 64QAM	1	1	19.58	19.68	19.46	21.00	
CP-OFDM 256QAM	1	1	16.34	16.33	16.04	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	23.09	22.77	22.58	24.50
		1	215	22.60	22.55	23.33	24.50
		108	54	22.85	22.83	22.83	24.50
		216	0	22.59	22.30	22.46	24.00
	DFT-s-OFDM QPSK	1	1	22.91	22.87	22.70	24.50
		1	215	22.60	22.60	23.06	24.50
		108	54	22.83	22.84	22.84	24.50
		216	0	21.82	21.66	21.92	23.50
	DFT-s-OFDM 16QAM	1	1	21.57	21.66	21.53	23.00
		1	215	21.32	21.30	21.74	23.00
		108	54	21.79	21.90	21.67	23.00
	DFT-s-OFDM 64QAM	1	1	20.33	20.34	20.05	21.50
		1	215	19.67	20.03	20.37	21.50
		108	54	20.46	20.03	20.43	21.50
	DFT-s-OFDM 256QAM	1	1	18.81	18.66	18.37	20.00
		1	215	18.56	18.39	19.08	20.00
		108	54	18.36	18.15	18.46	20.00
	CP-OFDM QPSK	1	1	21.29	21.40	21.23	22.50
	CP-OFDM 16QAM	1	1	21.20	21.18	21.09	22.50
	CP-OFDM 64QAM	1	1	19.50	19.58	19.30	21.00
CP-OFDM 256QAM	1	1	16.24	16.13	16.06	18.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	23.05	22.87	22.51	24.50
		1	243	22.60	22.70	23.07	24.50
		120	60	23.09	22.85	22.69	24.50
		243	0	22.41	22.12	22.30	24.00
	DFT-s-OFDM QPSK	1	1	22.93	22.91	22.56	24.50
		1	243	22.68	22.54	23.24	24.50
		120	60	22.95	22.64	22.90	24.50
		243	0	21.82	21.54	21.88	23.50
	DFT-s-OFDM 16QAM	1	1	21.57	21.54	21.29	23.00
		1	243	21.30	21.22	21.94	23.00
		120	60	22.01	21.64	21.97	23.00
	DFT-s-OFDM 64QAM	1	1	20.29	20.28	19.95	21.50
		1	243	19.87	19.89	20.45	21.50
		120	60	20.48	20.19	20.31	21.50
	DFT-s-OFDM 256QAM	1	1	18.79	18.78	18.41	20.00
		1	243	18.60	18.61	18.96	20.00
120		60	18.60	18.11	18.50	20.00	
CP-OFDM QPSK	1	1	21.55	21.28	21.15	22.50	
CP-OFDM 16QAM	1	1	21.24	21.22	20.83	22.50	
CP-OFDM 64QAM	1	1	19.74	19.52	19.30	21.00	
CP-OFDM 256QAM	1	1	16.44	16.25	16.16	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	22.93	22.77	22.51	24.50
		1	271	22.53	22.56	23.15	24.50
		135	67	22.93	22.67	22.81	24.50
		270	0	22.39	22.12	22.34	24.00
	DFT-s-OFDM QPSK	1	1	22.91	22.79	22.54	24.50
		1	271	22.54	22.54	23.12	24.50
		135	67	22.95	22.66	22.82	24.50
		270	0	21.88	21.64	21.84	23.50
	DFT-s-OFDM 16QAM	1	1	21.69	21.56	21.31	23.00
		1	271	21.32	21.34	21.88	23.00
		135	67	21.95	21.70	21.83	23.00
	DFT-s-OFDM 64QAM	1	1	20.23	20.12	19.87	21.50
		1	271	19.85	19.89	20.41	21.50
		135	67	20.44	20.19	20.33	21.50
	DFT-s-OFDM	1	1	18.89	18.76	18.51	20.00

	256QAM	1	271	18.50	18.55	19.04	20.00
		135	67	18.48	18.21	18.32	20.00
	CP-OFDM QPSK	1	1	21.47	21.36	21.13	22.50
	CP-OFDM 16QAM	1	1	21.22	21.12	20.89	22.50
	CP-OFDM 64QAM	1	1	19.60	19.50	19.26	21.00
	CP-OFDM 256QAM	1	1	16.36	16.23	16.33	18.00

NR n41 (SA)								
Receiver off--Main Ant3				Maximum Output Power (dBm)			Tune-up	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)				
				500202/2501.01	5185.98/2592.99	537000/2685		
10MHz	DFT-s-OFDM BPSK	1	1	21.99	21.98	22.14	23.50	
		1	22	21.78	21.59	21.64	23.50	
		12	6	21.94	21.62	21.82	23.50	
		24	0	21.92	21.74	21.84	23.50	
	DFT-s-OFDM QPSK	1	1	22.06	22.15	21.79	23.50	
		1	22	21.64	21.56	22.12	23.50	
		12	6	22.17	21.85	21.81	23.50	
	DFT-s-OFDM 16QAM	24	0	22.23	21.67	21.90	23.50	
		1	1	22.07	21.72	21.88	23.00	
		1	22	21.31	21.48	21.72	23.00	
	DFT-s-OFDM 64QAM	12	6	22.32	21.62	21.76	23.00	
		1	1	20.69	20.44	20.28	21.50	
		1	22	19.89	19.92	19.70	21.50	
	DFT-s-OFDM 256QAM	12	6	20.66	20.00	19.74	21.50	
		1	1	19.29	18.86	19.06	20.00	
		1	22	18.46	18.64	18.66	20.00	
	CP-OFDM	12	6	18.74	18.11	18.37	20.00	
		1	1	21.50	21.62	21.36	22.50	
		1	1	21.10	21.02	21.32	22.50	
		1	1	19.80	19.72	19.78	21.00	
1		1	16.39	16.35	16.39	18.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
15MHz	DFT-s-OFDM BPSK	500700/2503.5	518598/2592.99	536496/2682.48	22.03	22.06	22.12	23.50
		1	1	22.03	22.06	22.12	23.50	
		1	36	21.52	21.55	21.70	23.50	
		18	9	21.76	21.66	21.72	23.50	
	DFT-s-OFDM QPSK	36	0	21.88	21.52	21.72	23.50	
		1	1	21.92	22.09	21.73	23.50	
		1	36	21.60	21.68	22.08	23.50	

		18	9	22.15	21.71	21.79	23.50
		36	0	21.93	21.57	21.64	23.50
	DFT-s-OFDM 16QAM	1	1	22.11	21.86	21.88	23.00
		1	36	21.15	21.26	21.60	23.00
		18	9	21.98	21.52	21.58	23.00
	DFT-s-OFDM 64QAM	1	1	20.39	20.38	20.24	21.50
		1	36	19.87	19.86	19.78	21.50
		18	9	20.48	19.84	19.78	21.50
	DFT-s-OFDM 256QAM	1	1	19.17	18.58	18.94	20.00
		1	36	18.38	18.50	18.56	20.00
		18	9	18.52	18.19	18.29	20.00
	CP-OFDM QPSK	1	1	21.40	21.58	21.20	22.50
	CP-OFDM 16QAM	1	1	20.96	21.16	21.16	22.50
	CP-OFDM 64QAM	1	1	19.62	19.44	19.80	21.00
CP-OFDM 256QAM	1	1	16.27	16.23	16.53	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
20MHz	DFT-s-OFDM BPSK	1	1	22.29	21.90	22.00	23.50
		1	49	21.62	21.53	21.80	23.50
		25	12	21.80	21.80	21.78	23.50
		50	0	21.86	21.80	21.86	23.50
	DFT-s-OFDM QPSK	1	1	22.28	22.23	22.01	23.50
		1	49	21.64	21.74	21.94	23.50
		25	12	22.01	22.01	21.73	23.50
		50	0	22.29	21.71	21.94	23.50
	DFT-s-OFDM 16QAM	1	1	22.21	21.80	21.66	23.00
		1	49	21.33	21.22	21.68	23.00
		25	12	22.28	21.90	21.72	23.00
	DFT-s-OFDM 64QAM	1	1	20.79	20.42	20.24	21.50
		1	49	19.89	19.96	19.62	21.50
		25	12	20.86	20.08	19.68	21.50
	DFT-s-OFDM 256QAM	1	1	19.07	18.90	19.08	20.00
		1	49	18.40	18.38	18.56	20.00
		25	12	18.52	18.29	18.27	20.00
	CP-OFDM QPSK	1	1	21.34	21.56	21.20	22.50
	CP-OFDM 16QAM	1	1	21.18	21.30	21.08	22.50
	CP-OFDM 64QAM	1	1	19.64	19.72	19.64	21.00
CP-OFDM 256QAM	1	1	16.33	16.11	16.51	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	

30MHz	DFT-s-OFDM BPSK	1	1	22.23	21.96	22.18	23.50
		1	76	21.84	21.63	21.76	23.50
		36	18	22.08	21.74	21.90	23.50
		75	0	21.78	21.55	21.56	23.50
	DFT-s-OFDM QPSK	1	1	22.30	22.01	21.87	23.50
		1	76	21.61	21.76	22.16	23.50
		36	18	22.09	21.85	21.79	23.50
		75	0	22.23	21.65	21.78	23.50
	DFT-s-OFDM 16QAM	1	1	22.15	21.96	21.76	23.00
		1	76	21.49	21.46	21.72	23.00
		36	18	22.22	21.72	21.74	23.00
	DFT-s-OFDM 64QAM	1	1	20.73	20.28	20.32	21.50
		1	76	20.05	19.70	19.62	21.50
		36	18	20.60	19.86	19.66	21.50
	DFT-s-OFDM 256QAM	1	1	19.15	18.76	19.16	20.00
		1	76	18.62	18.40	18.88	20.00
36		18	18.46	18.13	18.49	20.00	
CP-OFDM QPSK	1	1	21.64	21.50	21.38	22.50	
CP-OFDM 16QAM	1	1	21.32	21.22	21.14	22.50	
CP-OFDM 64QAM	1	1	19.80	19.58	19.72	21.00	
CP-OFDM 256QAM	1	1	16.33	16.37	16.47	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	22.25	21.78	21.90	23.50
		1	104	21.66	21.51	21.74	23.50
		50	25	21.82	21.82	21.88	23.50
		100	0	21.92	21.80	21.96	23.50
	DFT-s-OFDM QPSK	1	1	22.28	22.09	21.53	23.50
		1	104	21.58	21.68	22.40	23.50
		50	25	21.87	21.60	21.79	23.50
		100	0	21.93	21.55	21.62	23.50
	DFT-s-OFDM 16QAM	1	1	21.93	21.54	21.70	23.00
		1	104	21.55	21.40	21.42	23.00
		50	25	22.12	21.74	21.54	23.00
	DFT-s-OFDM 64QAM	1	1	20.65	20.36	20.06	21.50
		1	104	19.81	19.96	19.66	21.50
		50	25	20.36	19.68	19.64	21.50
	DFT-s-OFDM 256QAM	1	1	19.13	18.68	18.96	20.00
		1	104	18.86	18.50	18.64	20.00
50		25	18.48	18.15	18.51	20.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	532998/2664.99	
	CP-OFDM QPSK	1	1	21.56	21.38	21.20	22.50
	CP-OFDM 16QAM	1	1	20.94	21.36	21.48	22.50
	CP-OFDM 64QAM	1	1	19.38	19.62	19.56	21.00
	CP-OFDM 256QAM	1	1	16.67	16.47	16.53	18.00
50MHz	DFT-s-OFDM BPSK	1	1	22.07	21.98	22.02	23.50
		1	131	21.70	21.57	21.74	23.50
		64	32	21.96	21.62	21.82	23.50
		128	0	21.90	21.62	21.68	23.50
	DFT-s-OFDM QPSK	1	1	22.12	22.01	21.87	23.50
		1	131	21.52	21.62	22.08	23.50
		64	32	22.17	21.79	21.75	23.50
		128	0	22.09	21.53	21.76	23.50
	DFT-s-OFDM 16QAM	1	1	22.03	21.78	21.84	23.00
		1	131	21.31	21.38	21.56	23.00
		64	32	22.18	21.70	21.74	23.00
	DFT-s-OFDM 64QAM	1	1	20.57	20.34	20.20	21.50
		1	131	19.97	19.78	19.74	21.50
		64	32	20.64	19.92	19.76	21.50
	DFT-s-OFDM 256QAM	1	1	19.19	18.74	19.00	20.00
		1	131	18.56	18.52	18.74	20.00
		64	32	18.58	18.13	18.33	20.00
	CP-OFDM QPSK	1	1	21.48	21.48	21.34	22.50
	CP-OFDM 16QAM	1	1	21.14	21.12	21.22	22.50
	CP-OFDM 64QAM	1	1	19.64	19.62	19.72	21.00
CP-OFDM 256QAM	1	1	16.41	16.29	16.49	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	22.07	21.86	22.08	23.50
		1	160	21.70	21.61	21.72	23.50
		81	40	22.12	21.64	21.70	23.50
		162	0	22.10	21.54	21.66	23.50
	DFT-s-OFDM QPSK	1	1	21.86	21.67	21.69	23.50
		1	160	21.56	21.80	21.96	23.50
		81	40	22.03	21.55	21.71	23.50
		162	0	22.01	21.69	21.80	23.50
	DFT-s-OFDM 16QAM	1	1	21.67	21.68	21.58	23.00
		1	160	21.19	21.32	21.36	23.00
		81	40	21.96	21.46	21.58	23.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				506202/2531.01	518598/2595.99	531000 /2655	
	DFT-s-OFDM 64QAM	1	1	20.47	20.32	20.32	21.50
		1	160	19.89	19.82	19.66	21.50
		81	40	20.38	19.60	19.70	21.50
	DFT-s-OFDM 256QAM	1	1	19.01	18.80	18.74	20.00
		1	160	18.52	18.54	18.62	20.00
		81	40	18.52	18.21	18.19	20.00
	CP-OFDM QPSK	1	1	21.50	21.34	21.46	22.50
	CP-OFDM 16QAM	1	1	20.94	21.04	21.40	22.50
CP-OFDM 64QAM	1	1	19.32	19.52	19.44	21.00	
CP-OFDM 256QAM	1	1	16.19	16.37	16.49	18.00	
70MHz	DFT-s-OFDM BPSK	1	1	22.23	22.16	22.05	23.50
		1	187	21.66	21.71	21.53	23.50
		92	45	21.92	21.54	21.87	23.50
		180	0	22.04	21.88	21.83	23.50
	DFT-s-OFDM QPSK	1	1	22.18	22.03	22.06	23.50
		1	187	21.72	21.66	22.13	23.50
		92	45	22.57	21.53	21.62	23.50
		180	0	22.15	21.91	21.75	23.50
	DFT-s-OFDM 16QAM	1	1	21.94	21.83	21.91	23.00
		1	187	21.34	21.43	21.47	23.00
		92	46	22.39	21.47	21.83	23.00
	DFT-s-OFDM 64QAM	1	1	20.50	20.10	20.36	21.50
		1	187	20.01	19.81	20.03	21.50
		92	46	20.50	19.69	19.69	21.50
	DFT-s-OFDM 256QAM	1	1	19.01	18.79	19.07	20.00
		1	187	18.58	18.67	18.93	20.00
		92	46	18.62	18.36	18.30	20.00
	CP-OFDM QPSK	1	1	21.66	21.35	21.47	22.50
	CP-OFDM 16QAM	1	1	21.10	21.29	21.39	22.50
	CP-OFDM 64QAM	1	1	19.60	19.75	19.67	21.00
CP-OFDM 256QAM	1	1	16.25	16.56	16.54	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	22.11	22.06	22.02	23.50
		1	215	21.66	21.63	21.60	23.50
		108	54	21.92	21.54	21.72	23.50
		216	0	22.02	21.68	21.80	23.50
	DFT-s-OFDM	1	1	22.04	21.85	21.87	23.50

	QPSK	1	215	21.68	21.56	22.06	23.50
		108	54	22.35	21.55	21.69	23.50
		216	0	21.95	21.81	21.80	23.50
	DFT-s-OFDM 16QAM	1	1	21.89	21.66	21.78	23.00
		1	215	21.35	21.48	21.54	23.00
		108	54	22.22	21.54	21.80	23.00
	DFT-s-OFDM 64QAM	1	1	20.41	20.06	20.32	21.50
		1	215	20.05	19.72	19.96	21.50
		108	54	20.58	19.76	19.54	21.50
	DFT-s-OFDM 256QAM	1	1	18.93	18.82	19.04	20.00
		1	215	18.64	18.52	18.76	20.00
		108	54	18.70	18.31	18.13	20.00
	CP-OFDM QPSK	1	1	21.52	21.34	21.34	22.50
CP-OFDM 16QAM	1	1	21.16	21.36	21.46	22.50	
CP-OFDM 64QAM	1	1	19.44	19.64	19.50	21.00	
CP-OFDM 256QAM	1	1	16.31	16.57	16.55	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	22.13	21.90	21.96	23.50
		1	243	21.72	21.59	21.70	23.50
		120	60	22.00	21.60	21.82	23.50
		243	0	22.08	21.56	21.76	23.50
	DFT-s-OFDM QPSK	1	1	22.08	21.81	21.81	23.50
		1	243	21.52	21.90	22.08	23.50
		120	60	22.05	21.77	21.69	23.50
		243	0	22.15	21.55	21.82	23.50
	DFT-s-OFDM 16QAM	1	1	21.93	21.58	21.74	23.00
		1	243	21.35	21.28	21.50	23.00
		120	60	22.00	21.74	21.52	23.00
	DFT-s-OFDM 64QAM	1	1	20.55	20.40	20.34	21.50
		1	243	19.91	19.88	19.88	21.50
		120	60	20.50	19.90	19.70	21.50
	DFT-s-OFDM 256QAM	1	1	19.13	18.94	18.92	20.00
		1	243	18.62	18.64	18.60	20.00
		120	60	18.58	18.25	18.29	20.00
	CP-OFDM QPSK	1	1	21.58	21.64	21.44	22.50
CP-OFDM 16QAM	1	1	21.16	21.30	21.30	22.50	
CP-OFDM 64QAM	1	1	19.54	19.68	19.68	21.00	
CP-OFDM 256QAM	1	1	16.33	16.45	16.71	18.00	
Bandwidth	Modulation	RB	offset	Channel/Frequency(MHz)			Tune-up

		allocation		509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	22.13	21.88	22.04	23.50
		1	271	21.74	21.65	21.70	23.50
		135	67	22.04	21.64	21.70	23.50
		270	0	22.00	21.60	21.68	23.50
	DFT-s-OFDM QPSK	1	1	22.06	21.87	21.75	23.50
		1	271	21.60	21.72	22.08	23.50
		135	67	22.17	21.65	21.73	23.50
		270	0	21.97	21.63	21.74	23.50
	DFT-s-OFDM 16QAM	1	1	21.87	21.66	21.76	23.00
		1	271	21.33	21.36	21.52	23.00
		135	67	22.04	21.66	21.64	23.00
	DFT-s-OFDM 64QAM	1	1	20.43	20.24	20.26	21.50
		1	271	19.89	19.72	19.74	21.50
		135	67	20.54	19.80	19.70	21.50
	DFT-s-OFDM 256QAM	1	1	19.11	18.84	18.92	20.00
		1	271	18.54	18.50	18.64	20.00
		135	67	18.56	18.13	18.29	20.00
	CP-OFDM QPSK	1	1	21.54	21.46	21.42	22.50
	CP-OFDM 16QAM	1	1	21.10	21.22	21.32	22.50
	CP-OFDM 64QAM	1	1	19.50	19.62	19.58	21.00
CP-OFDM 256QAM	1	1	16.39	16.37	16.55	18.00	

NR n41 (SA)							
Receiver on&Hotspot on-Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	20.06	20.18	19.82	21.00
		1	22	19.70	20.04	20.02	21.00
		12	6	19.92	19.78	20.04	21.00
		24	0	19.65	19.65	20.13	21.00
	DFT-s-OFDM QPSK	1	1	20.84	19.96	19.68	21.00
		1	22	19.68	19.70	20.10	21.00
		12	6	20.37	19.99	19.89	21.00
		24	0	20.32	19.87	20.14	21.00
	DFT-s-OFDM 16QAM	1	1	20.14	20.12	20.00	21.00
		1	22	19.97	19.97	19.73	21.00
		12	6	19.94	20.16	20.20	21.00
	DFT-s-OFDM 64QAM	1	1	19.79	19.91	20.19	21.00
		1	22	19.56	19.86	19.67	21.00

		12	6	19.95	20.07	19.95	21.00
	DFT-s-OFDM 256QAM	1	1	19.05	18.81	19.11	20.00
		1	22	18.66	18.78	19.14	20.00
		12	6	18.54	18.48	18.80	20.00
	CP-OFDM QPSK	1	1	20.40	20.16	20.18	21.00
	CP-OFDM 16QAM	1	1	20.46	20.94	20.52	21.00
	CP-OFDM 64QAM	1	1	19.54	19.92	20.16	21.00
CP-OFDM 256QAM	1	1	17.12	16.90	16.86	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	20.10	20.02	19.74	21.00
		1	36	19.62	19.84	19.94	21.00
		18	9	19.82	19.90	19.92	21.00
		36	0	19.57	19.71	20.07	21.00
	DFT-s-OFDM QPSK	1	1	20.66	20.10	19.60	21.00
		1	36	19.58	19.56	20.00	21.00
		18	9	20.17	19.89	19.73	21.00
	DFT-s-OFDM 16QAM	36	0	20.32	19.73	20.10	21.00
		1	1	20.00	20.00	19.96	21.00
		1	36	19.89	19.71	19.65	21.00
	DFT-s-OFDM 64QAM	18	9	20.08	19.84	19.88	21.00
		1	1	19.77	19.91	20.19	21.00
		1	36	19.58	19.74	19.53	21.00
	DFT-s-OFDM 256QAM	18	9	20.01	20.07	20.03	21.00
		1	1	19.19	18.83	19.09	20.00
		1	36	18.66	18.66	19.08	20.00
CP-OFDM QPSK	18	9	18.38	18.36	18.54	20.00	
	1	1	20.20	19.92	20.02	21.00	
	1	1	20.54	20.76	20.26	21.00	
	1	1	19.34	19.70	19.98	21.00	
CP-OFDM 256QAM	1	1	17.30	16.88	16.66	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
20MHz	DFT-s-OFDM BPSK	1	1	20.18	20.12	19.90	21.00
		1	49	19.94	20.08	20.10	21.00
		25	12	20.02	19.74	20.12	21.00
		50	0	19.73	19.77	20.01	21.00
	DFT-s-OFDM QPSK	1	1	20.72	19.94	19.62	21.00
		1	49	19.90	19.68	20.16	21.00
		25	12	20.29	20.07	19.71	21.00

		50	0	20.58	19.75	20.02	21.00
	DFT-s-OFDM 16QAM	1	1	19.98	20.18	20.02	21.00
		1	49	19.87	19.81	19.89	21.00
		25	12	19.88	19.88	20.16	21.00
	DFT-s-OFDM 64QAM	1	1	19.63	19.83	20.19	21.00
		1	49	19.58	19.62	19.79	21.00
		25	12	20.09	20.13	19.91	21.00
	DFT-s-OFDM 256QAM	1	1	19.25	18.91	19.33	20.00
		1	49	18.80	18.76	19.12	20.00
		25	12	18.36	18.44	18.80	20.00
	CP-OFDM QPSK	1	1	20.34	20.18	20.34	21.00
	CP-OFDM 16QAM	1	1	20.46	20.86	20.46	21.00
	CP-OFDM 64QAM	1	1	19.40	19.84	20.18	21.00
CP-OFDM 256QAM	1	1	17.38	16.80	16.80	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	20.06	20.22	19.90	21.00
		1	76	19.76	20.02	20.08	21.00
		36	18	19.96	19.80	20.06	21.00
		75	0	19.67	19.67	19.99	21.00
	DFT-s-OFDM QPSK	1	1	20.72	20.06	19.72	21.00
		1	76	19.76	19.66	20.08	21.00
		36	18	20.29	19.93	19.73	21.00
		75	0	20.40	19.75	20.02	21.00
	DFT-s-OFDM 16QAM	1	1	20.02	20.18	19.88	21.00
		1	76	19.89	19.81	19.81	21.00
		36	18	19.98	20.00	20.04	21.00
	DFT-s-OFDM 64QAM	1	1	19.73	19.89	20.17	21.00
		1	76	19.52	19.70	19.71	21.00
		36	18	19.97	20.05	19.99	21.00
	DFT-s-OFDM 256QAM	1	1	19.09	18.89	19.17	20.00
		1	76	18.66	18.66	19.10	20.00
		36	18	18.48	18.46	18.66	20.00
	CP-OFDM QPSK	1	1	20.32	20.12	20.22	21.00
	CP-OFDM 16QAM	1	1	20.46	20.86	20.40	21.00
	CP-OFDM 64QAM	1	1	19.52	19.78	20.00	21.00
CP-OFDM 256QAM	1	1	17.22	16.78	16.86	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM	1	1	20.14	20.06	19.86	21.00

	BPSK	1	104	19.80	19.92	20.04	21.00
		50	25	19.92	19.82	19.88	21.00
		100	0	19.75	19.71	19.97	21.00
	DFT-s-OFDM QPSK	1	1	20.66	20.00	19.70	21.00
		1	104	19.86	19.66	20.18	21.00
		50	25	20.27	19.89	19.83	21.00
	DFT-s-OFDM 16QAM	100	0	20.32	19.87	20.06	21.00
		1	1	20.08	20.08	19.90	21.00
		1	104	19.79	19.77	19.63	21.00
	DFT-s-OFDM 64QAM	50	25	20.02	20.02	19.98	21.00
		1	1	19.85	19.73	20.09	21.00
		1	104	19.50	19.70	19.57	21.00
	DFT-s-OFDM 256QAM	50	25	19.93	19.91	20.03	21.00
		1	1	19.07	18.89	19.21	20.00
1		104	18.78	18.70	19.00	20.00	
CP-OFDM	50	25	18.60	18.58	18.50	20.00	
	1	1	20.38	20.18	20.30	21.00	
	1	1	20.40	20.70	20.40	21.00	
	1	1	19.64	19.84	20.02	21.00	
50MHz	DFT-s-OFDM BPSK	1	1	20.08	20.12	19.88	21.00
		1	131	19.78	20.02	19.88	21.00
		64	32	20.08	19.78	19.68	21.00
		128	0	19.77	19.77	19.83	21.00
DFT-s-OFDM QPSK	1	1	20.54	19.94	19.80	21.00	
	1	131	19.92	19.86	20.24	21.00	
	64	32	20.41	20.01	19.95	21.00	
	128	0	20.30	19.95	20.12	21.00	
DFT-s-OFDM 16QAM	1	1	19.86	19.98	19.84	21.00	
	1	131	19.89	19.73	19.65	21.00	
	64	32	20.08	20.04	19.86	21.00	
DFT-s-OFDM 64QAM	1	1	19.85	19.89	19.99	21.00	
	1	131	19.78	19.68	19.59	21.00	
	64	32	20.11	19.77	19.97	21.00	
DFT-s-OFDM 256QAM	1	1	18.91	18.81	18.97	20.00	
	1	131	18.76	18.82	19.00	20.00	
	64	32	18.80	18.60	18.74	20.00	
CP-OFDM QPSK	1	1	20.20	20.30	20.28	21.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	532998/2664.99	

	CP-OFDM 16QAM	1	1	20.48	20.68	20.46	21.00
	CP-OFDM 64QAM	1	1	19.62	19.96	19.88	21.00
	CP-OFDM 256QAM	1	1	16.88	16.64	16.92	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	20.02	20.00	19.92	21.00
		1	160	19.88	19.94	19.90	21.00
		81	40	19.98	19.78	19.80	21.00
		162	0	19.67	19.71	19.91	21.00
	DFT-s-OFDM QPSK	1	1	20.54	19.90	19.72	21.00
		1	160	19.80	19.74	20.24	21.00
		81	40	20.25	19.85	19.83	21.00
		162	0	20.26	19.85	19.94	21.00
	DFT-s-OFDM 16QAM	1	1	19.94	19.98	19.96	21.00
		1	160	19.81	19.85	19.65	21.00
		81	40	19.94	20.00	19.96	21.00
	DFT-s-OFDM 64QAM	1	1	19.93	19.77	20.11	21.00
		1	160	19.60	19.78	19.55	21.00
		81	40	19.93	19.81	20.05	21.00
	DFT-s-OFDM 256QAM	1	1	19.01	18.93	19.09	20.00
		1	160	18.74	18.80	18.86	20.00
81		40	18.64	18.54	18.56	20.00	
	CP-OFDM QPSK	1	1	20.32	20.28	20.34	21.00
	CP-OFDM 16QAM	1	1	20.32	20.56	20.44	21.00
	CP-OFDM 64QAM	1	1	19.70	19.78	19.98	21.00
	CP-OFDM 256QAM	1	1	16.96	16.66	16.80	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				506202/2531.01	518598/2595.99	531000 /2655	
70MHz	DFT-s-OFDM BPSK	1	1	19.95	20.08	19.67	21.00
		1	187	19.73	19.74	19.89	21.00
		92	45	20.01	19.68	19.77	21.00
		180	0	19.92	19.75	19.80	21.00
	DFT-s-OFDM QPSK	1	1	20.17	19.70	19.63	21.00
		1	187	19.94	19.71	20.45	21.00
		92	45	19.87	19.96	19.96	21.00
		180	0	19.97	19.67	19.88	21.00
	DFT-s-OFDM 16QAM	1	1	19.77	19.60	19.58	21.00
		1	187	19.74	19.69	19.61	21.00
		92	46	19.87	19.60	19.84	21.00
		DFT-s-OFDM	1	1	19.90	19.95	19.95

	64QAM	1	187	19.69	19.69	19.45	21.00	
		92	46	19.68	19.80	19.74	21.00	
	DFT-s-OFDM 256QAM	1	1	18.80	19.18	18.80	20.00	
		1	187	18.83	18.73	18.95	20.00	
			92	46	18.59	18.47	18.35	20.00
	CP-OFDM QPSK	1	1	20.35	20.03	20.17	21.00	
	CP-OFDM 16QAM	1	1	20.65	20.25	20.39	21.00	
	CP-OFDM 64QAM	1	1	19.89	19.83	19.65	21.00	
CP-OFDM 256QAM	1	1	16.83	16.79	16.75	18.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				507204/2536.02	518598/2595.99	529998/2649.99		
80MHz	DFT-s-OFDM BPSK	1	1	19.86	20.08	19.64	21.00	
		1	215	19.58	19.88	19.90	21.00	
		108	54	19.88	19.84	19.78	21.00	
		216	0	19.79	19.71	19.71	21.00	
	DFT-s-OFDM QPSK	1	1	20.30	19.86	19.78	21.00	
		1	215	19.76	19.58	20.44	21.00	
		108	54	19.99	19.95	19.89	21.00	
		216	0	19.90	19.83	19.78	21.00	
	DFT-s-OFDM 16QAM	1	1	19.78	19.74	19.76	21.00	
		1	215	19.85	19.65	19.63	21.00	
		108	54	19.80	19.70	19.92	21.00	
	DFT-s-OFDM 64QAM	1	1	19.89	19.83	20.05	21.00	
		1	215	19.76	19.60	19.52	21.00	
		108	54	19.75	19.79	19.71	21.00	
	DFT-s-OFDM 256QAM	1	1	18.69	19.11	18.87	20.00	
		1	215	18.92	18.62	18.80	20.00	
		108	54	18.48	18.50	18.50	20.00	
	CP-OFDM QPSK	1	1	20.20	20.18	20.24	21.00	
	CP-OFDM 16QAM	1	1	20.50	20.32	20.40	21.00	
	CP-OFDM 64QAM	1	1	19.76	19.74	19.78	21.00	
CP-OFDM 256QAM	1	1	16.84	16.72	16.86	18.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				508200/2541	518598/2595.99	528996/2644.98		
90MHz	DFT-s-OFDM BPSK	1	1	19.92	19.88	19.70	21.00	
		1	243	19.96	19.82	19.98	21.00	
		120	60	19.96	19.80	19.94	21.00	
		243	0	19.65	19.85	19.83	21.00	
	DFT-s-OFDM QPSK	1	1	20.52	20.10	19.88	21.00	
		1	243	19.74	19.68	20.22	21.00	

		120	60	19.99	19.73	19.91	21.00
		243	0	20.04	19.73	19.98	21.00
		1	1	19.86	19.94	20.12	21.00
	DFT-s-OFDM 16QAM	1	243	19.89	19.75	19.83	21.00
		120	60	19.72	20.00	20.04	21.00
		1	1	19.89	20.01	20.01	21.00
	DFT-s-OFDM 64QAM	1	243	19.84	19.74	19.60	21.00
		120	60	19.71	19.95	19.99	21.00
		1	1	18.87	18.95	18.81	20.00
	DFT-s-OFDM 256QAM	1	243	18.74	18.92	18.86	20.00
		120	60	18.60	18.46	18.66	20.00
		1	1	20.18	20.14	20.36	21.00
	CP-OFDM QPSK	1	1	20.44	20.52	20.24	21.00
	CP-OFDM 16QAM	1	1	19.70	19.90	19.86	21.00
CP-OFDM 64QAM	1	1	16.92	16.56	16.88	18.00	
CP-OFDM 256QAM	1	1	16.92	16.56	16.88	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	19.90	19.98	19.82	21.00
		1	271	19.78	19.82	19.82	21.00
		135	67	19.86	19.80	19.84	21.00
		270	0	19.69	19.81	19.87	21.00
	DFT-s-OFDM QPSK	1	1	20.24	20.00	19.78	21.00
		1	271	19.82	19.68	20.34	21.00
		135	67	20.39	19.85	19.89	21.00
		270	0	20.10	19.93	19.92	21.00
	DFT-s-OFDM 16QAM	1	1	19.88	19.82	19.96	21.00
		1	271	19.77	19.83	19.75	21.00
		135	67	19.82	19.86	19.94	21.00
	DFT-s-OFDM 64QAM	1	1	19.95	19.87	20.03	21.00
		1	271	19.66	19.64	19.52	21.00
		135	67	19.77	19.85	19.89	21.00
	DFT-s-OFDM 256QAM	1	1	18.89	19.03	18.93	20.00
		1	271	18.82	18.82	18.74	20.00
		135	67	18.60	18.48	18.48	20.00
	CP-OFDM QPSK	1	1	20.24	20.16	20.26	21.00
	CP-OFDM 16QAM	1	1	20.40	20.44	20.34	21.00
	CP-OFDM 64QAM	1	1	19.80	19.82	19.86	21.00
	CP-OFDM 256QAM	1	1	16.98	16.62	16.80	18.00

NR n41 (NSA)							
Normal power--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	22.99	23.07	22.51	24.50
		1	22	22.70	22.53	23.37	24.50
		12	6	22.91	22.79	23.19	24.50
		24	0	22.33	22.06	22.02	24.00
	DFT-s-OFDM QPSK	1	1	22.81	22.87	22.55	24.50
		1	22	22.62	22.58	23.34	24.50
		12	6	23.05	22.94	22.74	24.50
		24	0	21.60	21.64	22.04	23.50
	DFT-s-OFDM 16QAM	1	1	22.05	21.66	21.15	23.00
		1	22	21.10	21.36	22.00	23.00
		12	6	21.93	21.62	22.17	23.00
	DFT-s-OFDM 64QAM	1	1	20.15	20.22	19.97	21.50
		1	22	19.71	20.13	20.45	21.50
		12	6	20.64	20.21	20.19	21.50
	DFT-s-OFDM 256QAM	1	1	19.09	18.70	18.33	20.00
		1	22	18.16	18.65	19.06	20.00
		12	6	18.50	18.21	18.42	20.00
	CP-OFDM QPSK	1	1	21.69	21.48	21.17	22.50
	CP-OFDM 16QAM	1	1	21.18	20.98	20.87	22.50
	CP-OFDM 64QAM	1	1	19.76	19.46	19.12	21.00
CP-OFDM 256QAM	1	1	16.36	16.13	16.11	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	23.17	22.85	22.57	24.50
		1	36	22.57	22.74	23.19	24.50
		18	9	22.81	22.75	22.81	24.50
		36	0	22.41	22.02	22.30	24.00
	DFT-s-OFDM QPSK	1	1	22.97	22.65	22.59	24.50
		1	36	22.53	22.52	23.34	24.50
		18	9	23.27	22.76	23.06	24.50
		36	0	21.82	21.68	22.10	23.50
	DFT-s-OFDM 16QAM	1	1	21.71	21.58	21.37	23.00
		1	36	21.22	21.46	21.84	23.00
		18	9	21.91	21.96	22.01	23.00
	DFT-s-OFDM	1	1	20.25	20.04	19.89	21.50

	64QAM	1	36	19.83	19.87	20.41	21.50
		18	9	20.30	20.25	20.57	21.50
	DFT-s-OFDM 256QAM	1	1	19.15	18.84	18.47	20.00
		1	36	18.60	18.65	19.00	20.00
		18	9	18.74	18.29	18.54	20.00
	CP-OFDM QPSK	1	1	21.51	21.50	21.37	22.50
	CP-OFDM 16QAM	1	1	21.22	21.14	20.95	22.50
	CP-OFDM 64QAM	1	1	19.68	19.52	19.20	21.00
CP-OFDM 256QAM	1	1	16.42	16.47	16.05	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
20MHz	DFT-s-OFDM BPSK	1	1	23.07	22.75	22.55	24.50
		1	49	22.63	22.60	23.05	24.50
		25	12	22.83	22.71	22.89	24.50
		50	0	22.37	22.04	22.08	24.00
	DFT-s-OFDM QPSK	1	1	22.81	22.53	22.53	24.50
		1	49	22.62	22.60	23.26	24.50
		25	12	23.03	22.52	22.82	24.50
		50	0	21.70	21.74	21.90	23.50
	DFT-s-OFDM 16QAM	1	1	21.61	21.42	21.21	23.00
		1	49	21.14	21.34	21.62	23.00
		25	12	21.93	21.86	21.85	23.00
	DFT-s-OFDM 64QAM	1	1	20.13	20.04	19.85	21.50
		1	49	19.83	19.69	20.23	21.50
		25	12	20.24	20.23	20.21	21.50
	DFT-s-OFDM 256QAM	1	1	18.93	18.72	18.33	20.00
		1	49	18.50	18.59	18.98	20.00
		25	12	18.52	18.15	18.24	20.00
	CP-OFDM QPSK	1	1	21.47	21.42	21.29	22.50
	CP-OFDM 16QAM	1	1	21.14	20.88	21.01	22.50
	CP-OFDM 64QAM	1	1	19.64	19.36	19.08	21.00
CP-OFDM 256QAM	1	1	16.40	16.49	16.10	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	23.23	22.85	22.54	24.50
		1	76	22.64	22.74	23.09	24.50
		36	18	22.75	22.51	22.97	24.50
		75	0	22.33	22.24	22.46	24.00
	DFT-s-OFDM QPSK	1	1	22.81	22.65	22.58	24.50
		1	76	22.59	22.66	23.06	24.50

	DFT-s-OFDM 16QAM	36	18	23.33	22.64	22.86	24.50
		75	0	21.62	21.88	21.90	23.50
		1	1	21.83	21.46	21.51	23.00
	DFT-s-OFDM 64QAM	1	76	21.20	21.48	21.96	23.00
		36	18	22.11	21.82	22.11	23.00
		1	1	19.99	20.02	19.93	21.50
	DFT-s-OFDM 256QAM	1	76	19.97	19.83	20.23	21.50
		36	18	20.24	20.51	20.41	21.50
		1	1	18.83	18.70	18.31	20.00
	CP-OFDM QPSK	1	76	18.36	18.79	19.00	20.00
		36	18	18.78	18.09	18.38	20.00
		1	1	21.41	21.42	21.39	22.50
	CP-OFDM 16QAM	1	1	21.40	21.12	21.01	22.50
	CP-OFDM 64QAM	1	1	19.60	19.64	19.32	21.00
CP-OFDM 256QAM	1	1	16.14	16.43	16.06	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	23.11	23.03	22.68	24.50
		1	104	22.66	22.60	23.33	24.50
		50	25	22.85	22.73	23.09	24.50
		100	0	22.21	22.22	22.22	24.00
	DFT-s-OFDM QPSK	1	1	23.11	22.67	22.60	24.50
		1	104	22.58	22.58	23.38	24.50
		50	25	23.27	22.72	22.84	24.50
		100	0	21.66	21.80	22.12	23.50
	DFT-s-OFDM 16QAM	1	1	21.81	21.68	21.43	23.00
		1	104	21.30	21.44	21.98	23.00
		50	25	22.07	21.92	22.01	23.00
	DFT-s-OFDM 64QAM	1	1	20.19	20.16	19.67	21.50
		1	104	19.91	19.81	20.59	21.50
		50	25	20.30	20.47	20.59	21.50
	DFT-s-OFDM 256QAM	1	1	19.03	18.76	18.61	20.00
		1	104	18.62	18.63	18.94	20.00
		50	25	18.50	18.11	18.52	20.00
	CP-OFDM QPSK	1	1	21.51	21.28	21.15	22.50
	CP-OFDM 16QAM	1	1	21.22	21.06	21.09	22.50
	CP-OFDM 64QAM	1	1	19.76	19.54	19.28	21.00
CP-OFDM 256QAM	1	1	16.20	16.47	16.15	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	532998/2664.99	

50MHz	DFT-s-OFDM BPSK	1	1	22.95	22.83	22.61	24.50
		1	131	22.66	22.72	23.27	24.50
		64	32	22.83	22.79	22.91	24.50
		128	0	22.55	22.26	22.42	24.00
	DFT-s-OFDM QPSK	1	1	22.91	22.71	22.64	24.50
		1	131	22.62	22.52	23.26	24.50
		64	32	22.85	22.56	22.76	24.50
		128	0	21.88	21.66	21.96	23.50
	DFT-s-OFDM 16QAM	1	1	21.81	21.70	21.31	23.00
		1	131	21.44	21.42	21.82	23.00
		64	32	22.09	21.72	21.79	23.00
	DFT-s-OFDM 64QAM	1	1	20.37	20.06	19.79	21.50
		1	131	19.87	19.79	20.37	21.50
		64	32	20.56	20.15	20.47	21.50
DFT-s-OFDM 256QAM	1	1	18.79	18.78	18.45	20.00	
	1	131	18.46	18.51	19.06	20.00	
	64	32	18.40	18.11	18.46	20.00	
CP-OFDM QPSK	1	1	21.43	21.52	21.25	22.50	
CP-OFDM 16QAM	1	1	21.18	21.10	20.89	22.50	
CP-OFDM 64QAM	1	1	19.70	19.66	19.18	21.00	
CP-OFDM 256QAM	1	1	16.48	16.23	16.10	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	22.73	22.59	22.53	24.50
		1	160	22.53	22.62	23.21	24.50
		81	40	22.75	22.61	22.83	24.50
		162	0	22.25	22.06	22.44	24.00
	DFT-s-OFDM QPSK	1	1	22.79	22.73	22.54	24.50
		1	160	22.64	22.60	23.20	24.50
		81	40	22.95	22.62	22.64	24.50
		162	0	21.68	21.66	21.88	23.50
	DFT-s-OFDM 16QAM	1	1	21.55	21.56	21.21	23.00
		1	160	21.42	21.34	21.96	23.00
		81	40	21.81	21.80	21.69	23.00
	DFT-s-OFDM 64QAM	1	1	20.19	20.12	19.71	21.50
		1	160	19.67	19.87	20.39	21.50
		81	40	20.46	20.07	20.13	21.50
	DFT-s-OFDM 256QAM	1	1	18.99	18.78	18.57	20.00
		1	160	18.50	18.43	19.12	20.00
81		40	18.56	18.19	18.12	20.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				506202/2531.01	518598/2595.99	531000 /2655	
	CP-OFDM QPSK	1	1	21.45	21.44	21.03	22.50
	CP-OFDM 16QAM	1	1	21.24	21.20	20.99	22.50
	CP-OFDM 64QAM	1	1	19.52	19.32	19.08	21.00
	CP-OFDM 256QAM	1	1	16.28	16.15	16.12	18.00
70MHz	DFT-s-OFDM BPSK	1	1	23.17	22.83	22.82	24.50
		1	187	22.56	22.79	23.51	24.50
		92	45	22.93	23.05	22.87	24.50
		180	0	22.73	22.24	22.52	24.00
	DFT-s-OFDM QPSK	1	1	23.01	22.97	22.94	24.50
		1	187	22.80	22.60	23.28	24.50
		92	45	22.97	23.02	23.00	24.50
		180	0	21.86	21.80	22.16	23.50
	DFT-s-OFDM 16QAM	1	1	21.67	21.60	21.51	23.00
		1	187	21.46	21.46	21.72	23.00
		92	46	21.95	22.02	21.83	23.00
	DFT-s-OFDM 64QAM	1	1	20.43	20.28	20.17	21.50
		1	187	19.91	20.23	20.49	21.50
		92	46	20.56	20.29	20.53	21.50
	DFT-s-OFDM 256QAM	1	1	18.89	18.92	18.53	20.00
		1	187	18.74	18.39	19.12	20.00
		92	46	18.52	18.25	18.52	20.00
	CP-OFDM QPSK	1	1	21.41	21.54	21.35	22.50
	CP-OFDM 16QAM	1	1	21.38	21.18	21.29	22.50
	CP-OFDM 64QAM	1	1	19.58	19.68	19.46	21.00
CP-OFDM 256QAM	1	1	16.34	16.33	16.04	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	23.09	22.77	22.58	24.50
		1	215	22.60	22.55	23.33	24.50
		108	54	22.85	22.83	22.83	24.50
		216	0	22.59	22.30	22.46	24.00
	DFT-s-OFDM QPSK	1	1	22.91	22.87	22.70	24.50
		1	215	22.60	22.60	23.06	24.50
		108	54	22.83	22.84	22.84	24.50
		216	0	21.82	21.66	21.92	23.50
	DFT-s-OFDM 16QAM	1	1	21.57	21.66	21.53	23.00
		1	215	21.32	21.30	21.74	23.00
		108	54	21.79	21.90	21.67	23.00

	DFT-s-OFDM 64QAM	1	1	20.33	20.34	20.05	21.50
		1	215	19.67	20.03	20.37	21.50
		108	54	20.46	20.03	20.43	21.50
	DFT-s-OFDM 256QAM	1	1	18.81	18.66	18.37	20.00
		1	215	18.56	18.39	19.08	20.00
		108	54	18.36	18.15	18.46	20.00
	CP-OFDM QPSK	1	1	21.29	21.40	21.23	22.50
	CP-OFDM 16QAM	1	1	21.20	21.18	21.09	22.50
CP-OFDM 64QAM	1	1	19.50	19.58	19.30	21.00	
CP-OFDM 256QAM	1	1	16.24	16.13	16.06	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	23.05	22.87	22.51	24.50
		1	243	22.60	22.70	23.07	24.50
		120	60	23.09	22.85	22.69	24.50
		243	0	22.41	22.12	22.30	24.00
	DFT-s-OFDM QPSK	1	1	22.93	22.91	22.56	24.50
		1	243	22.68	22.54	23.24	24.50
		120	60	22.95	22.64	22.90	24.50
		243	0	21.82	21.54	21.88	23.50
	DFT-s-OFDM 16QAM	1	1	21.57	21.54	21.29	23.00
		1	243	21.30	21.22	21.94	23.00
		120	60	22.01	21.64	21.97	23.00
	DFT-s-OFDM 64QAM	1	1	20.29	20.28	19.95	21.50
		1	243	19.87	19.89	20.45	21.50
		120	60	20.48	20.19	20.31	21.50
	DFT-s-OFDM 256QAM	1	1	18.79	18.78	18.41	20.00
		1	243	18.60	18.61	18.96	20.00
		120	60	18.60	18.11	18.50	20.00
	CP-OFDM QPSK	1	1	21.55	21.28	21.15	22.50
	CP-OFDM 16QAM	1	1	21.24	21.22	20.83	22.50
	CP-OFDM 64QAM	1	1	19.74	19.52	19.30	21.00
CP-OFDM 256QAM	1	1	16.44	16.25	16.16	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	22.93	22.77	22.51	24.50
		1	271	22.53	22.56	23.15	24.50
		135	67	22.93	22.67	22.81	24.50
		270	0	22.39	22.12	22.34	24.00
	DFT-s-OFDM	1	1	22.91	22.79	22.54	24.50

QPSK	1	271	22.54	22.54	23.12	24.50
	135	67	22.95	22.66	22.82	24.50
	270	0	21.88	21.64	21.84	23.50
DFT-s-OFDM 16QAM	1	1	21.69	21.56	21.31	23.00
	1	271	21.32	21.34	21.88	23.00
	135	67	21.95	21.70	21.83	23.00
DFT-s-OFDM 64QAM	1	1	20.23	20.12	19.87	21.50
	1	271	19.85	19.89	20.41	21.50
	135	67	20.44	20.19	20.33	21.50
DFT-s-OFDM 256QAM	1	1	18.89	18.76	18.51	20.00
	1	271	18.50	18.55	19.04	20.00
	135	67	18.48	18.21	18.32	20.00
CP-OFDM QPSK	1	1	21.47	21.36	21.13	22.50
CP-OFDM 16QAM	1	1	21.22	21.12	20.89	22.50
CP-OFDM 64QAM	1	1	19.60	19.50	19.26	21.00
CP-OFDM 256QAM	1	1	16.36	16.23	16.33	18.00

NR n41 (NSA)							
Receiver off--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	20.84	20.78	20.88	22.00
		1	22	20.73	20.87	20.39	22.00
		12	6	20.84	20.82	20.98	22.00
		24	0	20.64	20.34	20.54	22.00
	DFT-s-OFDM QPSK	1	1	21.18	21.29	20.24	22.00
		1	22	20.80	20.62	21.00	22.00
		12	6	21.12	20.63	20.43	22.00
		24	0	21.12	20.47	20.68	22.00
	DFT-s-OFDM 16QAM	1	1	20.54	20.68	20.76	22.00
		1	22	20.68	20.48	20.46	22.00
		12	6	20.88	20.58	20.76	22.00
	DFT-s-OFDM 64QAM	1	1	19.38	19.00	19.26	20.00
		1	22	18.56	18.36	18.54	20.00
		12	6	18.79	18.43	18.95	20.00
	DFT-s-OFDM 256QAM	1	1	19.27	18.89	18.95	20.00
		1	22	18.96	18.54	18.50	20.00
		12	6	18.30	18.32	18.64	20.00
	CP-OFDM QPSK	1	1	20.33	20.35	20.53	21.50
	CP-OFDM 16QAM	1	1	20.54	20.32	19.98	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
				CP-OFDM 64QAM	1	1	
CP-OFDM 256QAM	1	1	16.80	16.44	16.42	18.00	
15MHz	DFT-s-OFDM BPSK	1	1	20.66	20.78	20.74	22.00
		1	36	20.61	20.91	20.19	22.00
		18	9	20.66	20.70	20.80	22.00
		36	0	20.58	20.32	20.44	22.00
	DFT-s-OFDM QPSK	1	1	21.02	21.29	20.36	22.00
		1	36	20.74	20.50	20.90	22.00
		18	9	21.14	20.37	20.49	22.00
		36	0	20.98	20.47	20.42	22.00
	DFT-s-OFDM 16QAM	1	1	20.42	20.48	20.70	22.00
		1	36	20.78	20.56	20.30	22.00
		18	9	20.60	20.36	20.82	22.00
	DFT-s-OFDM 64QAM	1	1	19.26	18.80	19.04	20.00
		1	36	18.30	18.54	18.58	20.00
		18	9	18.51	18.31	18.95	20.00
	DFT-s-OFDM 256QAM	1	1	19.23	18.81	19.09	20.00
		1	36	18.84	18.46	18.40	20.00
		18	9	18.36	18.08	18.62	20.00
	CP-OFDM QPSK	1	1	20.15	20.39	20.31	21.50
	CP-OFDM 16QAM	1	1	20.26	20.30	19.76	21.50
	CP-OFDM 64QAM	1	1	19.64	19.98	19.60	21.00
CP-OFDM 256QAM	1	1	16.66	16.40	16.22	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
				DFT-s-OFDM BPSK	1	1	
20MHz	DFT-s-OFDM BPSK	1	49	20.65	20.65	20.47	22.00
		25	12	20.64	20.82	21.10	22.00
		50	0	20.78	20.12	20.64	22.00
		1	1	21.28	21.21	20.44	22.00
	DFT-s-OFDM QPSK	1	49	20.70	20.70	20.96	22.00
		25	12	21.20	20.45	20.47	22.00
		50	0	21.30	20.25	20.70	22.00
	DFT-s-OFDM 16QAM	1	1	20.56	20.64	20.78	22.00
		1	49	20.64	20.68	20.52	22.00
		25	12	20.60	20.60	20.86	22.00
	DFT-s-OFDM 64QAM	1	1	19.24	18.86	19.12	20.00
		1	49	18.32	18.62	18.42	20.00

		25	12	18.71	18.55	18.77	20.00
	DFT-s-OFDM 256QAM	1	1	19.21	19.07	19.21	20.00
		1	49	19.02	18.30	18.78	20.00
		25	12	18.58	18.16	18.38	20.00
	CP-OFDM QPSK	1	1	20.49	20.41	20.53	21.50
	CP-OFDM 16QAM	1	1	20.32	20.28	20.04	21.50
	CP-OFDM 64QAM	1	1	19.62	20.02	19.78	21.00
CP-OFDM 256QAM	1	1	16.88	16.40	16.38	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	20.86	20.84	20.92	22.00
		1	76	20.77	20.99	20.31	22.00
		36	18	20.78	20.96	20.88	22.00
		75	0	20.60	20.38	20.58	22.00
	DFT-s-OFDM QPSK	1	1	21.32	21.09	20.32	22.00
		1	76	21.00	20.74	21.08	22.00
		36	18	20.98	20.69	20.43	22.00
	DFT-s-OFDM 16QAM	75	0	21.12	20.45	20.66	22.00
		1	1	20.56	20.50	20.86	22.00
		1	76	20.88	20.64	20.44	22.00
	DFT-s-OFDM 64QAM	36	18	20.90	20.50	20.80	22.00
		1	1	19.32	18.78	19.04	20.00
		1	76	18.42	18.56	18.52	20.00
	DFT-s-OFDM 256QAM	36	18	18.79	18.37	19.03	20.00
		1	1	19.13	18.83	18.89	20.00
		1	76	18.88	18.46	18.72	20.00
CP-OFDM QPSK	36	18	18.46	18.24	18.54	20.00	
	1	1	20.51	20.37	20.65	21.50	
	1	1	20.40	20.32	19.80	21.50	
	1	1	19.86	19.98	19.90	21.00	
	1	1	16.92	16.24	16.44	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	20.84	20.70	20.86	22.00
		1	104	20.67	20.83	20.25	22.00
		50	25	20.82	20.82	20.94	22.00
		100	0	20.68	20.26	20.52	22.00
	DFT-s-OFDM QPSK	1	1	21.22	21.19	20.34	22.00
		1	104	20.84	20.66	21.10	22.00
		50	25	21.06	20.51	20.49	22.00

		100	0	21.08	20.39	20.56	22.00
	DFT-s-OFDM 16QAM	1	1	20.56	20.62	20.76	22.00
		1	104	20.74	20.50	20.44	22.00
		50	25	20.78	20.52	20.72	22.00
	DFT-s-OFDM 64QAM	1	1	19.24	18.90	19.16	20.00
		1	104	18.40	18.46	18.52	20.00
		50	25	18.65	18.49	18.85	20.00
	DFT-s-OFDM 256QAM	1	1	19.25	18.89	18.99	20.00
		1	104	18.82	18.40	18.56	20.00
		50	25	18.40	18.22	18.56	20.00
CP-OFDM QPSK	1	1	20.33	20.35	20.51	21.50	
CP-OFDM 16QAM	1	1	20.38	20.34	19.84	21.50	
CP-OFDM 64QAM	1	1	19.76	20.04	19.80	21.00	
CP-OFDM 256QAM	1	1	16.76	16.34	16.42	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	532998/2664.99	
50MHz	DFT-s-OFDM BPSK	1	1	21.04	20.80	20.76	22.00
		1	131	20.53	20.47	20.43	22.00
		64	32	20.90	20.68	21.06	22.00
		128	0	20.70	20.72	20.54	22.00
	DFT-s-OFDM QPSK	1	1	21.08	20.77	20.62	22.00
		1	131	20.70	20.58	21.22	22.00
		64	32	20.94	20.71	20.67	22.00
		128	0	20.92	20.79	20.72	22.00
	DFT-s-OFDM 16QAM	1	1	20.58	20.74	20.46	22.00
		1	131	20.56	20.28	20.62	22.00
		64	32	20.84	20.68	20.84	22.00
	DFT-s-OFDM 64QAM	1	1	19.08	18.82	18.84	20.00
		1	131	18.42	18.18	18.30	20.00
		64	32	18.71	18.61	18.81	20.00
	DFT-s-OFDM 256QAM	1	1	19.03	19.09	19.01	20.00
		1	131	18.80	18.58	18.64	20.00
64		32	18.50	18.56	18.72	20.00	
CP-OFDM QPSK	1	1	20.43	20.29	20.47	21.50	
CP-OFDM 16QAM	1	1	20.36	20.20	20.24	21.50	
CP-OFDM 64QAM	1	1	19.80	19.66	19.54	21.00	
CP-OFDM 256QAM	1	1	16.50	16.32	16.42	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM	1	1	20.82	20.88	20.94	22.00

	BPSK	1	160	20.47	20.43	20.31	22.00
		81	40	20.66	20.46	20.74	22.00
		162	0	20.52	20.46	20.52	22.00
	DFT-s-OFDM QPSK	1	1	20.90	20.95	20.58	22.00
		1	160	20.36	20.46	21.08	22.00
		81	40	20.88	20.65	20.75	22.00
	DFT-s-OFDM 16QAM	162	0	21.10	20.63	20.72	22.00
		1	1	20.28	20.46	20.40	22.00
		1	160	20.48	20.38	20.42	22.00
	DFT-s-OFDM 64QAM	81	40	20.62	20.76	20.78	22.00
		1	1	19.06	18.86	18.70	20.00
		1	160	18.34	18.10	18.22	20.00
	DFT-s-OFDM 256QAM	81	40	18.53	18.63	18.73	20.00
		1	1	18.97	19.11	18.97	20.00
		1	160	18.60	18.50	18.70	20.00
CP-OFDM	81	40	18.44	18.64	18.42	20.00	
	1	1	20.21	20.13	20.23	21.50	
	1	1	20.20	20.04	20.06	21.50	
	1	1	19.72	19.70	19.74	21.00	
CP-OFDM	1	1	16.30	16.42	16.26	18.00	
	1	1	20.20	20.04	20.06	21.50	
	1	1	19.72	19.70	19.74	21.00	
	1	1	16.30	16.42	16.26	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				506202/2531.01	518598/2595.99	531000 /2655	
70MHz	DFT-s-OFDM BPSK	1	1	20.83	20.95	20.78	22.00
		1	187	20.58	20.52	20.49	22.00
		92	45	20.65	20.87	20.96	22.00
		180	0	20.70	20.90	20.79	22.00
	DFT-s-OFDM QPSK	1	1	21.30	20.87	20.49	22.00
		1	187	20.25	20.75	21.33	22.00
		92	45	20.81	20.62	20.72	22.00
		180	0	20.99	20.52	20.87	22.00
	DFT-s-OFDM 16QAM	1	1	20.65	20.67	20.81	22.00
		1	187	20.85	20.45	20.49	22.00
		92	46	20.85	20.55	20.71	22.00
	DFT-s-OFDM 64QAM	1	1	19.21	18.85	18.95	20.00
		1	187	18.28	18.24	18.10	20.00
		92	46	18.79	18.59	18.63	20.00
	DFT-s-OFDM 256QAM	1	1	19.16	19.20	19.28	20.00
		1	187	18.99	18.73	18.91	20.00
		92	46	18.63	18.55	18.51	20.00
	CP-OFDM QPSK	1	1	20.16	20.48	20.56	21.50

	CP-OFDM 16QAM	1	1	19.93	20.05	20.25	21.50
	CP-OFDM 64QAM	1	1	19.83	19.75	19.73	21.00
	CP-OFDM 256QAM	1	1	16.55	16.31	16.33	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	20.82	20.96	20.78	22.00
		1	215	20.61	20.59	20.31	22.00
		108	54	20.78	20.80	21.02	22.00
		216	0	20.72	20.82	20.68	22.00
	DFT-s-OFDM QPSK	1	1	21.30	20.83	20.48	22.00
		1	215	20.38	20.74	21.32	22.00
		108	54	20.94	20.49	20.77	22.00
		216	0	20.92	20.67	20.84	22.00
	DFT-s-OFDM 16QAM	1	1	20.52	20.62	20.66	22.00
		1	215	20.76	20.30	20.56	22.00
		108	54	21.00	20.62	20.76	22.00
	DFT-s-OFDM 64QAM	1	1	19.06	19.00	18.80	20.00
		1	215	18.42	18.16	18.14	20.00
		108	54	18.81	18.69	18.81	20.00
	DFT-s-OFDM 256QAM	1	1	19.15	19.13	19.15	20.00
		1	215	18.92	18.68	18.94	20.00
		108	54	18.68	18.44	18.66	20.00
	CP-OFDM QPSK	1	1	20.13	20.39	20.49	21.50
	CP-OFDM 16QAM	1	1	20.06	20.10	20.22	21.50
	CP-OFDM 64QAM	1	1	19.72	19.60	19.84	21.00
CP-OFDM 256QAM	1	1	16.52	16.46	16.28	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	20.84	20.82	20.76	22.00
		1	243	20.49	20.49	20.43	22.00
		120	60	20.78	20.52	20.92	22.00
		243	0	20.54	20.66	20.66	22.00
	DFT-s-OFDM QPSK	1	1	21.20	20.87	20.62	22.00
		1	243	20.70	20.58	21.08	22.00
		120	60	20.96	20.77	20.69	22.00
		243	0	20.96	20.69	20.78	22.00
	DFT-s-OFDM 16QAM	1	1	20.58	20.66	20.58	22.00
		1	243	20.76	20.40	20.34	22.00
		120	60	20.86	20.64	20.70	22.00
	DFT-s-OFDM	1	1	19.08	18.96	19.04	20.00

	64QAM	1	243	18.38	18.42	18.16	20.00	
		120	60	18.81	18.55	18.61	20.00	
	DFT-s-OFDM 256QAM	1	1	19.05	19.13	19.13	20.00	
		1	243	18.84	18.56	18.78	20.00	
			120	60	18.40	18.68	18.64	20.00
	CP-OFDM QPSK	1	1	20.47	20.39	20.57	21.50	
	CP-OFDM 16QAM	1	1	20.26	20.34	20.06	21.50	
	CP-OFDM 64QAM	1	1	19.60	19.84	19.52	21.00	
CP-OFDM 256QAM	1	1	16.56	16.28	16.34	18.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				509202/2546.01	518598/2592.99	528000/2640		
100MHz	DFT-s-OFDM BPSK	1	1	20.94	20.88	20.84	22.00	
		1	271	20.59	20.57	20.47	22.00	
		135	67	20.80	20.64	20.92	22.00	
		270	0	20.62	20.60	20.58	22.00	
	DFT-s-OFDM QPSK	1	1	21.10	20.87	20.52	22.00	
		1	271	20.54	20.56	21.12	22.00	
		135	67	21.04	20.65	20.73	22.00	
			270	0	21.00	20.63	20.74	22.00
	DFT-s-OFDM 16QAM	1	1	20.46	20.66	20.56	22.00	
		1	271	20.64	20.36	20.46	22.00	
		135	67	20.78	20.66	20.72	22.00	
	DFT-s-OFDM 64QAM	1	1	19.04	18.80	18.86	20.00	
		1	271	18.36	18.24	18.24	20.00	
		135	67	18.67	18.57	18.71	20.00	
	DFT-s-OFDM 256QAM	1	1	19.01	19.01	19.07	20.00	
		1	271	18.80	18.54	18.72	20.00	
		135	67	18.48	18.56	18.56	20.00	
	CP-OFDM QPSK	1	1	20.31	20.31	20.39	21.50	
	CP-OFDM 16QAM	1	1	20.20	20.22	20.10	21.50	
	CP-OFDM 64QAM	1	1	19.68	19.72	19.64	21.00	
CP-OFDM 256QAM	1	1	16.50	16.40	16.44	18.00		

NR n41 (NSA)							
Receiver on&Hotspot on-Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	18.07	17.81	18.41	19.00
		1	22	17.56	17.58	17.58	19.00
		12	6	17.56	17.40	17.54	19.00

		24	0	17.51	17.49	17.49	19.00
	DFT-s-OFDM QPSK	1	1	17.77	17.73	17.52	19.00
		1	22	17.34	17.58	18.01	19.00
		12	6	18.28	17.69	17.48	19.00
		24	0	17.61	17.90	17.53	19.00
	DFT-s-OFDM 16QAM	1	1	17.66	17.64	17.48	19.00
		1	22	17.47	17.37	17.47	19.00
		12	6	17.35	17.69	17.83	19.00
	DFT-s-OFDM 64QAM	1	1	17.71	17.65	17.65	19.00
		1	22	17.08	17.32	17.42	19.00
		12	6	17.72	17.70	17.62	19.00
	DFT-s-OFDM 256QAM	1	1	18.20	18.42	17.96	19.00
		1	22	17.84	17.92	17.90	19.00
		12	6	17.70	17.62	17.76	19.00
CP-OFDM QPSK	1	1	17.87	17.99	18.11	19.00	
CP-OFDM 16QAM	1	1	18.08	18.34	18.30	19.00	
CP-OFDM 64QAM	1	1	18.64	17.92	18.10	19.00	
CP-OFDM 256QAM	1	1	16.72	16.52	16.34	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	17.91	17.73	18.29	19.00
		1	36	17.46	17.52	17.68	19.00
		18	9	17.38	17.10	17.24	19.00
		36	0	17.57	17.51	17.41	19.00
	DFT-s-OFDM QPSK	1	1	17.49	17.61	17.46	19.00
		1	36	17.24	17.42	17.85	19.00
		18	9	18.20	17.63	17.36	19.00
		36	0	17.61	17.64	17.53	19.00
	DFT-s-OFDM 16QAM	1	1	17.66	17.48	17.32	19.00
		1	36	17.35	17.25	17.53	19.00
		18	9	17.23	17.39	17.59	19.00
	DFT-s-OFDM 64QAM	1	1	17.61	17.59	17.61	19.00
		1	36	17.06	17.40	17.34	19.00
		18	9	17.48	17.82	17.28	19.00
	DFT-s-OFDM 256QAM	1	1	18.06	18.22	17.72	19.00
		1	36	17.54	17.96	18.00	19.00
		18	9	17.40	17.66	17.54	19.00
	CP-OFDM QPSK	1	1	17.59	17.65	17.99	19.00
	CP-OFDM 16QAM	1	1	18.26	18.06	18.38	19.00
	CP-OFDM 64QAM	1	1	18.68	17.78	18.16	19.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
	CP-OFDM 256QAM	1	1	16.62	16.18	16.40	18.00
20MHz	DFT-s-OFDM BPSK	1	1	17.83	17.73	18.15	19.00
		1	49	17.78	17.62	17.76	19.00
		25	12	17.60	17.12	17.56	19.00
		50	0	17.69	17.45	17.35	19.00
	DFT-s-OFDM QPSK	1	1	17.67	17.89	17.68	19.00
		1	49	17.52	17.36	18.25	19.00
		25	12	18.38	17.45	17.64	19.00
		50	0	17.63	17.76	17.75	19.00
	DFT-s-OFDM 16QAM	1	1	17.60	17.34	17.56	19.00
		1	49	17.47	17.35	17.63	19.00
		25	12	17.51	17.51	17.83	19.00
	DFT-s-OFDM 64QAM	1	1	17.49	17.95	17.71	19.00
		1	49	17.20	17.30	17.42	19.00
		25	12	17.84	17.88	17.38	19.00
	DFT-s-OFDM 256QAM	1	1	18.18	18.18	17.74	19.00
		1	49	17.74	17.74	18.04	19.00
		25	12	17.40	17.84	17.54	19.00
	CP-OFDM QPSK	1	1	18.01	17.77	18.11	19.00
CP-OFDM 16QAM	1	1	18.12	18.06	18.50	19.00	
CP-OFDM 64QAM	1	1	18.82	18.04	18.02	19.00	
CP-OFDM 256QAM	1	1	16.96	16.54	16.38	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	17.93	17.83	18.35	19.00
		1	76	17.54	17.32	17.64	19.00
		36	18	17.70	17.36	17.26	19.00
		75	0	17.55	17.55	17.59	19.00
	DFT-s-OFDM QPSK	1	1	17.71	17.61	17.56	19.00
		1	76	17.32	17.64	18.05	19.00
		36	18	18.38	17.57	17.42	19.00
		75	0	17.65	17.86	17.71	19.00
	DFT-s-OFDM 16QAM	1	1	17.68	17.42	17.44	19.00
		1	76	17.29	17.41	17.75	19.00
		36	18	17.43	17.75	17.79	19.00
	DFT-s-OFDM 64QAM	1	1	17.65	17.63	17.77	19.00
		1	76	17.20	17.22	17.24	19.00
		36	18	17.56	17.78	17.66	19.00

	DFT-s-OFDM 256QAM	1	1	18.26	18.26	18.00	19.00
		1	76	17.90	17.80	17.92	19.00
		36	18	17.56	17.74	17.70	19.00
	CP-OFDM QPSK	1	1	17.95	17.71	18.03	19.00
	CP-OFDM 16QAM	1	1	18.28	18.18	18.40	19.00
	CP-OFDM 64QAM	1	1	18.80	18.10	18.02	19.00
	CP-OFDM 256QAM	1	1	16.84	16.46	16.20	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	17.95	17.87	18.27	19.00
		1	104	17.66	17.42	17.66	19.00
		50	25	17.54	17.26	17.38	19.00
		100	0	17.53	17.57	17.53	19.00
	DFT-s-OFDM QPSK	1	1	17.67	17.73	17.46	19.00
		1	104	17.40	17.46	18.03	19.00
		50	25	18.22	17.61	17.46	19.00
		100	0	17.71	17.76	17.57	19.00
	DFT-s-OFDM 16QAM	1	1	17.76	17.52	17.34	19.00
		1	104	17.35	17.45	17.57	19.00
		50	25	17.41	17.57	17.69	19.00
	DFT-s-OFDM 64QAM	1	1	17.61	17.73	17.59	19.00
		1	104	17.12	17.30	17.36	19.00
		50	25	17.68	17.78	17.48	19.00
	DFT-s-OFDM 256QAM	1	1	18.12	18.30	17.90	19.00
		1	104	17.72	17.90	17.96	19.00
		50	25	17.58	17.62	17.64	19.00
	CP-OFDM QPSK	1	1	17.79	17.83	17.95	19.00
	CP-OFDM 16QAM	1	1	18.16	18.20	18.28	19.00
	CP-OFDM 64QAM	1	1	18.66	17.98	18.10	19.00
CP-OFDM 256QAM	1	1	16.76	16.36	16.32	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	532998/2664.99	
50MHz	DFT-s-OFDM BPSK	1	1	18.13	17.81	18.19	19.00
		1	131	17.62	17.62	17.66	19.00
		64	32	17.70	17.66	17.52	19.00
		128	0	17.55	17.59	17.49	19.00
	DFT-s-OFDM QPSK	1	1	17.95	17.87	17.38	19.00
		1	131	17.40	17.48	18.03	19.00
		64	32	18.22	17.71	17.76	19.00
		128	0	17.99	17.64	17.73	19.00

	DFT-s-OFDM 16QAM	1	1	17.62	17.54	17.54	19.00
		1	131	17.35	17.37	17.43	19.00
		64	32	17.39	17.73	17.57	19.00
	DFT-s-OFDM 64QAM	1	1	17.77	17.65	17.81	19.00
		1	131	17.10	17.26	17.42	19.00
		64	32	17.58	17.66	17.58	19.00
	DFT-s-OFDM 256QAM	1	1	18.22	18.40	18.10	19.00
		1	131	17.98	17.94	18.12	19.00
		64	32	17.72	17.64	17.64	19.00
	CP-OFDM QPSK	1	1	17.95	17.93	18.05	19.00
	CP-OFDM 16QAM	1	1	18.28	18.20	18.38	19.00
	CP-OFDM 64QAM	1	1	18.40	18.06	18.44	19.00
CP-OFDM 256QAM	1	1	16.62	16.46	16.58	18.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	18.01	17.69	18.07	19.00
		1	160	17.38	17.38	17.52	19.00
		81	40	17.54	17.62	17.64	19.00
		162	0	17.45	17.59	17.27	19.00
	DFT-s-OFDM QPSK	1	1	17.83	17.73	17.34	19.00
		1	160	17.30	17.42	17.79	19.00
		81	40	17.96	17.57	17.60	19.00
		162	0	17.81	17.36	17.57	19.00
	DFT-s-OFDM 16QAM	1	1	17.34	17.52	17.64	19.00
		1	160	17.29	17.09	17.49	19.00
		81	40	17.29	17.55	17.59	19.00
	DFT-s-OFDM 64QAM	1	1	17.79	17.73	17.55	19.00
		1	160	17.08	17.22	17.30	19.00
		81	40	17.56	17.46	17.38	19.00
	DFT-s-OFDM 256QAM	1	1	18.18	18.14	17.98	19.00
		1	160	17.96	17.94	18.00	19.00
81		40	17.40	17.48	17.50	19.00	
CP-OFDM QPSK	1	1	17.83	17.77	17.97	19.00	
CP-OFDM 16QAM	1	1	18.10	18.14	18.48	19.00	
CP-OFDM 64QAM	1	1	18.30	18.20	18.10	19.00	
CP-OFDM 256QAM	1	1	16.62	16.28	16.50	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				506202/2531.01	518598/2595.99	531000 /2655	
70MHz	DFT-s-OFDM BPSK	1	1	17.76	17.76	18.21	19.00
		1	187	17.38	17.32	17.57	19.00
		92	45	17.42	17.40	17.39	19.00
		180	0	17.51	17.49	17.16	19.00
	DFT-s-OFDM QPSK	1	1	17.99	17.73	17.15	19.00
		1	187	17.27	17.49	17.96	19.00
		92	45	18.19	17.70	17.55	19.00
		180	0	17.78	17.37	17.54	19.00
	DFT-s-OFDM 16QAM	1	1	17.51	17.63	17.85	19.00
		1	187	17.35	17.39	17.55	19.00
		92	46	17.63	17.59	17.43	19.00
	DFT-s-OFDM 64QAM	1	1	17.81	17.71	17.87	19.00
		1	187	17.12	17.62	17.46	19.00
		92	46	17.57	17.65	17.79	19.00
	DFT-s-OFDM	1	1	18.27	18.67	18.25	19.00

	256QAM	1	187	17.73	18.05	18.23	19.00
		92	46	17.67	17.69	17.49	19.00
	CP-OFDM QPSK	1	1	17.72	17.76	18.26	19.00
	CP-OFDM 16QAM	1	1	18.19	18.21	18.57	19.00
	CP-OFDM 64QAM	1	1	18.31	18.07	18.21	19.00
	CP-OFDM 256QAM	1	1	16.73	16.37	16.57	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	17.89	17.81	18.03	19.00
		1	215	17.40	17.36	17.52	19.00
		108	54	17.58	17.44	17.50	19.00
		216	0	17.41	17.67	17.21	19.00
	DFT-s-OFDM QPSK	1	1	17.97	17.73	17.24	19.00
		1	215	17.34	17.38	17.89	19.00
		108	54	18.16	17.69	17.56	19.00
		216	0	17.89	17.38	17.61	19.00
	DFT-s-OFDM 16QAM	1	1	17.38	17.68	17.82	19.00
		1	215	17.43	17.41	17.45	19.00
		108	54	17.53	17.69	17.49	19.00
	DFT-s-OFDM 64QAM	1	1	17.89	17.61	17.75	19.00
		1	215	17.08	17.52	17.48	19.00
		108	54	17.72	17.80	17.70	19.00
	DFT-s-OFDM 256QAM	1	1	18.24	18.52	18.22	19.00
		1	215	17.82	17.94	18.14	19.00
		108	54	17.76	17.80	17.48	19.00
	CP-OFDM QPSK	1	1	17.81	17.79	18.29	19.00
	CP-OFDM 16QAM	1	1	18.10	18.14	18.48	19.00
	CP-OFDM 64QAM	1	1	18.42	18.04	18.24	19.00
CP-OFDM 256QAM	1	1	16.58	16.52	16.50	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	17.85	17.97	18.03	19.00
		1	243	17.46	17.42	17.58	19.00
		120	60	17.52	17.48	17.58	19.00
		243	0	17.45	17.65	17.35	19.00
	DFT-s-OFDM QPSK	1	1	17.79	17.73	17.42	19.00
		1	243	17.58	17.44	17.99	19.00
		120	60	18.02	17.55	17.56	19.00
		243	0	18.07	17.70	17.75	19.00
	DFT-s-OFDM	1	1	17.46	17.52	17.52	19.00

	16QAM	1	243	17.57	17.35	17.37	19.00
		120	60	17.57	17.63	17.71	19.00
	DFT-s-OFDM 64QAM	1	1	17.81	17.63	17.65	19.00
		1	243	17.10	17.34	17.42	19.00
		120	60	17.72	17.74	17.74	19.00
	DFT-s-OFDM 256QAM	1	1	18.20	18.24	18.12	19.00
		1	243	18.14	17.86	18.10	19.00
		120	60	17.78	17.78	17.72	19.00
	CP-OFDM QPSK	1	1	18.07	18.09	18.03	19.00
	CP-OFDM 16QAM	1	1	18.42	18.14	18.28	19.00
CP-OFDM 64QAM	1	1	18.46	18.04	18.36	19.00	
CP-OFDM 256QAM	1	1	16.72	16.52	16.40	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	17.97	17.83	18.15	19.00
		1	271	17.50	17.50	17.64	19.00
		135	67	17.56	17.56	17.56	19.00
		270	0	17.49	17.57	17.37	19.00
	DFT-s-OFDM QPSK	1	1	17.91	17.77	17.42	19.00
		1	271	17.46	17.46	17.93	19.00
		135	67	18.08	17.55	17.66	19.00
		270	0	17.91	17.56	17.67	19.00
	DFT-s-OFDM 16QAM	1	1	17.52	17.60	17.60	19.00
		1	271	17.43	17.27	17.45	19.00
		135	67	17.49	17.61	17.61	19.00
	DFT-s-OFDM 64QAM	1	1	17.77	17.69	17.69	19.00
		1	271	17.16	17.36	17.28	19.00
		135	67	17.64	17.60	17.58	19.00
	DFT-s-OFDM 256QAM	1	1	18.16	18.32	18.00	19.00
		1	271	17.98	17.96	18.02	19.00
		135	67	17.60	17.64	17.58	19.00
	CP-OFDM QPSK	1	1	17.99	17.95	18.09	19.00
	CP-OFDM 16QAM	1	1	18.26	18.26	18.38	19.00
	CP-OFDM 64QAM	1	1	18.38	18.10	18.28	19.00
CP-OFDM 256QAM	1	1	16.68	16.34	16.50	18.00	

NR n48 (SA)							
Normal power&Receiver off--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				637000/3555	641666/3624.99	646332/3694.98	
10MHz	DFT-s-OFDM BPSK	1	1	22.36	22.29	22.46	24.00
		1	22	22.23	22.13	22.79	24.00
		12	6	22.21	22.15	22.77	24.00
		24	0	22.06	21.70	21.83	23.50
	DFT-s-OFDM QPSK	1	1	22.11	22.09	22.32	24.00
		1	22	22.14	22.36	22.98	24.00
		12	6	22.32	22.05	22.47	24.00
		24	0	21.47	21.06	21.35	23.00
	DFT-s-OFDM 16QAM	1	1	20.52	20.55	20.50	22.00
		1	22	20.25	20.68	20.84	22.00
		12	6	21.17	20.98	20.97	22.00
	DFT-s-OFDM 64QAM	1	1	19.33	19.02	19.32	20.50
		1	22	19.00	19.06	19.44	20.50
		12	6	19.69	19.54	19.63	20.50
	DFT-s-OFDM 256QAM	1	1	17.85	17.62	17.51	19.00
		1	22	17.70	17.76	18.11	19.00
12		6	17.61	17.24	17.46	19.00	
CP-OFDM QPSK	1	1	20.50	20.01	20.47	21.50	
CP-OFDM 16QAM	1	1	20.09	20.01	20.04	21.50	
CP-OFDM 64QAM	1	1	18.61	18.31	18.22	20.00	
CP-OFDM 256QAM	1	1	15.39	15.56	15.27	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637168/3557.52	641666/3624.99	646166/3692.49	
15MHz	DFT-s-OFDM BPSK	1	1	22.20	22.19	22.26	24.00
		1	36	22.29	22.07	23.03	24.00
		18	9	22.57	22.03	22.67	24.00
		36	0	21.84	21.80	21.87	23.50
	DFT-s-OFDM QPSK	1	1	22.19	22.03	22.30	24.00
		1	36	22.26	22.34	22.90	24.00
		18	9	22.44	22.13	22.61	24.00
		36	0	21.57	21.30	21.25	23.00
	DFT-s-OFDM 16QAM	1	1	20.42	20.57	20.46	22.00
		1	36	20.31	20.52	20.78	22.00
		18	9	20.99	20.92	20.95	22.00
	DFT-s-OFDM	1	1	19.23	18.86	19.22	20.50

	64QAM	1	36	18.86	19.16	19.44	20.50
		18	9	19.65	19.48	19.69	20.50
	DFT-s-OFDM 256QAM	1	1	17.71	17.58	17.59	19.00
		1	36	17.58	17.68	17.97	19.00
		18	9	17.49	17.16	17.32	19.00
	CP-OFDM QPSK	1	1	20.38	20.05	20.47	21.50
	CP-OFDM 16QAM	1	1	20.19	19.95	20.10	21.50
	CP-OFDM 64QAM	1	1	18.47	18.23	18.32	20.00
CP-OFDM 256QAM	1	1	15.23	15.52	15.29	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637334/3560.01	641666/3624.99	646000/3690	
20MHz	DFT-s-OFDM BPSK	1	1	22.30	22.05	22.28	24.00
		1	49	22.25	22.25	22.91	24.00
		25	12	22.37	22.11	22.77	24.00
		50	0	21.74	21.76	21.89	23.50
	DFT-s-OFDM QPSK	1	1	22.13	22.10	22.30	24.00
		1	49	22.08	22.24	22.60	24.00
		25	12	22.40	22.03	22.75	24.00
		50	0	21.41	21.20	21.13	23.00
	DFT-s-OFDM 16QAM	1	1	20.48	20.41	20.56	22.00
		1	49	20.33	20.46	20.88	22.00
		25	12	20.81	20.78	20.79	22.00
	DFT-s-OFDM 64QAM	1	1	19.17	18.86	18.94	20.50
		1	49	18.96	19.08	19.24	20.50
		25	12	19.55	19.32	19.37	20.50
	DFT-s-OFDM 256QAM	1	1	17.55	17.48	17.49	19.00
		1	49	17.64	17.44	17.87	19.00
		25	12	17.41	17.26	17.24	19.00
	CP-OFDM QPSK	1	1	20.34	20.01	20.37	21.50
	CP-OFDM 16QAM	1	1	20.13	19.81	20.06	21.50
	CP-OFDM 64QAM	1	1	18.21	18.11	18.26	20.00
CP-OFDM 256QAM	1	1	15.19	15.44	15.17	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637668/3565.02	641666/3624.99	645666/3684.99	
30MHz	DFT-s-OFDM BPSK	1	1	22.30	22.25	22.18	24.00
		1	76	22.15	22.09	23.09	24.00
		36	18	22.49	22.25	22.81	24.00
		75	0	22.04	21.92	21.77	23.50
	DFT-s-OFDM QPSK	1	1	22.11	22.27	22.48	24.00
		1	76	22.34	22.14	22.76	24.00

		36	18	22.74	22.35	22.63	24.00
		75	0	21.49	21.28	21.05	23.00
		1	1	20.62	20.47	20.70	22.00
	DFT-s-OFDM 16QAM	1	76	20.65	20.42	20.74	22.00
		36	18	20.99	21.08	20.55	22.00
		1	1	19.19	18.90	18.92	20.50
	DFT-s-OFDM 64QAM	1	76	19.14	18.90	19.62	20.50
		36	18	19.37	19.12	19.33	20.50
		1	1	17.75	17.40	17.47	19.00
	DFT-s-OFDM 256QAM	1	76	17.30	17.50	18.03	19.00
		36	18	17.47	17.26	17.60	19.00
		CP-OFDM QPSK	1	1	20.20	20.09	20.17
	CP-OFDM 16QAM	1	1	19.99	19.97	19.70	21.50
	CP-OFDM 64QAM	1	1	18.49	18.23	18.32	20.00
CP-OFDM 256QAM	1	1	15.33	15.38	15.21	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638000/3570	641666/3624.99	645332/3679.98	
40MHz	DFT-s-OFDM BPSK	1	1	22.22	22.27	22.44	24.00
		1	104	22.43	22.29	23.11	24.00
		50	25	22.43	22.03	22.79	24.00
		100	0	21.72	21.82	21.97	23.50
	DFT-s-OFDM QPSK	1	1	22.21	22.03	22.32	24.00
		1	104	22.24	22.40	22.74	24.00
		50	25	22.64	22.31	22.63	24.00
		100	0	21.59	21.24	21.13	23.00
	DFT-s-OFDM 16QAM	1	1	20.64	20.59	20.66	22.00
		1	104	20.27	20.56	20.70	22.00
		50	25	21.09	21.12	20.85	22.00
	DFT-s-OFDM 64QAM	1	1	19.21	19.10	19.02	20.50
		1	104	18.84	19.08	19.40	20.50
		50	25	19.63	19.20	19.45	20.50
	DFT-s-OFDM 256QAM	1	1	17.77	17.64	17.71	19.00
		1	104	17.70	17.40	18.15	19.00
		50	25	17.59	17.28	17.40	19.00
	CP-OFDM QPSK	1	1	20.64	20.25	20.33	21.50
	CP-OFDM 16QAM	1	1	19.95	19.69	20.12	21.50
	CP-OFDM 64QAM	1	1	18.33	18.27	18.52	20.00
	CP-OFDM 256QAM	1	1	15.47	15.84	15.15	17.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638334/3575.01	641666/3624.99	645000/3675	
50MHz	DFT-s-OFDM BPSK	1	1	22.30	22.11	22.26	24.00
		1	131	22.33	22.15	22.97	24.00
		64	32	22.45	22.13	22.71	24.00
		128	0	21.82	21.72	21.93	23.50
	DFT-s-OFDM QPSK	1	1	22.13	22.13	22.28	24.00
		1	131	22.18	22.32	22.74	24.00
		64	32	22.54	22.19	22.71	24.00
		128	0	21.49	21.24	21.15	23.00
	DFT-s-OFDM 16QAM	1	1	20.50	20.51	20.64	22.00
		1	131	20.51	20.40	20.88	22.00
		64	32	20.85	20.98	20.81	22.00
	DFT-s-OFDM 64QAM	1	1	19.23	19.02	19.10	20.50
		1	131	19.00	19.06	19.60	20.50
		64	32	19.49	19.36	19.47	20.50
	DFT-s-OFDM 256QAM	1	1	17.81	17.64	17.49	19.00
		1	131	17.74	17.62	17.89	19.00
64		32	17.35	17.18	17.26	19.00	
CP-OFDM QPSK	1	1	20.34	20.03	20.47	21.50	
CP-OFDM 16QAM	1	1	20.05	20.01	19.92	21.50	
CP-OFDM 64QAM	1	1	18.35	18.25	18.36	20.00	
CP-OFDM 256QAM	1	1	15.27	15.56	15.25	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
60MHz	DFT-s-OFDM BPSK	1	1	22.24	22.15	22.36	24.00
		1	160	22.35	22.29	22.81	24.00
		81	40	22.73	22.21	22.53	24.00
		162	0	21.80	21.60	21.65	23.50
	DFT-s-OFDM QPSK	1	1	22.01	22.15	22.24	24.00
		1	160	22.40	22.32	22.72	24.00
		81	40	22.66	22.37	22.67	24.00
		162	0	21.31	21.14	21.27	23.00
	DFT-s-OFDM 16QAM	1	1	20.50	20.45	20.44	22.00
		1	160	20.57	20.66	21.04	22.00
		81	40	21.19	20.66	20.99	22.00
	DFT-s-OFDM 64QAM	1	1	19.19	18.82	19.22	20.50
		1	160	18.88	19.04	19.32	20.50
		81	40	19.65	19.20	19.45	20.50
	DFT-s-OFDM	1	1	17.75	17.42	17.61	19.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639000/3585	641666/3624.99	644332/3664.98	
	256QAM	1	160	17.46	17.64	18.03	19.00
		81	40	17.45	17.14	17.36	19.00
	CP-OFDM QPSK	1	1	20.32	20.15	20.35	21.50
	CP-OFDM 16QAM	1	1	20.25	19.97	19.92	21.50
	CP-OFDM 64QAM	1	1	18.37	18.41	18.42	20.00
	CP-OFDM 256QAM	1	1	15.25	15.68	15.03	17.00
70MHz	DFT-s-OFDM BPSK	1	1	22.24	22.13	22.34	24.00
		1	187	22.27	22.39	22.73	24.00
		92	45	22.55	22.31	22.41	24.00
		180	0	21.60	21.60	21.81	23.50
	DFT-s-OFDM QPSK	1	1	22.13	22.24	22.20	24.00
		1	187	22.18	22.32	22.42	24.00
		92	45	22.52	22.15	22.33	24.00
		180	0	21.09	21.15	21.27	23.00
	DFT-s-OFDM 16QAM	1	1	20.62	20.37	20.60	22.00
		1	187	20.45	20.42	20.90	22.00
		92	46	20.85	20.70	20.73	22.00
	DFT-s-OFDM 64QAM	1	1	18.93	18.76	19.16	20.50
		1	187	18.82	18.92	19.36	20.50
		92	46	19.31	19.12	19.31	20.50
	DFT-s-OFDM 256QAM	1	1	17.65	17.38	17.67	19.00
		1	187	17.54	17.64	17.79	19.00
		92	46	17.43	17.04	17.50	19.00
	CP-OFDM QPSK	1	1	20.40	20.29	20.13	21.50
	CP-OFDM 16QAM	1	1	19.97	19.95	20.04	21.50
	CP-OFDM 64QAM	1	1	18.37	18.31	18.24	20.00
CP-OFDM 256QAM	1	1	15.01	15.40	15.01	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639334/3590.01	641666/3624.99	644000/3660	
80MHz	DFT-s-OFDM BPSK	1	1	22.36	22.07	22.34	24.00
		1	215	22.39	22.55	22.53	24.00
		108	54	22.71	22.33	22.61	24.00
		216	0	21.92	21.58	21.89	23.50
	DFT-s-OFDM QPSK	1	1	22.27	22.17	22.14	24.00
		1	215	22.40	22.40	22.38	24.00
		108	54	22.74	22.15	22.59	24.00
		216	0	21.33	21.20	21.07	23.00
	DFT-s-OFDM	1	1	20.72	20.33	20.48	22.00

	16QAM	1	215	20.31	20.54	20.84	22.00
		108	54	21.21	20.80	20.83	22.00
	DFT-s-OFDM 64QAM	1	1	19.11	19.08	19.10	20.50
		1	215	19.10	19.22	19.58	20.50
		108	54	19.67	19.34	19.55	20.50
	DFT-s-OFDM 256QAM	1	1	17.81	17.52	17.83	19.00
		1	215	17.42	17.56	17.87	19.00
		108	54	17.55	17.20	17.60	19.00
	CP-OFDM QPSK	1	1	20.34	20.13	20.45	21.50
CP-OFDM 16QAM	1	1	20.17	19.89	19.98	21.50	
CP-OFDM 64QAM	1	1	18.59	18.33	18.24	20.00	
CP-OFDM 256QAM	1	1	15.23	15.58	15.25	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639668/3595.02	641666/3624.99	643666/3654.99	
90MHz	DFT-s-OFDM BPSK	1	1	22.20	22.06	22.24	24.00
		1	243	22.25	22.33	22.87	24.00
		120	60	22.73	22.27	22.73	24.00
		243	0	21.82	21.56	21.81	23.50
	DFT-s-OFDM QPSK	1	1	22.01	22.05	22.22	24.00
		1	243	22.48	22.50	22.54	24.00
		120	60	22.60	22.13	22.69	24.00
	DFT-s-OFDM 16QAM	243	0	21.37	21.20	21.33	23.00
		1	1	20.48	20.47	20.48	22.00
		1	243	20.35	20.42	20.86	22.00
	DFT-s-OFDM 64QAM	120	60	21.01	20.76	20.97	22.00
		1	1	19.25	19.00	18.98	20.50
		1	243	18.88	19.14	19.38	20.50
	DFT-s-OFDM 256QAM	120	60	19.47	19.36	19.35	20.50
		1	1	17.79	17.66	17.71	19.00
		1	243	17.52	17.80	17.99	19.00
120	60	17.55	17.18	17.46	19.00		
CP-OFDM QPSK	1	1	20.24	20.27	20.49	21.50	
CP-OFDM 16QAM	1	1	20.09	19.79	20.16	21.50	
CP-OFDM 64QAM	1	1	18.57	18.29	18.46	20.00	
CP-OFDM 256QAM	1	1	15.13	15.52	15.05	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				640000/3600	641666/3624.99	643332/3649.98	
100MHz	DFT-s-OFDM BPSK	1	1	22.34	22.07	22.30	24.00
		1	271	22.37	22.49	22.69	24.00
		135	67	22.77	22.23	22.71	24.00

		270	0	21.88	21.56	21.75	23.50
DFT-s-OFDM QPSK		1	1	22.03	22.14	22.14	24.00
		1	271	22.20	22.42	22.52	24.00
		135	67	22.58	22.27	22.51	24.00
		270	0	21.17	21.08	21.31	23.00
DFT-s-OFDM 16QAM		1	1	20.56	20.39	20.54	22.00
		1	271	20.43	20.52	20.88	22.00
		135	67	21.03	20.74	20.91	22.00
DFT-s-OFDM 64QAM		1	1	19.11	18.92	19.06	20.50
		1	271	18.96	19.04	19.40	20.50
		135	67	19.49	19.24	19.39	20.50
DFT-s-OFDM 256QAM		1	1	17.67	17.52	17.65	19.00
		1	271	17.54	17.62	17.97	19.00
		135	67	17.49	17.24	17.42	19.00
CP-OFDM QPSK		1	1	20.36	20.19	20.31	21.50
CP-OFDM 16QAM		1	1	20.09	19.91	20.02	21.50
CP-OFDM 64QAM		1	1	18.43	18.25	18.36	20.00
CP-OFDM 256QAM		1	1	15.17	15.52	15.11	17.00

NR n48 (SA)							
Receiver on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				637000/3555	641666/3624.99	646332/3694.98	
10MHz	DFT-s-OFDM BPSK	1	1	17.26	17.03	17.15	18.00
		1	22	17.19	17.34	17.34	18.00
		12	6	17.21	17.33	17.43	18.00
		24	0	17.06	16.97	17.53	18.00
	DFT-s-OFDM QPSK	1	1	17.34	17.27	16.98	18.00
		1	22	17.34	17.50	17.51	18.00
		12	6	17.35	17.24	17.56	18.00
		24	0	17.21	17.26	17.16	18.00
	DFT-s-OFDM 16QAM	1	1	17.29	17.17	17.01	18.00
		1	22	17.44	17.02	17.06	18.00
		12	6	17.24	17.52	17.50	18.00
	DFT-s-OFDM 64QAM	1	1	17.19	16.85	16.95	18.00
		1	22	17.50	17.44	17.38	18.00
		12	6	17.39	17.41	17.17	18.00
	DFT-s-OFDM 256QAM	1	1	17.61	17.83	17.53	18.00
		1	22	17.80	17.75	17.62	18.00
		12	6	17.64	17.46	17.58	18.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				637168/3557.52	641666/3624.99	646166/3692.49		
	CP-OFDM QPSK	1	1	17.03	17.41	17.33	18.00	
	CP-OFDM 16QAM	1	1	17.26	17.82	17.28	18.00	
	CP-OFDM 64QAM	1	1	17.51	17.15	17.53	18.00	
	CP-OFDM 256QAM	1	1	15.71	15.25	15.89	17.00	
15MHz	DFT-s-OFDM BPSK	1	1	17.36	16.95	17.05	18.00	
		1	36	17.31	17.46	17.50	18.00	
		18	9	17.23	17.49	17.47	18.00	
		36	0	17.16	17.11	17.37	18.00	
	DFT-s-OFDM QPSK	1	1	17.12	17.33	16.94	18.00	
		1	36	17.46	17.34	17.59	18.00	
		18	9	17.39	17.42	17.38	18.00	
		36	0	17.21	17.12	17.18	18.00	
	DFT-s-OFDM 16QAM	1	1	17.19	17.11	17.15	18.00	
		1	36	17.34	17.08	16.96	18.00	
		18	9	17.38	17.26	17.38	18.00	
	DFT-s-OFDM 64QAM	1	1	17.13	17.07	17.13	18.00	
		1	36	17.52	17.20	17.32	18.00	
		18	9	17.57	17.35	17.11	18.00	
	DFT-s-OFDM 256QAM	1	1	17.33	17.75	17.43	18.00	
		1	36	17.74	17.68	17.78	18.00	
		18	9	17.86	17.34	17.48	18.00	
	CP-OFDM QPSK	1	1	16.93	17.41	17.13	18.00	
	CP-OFDM 16QAM	1	1	17.14	17.68	17.28	18.00	
	CP-OFDM 64QAM	1	1	17.83	17.29	17.53	18.00	
CP-OFDM 256QAM	1	1	15.63	15.29	15.69	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				637334/3560.01	641666/3624.99	646000/3690		
20MHz	DFT-s-OFDM BPSK	1	1	17.28	17.09	17.11	18.00	
		1	49	17.15	17.42	17.38	18.00	
		25	12	17.19	17.25	17.51	18.00	
		50	0	17.02	17.03	17.13	18.00	
	DFT-s-OFDM QPSK	1	1	17.18	17.15	16.96	18.00	
		1	49	17.40	17.36	17.47	18.00	
		25	12	17.25	17.32	17.38	18.00	
	DFT-s-OFDM 16QAM	50	0	17.01	17.32	17.10	18.00	
		1	1	16.89	17.09	16.97	18.00	
		1	49	17.30	16.94	17.16	18.00	
			25	12	17.26	17.10	17.20	18.00

	DFT-s-OFDM 64QAM	1	1	17.07	17.05	16.97	18.00
		1	49	17.54	17.08	17.08	18.00
		25	12	17.37	17.47	17.09	18.00
	DFT-s-OFDM 256QAM	1	1	17.41	17.75	17.45	18.00
		1	49	17.82	17.86	17.92	18.00
		25	12	17.78	17.10	17.52	18.00
	CP-OFDM QPSK	1	1	17.05	17.07	17.21	18.00
	CP-OFDM 16QAM	1	1	17.10	17.54	17.20	18.00
	CP-OFDM 64QAM	1	1	17.81	17.31	17.47	18.00
CP-OFDM 256QAM	1	1	15.37	15.33	15.79	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637668/3565.02	641666/3624.99	645666/3684.99	
30MHz	DFT-s-OFDM BPSK	1	1	17.44	17.01	17.09	18.00
		1	76	17.47	17.54	17.58	18.00
		36	18	17.39	17.37	17.35	18.00
		75	0	17.18	16.95	17.37	18.00
	DFT-s-OFDM QPSK	1	1	17.20	17.35	16.84	18.00
		1	76	17.32	17.28	17.39	18.00
		36	18	17.27	17.40	17.56	18.00
		75	0	17.13	17.30	17.42	18.00
	DFT-s-OFDM 16QAM	1	1	17.09	17.19	17.17	18.00
		1	76	17.40	17.16	17.00	18.00
		36	18	17.26	17.42	17.26	18.00
	DFT-s-OFDM 64QAM	1	1	17.05	17.07	17.05	18.00
		1	76	17.36	17.08	17.16	18.00
		36	18	17.35	17.33	17.11	18.00
	DFT-s-OFDM 256QAM	1	1	17.27	17.81	17.29	18.00
		1	76	17.76	17.52	17.84	18.00
		36	18	17.80	17.24	17.34	18.00
	CP-OFDM QPSK	1	1	17.11	17.21	17.23	18.00
	CP-OFDM 16QAM	1	1	17.08	17.52	17.18	18.00
	CP-OFDM 64QAM	1	1	17.67	17.11	17.45	18.00
CP-OFDM 256QAM	1	1	15.53	15.35	15.83	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638000/3570	641666/3624.99	645332/3679.98	
40MHz	DFT-s-OFDM BPSK	1	1	17.30	16.99	17.13	18.00
		1	104	17.19	17.28	17.36	18.00
		50	25	17.17	17.45	17.43	18.00
		100	0	17.14	17.17	17.15	18.00
	DFT-s-OFDM	1	1	17.18	16.99	17.02	18.00

	QPSK	1	104	17.26	17.50	17.41	18.00
		50	25	17.35	17.36	17.36	18.00
		100	0	17.21	17.44	17.24	18.00
	DFT-s-OFDM 16QAM	1	1	17.17	16.99	17.01	18.00
		1	104	17.40	17.30	17.14	18.00
		50	25	17.44	17.24	17.08	18.00
	DFT-s-OFDM 64QAM	1	1	16.95	17.07	17.13	18.00
		1	104	17.56	17.12	17.32	18.00
		50	25	17.51	17.31	17.17	18.00
	DFT-s-OFDM 256QAM	1	1	17.55	17.45	17.57	18.00
		1	104	17.74	17.98	17.94	18.00
		50	25	17.52	17.22	17.42	18.00
	CP-OFDM QPSK	1	1	16.87	17.31	17.13	18.00
CP-OFDM 16QAM	1	1	17.10	17.42	17.24	18.00	
CP-OFDM 64QAM	1	1	17.63	17.33	17.49	18.00	
CP-OFDM 256QAM	1	1	15.53	15.39	15.69	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638334/3575.01	641666/3624.99	645000/3675	
50MHz	DFT-s-OFDM BPSK	1	1	17.28	16.99	16.95	18.00
		1	131	17.03	17.26	17.26	18.00
		64	32	17.17	17.27	17.39	18.00
		128	0	17.28	17.11	17.15	18.00
	DFT-s-OFDM QPSK	1	1	17.14	17.15	16.76	18.00
		1	131	17.26	17.30	17.29	18.00
		64	32	17.27	17.30	17.38	18.00
	DFT-s-OFDM 16QAM	128	0	17.13	17.30	17.20	18.00
		1	1	17.07	16.93	16.87	18.00
		1	131	17.30	17.22	17.18	18.00
	DFT-s-OFDM 64QAM	64	32	17.54	17.24	17.16	18.00
		1	1	16.87	16.85	16.99	18.00
		1	131	17.34	17.24	17.32	18.00
	DFT-s-OFDM 256QAM	64	32	17.21	17.15	17.17	18.00
		1	1	17.29	17.59	17.23	18.00
		1	131	17.82	17.68	17.94	18.00
	CP-OFDM QPSK	64	32	17.64	17.10	17.48	18.00
	CP-OFDM 16QAM	1	1	16.81	17.23	17.09	18.00
	CP-OFDM 64QAM	1	1	17.08	17.28	17.04	18.00
	CP-OFDM 256QAM	1	1	17.63	17.31	17.25	18.00
			1	1	15.27	15.21	15.69

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638668/3580.02	641666/3624.99	644666/3669.99	
60MHz	DFT-s-OFDM BPSK	1	1	17.40	16.97	17.01	18.00
		1	160	17.15	17.24	17.46	18.00
		81	40	17.09	17.47	17.25	18.00
		162	0	17.24	17.11	17.21	18.00
	DFT-s-OFDM QPSK	1	1	17.08	17.07	17.06	18.00
		1	160	17.36	17.58	17.43	18.00
		81	40	17.29	17.28	17.52	18.00
		162	0	17.17	17.34	17.42	18.00
	DFT-s-OFDM 16QAM	1	1	16.95	16.91	17.07	18.00
		1	160	17.56	17.12	17.30	18.00
		81	40	17.38	17.20	17.08	18.00
	DFT-s-OFDM 64QAM	1	1	16.95	16.93	17.19	18.00
		1	160	17.34	17.24	17.54	18.00
		81	40	17.45	17.37	17.35	18.00
	DFT-s-OFDM 256QAM	1	1	17.59	17.55	17.31	18.00
		1	160	17.78	17.82	17.98	18.00
81		40	17.62	17.46	17.60	18.00	
CP-OFDM QPSK	1	1	17.11	17.35	17.19	18.00	
CP-OFDM 16QAM	1	1	17.12	17.52	17.16	18.00	
CP-OFDM 64QAM	1	1	17.67	17.23	17.57	18.00	
CP-OFDM 256QAM	1	1	15.27	15.35	15.79	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
70MHz	DFT-s-OFDM BPSK	1	1	17.28	16.95	17.13	18.00
		1	187	17.15	17.28	17.46	18.00
		92	45	17.19	17.31	17.37	18.00
		180	0	17.20	17.11	17.17	18.00
	DFT-s-OFDM QPSK	1	1	17.14	17.05	16.96	18.00
		1	187	17.32	17.44	17.49	18.00
		92	45	17.21	17.30	17.36	18.00
		180	0	17.21	17.30	17.34	18.00
	DFT-s-OFDM 16QAM	1	1	17.05	16.89	16.95	18.00
		1	187	17.42	17.16	17.16	18.00
		92	46	17.44	17.28	17.14	18.00
	DFT-s-OFDM 64QAM	1	1	16.81	16.97	17.07	18.00
		1	187	17.40	17.22	17.36	18.00
		92	46	17.37	17.27	17.23	18.00
	DFT-s-OFDM	1	1	17.43	17.55	17.41	18.00

	256QAM	1	187	17.82	17.84	17.84	18.00
		92	46	17.62	17.28	17.42	18.00
	CP-OFDM QPSK	1	1	16.93	17.17	17.19	18.00
	CP-OFDM 16QAM	1	1	17.10	17.48	17.14	18.00
	CP-OFDM 64QAM	1	1	17.63	17.23	17.39	18.00
	CP-OFDM 256QAM	1	1	15.39	15.33	15.65	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639334/3590.01	641666/3624.99	644000/3660	
80MHz	DFT-s-OFDM BPSK	1	1	16.94	17.01	17.01	18.00
		1	215	17.25	17.22	17.54	18.00
		108	54	17.25	17.27	17.35	18.00
		216	0	17.02	17.07	17.21	18.00
	DFT-s-OFDM QPSK	1	1	16.98	16.99	16.86	18.00
		1	215	17.22	17.16	17.53	18.00
		108	54	17.15	17.22	17.34	18.00
		216	0	17.01	17.14	17.10	18.00
	DFT-s-OFDM 16QAM	1	1	16.91	16.83	16.87	18.00
		1	215	17.48	16.94	17.08	18.00
		108	54	17.08	17.10	17.00	18.00
	DFT-s-OFDM 64QAM	1	1	16.67	16.79	16.95	18.00
		1	215	17.16	17.08	17.38	18.00
		108	54	17.07	17.07	17.11	18.00
	DFT-s-OFDM 256QAM	1	1	17.31	17.53	17.17	18.00
		1	215	17.52	17.66	17.64	18.00
		108	54	17.56	17.38	17.26	18.00
	CP-OFDM QPSK	1	1	16.79	17.15	17.11	18.00
	CP-OFDM 16QAM	1	1	17.02	17.18	17.24	18.00
	CP-OFDM 64QAM	1	1	17.33	17.11	17.39	18.00
CP-OFDM 256QAM	1	1	15.53	15.53	15.63	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639668/3595.02	641666/3624.99	643666/3654.99	
90MHz	DFT-s-OFDM BPSK	1	1	17.16	17.03	17.07	18.00
		1	243	17.11	17.22	17.48	18.00
		120	60	17.09	17.43	17.29	18.00
		243	0	17.20	17.23	17.15	18.00
	DFT-s-OFDM QPSK	1	1	17.14	17.13	16.96	18.00
		1	243	17.20	17.48	17.63	18.00
		120	60	17.21	17.26	17.28	18.00
		243	0	17.33	17.30	17.42	18.00
	DFT-s-OFDM	1	1	16.93	16.73	16.85	18.00

	16QAM	1	243	17.26	17.28	17.16	18.00
		120	60	17.16	17.16	17.20	18.00
	DFT-s-OFDM 64QAM	1	1	16.97	16.87	17.05	18.00
		1	243	17.20	17.32	17.42	18.00
		120	60	17.15	17.45	17.29	18.00
	DFT-s-OFDM 256QAM	1	1	17.43	17.55	17.47	18.00
		1	243	17.62	17.74	17.62	18.00
		120	60	17.68	17.46	17.58	18.00
	CP-OFDM QPSK	1	1	16.93	17.09	16.95	18.00
	CP-OFDM 16QAM	1	1	17.24	17.44	17.14	18.00
CP-OFDM 64QAM	1	1	17.67	17.27	17.35	18.00	
CP-OFDM 256QAM	1	1	15.53	15.31	15.79	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				640000/3600	641666/3624.99	643332/3649.98	
100MHz	DFT-s-OFDM BPSK	1	1	17.14	16.99	16.99	18.00
		1	271	17.23	17.34	17.44	18.00
		135	67	17.19	17.27	17.37	18.00
		270	0	17.18	17.19	17.21	18.00
	DFT-s-OFDM QPSK	1	1	17.12	16.97	17.02	18.00
		1	271	17.22	17.34	17.45	18.00
		135	67	17.22	17.20	17.18	18.00
		270	0	17.15	17.18	17.24	18.00
	DFT-s-OFDM 16QAM	1	1	16.99	16.75	16.91	18.00
		1	271	17.38	17.10	17.20	18.00
		135	67	17.28	17.26	17.16	18.00
	DFT-s-OFDM 64QAM	1	1	16.79	16.83	16.91	18.00
		1	271	17.30	17.18	17.36	18.00
		135	67	17.27	17.27	17.29	18.00
	DFT-s-OFDM 256QAM	1	1	17.35	17.43	17.33	18.00
		1	271	17.86	17.76	17.70	18.00
		135	67	17.62	17.30	17.44	18.00
	CP-OFDM QPSK	1	1	16.93	17.07	17.03	18.00
	CP-OFDM 16QAM	1	1	17.12	17.32	17.24	18.00
	CP-OFDM 64QAM	1	1	17.49	17.19	17.31	18.00
CP-OFDM 256QAM	1	1	15.49	15.43	15.61	17.00	

NR n48 (SA)							
Hotspot on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				637000/3555	641666/3624.99	646332/3694.98	
10MHz	DFT-s-OFDM BPSK	1	1	20.08	20.10	20.10	21.50
		1	22	20.53	20.25	20.47	21.50
		12	6	19.96	20.14	19.94	21.50
		24	0	20.12	20.02	20.08	21.50
	DFT-s-OFDM QPSK	1	1	19.90	20.06	20.20	21.50
		1	22	19.84	20.07	20.40	21.50
		12	6	20.30	20.38	20.39	21.50
		24	0	19.70	19.87	20.22	21.50
	DFT-s-OFDM 16QAM	1	1	19.94	19.92	19.55	21.50
		1	22	19.97	19.97	20.29	21.50
		12	6	20.70	20.02	20.04	21.50
	DFT-s-OFDM 64QAM	1	1	19.26	19.36	19.06	20.50
		1	22	19.50	19.64	19.40	20.50
		12	6	19.41	19.97	19.49	20.50
	DFT-s-OFDM 256QAM	1	1	17.98	17.44	17.88	19.00
		1	22	18.28	17.86	17.94	19.00
12		6	17.70	17.54	17.54	19.00	
CP-OFDM QPSK	1	1	20.13	19.75	20.03	21.50	
CP-OFDM 16QAM	1	1	20.69	20.65	20.61	21.50	
CP-OFDM 64QAM	1	1	18.77	18.39	19.01	20.00	
CP-OFDM 256QAM	1	1	15.54	15.20	15.18	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637168/3557.52	641666/3624.99	646166/3692.49	
15MHz	DFT-s-OFDM BPSK	1	1	20.02	20.18	20.18	21.50
		1	36	20.23	20.39	20.49	21.50
		18	9	20.32	20.32	19.98	21.50
		36	0	19.86	20.40	20.32	21.50
	DFT-s-OFDM QPSK	1	1	19.92	19.96	20.16	21.50
		1	36	19.84	20.03	20.56	21.50
		18	9	20.44	20.14	20.27	21.50
		36	0	20.02	20.17	20.14	21.50
	DFT-s-OFDM 16QAM	1	1	19.90	19.84	19.74	21.50
		1	36	20.11	19.97	20.33	21.50
		18	9	20.36	20.22	20.18	21.50
	DFT-s-OFDM	1	1	19.56	19.16	19.24	20.50

	64QAM	1	36	19.38	19.64	19.42	20.50
		18	9	19.67	19.67	19.59	20.50
	DFT-s-OFDM 256QAM	1	1	18.06	17.74	17.58	19.00
		1	36	18.22	17.98	18.04	19.00
		18	9	17.58	17.86	17.52	19.00
	CP-OFDM QPSK	1	1	20.25	19.85	20.13	21.50
	CP-OFDM 16QAM	1	1	20.59	20.37	20.79	21.50
	CP-OFDM 64QAM	1	1	18.73	18.49	18.91	20.00
CP-OFDM 256QAM	1	1	15.44	15.20	15.44	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637334/3560.01	641666/3624.99	646000/3690	
20MHz	DFT-s-OFDM BPSK	1	1	19.98	20.02	20.00	21.50
		1	49	20.27	20.05	20.41	21.50
		25	12	20.18	20.42	20.00	21.50
		50	0	19.84	20.16	20.16	21.50
	DFT-s-OFDM QPSK	1	1	19.86	19.70	20.04	21.50
		1	49	19.74	20.07	20.32	21.50
		25	12	20.30	20.22	20.17	21.50
		50	0	20.00	19.93	20.02	21.50
	DFT-s-OFDM 16QAM	1	1	19.98	19.70	19.72	21.50
		1	49	19.81	19.83	20.25	21.50
		25	12	20.36	20.34	20.08	21.50
	DFT-s-OFDM 64QAM	1	1	19.42	19.30	19.12	20.50
		1	49	19.54	19.56	19.10	20.50
		25	12	19.47	19.73	19.45	20.50
	DFT-s-OFDM 256QAM	1	1	18.14	17.64	17.54	19.00
		1	49	18.22	17.88	17.90	19.00
		25	12	17.60	17.80	17.54	19.00
	CP-OFDM QPSK	1	1	20.39	19.77	20.13	21.50
	CP-OFDM 16QAM	1	1	20.55	20.47	20.69	21.50
	CP-OFDM 64QAM	1	1	18.63	18.39	18.79	20.00
CP-OFDM 256QAM	1	1	15.34	15.34	15.14	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637668/3565.02	641666/3624.99	645666/3684.99	
30MHz	DFT-s-OFDM BPSK	1	1	20.00	20.32	20.30	21.50
		1	76	20.47	20.39	20.71	21.50
		36	18	20.16	20.50	20.00	21.50
		75	0	19.78	20.34	20.24	21.50
	DFT-s-OFDM QPSK	1	1	19.80	19.76	19.84	21.50
		1	76	19.82	20.07	20.44	21.50

		36	18	20.40	20.16	20.25	21.50
		75	0	20.02	19.87	20.36	21.50
	DFT-s-OFDM 16QAM	1	1	20.04	19.88	19.60	21.50
		1	76	19.83	20.01	20.31	21.50
		36	18	20.44	20.24	20.08	21.50
	DFT-s-OFDM 64QAM	1	1	19.52	19.46	19.38	20.50
		1	76	19.66	19.54	19.20	20.50
		36	18	19.43	19.75	19.71	20.50
	DFT-s-OFDM 256QAM	1	1	18.16	17.42	17.88	19.00
		1	76	18.16	17.86	17.88	19.00
		36	18	17.74	17.86	17.48	19.00
	CP-OFDM QPSK	1	1	20.23	19.91	20.09	21.50
	CP-OFDM 16QAM	1	1	20.41	20.27	20.69	21.50
CP-OFDM 64QAM	1	1	18.79	18.35	18.95	20.00	
CP-OFDM 256QAM	1	1	15.60	15.44	15.46	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638000/3570	641666/3624.99	645332/3679.98	
40MHz	DFT-s-OFDM BPSK	1	1	19.90	20.20	20.12	21.50
		1	104	20.21	20.19	20.43	21.50
		50	25	20.36	20.42	20.08	21.50
		100	0	19.86	20.32	20.32	21.50
	DFT-s-OFDM QPSK	1	1	19.98	19.92	19.94	21.50
		1	104	19.90	20.05	20.58	21.50
		50	25	20.30	20.00	20.47	21.50
		100	0	19.96	19.91	20.06	21.50
	DFT-s-OFDM 16QAM	1	1	19.96	19.72	19.72	21.50
		1	104	19.95	19.91	20.35	21.50
		50	25	20.44	20.26	19.96	21.50
	DFT-s-OFDM 64QAM	1	1	19.58	19.42	19.32	20.50
		1	104	19.48	19.64	19.42	20.50
		50	25	19.57	19.91	19.77	20.50
	DFT-s-OFDM 256QAM	1	1	18.10	17.56	17.76	19.00
		1	104	18.28	18.12	17.92	19.00
		50	25	17.78	17.84	17.62	19.00
	CP-OFDM QPSK	1	1	20.33	19.89	20.05	21.50
	CP-OFDM 16QAM	1	1	20.63	20.31	20.69	21.50
	CP-OFDM 64QAM	1	1	18.63	18.47	18.87	20.00
CP-OFDM 256QAM	1	1	15.62	15.46	15.42	17.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638334/3575.01	641666/3624.99	645000/3675	
50MHz	DFT-s-OFDM BPSK	1	1	19.96	20.10	20.14	21.50
		1	131	20.31	20.23	20.51	21.50
		64	32	20.20	20.42	19.96	21.50
		128	0	19.86	20.30	20.16	21.50
	DFT-s-OFDM QPSK	1	1	19.80	19.84	20.02	21.50
		1	131	19.92	20.13	20.48	21.50
		64	32	20.38	20.12	20.29	21.50
		128	0	19.94	20.01	20.18	21.50
	DFT-s-OFDM 16QAM	1	1	20.00	19.76	19.62	21.50
		1	131	19.99	19.97	20.27	21.50
		64	32	20.44	20.28	20.06	21.50
	DFT-s-OFDM 64QAM	1	1	19.40	19.24	19.18	20.50
		1	131	19.46	19.62	19.30	20.50
		64	32	19.55	19.73	19.63	20.50
	DFT-s-OFDM 256QAM	1	1	18.06	17.60	17.68	19.00
		1	131	18.28	17.98	18.00	19.00
64		32	17.66	17.78	17.56	19.00	
CP-OFDM QPSK	1	1	20.35	19.83	20.03	21.50	
CP-OFDM 16QAM	1	1	20.59	20.37	20.71	21.50	
CP-OFDM 64QAM	1	1	18.69	18.49	18.95	20.00	
CP-OFDM 256QAM	1	1	15.46	15.28	15.30	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638668/3580.02	641666/3624.99	644666/3669.99	
60MHz	DFT-s-OFDM BPSK	1	1	20.02	20.10	20.04	21.50
		1	160	20.23	20.45	20.29	21.50
		81	40	20.26	20.26	20.20	21.50
		162	0	20.20	20.42	20.20	21.50
	DFT-s-OFDM QPSK	1	1	20.06	19.94	20.08	21.50
		1	160	20.22	20.33	20.52	21.50
		81	40	20.34	20.26	20.03	21.50
		162	0	20.06	19.99	20.26	21.50
	DFT-s-OFDM 16QAM	1	1	20.00	19.74	19.92	21.50
		1	160	20.05	20.09	20.09	21.50
		81	40	20.44	20.06	20.24	21.50
	DFT-s-OFDM 64QAM	1	1	19.16	19.34	19.18	20.50
		1	160	19.50	19.54	19.46	20.50
		81	40	19.65	19.79	19.81	20.50
	DFT-s-OFDM	1	1	18.12	17.78	18.06	19.00

	256QAM	1	160	18.20	18.22	18.06	19.00
		81	40	17.82	17.74	17.78	19.00
	CP-OFDM QPSK	1	1	20.23	19.95	20.15	21.50
	CP-OFDM 16QAM	1	1	20.45	20.39	20.45	21.50
	CP-OFDM 64QAM	1	1	18.81	18.73	18.75	20.00
	CP-OFDM 256QAM	1	1	15.36	15.20	15.34	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639000/3585	641666/3624.99	644332/3664.98	
70MHz	DFT-s-OFDM BPSK	1	1	19.96	19.92	19.92	21.50
		1	187	20.17	20.29	20.49	21.50
		92	45	20.12	20.10	20.04	21.50
		180	0	20.10	20.20	20.06	21.50
	DFT-s-OFDM QPSK	1	1	19.98	19.78	20.02	21.50
		1	187	20.02	20.19	20.26	21.50
		92	45	20.28	20.20	20.11	21.50
		180	0	20.04	19.95	20.06	21.50
	DFT-s-OFDM 16QAM	1	1	19.92	19.56	19.76	21.50
		1	187	19.95	19.85	20.03	21.50
		92	46	20.38	19.96	20.32	21.50
	DFT-s-OFDM 64QAM	1	1	19.26	19.22	19.00	20.50
		1	187	19.64	19.42	19.46	20.50
		92	46	19.67	19.67	19.67	20.50
	DFT-s-OFDM 256QAM	1	1	18.08	17.68	17.90	19.00
		1	187	18.14	18.20	18.00	19.00
		92	46	17.80	17.52	17.78	19.00
	CP-OFDM QPSK	1	1	20.03	20.01	19.99	21.50
	CP-OFDM 16QAM	1	1	20.23	20.13	20.39	21.50
	CP-OFDM 64QAM	1	1	18.67	18.59	18.67	20.00
CP-OFDM 256QAM	1	1	15.38	15.18	15.16	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639334/3590.01	641666/3624.99	644000/3660	
80MHz	DFT-s-OFDM BPSK	1	1	19.78	19.86	19.92	21.50
		1	215	20.17	20.37	20.39	21.50
		108	54	20.22	20.20	20.10	21.50
		216	0	20.14	20.38	20.12	21.50
	DFT-s-OFDM QPSK	1	1	20.00	20.08	20.04	21.50
		1	215	20.18	20.33	20.32	21.50
		108	54	20.40	20.00	20.03	21.50
		216	0	19.98	20.29	20.32	21.50
	DFT-s-OFDM	1	1	20.00	19.86	20.04	21.50

	16QAM	1	215	20.23	20.01	20.27	21.50
		108	54	20.40	19.98	20.12	21.50
	DFT-s-OFDM 64QAM	1	1	19.38	19.20	19.34	20.50
		1	215	19.78	19.56	19.60	20.50
		108	54	19.59	19.81	19.83	20.50
	DFT-s-OFDM 256QAM	1	1	17.98	18.02	18.18	19.00
		1	215	18.26	18.34	18.28	19.00
		108	54	17.62	17.86	17.72	19.00
	CP-OFDM QPSK	1	1	20.23	20.17	20.01	21.50
CP-OFDM 16QAM	1	1	20.37	20.33	20.61	21.50	
CP-OFDM 64QAM	1	1	18.69	18.57	18.51	20.00	
CP-OFDM 256QAM	1	1	15.52	15.18	15.44	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639668/3595.02	641666/3624.99	643666/3654.99	
90MHz	DFT-s-OFDM BPSK	1	1	20.08	20.00	20.20	21.50
		1	243	20.29	20.45	20.47	21.50
		120	60	20.16	20.44	20.04	21.50
		243	0	20.20	20.22	20.20	21.50
	DFT-s-OFDM QPSK	1	1	19.94	19.90	20.10	21.50
		1	243	20.06	20.35	20.40	21.50
		120	60	20.36	20.04	19.99	21.50
	DFT-s-OFDM 16QAM	243	0	20.00	20.09	20.28	21.50
		1	1	20.02	19.56	20.00	21.50
		1	243	20.07	19.99	19.97	21.50
	DFT-s-OFDM 64QAM	120	60	20.30	20.12	20.30	21.50
		1	1	19.42	19.20	19.32	20.50
		1	243	19.58	19.52	19.60	20.50
	DFT-s-OFDM 256QAM	120	60	19.83	19.77	19.71	20.50
		1	1	18.12	17.74	17.86	19.00
		1	243	18.30	18.02	18.06	19.00
120	60	17.92	17.76	17.90	19.00		
CP-OFDM QPSK	1	1	20.03	20.07	19.87	21.50	
CP-OFDM 16QAM	1	1	20.39	20.25	20.53	21.50	
CP-OFDM 64QAM	1	1	18.69	18.69	18.65	20.00	
CP-OFDM 256QAM	1	1	15.42	15.44	15.32	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				640000/3600	641666/3624.99	643332/3649.98	
100MHz	DFT-s-OFDM BPSK	1	1	19.94	20.04	20.08	21.50
		1	271	20.27	20.39	20.39	21.50
		135	67	20.20	20.26	20.08	21.50

		270	0	20.14	20.28	20.20	21.50
DFT-s-OFDM QPSK		1	1	19.98	19.88	20.00	21.50
		1	271	20.14	20.23	20.40	21.50
		135	67	20.18	20.16	20.11	21.50
		270	0	20.06	20.07	20.20	21.50
DFT-s-OFDM 16QAM		1	1	20.00	19.68	19.84	21.50
		1	271	20.07	20.01	20.09	21.50
		135	67	20.28	20.16	20.24	21.50
DFT-s-OFDM 64QAM		1	1	19.24	19.24	19.16	20.50
		1	271	19.60	19.56	19.46	20.50
		135	67	19.75	19.67	19.83	20.50
DFT-s-OFDM 256QAM		1	1	18.04	17.82	17.98	19.00
		1	271	18.12	18.12	18.12	19.00
		135	67	17.76	17.66	17.72	19.00
CP-OFDM QPSK		1	1	20.13	20.01	19.99	21.50
CP-OFDM 16QAM		1	1	20.43	20.25	20.43	21.50
CP-OFDM 64QAM		1	1	18.73	18.59	18.65	20.00
CP-OFDM 256QAM		1	1	15.44	15.30	15.28	17.00

NR n66 (SA)								
Normal power&Receiver on--Main Ant0				Maximum Output Power (dBm)			Tune-up	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)				
				342500/1712.5	349000/1745	355500/1777.5		
5MHz	DFT-s-OFDM BPSK	1	1	23.03	23.41	23.35	24.50	
		1	23	23.15	23.02	23.12	24.50	
		12	6	23.17	23.77	23.59	24.50	
		25	0	22.76	22.94	23.00	24.00	
	DFT-s-OFDM QPSK	1	1	23.10	23.04	23.76	24.50	
		1	23	23.74	23.22	23.27	24.50	
		12	6	23.74	23.22	23.28	24.50	
	DFT-s-OFDM 16QAM	25	0	22.42	22.16	22.24	23.50	
		1	1	21.66	21.86	21.64	23.00	
		1	23	21.42	21.72	21.20	23.00	
	DFT-s-OFDM 64QAM	12	6	21.36	21.36	21.64	23.00	
		1	1	20.03	20.21	20.25	21.50	
		1	23	19.57	19.71	20.25	21.50	
	DFT-s-OFDM 256QAM	12	6	20.23	20.09	20.37	21.50	
		1	1	19.16	19.08	18.84	20.00	
		1	23	18.63	19.11	19.07	20.00	
	CP-OFDM QPSK	12	6	18.75	18.65	18.65	20.00	
		1	1	21.93	21.89	22.13	22.50	
	CP-OFDM 16QAM		1	1	21.55	21.45	21.73	22.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343000/1715	349000/1745	355000/1775	
	CP-OFDM 64QAM	1	1	20.26	19.94	20.00	21.00
	CP-OFDM 256QAM	1	1	16.60	16.55	16.63	18.00
10MHz	DFT-s-OFDM BPSK	1	1	23.25	23.27	23.19	24.50
		1	50	23.04	23.10	23.10	24.50
		25	12	23.41	23.55	23.61	24.50
		50	0	22.74	22.92	22.96	24.00
	DFT-s-OFDM QPSK	1	1	23.10	23.22	23.72	24.50
		1	50	23.68	23.30	23.09	24.50
		25	12	23.56	23.50	23.20	24.50
		50	0	22.38	22.15	22.34	23.50
	DFT-s-OFDM 16QAM	1	1	21.54	21.74	21.64	23.00
		1	50	21.56	21.62	21.44	23.00
		25	12	21.44	21.54	21.84	23.00
	DFT-s-OFDM 64QAM	1	1	20.11	19.93	20.29	21.50
		1	50	19.83	19.93	20.17	21.50
		25	12	20.39	19.87	20.27	21.50
	DFT-s-OFDM 256QAM	1	1	18.96	19.02	19.04	20.00
		1	50	18.71	18.81	18.81	20.00
		25	12	18.53	18.63	18.65	20.00
	CP-OFDM QPSK	1	1	21.81	22.07	22.13	22.50
	CP-OFDM 16QAM	1	1	21.33	21.49	21.65	22.50
	CP-OFDM 64QAM	1	1	20.12	20.00	19.88	21.00
CP-OFDM 256QAM	1	1	16.59	16.60	16.93	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343500/1717.5	349000/1745	354500/1772.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.11	23.17	23.33	24.50
		1	77	23.22	23.22	23.08	24.50
		36	18	23.15	23.41	23.39	24.50
		75	0	22.90	22.82	22.94	24.00
	DFT-s-OFDM QPSK	1	1	23.34	23.02	23.46	24.50
		1	77	23.24	23.18	23.09	24.50
		36	18	23.30	23.48	23.34	24.50
		75	0	22.30	22.04	22.48	23.50
	DFT-s-OFDM 16QAM	1	1	21.64	21.76	21.64	23.00
		1	77	21.52	21.64	21.68	23.00
		36	18	21.50	21.48	21.46	23.00
	DFT-s-OFDM 64QAM	1	1	19.87	19.93	19.95	21.50
		1	77	19.97	20.09	20.07	21.50
		36	18	20.01	19.99	20.13	21.50
	DFT-s-OFDM 256QAM	1	1	19.16	18.78	18.90	20.00
		1	77	18.93	18.89	18.89	20.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344000/1720	349000/1745	354000/1770	
		36	18	18.59	18.61	18.49	20.00
	CP-OFDM QPSK	1	1	21.99	21.79	21.91	22.50
	CP-OFDM 16QAM	1	1	21.47	21.61	21.73	22.50
	CP-OFDM 64QAM	1	1	20.02	19.98	20.12	21.00
	CP-OFDM 256QAM	1	1	16.93	16.71	16.63	18.00
20MHz	DFT-s-OFDM BPSK	1	1	23.13	23.09	23.05	24.50
		1	104	23.08	23.32	23.04	24.50
		50	25	23.25	23.09	23.29	24.50
		100	0	22.92	22.62	22.78	24.00
	DFT-s-OFDM QPSK	1	1	23.08	23.20	23.30	24.50
		1	104	23.08	23.02	23.09	24.50
		50	25	23.46	23.46	23.24	24.50
		100	0	22.10	22.06	22.44	23.50
	DFT-s-OFDM 16QAM	1	1	21.60	21.52	21.38	23.00
		1	104	21.50	21.58	21.52	23.00
		50	25	21.26	21.22	21.40	23.00
	DFT-s-OFDM 64QAM	1	1	19.99	20.13	19.87	21.50
		1	104	19.83	19.95	20.01	21.50
		50	25	19.97	20.05	20.17	21.50
	DFT-s-OFDM 256QAM	1	1	19.12	18.76	19.02	20.00
		1	104	18.69	18.67	18.91	20.00
		50	25	18.79	18.59	18.55	20.00
	CP-OFDM QPSK	1	1	21.83	21.71	21.85	22.50
	CP-OFDM 16QAM	1	1	21.35	21.63	21.47	22.50
	CP-OFDM 64QAM	1	1	19.96	19.88	19.92	21.00
CP-OFDM 256QAM	1	1	16.63	16.52	16.71	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344500/1722.5	349000/1745	353500/1767.5	
25MHz	DFT-s-OFDM BPSK	1	1	23.07	23.31	23.15	24.50
		1	131	23.20	23.36	23.34	24.50
		64	32	23.05	23.27	23.37	24.50
		128	0	22.98	22.74	22.94	24.00
	DFT-s-OFDM QPSK	1	1	23.30	23.18	23.42	24.50
		1	131	23.46	23.22	23.23	24.50
		64	32	23.22	23.54	23.26	24.50
		128	0	22.30	22.02	22.26	23.50
	DFT-s-OFDM 16QAM	1	1	21.56	21.56	21.46	23.00
		1	131	21.62	21.42	21.68	23.00
		64	32	21.48	21.32	21.54	23.00
	DFT-s-OFDM 64QAM	1	1	20.13	19.91	20.07	21.50
		1	131	19.91	19.91	19.99	21.50

	DFT-s-OFDM 256QAM	64	32	20.11	20.03	19.99	21.50
		1	1	18.84	19.04	18.82	20.00
		1	131	18.87	18.83	19.05	20.00
		64	32	18.85	18.63	18.67	20.00
	CP-OFDM QPSK	1	1	22.09	22.03	22.17	22.50
	CP-OFDM 16QAM	1	1	21.29	21.41	21.45	22.50
	CP-OFDM 64QAM	1	1	20.16	19.82	19.92	21.00
CP-OFDM 256QAM	1	1	16.83	16.73	16.75	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				345000/1725	349000/1745	353000/1765	
30MHz	DFT-s-OFDM BPSK	1	1	23.19	23.23	23.29	24.50
		1	158	23.08	23.14	23.18	24.50
		80	40	23.09	23.45	23.19	24.50
		160	0	22.74	22.78	23.00	24.00
	DFT-s-OFDM QPSK	1	1	23.36	23.28	23.36	24.50
		1	158	23.16	23.26	23.27	24.50
		80	40	23.48	23.48	23.14	24.50
		160	0	22.32	22.20	22.48	23.50
	DFT-s-OFDM 16QAM	1	1	21.70	21.70	21.64	23.00
		1	158	21.68	21.74	21.52	23.00
		80	40	21.24	21.50	21.42	23.00
	DFT-s-OFDM 64QAM	1	1	20.03	19.91	20.09	21.50
		1	158	19.81	19.99	20.11	21.50
		80	40	20.13	20.09	20.27	21.50
	DFT-s-OFDM 256QAM	1	1	18.96	19.02	18.94	20.00
		1	158	19.01	19.01	18.97	20.00
		80	40	18.63	18.53	18.61	20.00
	CP-OFDM QPSK	1	1	21.93	21.73	21.89	22.50
	CP-OFDM 16QAM	1	1	21.33	21.71	21.53	22.50
	CP-OFDM 64QAM	1	1	19.94	19.96	20.00	21.00
CP-OFDM 256QAM	1	1	16.67	16.53	16.65	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				346000/1730	349000/1745	352000/1760	
40MHz	DFT-s-OFDM BPSK	1	1	23.19	23.13	23.25	24.50
		1	214	23.12	23.24	23.14	24.50
		108	54	23.17	23.27	23.31	24.50
		216	0	22.82	22.66	22.90	24.00
	DFT-s-OFDM QPSK	1	1	23.18	23.10	23.32	24.50
		1	214	23.28	23.16	23.11	24.50
		108	54	23.38	23.40	23.22	24.50
		216	0	22.24	22.14	22.34	23.50
	DFT-s-OFDM 16QAM	1	1	21.72	21.64	21.52	23.00
		1	214	21.60	21.58	21.56	23.00

		108	54	21.34	21.42	21.44	23.00
	DFT-s-OFDM 64QAM	1	1	19.95	20.03	19.91	21.50
		1	214	19.93	19.99	20.11	21.50
		108	54	20.01	19.95	20.09	21.50
	DFT-s-OFDM 256QAM	1	1	19.02	18.84	19.00	20.00
		1	214	18.89	18.85	18.93	20.00
		108	54	18.69	18.51	18.53	20.00
	CP-OFDM QPSK	1	1	21.97	21.83	21.99	22.50
	CP-OFDM 16QAM	1	1	21.45	21.57	21.63	22.50
	CP-OFDM 64QAM	1	1	20.06	19.92	19.98	21.00
	CP-OFDM 256QAM	1	1	16.79	16.61	16.65	18.00

NR n66 (SA)							
Receiver off--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				342500/1712.5	349000/1745	355500/1777.5	
5MHz	DFT-s-OFDM BPSK	1	1	21.86	21.88	21.60	23.50
		1	23	22.34	22.02	21.66	23.50
		12	6	22.17	21.95	21.93	23.50
		25	0	22.43	21.69	21.69	23.50
	DFT-s-OFDM QPSK	1	1	22.47	21.89	21.77	23.50
		1	23	22.02	22.08	21.62	23.50
		12	6	22.34	22.22	22.02	23.50
	DFT-s-OFDM 16QAM	25	0	22.06	22.22	22.14	23.50
		1	1	21.54	22.02	21.60	23.00
		1	23	21.77	21.75	21.81	23.00
	DFT-s-OFDM 64QAM	12	6	21.89	21.81	22.13	23.00
		1	1	20.09	20.05	20.13	21.50
		1	23	20.59	19.93	19.87	21.50
	DFT-s-OFDM 256QAM	12	6	20.42	20.78	20.52	21.50
		1	1	18.80	19.00	18.80	20.00
		1	23	18.69	18.97	18.45	20.00
CP-OFDM QPSK	12	6	18.82	18.56	18.40	20.00	
	1	1	21.06	21.50	21.40	22.50	
	1	1	21.36	21.20	21.50	22.50	
	1	1	20.29	19.79	19.57	21.00	
CP-OFDM 16QAM	1	1	16.62	16.02	16.20	18.00	
	1	1	16.62	16.02	16.20	18.00	
CP-OFDM 64QAM	1	1	16.62	16.02	16.20	18.00	
	1	1	16.62	16.02	16.20	18.00	
CP-OFDM 256QAM	1	1	16.62	16.02	16.20	18.00	
	1	1	16.62	16.02	16.20	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	DFT-s-OFDM BPSK	1	1	21.56	21.90	21.78	23.50
		1	50	21.86	21.86	22.24	23.50
		25	12	22.09	21.95	21.99	23.50
		50	0	21.97	21.95	21.89	23.50

	DFT-s-OFDM QPSK	1	1	21.89	21.91	21.83	23.50
		1	50	21.80	21.74	21.84	23.50
		25	12	22.22	21.96	21.72	23.50
		50	0	22.22	21.78	21.80	23.50
	DFT-s-OFDM 16QAM	1	1	21.68	21.62	21.48	23.00
		1	50	21.67	21.41	21.63	23.00
		25	12	21.99	22.05	22.01	23.00
	DFT-s-OFDM 64QAM	1	1	20.21	20.33	20.13	21.50
		1	50	20.29	20.45	19.99	21.50
		25	12	20.30	20.34	20.20	21.50
	DFT-s-OFDM 256QAM	1	1	18.64	18.80	18.82	20.00
		1	50	18.85	18.73	18.65	20.00
		25	12	18.40	18.36	18.32	20.00
	CP-OFDM QPSK	1	1	21.36	21.40	21.54	22.50
CP-OFDM 16QAM	1	1	21.24	21.08	20.90	22.50	
CP-OFDM 64QAM	1	1	19.71	19.37	19.63	21.00	
CP-OFDM 256QAM	1	1	16.58	16.16	16.20	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343500/1717.5	349000/1745	354500/1772.5	
15MHz	DFT-s-OFDM BPSK	1	1	21.72	21.92	21.62	23.50
		1	77	21.88	21.90	22.00	23.50
		36	18	21.99	22.13	22.05	23.50
		75	0	22.15	21.79	22.05	23.50
	DFT-s-OFDM QPSK	1	1	22.17	21.83	21.93	23.50
		1	77	21.94	21.82	21.82	23.50
		36	18	22.10	21.90	22.10	23.50
	DFT-s-OFDM 16QAM	75	0	22.18	21.90	22.04	23.50
		1	1	21.72	21.80	21.84	23.00
		1	77	21.91	21.61	21.85	23.00
	DFT-s-OFDM 64QAM	36	18	22.09	21.87	22.07	23.00
		1	1	20.03	20.41	20.11	21.50
		1	77	20.57	20.27	20.25	21.50
	DFT-s-OFDM 256QAM	36	18	20.36	20.52	20.50	21.50
		1	1	18.78	18.82	18.72	20.00
		1	77	18.69	18.99	18.73	20.00
CP-OFDM QPSK	36	18	18.50	18.58	18.48	20.00	
CP-OFDM QPSK	1	1	21.56	21.70	21.48	22.50	
CP-OFDM 16QAM	1	1	21.18	21.34	21.06	22.50	
CP-OFDM 64QAM	1	1	20.07	19.57	19.63	21.00	
CP-OFDM 256QAM	1	1	16.42	16.28	16.32	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344000/1720	349000/1745	354000/1770	
20MHz	DFT-s-OFDM	1	1	21.72	21.80	21.74	23.50

	BPSK	1	104	21.84	21.72	22.02	23.50
		50	25	21.93	22.05	21.87	23.50
		100	0	22.17	21.81	22.05	23.50
	DFT-s-OFDM QPSK	1	1	21.99	21.81	21.77	23.50
		1	104	21.82	21.80	21.74	23.50
		50	25	22.18	22.08	21.96	23.50
	DFT-s-OFDM 16QAM	100	0	22.02	21.78	22.10	23.50
		1	1	21.62	21.48	21.76	23.00
		1	104	21.87	21.55	21.85	23.00
	DFT-s-OFDM 64QAM	50	25	22.09	21.91	21.83	23.00
		1	1	20.11	20.13	20.13	21.50
		1	104	20.31	20.13	20.21	21.50
	DFT-s-OFDM 256QAM	50	25	20.40	20.62	20.42	21.50
		1	1	18.64	18.78	18.70	20.00
		1	104	18.75	18.75	18.79	20.00
CP-OFDM	50	25	18.44	18.40	18.36	20.00	
	1	1	21.42	21.62	21.46	22.50	
	1	1	21.12	21.24	21.12	22.50	
	1	1	19.97	19.55	19.63	21.00	
CP-OFDM	1	1	16.28	16.36	16.20	18.00	
	1	1	21.12	21.24	21.12	22.50	
	1	1	19.97	19.55	19.63	21.00	
	1	1	16.28	16.36	16.20	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
25MHz	DFT-s-OFDM BPSK	1	1	344500/1722.5	349000/1745	353500/1767.5	23.50
		1	131	21.74	21.76	21.66	23.50
		64	32	22.08	21.78	21.78	23.50
		128	0	21.91	21.87	22.03	23.50
	DFT-s-OFDM QPSK	1	1	22.13	21.79	22.11	23.50
		1	131	22.03	21.81	22.13	23.50
		64	32	22.13	21.79	22.11	23.50
		128	0	21.88	21.68	21.82	23.50
	DFT-s-OFDM 16QAM	64	32	22.24	22.16	21.82	23.50
		128	0	22.02	22.00	22.22	23.50
		1	1	21.76	21.52	21.90	23.00
		1	131	21.76	21.52	21.90	23.00
	DFT-s-OFDM 64QAM	64	32	21.85	21.77	22.11	23.00
		1	1	20.23	20.45	20.37	21.50
		1	131	20.23	20.45	20.37	21.50
		64	32	20.42	20.66	20.62	21.50
	DFT-s-OFDM 256QAM	1	1	18.88	18.92	18.96	20.00
		1	131	18.88	18.92	18.96	20.00
		64	32	18.85	18.69	18.75	20.00
		64	32	18.54	18.44	18.54	20.00
	CP-OFDM QPSK	1	1	21.46	21.46	21.32	22.50
	CP-OFDM 16QAM	1	1	21.20	21.24	21.06	22.50
	CP-OFDM 64QAM	1	1	19.87	19.81	19.93	21.00
	CP-OFDM 256QAM	1	1	16.52	16.12	16.42	18.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				345000/1725	349000/1745	353000/1765	
30MHz	DFT-s-OFDM BPSK	1	1	21.74	21.76	21.72	23.50
		1	158	21.78	22.06	22.04	23.50
		80	40	22.19	21.89	21.77	23.50
		160	0	22.33	21.99	22.17	23.50
	DFT-s-OFDM QPSK	1	1	22.27	21.97	22.01	23.50
		1	158	22.06	21.74	21.74	23.50
		80	40	22.20	22.02	22.16	23.50
		160	0	22.24	21.82	21.98	23.50
	DFT-s-OFDM 16QAM	1	1	21.84	21.58	21.80	23.00
		1	158	21.75	21.73	21.85	23.00
		80	40	22.05	22.05	21.89	23.00
	DFT-s-OFDM 64QAM	1	1	20.19	20.43	20.25	21.50
		1	158	20.45	20.17	20.23	21.50
		80	40	20.44	20.50	20.52	21.50
	DFT-s-OFDM 256QAM	1	1	18.82	19.02	18.88	20.00
		1	158	18.87	18.85	18.67	20.00
80		40	18.52	18.58	18.64	20.00	
CP-OFDM QPSK	1	1	21.42	21.56	21.36	22.50	
CP-OFDM 16QAM	1	1	21.34	21.14	21.28	22.50	
CP-OFDM 64QAM	1	1	19.97	19.65	19.63	21.00	
CP-OFDM 256QAM	1	1	16.30	16.42	16.32	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				346000/1730	349000/1745	352000/1760	
40MHz	DFT-s-OFDM BPSK	1	1	21.80	21.84	21.72	23.50
		1	214	21.88	21.90	21.94	23.50
		108	54	22.01	21.97	21.89	23.50
		216	0	22.15	21.89	22.07	23.50
	DFT-s-OFDM QPSK	1	1	21.95	21.87	22.03	23.50
		1	214	21.92	21.86	21.86	23.50
		108	54	22.04	22.05	22.00	23.50
		216	0	22.08	21.90	22.04	23.50
	DFT-s-OFDM 16QAM	1	1	21.74	21.66	21.78	23.00
		1	214	21.79	21.63	21.77	23.00
		108	54	22.03	21.95	21.97	23.00
	DFT-s-OFDM 64QAM	1	1	20.07	20.29	20.19	21.50
		1	214	20.41	20.21	20.23	21.50
		108	54	20.46	20.54	20.44	21.50
	DFT-s-OFDM 256QAM	1	1	18.78	18.86	18.80	20.00
		1	214	18.69	18.85	18.73	20.00
108		54	18.56	18.56	18.54	20.00	
CP-OFDM QPSK	1	1	21.48	21.54	21.46	22.50	

	CP-OFDM 16QAM	1	1	21.18	21.26	21.16	22.50
	CP-OFDM 64QAM	1	1	19.91	19.63	19.73	21.00
	CP-OFDM 256QAM	1	1	16.42	16.30	16.34	18.00

NR n66 (SA)							
Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				342500/1712.5	349000/1745	355500/1777.5	
5MHz	DFT-s-OFDM BPSK	1	1	21.27	21.43	21.49	22.50
		1	23	21.63	21.33	21.21	22.50
		12	6	21.25	21.21	21.23	22.50
		25	0	21.38	21.18	21.44	22.50
	DFT-s-OFDM QPSK	1	1	21.13	21.27	21.38	22.50
		1	23	21.10	21.35	21.05	22.50
		12	6	21.54	21.49	21.35	22.50
	DFT-s-OFDM 16QAM	1	1	21.23	21.01	20.99	22.00
		1	23	20.95	20.99	20.79	22.00
		12	6	21.42	21.50	21.28	22.00
	DFT-s-OFDM 64QAM	1	1	20.50	20.38	20.72	21.50
		1	23	20.64	20.36	20.54	21.50
		12	6	20.86	21.04	20.86	21.50
	DFT-s-OFDM 256QAM	1	1	19.13	19.09	19.31	20.00
		1	23	19.16	19.12	19.20	20.00
		12	6	18.99	18.91	19.05	20.00
	CP-OFDM QPSK	1	1	21.39	21.47	21.17	22.50
	CP-OFDM 16QAM	1	1	21.52	21.56	21.42	22.50
CP-OFDM 64QAM	1	1	19.87	19.77	19.91	21.00	
CP-OFDM 256QAM	1	1	16.52	16.84	16.64	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	DFT-s-OFDM BPSK	1	1	21.21	21.31	21.35	22.50
		1	50	21.45	21.29	21.05	22.50
		25	12	21.25	21.03	21.15	22.50
		50	0	21.32	21.12	21.38	22.50
	DFT-s-OFDM QPSK	1	1	21.11	21.39	21.12	22.50
		1	50	21.18	21.07	21.15	22.50
		25	12	21.36	21.29	21.21	22.50
	DFT-s-OFDM 16QAM	1	1	21.19	21.10	21.36	22.50
		1	1	21.23	21.15	20.73	22.00
		1	50	20.69	20.97	20.69	22.00
	DFT-s-OFDM	25	12	21.14	21.18	21.30	22.00
		1	1	20.36	20.34	20.44	21.50

	64QAM	1	50	20.68	20.16	20.52	21.50
		25	12	20.68	20.96	20.86	21.50
	DFT-s-OFDM 256QAM	1	1	18.87	19.15	19.11	20.00
		1	50	19.18	19.02	18.94	20.00
		25	12	19.09	18.71	19.09	20.00
	CP-OFDM QPSK	1	1	21.23	21.17	21.13	22.50
	CP-OFDM 16QAM	1	1	21.46	21.42	21.50	22.50
	CP-OFDM 64QAM	1	1	19.85	19.77	19.91	21.00
CP-OFDM 256QAM	1	1	16.34	16.70	16.50	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343500/1717.5	349000/1745	354500/1772.5	
15MHz	DFT-s-OFDM BPSK	1	1	21.31	21.21	21.31	22.50
		1	77	21.53	21.17	21.17	22.50
		36	18	21.39	21.27	21.29	22.50
		75	0	21.64	21.14	21.46	22.50
	DFT-s-OFDM QPSK	1	1	21.14	21.41	21.22	22.50
		1	77	21.02	21.39	21.15	22.50
		36	18	21.38	21.49	21.09	22.50
		75	0	21.09	21.03	21.22	22.50
	DFT-s-OFDM 16QAM	1	1	21.31	21.15	20.81	22.00
		1	77	20.83	20.95	20.89	22.00
		36	18	21.40	21.46	21.38	22.00
	DFT-s-OFDM 64QAM	1	1	20.42	20.38	20.54	21.50
		1	77	20.52	20.24	20.50	21.50
		36	18	20.80	20.96	20.88	21.50
	DFT-s-OFDM 256QAM	1	1	19.25	18.95	19.23	20.00
		1	77	19.12	19.40	19.14	20.00
		36	18	19.01	18.91	19.17	20.00
	CP-OFDM QPSK	1	1	21.41	21.37	21.15	22.50
	CP-OFDM 16QAM	1	1	21.64	21.64	21.38	22.50
	CP-OFDM 64QAM	1	1	19.87	19.95	19.93	21.00
CP-OFDM 256QAM	1	1	16.60	16.84	16.50	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344000/1720	349000/1745	354000/1770	
20MHz	DFT-s-OFDM BPSK	1	1	21.31	21.27	21.33	22.50
		1	104	21.49	21.29	21.17	22.50
		50	25	21.27	21.23	21.33	22.50
		100	0	21.48	21.10	21.44	22.50
	DFT-s-OFDM QPSK	1	1	21.04	21.35	21.24	22.50
		1	104	21.14	21.25	21.03	22.50
		50	25	21.40	21.33	21.19	22.50
		100	0	21.17	21.03	21.30	22.50
	DFT-s-OFDM	1	1	21.13	21.07	20.87	22.00

	16QAM	1	104	20.87	21.07	20.89	22.00	
		50	25	21.26	21.38	21.28	22.00	
	DFT-s-OFDM 64QAM	1	1	20.46	20.40	20.62	21.50	
		1	104	20.62	20.30	20.46	21.50	
		64QAM	50	25	20.70	20.92	20.92	21.50
			1	1	19.07	19.07	19.19	20.00
	DFT-s-OFDM 256QAM	1	104	19.12	19.22	19.04	20.00	
		50	25	19.03	18.83	19.03	20.00	
	CP-OFDM QPSK	1	1	21.23	21.31	21.05	22.50	
	CP-OFDM 16QAM	1	1	21.58	21.46	21.40	22.50	
CP-OFDM 64QAM	1	1	19.93	19.77	20.01	21.00		
CP-OFDM 256QAM	1	1	16.54	16.76	16.60	18.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				344500/1722.5	349000/1745	353500/1767.5		
25MHz	DFT-s-OFDM BPSK	1	1	21.13	21.15	21.15	22.50	
		1	131	21.33	21.05	21.29	22.50	
		64	32	21.19	21.31	21.35	22.50	
		128	0	21.50	21.08	21.44	22.50	
	DFT-s-OFDM QPSK	1	1	21.10	21.07	21.20	22.50	
		1	131	21.20	21.15	21.07	22.50	
		64	32	21.30	21.23	21.21	22.50	
		128	0	21.29	21.19	21.10	22.50	
	DFT-s-OFDM 16QAM	1	1	20.93	20.99	20.81	22.00	
		1	131	20.95	20.81	20.85	22.00	
		64	32	21.14	21.12	21.10	22.00	
	DFT-s-OFDM 64QAM	1	1	20.28	20.32	20.62	21.50	
		1	131	20.42	20.48	20.26	21.50	
		64	32	20.68	20.56	20.96	21.50	
	DFT-s-OFDM 256QAM	1	1	19.11	19.21	18.95	20.00	
		1	131	19.14	19.02	18.82	20.00	
		64	32	18.79	18.87	18.83	20.00	
	CP-OFDM QPSK	1	1	21.23	21.05	21.13	22.50	
	CP-OFDM 16QAM	1	1	21.78	21.34	21.34	22.50	
	CP-OFDM 64QAM	1	1	19.71	19.69	19.99	21.00	
CP-OFDM 256QAM	1	1	16.50	16.48	16.50	18.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				345000/1725	349000/1745	353000/1765		
30MHz	DFT-s-OFDM BPSK	1	1	21.25	21.01	21.11	22.50	
		1	158	21.33	21.39	21.23	22.50	
		80	40	21.19	21.33	21.17	22.50	
		160	0	21.52	21.26	21.40	22.50	
	DFT-s-OFDM QPSK	1	1	21.20	21.25	21.12	22.50	
		1	158	21.28	21.27	21.09	22.50	

		80	40	21.36	21.33	21.25	22.50
		160	0	21.23	21.31	21.34	22.50
	DFT-s-OFDM 16QAM	1	1	21.21	21.07	21.03	22.00
		1	158	20.97	20.99	20.89	22.00
		80	40	21.32	21.26	21.24	22.00
	DFT-s-OFDM 64QAM	1	1	20.46	20.50	20.50	21.50
		1	158	20.46	20.38	20.48	21.50
		80	40	20.62	20.86	20.74	21.50
	DFT-s-OFDM 256QAM	1	1	19.07	19.21	19.11	20.00
		1	158	19.22	19.10	19.04	20.00
		80	40	18.79	18.69	18.93	20.00
	CP-OFDM QPSK	1	1	21.17	21.35	21.17	22.50
	CP-OFDM 16QAM	1	1	21.68	21.70	21.34	22.50
CP-OFDM 64QAM	1	1	19.73	19.81	20.11	21.00	
CP-OFDM 256QAM	1	1	16.74	16.70	16.62	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				346000/1730	349000/1745	352000/1760	
40MHz	DFT-s-OFDM BPSK	1	1	21.17	21.13	21.21	22.50
		1	214	21.37	21.23	21.23	22.50
		108	54	21.17	21.21	21.27	22.50
		216	0	21.56	21.14	21.38	22.50
	DFT-s-OFDM QPSK	1	1	21.08	21.21	21.12	22.50
		1	214	21.14	21.19	21.07	22.50
		108	54	21.24	21.23	21.21	22.50
		216	0	21.25	21.13	21.26	22.50
	DFT-s-OFDM 16QAM	1	1	21.07	20.91	20.97	22.00
		1	214	20.85	20.93	20.83	22.00
		108	54	21.26	21.22	21.12	22.00
	DFT-s-OFDM 64QAM	1	1	20.34	20.46	20.60	21.50
		1	214	20.50	20.40	20.44	21.50
		108	54	20.64	20.76	20.86	21.50
	DFT-s-OFDM 256QAM	1	1	19.17	19.17	19.05	20.00
		1	214	19.08	19.06	19.00	20.00
		108	54	18.89	18.77	18.89	20.00
	CP-OFDM QPSK	1	1	21.27	21.25	21.13	22.50
	CP-OFDM 16QAM	1	1	21.68	21.52	21.44	22.50
	CP-OFDM 64QAM	1	1	19.77	19.87	20.01	21.00
CP-OFDM 256QAM	1	1	16.60	16.60	16.50	18.00	

NR n71 (SA)							
Normal power&Receiver on&Receiver off&Hotspot on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				133100/665.5	136100/680.5	139100/695.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.19	23.05	22.82	24.50
		1	23	22.76	22.90	22.91	24.50
		12	6	23.16	22.90	22.99	24.50
		25	0	22.89	22.62	22.76	24.00
	DFT-s-OFDM QPSK	1	1	22.65	22.74	23.02	24.50
		1	23	23.22	22.99	23.20	24.50
		12	6	23.14	23.07	23.09	24.50
		25	0	22.37	22.22	22.26	23.50
	DFT-s-OFDM 16QAM	1	1	21.80	21.94	21.84	23.50
		1	23	21.90	21.79	21.78	23.50
		12	6	22.20	22.20	22.08	23.50
	DFT-s-OFDM 64QAM	1	1	20.90	20.35	20.34	22.00
		1	23	20.16	20.26	20.58	22.00
		12	6	20.81	21.00	20.47	22.00
	DFT-s-OFDM 256QAM	1	1	18.60	19.09	19.05	20.00
		1	23	19.19	18.98	19.07	20.00
		12	6	18.97	18.68	18.49	20.00
	CP-OFDM QPSK	1	1	21.38	21.88	21.59	23.00
CP-OFDM 16QAM	1	1	21.36	21.42	21.54	22.50	
CP-OFDM 64QAM	1	1	19.61	19.65	19.50	21.00	
CP-OFDM 256QAM	1	1	16.53	16.70	16.32	18.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				133600/668	136100/680.5	138600/693	
10MHz	DFT-s-OFDM BPSK	1	1	22.85	22.95	23.18	24.50
		1	50	22.92	23.20	22.95	24.50
		25	12	23.24	23.02	23.17	24.50
		50	0	22.53	22.80	22.66	24.00
	DFT-s-OFDM QPSK	1	1	22.53	23.04	23.22	24.50
		1	50	23.18	23.23	23.24	24.50
		25	12	23.20	23.07	23.33	24.50
	DFT-s-OFDM 16QAM	50	0	22.07	22.06	22.18	23.50
		1	1	21.62	21.96	21.98	23.50
		1	50	21.80	21.85	21.64	23.50
	DFT-s-OFDM 64QAM	25	12	22.32	22.28	22.10	23.50
		1	1	20.94	20.43	20.30	22.00
		1	50	20.26	20.66	20.34	22.00
	25	12	20.61	20.72	20.67	22.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				134100/670.5	136100/680.5	138100/690.5		
15MHz	DFT-s-OFDM 256QAM	1	1	18.84	18.97	19.17	20.00	
		1	50	18.97	18.84	19.07	20.00	
		25	12	18.59	18.88	18.55	20.00	
	CP-OFDM QPSK	1	1	21.10	21.48	21.71	23.00	
	CP-OFDM 16QAM	1	1	21.22	21.24	21.52	22.50	
	CP-OFDM 64QAM	1	1	19.63	19.75	19.60	21.00	
	CP-OFDM 256QAM	1	1	16.49	16.46	16.62	18.00	
	15MHz	DFT-s-OFDM BPSK	1	1	22.93	22.95	23.08	24.50
			1	77	23.12	22.98	23.21	24.50
			36	18	23.32	23.10	23.17	24.50
			75	0	22.89	22.72	22.84	24.00
		DFT-s-OFDM QPSK	1	1	22.62	23.14	23.18	24.50
			1	77	23.24	22.95	23.22	24.50
			36	18	23.32	23.11	23.13	24.50
DFT-s-OFDM 16QAM		75	0	22.09	22.18	22.22	23.50	
		1	1	21.60	21.96	21.98	23.50	
		1	77	21.86	21.67	21.74	23.50	
DFT-s-OFDM 64QAM		36	18	22.16	22.26	22.10	23.50	
		1	1	20.60	20.47	20.52	22.00	
		1	36	20.58	20.48	20.38	22.00	
DFT-s-OFDM 256QAM		18	9	20.81	20.68	20.65	22.00	
	1	1	18.76	19.09	19.19	20.00		
	1	77	19.15	18.96	18.95	20.00		
15MHz	CP-OFDM QPSK	36	18	18.87	18.68	18.69	20.00	
		1	1	21.30	21.72	21.75	23.00	
		1	1	21.14	21.56	21.38	22.50	
	CP-OFDM 16QAM	1	1	19.61	19.79	19.84	21.00	
		1	1	16.61	16.44	16.38	18.00	
		1	1	16.61	16.44	16.38	18.00	
20MHz	DFT-s-OFDM BPSK	1	1	22.87	23.07	23.06	24.50	
		1	104	23.06	23.04	23.09	24.50	
		50	25	23.22	23.20	23.17	24.50	
		100	0	22.71	22.66	22.68	24.00	
	DFT-s-OFDM QPSK	1	1	22.54	23.04	23.04	24.50	
		1	104	23.06	23.01	23.04	24.50	
		50	25	23.18	23.19	23.13	24.50	
	DFT-s-OFDM 16QAM	100	0	22.19	22.14	22.18	23.50	
		1	1	21.62	21.82	21.80	23.50	
		1	104	21.80	21.75	21.80	23.50	
	20MHz	DFT-s-OFDM 16QAM	50	25	22.20	22.20	22.14	23.50
			50	25	22.20	22.20	22.14	23.50

	DFT-s-OFDM 64QAM	1	1	20.72	20.41	20.42	22.00
		1	104	20.42	20.48	20.42	22.00
		50	25	20.73	20.74	20.71	22.00
	DFT-s-OFDM 256QAM	1	1	18.72	19.01	19.03	20.00
		1	104	19.03	18.98	19.03	20.00
		50	25	18.75	18.74	18.69	20.00
	CP-OFDM QPSK	1	1	21.18	21.64	21.65	23.00
	CP-OFDM 16QAM	1	1	21.10	21.42	21.44	22.50
	CP-OFDM 64QAM	1	1	19.65	19.75	19.74	21.00
CP-OFDM 256QAM	1	1	16.67	16.46	16.46	18.00	

NR n77 Subset 1 (SA)							
Normal power&Receiver off--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	22.12	22.12	22.38	24.00
		1	49	22.43	22.85	22.43	24.00
		25	12	22.28	22.54	22.36	24.00
		50	0	21.53	21.77	22.23	23.50
	DFT-s-OFDM QPSK	1	1	22.19	22.19	22.39	24.00
		1	49	22.53	22.17	22.41	24.00
		25	12	22.28	22.26	22.36	24.00
	DFT-s-OFDM 16QAM	50	0	21.96	21.82	21.38	23.00
		1	1	20.86	20.70	21.70	22.50
		1	49	20.94	20.84	20.84	22.50
	DFT-s-OFDM 64QAM	25	12	21.97	21.06	21.55	22.50
		1	1	19.87	19.65	19.71	21.00
		1	49	19.62	19.48	19.62	21.00
	DFT-s-OFDM 256QAM	25	12	20.07	20.17	19.85	21.00
		1	1	18.47	18.51	18.13	19.50
		1	49	18.58	18.32	18.38	19.50
	CP-OFDM QPSK	25	12	18.10	18.22	18.08	19.50
		1	1	21.08	20.36	20.64	22.00
1		1	20.55	21.21	20.23	22.00	
1		1	18.92	18.86	19.22	20.00	
1		1	15.72	15.82	15.58	17.00	
CP-OFDM 16QAM							
CP-OFDM 64QAM							
CP-OFDM 256QAM							
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
30MHz	DFT-s-OFDM BPSK	631000/3465	633332/3500	635666/3535			
		1	1	22.24	22.22	22.36	24.00
		1	76	22.65	22.65	22.17	24.00
		36	18	22.10	22.56	22.44	24.00
	75	0	21.60	21.81	22.07	23.50	
DFT-s-OFDM	1	1	22.17	22.31	22.31	24.00	

	QPSK	1	76	22.43	22.29	22.49	24.00
		36	18	22.34	22.20	22.28	24.00
		75	0	22.06	21.74	21.26	23.00
	DFT-s-OFDM 16QAM	1	1	20.68	21.04	21.58	22.50
		1	76	21.10	20.88	20.88	22.50
		36	18	21.81	21.40	21.47	22.50
	DFT-s-OFDM 64QAM	1	1	19.87	20.15	19.85	21.00
		1	76	19.34	19.34	19.66	21.00
		36	18	20.15	20.13	20.07	21.00
	DFT-s-OFDM 256QAM	1	1	18.19	18.45	18.23	19.50
		1	76	18.38	18.64	18.08	19.50
		36	18	17.94	18.32	17.98	19.50
	CP-OFDM QPSK	1	1	20.88	20.48	20.92	22.00
CP-OFDM 16QAM	1	1	20.73	21.11	20.47	22.00	
CP-OFDM 64QAM	1	1	18.92	19.04	18.94	20.00	
CP-OFDM 256QAM	1	1	15.44	15.88	15.70	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631332/3470	633332/3500	635332/3530	
40MHz	DFT-s-OFDM BPSK	1	1	22.24	22.26	22.18	24.00
		1	104	22.55	22.65	22.21	24.00
		50	25	22.10	22.38	22.38	24.00
		100	0	21.51	21.85	22.01	23.50
	DFT-s-OFDM QPSK	1	1	22.03	22.35	22.35	24.00
		1	104	22.45	22.31	22.55	24.00
		50	25	22.18	22.24	22.16	24.00
		100	0	22.08	21.62	21.22	23.00
	DFT-s-OFDM 16QAM	1	1	20.64	20.86	21.52	22.50
		1	104	21.00	20.72	20.74	22.50
		50	25	21.75	21.22	21.57	22.50
	DFT-s-OFDM 64QAM	1	1	19.91	20.11	19.69	21.00
		1	104	19.40	19.36	19.48	21.00
		50	25	20.13	19.95	19.95	21.00
	DFT-s-OFDM 256QAM	1	1	18.27	18.31	18.29	19.50
		1	104	18.38	18.46	18.18	19.50
		50	25	17.88	18.20	18.04	19.50
	CP-OFDM QPSK	1	1	20.86	20.48	20.74	22.00
CP-OFDM 16QAM	1	1	20.63	20.99	20.41	22.00	
CP-OFDM 64QAM	1	1	19.02	18.90	19.02	20.00	
CP-OFDM 256QAM	1	1	15.54	15.86	15.74	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
50MHz	DFT-s-OFDM BPSK	1	1	22.18	22.32	22.04	24.00
		1	131	22.39	22.49	22.29	24.00

		64	32	22.10	22.40	22.22	24.00
		128	0	21.61	21.71	21.95	23.50
	DFT-s-OFDM QPSK	1	1	22.03	22.17	22.33	24.00
		1	131	22.29	22.21	22.41	24.00
		64	32	22.16	22.16	22.24	24.00
		128	0	22.16	21.48	21.22	23.00
	DFT-s-OFDM 16QAM	1	1	20.68	20.96	21.36	22.50
		1	131	20.88	20.54	20.72	22.50
		64	32	21.77	21.60	21.59	22.50
	DFT-s-OFDM 64QAM	1	1	19.93	19.99	19.73	21.00
		1	131	19.50	19.38	19.30	21.00
		64	32	20.11	20.05	20.05	21.00
	DFT-s-OFDM 256QAM	1	1	18.39	18.19	18.21	19.50
		1	131	18.24	18.48	18.02	19.50
64		32	17.84	18.24	17.90	19.50	
CP-OFDM QPSK	1	1	20.90	20.58	20.74	22.00	
CP-OFDM 16QAM	1	1	20.45	20.81	20.51	22.00	
CP-OFDM 64QAM	1	1	19.12	18.98	19.00	20.00	
CP-OFDM 256QAM	1	1	15.64	15.82	15.82	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	22.38	22.68	22.00	24.00
		1	160	22.47	22.71	22.31	24.00
		81	40	22.20	22.56	22.60	24.00
		162	0	21.55	21.69	21.81	23.50
	DFT-s-OFDM QPSK	1	1	22.19	22.25	22.03	24.00
		1	160	22.19	22.27	22.35	24.00
		81	40	22.30	22.40	22.56	24.00
		162	0	22.02	21.66	21.38	23.00
	DFT-s-OFDM 16QAM	1	1	21.08	21.00	21.18	22.50
		1	160	21.12	20.96	20.76	22.50
		81	40	21.63	22.05	21.75	22.50
	DFT-s-OFDM 64QAM	1	1	19.89	19.93	19.81	21.00
		1	160	19.32	19.26	19.40	21.00
		81	40	20.15	20.35	20.21	21.00
	DFT-s-OFDM 256QAM	1	1	18.57	18.43	18.41	19.50
		1	160	18.22	18.14	17.96	19.50
		81	40	18.22	18.16	18.14	19.50
	CP-OFDM QPSK	1	1	20.86	20.58	21.08	22.00
	CP-OFDM 16QAM	1	1	20.71	20.87	20.61	22.00
	CP-OFDM 64QAM	1	1	19.12	19.30	19.00	20.00
CP-OFDM 256QAM	1	1	15.92	16.06	15.70	17.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	22.30	22.48	22.10	24.00
		1	187	22.25	22.51	22.01	24.00
		92	45	22.22	22.32	22.50	24.00
		180	0	21.57	21.61	21.87	23.50
	DFT-s-OFDM QPSK	1	1	22.03	22.31	22.01	24.00
		1	187	22.27	22.27	22.27	24.00
		92	45	22.30	22.30	22.46	24.00
		180	0	21.88	21.52	21.36	23.00
	DFT-s-OFDM 16QAM	1	1	20.80	20.86	21.22	22.50
		1	187	20.84	20.80	20.62	22.50
		92	46	21.63	22.19	21.61	22.50
	DFT-s-OFDM 64QAM	1	1	19.99	19.95	19.79	21.00
		1	187	19.44	19.16	19.10	21.00
		92	46	19.97	20.19	20.03	21.00
	DFT-s-OFDM 256QAM	1	1	18.37	18.41	18.41	19.50
		1	187	18.22	18.26	18.04	19.50
92		46	18.12	18.14	17.86	19.50	
CP-OFDM QPSK	1	1	20.74	20.68	20.84	22.00	
CP-OFDM 16QAM	1	1	20.65	20.91	20.57	22.00	
CP-OFDM 64QAM	1	1	19.16	19.18	18.86	20.00	
CP-OFDM 256QAM	1	1	15.62	15.78	15.78	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
80MHz	DFT-s-OFDM BPSK	1	1	22.46	22.66	22.10	24.00
		1	215	22.41	22.83	22.23	24.00
		108	54	22.32	22.72	22.28	24.00
		216	0	21.62	21.87	22.01	23.50
	DFT-s-OFDM QPSK	1	1	22.21	22.37	22.09	24.00
		1	215	22.21	22.23	22.51	24.00
		108	54	22.48	22.40	22.58	24.00
		216	0	21.90	21.66	21.42	23.00
	DFT-s-OFDM 16QAM	1	1	20.90	20.92	21.40	22.50
		1	215	21.06	20.96	20.90	22.50
		108	54	21.93	22.11	21.93	22.50
	DFT-s-OFDM 64QAM	1	1	19.83	19.83	19.75	21.00
		1	215	19.32	19.34	19.16	21.00
		108	54	20.27	20.39	20.25	21.00
	DFT-s-OFDM 256QAM	1	1	18.49	18.51	18.37	19.50
		1	215	18.22	18.28	18.12	19.50
108		54	18.18	18.14	18.14	19.50	
CP-OFDM QPSK	1	1	20.90	20.74	20.96	22.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				633000/3495	633332/3500	633666/3505		
				CP-OFDM 16QAM	1	1		20.67
CP-OFDM 64QAM	1	1	19.28	19.26	19.24	20.00		
CP-OFDM 256QAM	1	1	15.66	15.90	15.60	17.00		
90MHz	DFT-s-OFDM BPSK	1	1	22.22	22.40	22.08	24.00	
		1	243	22.45	22.75	22.35	24.00	
		120	60	22.20	22.70	22.54	24.00	
		243	0	21.67	21.89	22.07	23.50	
	DFT-s-OFDM QPSK	1	1	22.03	22.25	22.15	24.00	
		1	243	22.21	22.33	22.31	24.00	
		120	60	22.30	22.36	22.40	24.00	
		243	0	21.90	21.70	21.44	23.00	
	DFT-s-OFDM 16QAM	1	1	21.06	21.14	21.24	22.50	
		1	243	20.98	20.88	20.66	22.50	
		120	60	21.77	22.23	21.69	22.50	
	DFT-s-OFDM 64QAM	1	1	19.79	20.11	19.93	21.00	
		1	243	19.28	19.22	19.40	21.00	
		120	60	20.27	20.23	20.07	21.00	
	DFT-s-OFDM 256QAM	1	1	18.49	18.29	18.55	19.50	
		1	243	18.16	18.20	17.90	19.50	
		120	60	17.98	18.16	18.10	19.50	
	CP-OFDM QPSK	1	1	20.90	20.84	21.14	22.00	
	CP-OFDM 16QAM	1	1	20.81	20.77	20.53	22.00	
	CP-OFDM 64QAM	1	1	19.22	19.08	19.12	20.00	
	CP-OFDM 256QAM	1	1	16.00	15.86	15.62	17.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					/	633332/3500	/	
	100MHz	DFT-s-OFDM BPSK	1	1	/	22.33	/	24.00
1			271	/	22.28	/	24.00	
135			67	/	22.47	/	24.00	
270			0	/	21.92	/	23.50	
DFT-s-OFDM QPSK		1	1	/	22.10	/	24.00	
		1	271	/	22.24	/	24.00	
		135	67	/	22.57	/	24.00	
DFT-s-OFDM 16QAM		270	0	/	21.45	/	23.00	
		1	1	/	21.01	/	22.50	
		1	271	/	21.17	/	22.50	
DFT-s-OFDM 64QAM		135	67	/	21.44	/	22.50	
		1	1	/	19.56	/	21.00	
		1	271	/	19.61	/	21.00	
DFT-s-OFDM		135	67	/	20.02	/	21.00	
		1	1	/	18.18	/	19.50	

	256QAM	1	271	/	17.99	/	19.50
		135	67	/	18.15	/	19.50
	CP-OFDM QPSK	1	1	/	20.97	/	22.00
	CP-OFDM 16QAM	1	1	/	20.74	/	22.00
	CP-OFDM 64QAM	1	1	/	18.89	/	20.00
	CP-OFDM 256QAM	1	1	/	15.75	/	17.00

NR n77 Subset 1 (SA)							
Receiver on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	17.34	17.36	16.96	18.00
		1	49	17.29	17.67	17.11	18.00
		25	12	17.96	18.00	17.86	18.00
		50	0	17.31	17.53	17.35	18.00
	DFT-s-OFDM QPSK	1	1	17.72	17.28	17.38	18.00
		1	49	17.33	17.41	16.93	18.00
		25	12	17.08	17.36	17.56	18.00
	DFT-s-OFDM 16QAM	50	0	17.50	17.62	17.82	18.00
		1	1	17.01	17.27	17.21	18.00
		1	49	17.76	17.80	17.84	18.00
	DFT-s-OFDM 64QAM	25	12	17.74	17.90	17.62	18.00
		1	1	17.10	17.62	17.28	18.00
		1	49	17.29	17.47	17.05	18.00
	DFT-s-OFDM 256QAM	25	12	17.26	17.18	17.42	18.00
		1	1	17.40	17.86	17.86	18.00
		1	49	17.54	17.66	17.62	18.00
CP-OFDM	25	12	17.44	17.10	17.56	18.00	
	1	1	17.27	17.31	17.33	18.00	
	1	1	17.65	17.65	17.57	18.00	
	1	1	17.61	17.41	17.41	18.00	
CP-OFDM	1	1	15.73	16.13	15.91	17.00	
	1	1	17.42	17.46	17.14	18.00	
	1	76	17.13	17.33	17.31	18.00	
	36	18	17.86	17.64	17.50	18.00	
30MHz	DFT-s-OFDM BPSK	75	0	17.51	17.53	17.21	18.00
		1	1	17.56	17.54	17.38	18.00
		1	76	17.33	17.21	16.85	18.00
		36	18	17.16	17.24	17.38	18.00
	DFT-s-OFDM QPSK	75	0	17.38	17.44	17.64	18.00
		1	1	17.21	17.21	17.25	18.00

	16QAM	1	76	17.68	17.86	17.42	18.00	
		36	18	17.64	17.64	17.56	18.00	
	DFT-s-OFDM 64QAM	1	1	17.26	17.44	17.22	18.00	
		1	76	17.15	17.35	16.97	18.00	
		DFT-s-OFDM 256QAM	36	18	17.36	17.12	17.62	18.00
			1	1	17.66	17.88	17.86	18.00
			1	76	17.74	17.76	17.58	18.00
			36	18	17.44	17.26	17.42	18.00
		CP-OFDM QPSK	1	1	17.57	17.17	17.21	18.00
		CP-OFDM 16QAM	1	1	17.49	17.67	17.61	18.00
	CP-OFDM 64QAM	1	1	17.67	17.71	17.57	18.00	
	CP-OFDM 256QAM	1	1	15.71	15.87	15.71	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				631332/3470	633332/3500	635332/3530		
40MHz	DFT-s-OFDM BPSK	1	1	17.06	17.48	17.14	18.00	
		1	104	16.93	17.29	17.33	18.00	
		50	25	17.72	17.88	17.48	18.00	
		100	0	17.59	17.45	17.13	18.00	
	DFT-s-OFDM QPSK	1	1	17.56	17.40	17.32	18.00	
		1	104	17.35	17.23	16.87	18.00	
		50	25	17.06	17.24	17.20	18.00	
		100	0	17.48	17.58	17.70	18.00	
	DFT-s-OFDM 16QAM	1	1	17.19	17.27	16.99	18.00	
		1	104	17.62	17.66	17.78	18.00	
		50	25	17.74	17.68	17.46	18.00	
	DFT-s-OFDM 64QAM	1	1	17.10	17.62	17.22	18.00	
		1	104	17.27	17.29	16.85	18.00	
		50	25	17.16	17.08	17.30	18.00	
	DFT-s-OFDM 256QAM	1	1	17.64	17.70	17.68	18.00	
		1	104	17.62	17.68	17.60	18.00	
50		25	17.28	17.02	17.36	18.00		
	CP-OFDM QPSK	1	1	17.29	17.07	17.33	18.00	
	CP-OFDM 16QAM	1	1	17.41	17.45	17.49	18.00	
	CP-OFDM 64QAM	1	1	17.75	17.41	17.61	18.00	
	CP-OFDM 256QAM	1	1	15.67	15.85	15.71	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				631666/3475	633332/3500	634998/3525		
50MHz	DFT-s-OFDM BPSK	1	1	17.26	17.56	16.96	18.00	
		1	131	17.09	17.29	17.21	18.00	
		64	32	17.84	17.96	17.68	18.00	
		128	0	17.65	17.75	17.39	18.00	
	DFT-s-OFDM QPSK	1	1	17.58	17.42	17.52	18.00	
		1	131	17.15	17.21	16.97	18.00	

		64	32	17.08	17.18	17.44	18.00
		128	0	17.56	17.54	17.58	18.00
	DFT-s-OFDM 16QAM	1	1	17.27	17.33	16.99	18.00
		1	131	17.66	17.78	17.48	18.00
		64	32	17.86	17.80	17.66	18.00
	DFT-s-OFDM 64QAM	1	1	17.20	17.42	17.02	18.00
		1	131	17.17	17.39	17.15	18.00
		64	32	17.20	17.32	17.40	18.00
	DFT-s-OFDM 256QAM	1	1	17.52	17.68	17.82	18.00
		1	131	17.62	17.76	17.68	18.00
		64	32	17.32	17.20	17.48	18.00
	CP-OFDM QPSK	1	1	17.29	17.29	17.33	18.00
	CP-OFDM 16QAM	1	1	17.53	17.57	17.71	18.00
CP-OFDM 64QAM	1	1	17.87	17.51	17.67	18.00	
CP-OFDM 256QAM	1	1	15.79	15.91	15.67	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	17.18	17.48	17.20	18.00
		1	160	17.17	17.23	17.17	18.00
		81	40	17.84	17.68	17.56	18.00
		162	0	17.47	17.67	17.29	18.00
	DFT-s-OFDM QPSK	1	1	17.58	17.30	17.42	18.00
		1	160	17.07	17.07	17.01	18.00
		81	40	17.22	17.20	17.28	18.00
		162	0	17.48	17.58	17.44	18.00
	DFT-s-OFDM 16QAM	1	1	17.05	17.05	17.07	18.00
		1	160	17.54	17.70	17.60	18.00
		81	40	17.54	17.84	17.58	18.00
	DFT-s-OFDM 64QAM	1	1	17.46	17.56	17.04	18.00
		1	160	17.35	17.15	17.03	18.00
		81	40	17.22	17.26	17.46	18.00
	DFT-s-OFDM 256QAM	1	1	17.62	17.74	17.62	18.00
		1	160	17.72	17.78	17.56	18.00
		81	40	17.34	17.26	17.40	18.00
	CP-OFDM QPSK	1	1	17.37	17.11	17.41	18.00
CP-OFDM 16QAM	1	1	17.69	17.51	17.65	18.00	
CP-OFDM 64QAM	1	1	17.61	17.69	17.35	18.00	
CP-OFDM 256QAM	1	1	15.77	15.97	15.63	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	16.98	17.16	17.00	18.00
		1	187	16.95	17.15	17.23	18.00
		92	45	17.84	17.74	17.58	18.00

		180	0	17.43	17.39	17.29	18.00
	DFT-s-OFDM QPSK	1	1	17.42	17.38	17.20	18.00
		1	187	17.05	17.25	16.95	18.00
		92	45	17.02	16.98	17.24	18.00
		180	0	17.28	17.52	17.38	18.00
	DFT-s-OFDM 16QAM	1	1	17.11	17.17	16.77	18.00
		1	187	17.62	17.72	17.54	18.00
		92	46	17.64	17.68	17.52	18.00
	DFT-s-OFDM 64QAM	1	1	17.40	17.48	17.20	18.00
		1	187	17.11	17.13	17.07	18.00
		92	46	17.36	17.22	17.22	18.00
	DFT-s-OFDM 256QAM	1	1	17.58	17.58	17.60	18.00
		1	187	17.66	17.54	17.52	18.00
		92	46	17.14	17.12	17.34	18.00
	CP-OFDM QPSK	1	1	17.15	17.07	17.19	18.00
	CP-OFDM 16QAM	1	1	17.47	17.35	17.67	18.00
	CP-OFDM 64QAM	1	1	17.53	17.43	17.33	18.00
	CP-OFDM 256QAM	1	1	15.85	15.95	15.69	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	17.20	17.28	17.18	18.00
		1	215	17.31	17.25	17.33	18.00
		108	54	17.62	17.78	17.74	18.00
		216	0	17.47	17.63	17.35	18.00
	DFT-s-OFDM QPSK	1	1	17.64	17.40	17.34	18.00
		1	215	17.01	17.15	17.09	18.00
		108	54	17.18	17.34	17.40	18.00
	DFT-s-OFDM 16QAM	216	0	17.58	17.58	17.42	18.00
		1	1	16.91	17.27	16.89	18.00
		1	215	17.72	17.84	17.84	18.00
	DFT-s-OFDM 64QAM	108	54	17.74	17.58	17.56	18.00
		1	1	17.44	17.36	17.00	18.00
		1	215	17.17	17.25	17.21	18.00
	DFT-s-OFDM 256QAM	108	54	17.44	17.24	17.50	18.00
		1	1	17.72	17.86	17.60	18.00
		1	215	17.66	17.90	17.54	18.00
	108	54	17.42	17.10	17.30	18.00	
	CP-OFDM QPSK	1	1	17.45	17.27	17.27	18.00
	CP-OFDM 16QAM	1	1	17.57	17.65	17.71	18.00
	CP-OFDM 64QAM	1	1	17.63	17.63	17.55	18.00
CP-OFDM 256QAM	1	1	15.89	15.75	15.49	17.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	17.14	17.32	17.14	18.00
		1	243	17.13	17.25	17.23	18.00
		120	60	17.74	17.74	17.60	18.00
		243	0	17.43	17.53	17.33	18.00
	DFT-s-OFDM QPSK	1	1	17.48	17.40	17.34	18.00
		1	243	17.13	17.17	17.01	18.00
		120	60	17.20	17.16	17.32	18.00
		243	0	17.44	17.48	17.54	18.00
	DFT-s-OFDM 16QAM	1	1	17.03	17.15	16.97	18.00
		1	243	17.62	17.70	17.84	18.00
		120	60	17.64	17.70	17.52	18.00
	DFT-s-OFDM 64QAM	1	1	17.30	17.40	17.12	18.00
		1	243	17.19	17.09	17.03	18.00
		120	60	17.28	17.18	17.32	18.00
	DFT-s-OFDM 256QAM	1	1	17.58	17.72	17.70	18.00
		1	243	17.68	17.72	17.52	18.00
120		60	17.28	17.18	17.38	18.00	
CP-OFDM QPSK	1	1	17.27	17.17	17.33	18.00	
CP-OFDM 16QAM	1	1	17.61	17.49	17.63	18.00	
CP-OFDM 64QAM	1	1	17.55	17.63	17.37	18.00	
CP-OFDM 256QAM	1	1	15.75	15.85	15.61	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
100MHz	DFT-s-OFDM BPSK	1	1	/	17.24	/	18.00
		1	271	/	17.11	/	18.00
		135	67	/	17.42	/	18.00
		270	0	/	17.39	/	18.00
	DFT-s-OFDM QPSK	1	1	/	17.22	/	18.00
		1	271	/	17.09	/	18.00
		135	67	/	17.42	/	18.00
		270	0	/	17.36	/	18.00
	DFT-s-OFDM 16QAM	1	1	/	16.99	/	18.00
		1	271	/	17.88	/	18.00
		135	67	/	17.40	/	18.00
	DFT-s-OFDM 64QAM	1	1	/	17.00	/	18.00
		1	271	/	16.93	/	18.00
		135	67	/	17.42	/	18.00
	DFT-s-OFDM 256QAM	1	1	/	17.60	/	18.00
		1	271	/	17.52	/	18.00
135		67	/	17.42	/	18.00	
CP-OFDM QPSK	1	1	/	17.29	/	18.00	

	CP-OFDM 16QAM	1	1	/	17.53	/	18.00
	CP-OFDM 64QAM	1	1	/	17.37	/	18.00
	CP-OFDM 256QAM	1	1	/	15.61	/	17.00

NR n77 Subset 1 (SA)							
Hotspot on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	19.71	19.65	19.93	21.50
		1	49	19.90	20.00	19.84	21.50
		25	12	19.96	19.98	20.12	21.50
		50	0	19.96	20.10	19.76	21.50
	DFT-s-OFDM QPSK	1	1	20.74	20.76	20.86	21.50
		1	49	20.20	20.64	20.42	21.50
		25	12	20.89	20.27	19.99	21.50
	DFT-s-OFDM 16QAM	50	0	19.83	19.99	19.91	21.50
		1	1	19.53	19.67	19.85	21.50
		1	49	19.76	19.60	19.68	21.50
	DFT-s-OFDM 64QAM	25	12	20.39	20.21	20.19	21.50
		1	1	19.79	19.81	19.87	21.00
		1	49	19.62	19.38	19.18	21.00
	DFT-s-OFDM 256QAM	25	12	19.18	19.10	19.60	21.00
		1	1	18.06	17.86	17.74	19.00
		1	49	17.64	17.60	17.56	19.00
CP-OFDM QPSK	25	12	17.36	17.46	17.50	19.00	
CP-OFDM 16QAM	1	1	20.61	20.43	19.97	21.50	
CP-OFDM 64QAM	1	1	20.44	20.52	20.70	21.50	
CP-OFDM 256QAM	1	1	19.14	18.34	18.88	20.00	
		1	1	15.90	16.18	16.20	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	
30MHz	DFT-s-OFDM BPSK	1	1	19.71	19.70	19.95	21.50
		1	76	20.08	19.88	19.60	21.50
		36	18	20.28	19.84	20.28	21.50
		75	0	19.76	20.16	19.78	21.50
	DFT-s-OFDM QPSK	1	1	20.80	20.66	20.88	21.50
		1	76	20.18	20.82	20.34	21.50
		36	18	20.73	20.37	20.25	21.50
	DFT-s-OFDM 16QAM	75	0	19.75	19.95	19.87	21.50
		1	1	19.77	19.59	19.75	21.50
		1	76	19.80	19.60	19.78	21.50
	DFT-s-OFDM	36	18	20.35	20.41	20.51	21.50
		1	1	19.95	19.71	19.91	21.00

	64QAM	1	76	19.38	19.36	19.18	21.00
		36	18	19.20	19.42	19.32	21.00
	DFT-s-OFDM 256QAM	1	1	18.08	18.08	17.58	19.00
		1	76	17.64	17.68	17.56	19.00
		36	18	17.40	17.66	17.58	19.00
	CP-OFDM QPSK	1	1	20.29	20.57	20.15	21.50
	CP-OFDM 16QAM	1	1	20.42	20.64	20.70	21.50
	CP-OFDM 64QAM	1	1	18.98	18.66	18.74	20.00
CP-OFDM 256QAM	1	1	15.82	16.12	16.08	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631332/3470	633332/3500	635332/3530	
40MHz	DFT-s-OFDM BPSK	1	1	19.75	19.57	19.99	21.50
		1	104	20.06	19.96	19.70	21.50
		50	25	20.14	19.96	20.18	21.50
		100	0	19.82	20.02	19.80	21.50
	DFT-s-OFDM QPSK	1	1	20.64	20.70	20.76	21.50
		1	104	20.30	20.64	20.26	21.50
		50	25	20.75	20.33	20.07	21.50
		100	0	19.85	19.89	19.95	21.50
	DFT-s-OFDM 16QAM	1	1	19.63	19.55	19.81	21.50
		1	104	19.72	19.60	19.70	21.50
		50	25	20.17	20.37	20.35	21.50
	DFT-s-OFDM 64QAM	1	1	19.87	19.81	19.75	21.00
		1	104	19.40	19.46	19.28	21.00
		50	25	19.26	19.28	19.38	21.00
	DFT-s-OFDM 256QAM	1	1	18.04	18.00	17.64	19.00
		1	104	17.74	17.66	17.42	19.00
		50	25	17.46	17.52	17.46	19.00
	CP-OFDM QPSK	1	1	20.39	20.41	19.99	21.50
	CP-OFDM 16QAM	1	1	20.44	20.62	20.62	21.50
	CP-OFDM 64QAM	1	1	19.10	18.52	18.72	20.00
CP-OFDM 256QAM	1	1	15.70	16.14	16.04	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
50MHz	DFT-s-OFDM BPSK	1	1	19.83	19.83	19.83	21.50
		1	131	19.84	19.78	19.92	21.50
		64	32	19.90	20.10	19.98	21.50
		128	0	20.04	19.96	19.86	21.50
	DFT-s-OFDM QPSK	1	1	20.50	20.60	20.76	21.50
		1	131	20.50	20.30	20.06	21.50
		64	32	20.65	20.51	20.35	21.50
		128	0	20.11	20.09	20.07	21.50
	DFT-s-OFDM	1	1	19.67	19.61	19.79	21.50

	16QAM	1	131	19.80	19.78	19.82	21.50
		64	32	20.41	20.25	20.21	21.50
	DFT-s-OFDM 64QAM	1	1	19.99	20.09	19.97	21.00
		1	131	19.30	19.36	19.30	21.00
	DFT-s-OFDM 256QAM	64	32	19.30	19.46	19.40	21.00
		1	1	18.00	17.96	17.86	19.00
	CP-OFDM QPSK	1	131	17.94	17.72	17.58	19.00
		64	32	17.32	17.30	17.44	19.00
	CP-OFDM 16QAM	1	1	20.07	20.15	20.05	21.50
	CP-OFDM 64QAM	1	1	20.44	20.50	20.48	21.50
CP-OFDM 256QAM	1	1	18.90	18.84	18.66	20.00	
CP-OFDM 256QAM	1	1	16.10	16.00	15.96	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	19.57	19.67	19.73	21.50
		1	160	19.86	19.82	19.94	21.50
		81	40	19.96	20.06	20.08	21.50
		162	0	19.86	19.94	19.76	21.50
	DFT-s-OFDM QPSK	1	1	20.50	20.38	20.54	21.50
		1	160	20.46	20.40	20.12	21.50
		81	40	20.47	20.47	20.35	21.50
		162	0	19.91	19.97	19.97	21.50
	DFT-s-OFDM 16QAM	1	1	19.69	19.60	19.73	21.50
		1	160	19.82	19.62	19.68	21.50
		81	40	20.37	20.33	20.09	21.50
	DFT-s-OFDM 64QAM	1	1	20.01	19.89	19.75	21.00
		1	160	19.24	19.38	19.04	21.00
		81	40	19.44	19.50	19.44	21.00
	DFT-s-OFDM 256QAM	1	1	17.82	18.10	17.72	19.00
		1	160	17.68	17.82	17.70	19.00
		81	40	17.26	17.26	17.36	19.00
	CP-OFDM QPSK	1	1	19.95	20.07	20.05	21.50
	CP-OFDM 16QAM	1	1	20.52	20.36	20.58	21.50
	CP-OFDM 64QAM	1	1	18.74	18.82	18.66	20.00
CP-OFDM 256QAM	1	1	16.00	15.94	15.92	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	19.65	19.85	19.67	21.50
		1	187	19.90	19.96	19.94	21.50
		92	45	20.22	19.96	20.00	21.50
		180	0	19.84	19.84	20.16	21.50
	DFT-s-OFDM QPSK	1	1	20.56	20.36	20.60	21.50
		1	187	20.40	20.54	20.24	21.50

		92	45	20.61	20.19	20.27	21.50
		180	0	19.95	19.89	19.99	21.50
	DFT-s-OFDM 16QAM	1	1	19.61	19.57	19.59	21.50
		1	187	19.76	19.54	19.90	21.50
		92	46	20.35	20.37	20.45	21.50
	DFT-s-OFDM 64QAM	1	1	20.01	20.17	19.79	21.00
		1	187	19.26	19.20	19.32	21.00
		92	46	19.46	19.48	19.34	21.00
	DFT-s-OFDM 256QAM	1	1	18.10	17.96	17.96	19.00
		1	187	17.70	17.78	17.56	19.00
		92	46	17.50	17.32	17.30	19.00
	CP-OFDM QPSK	1	1	20.01	20.11	20.29	21.50
	CP-OFDM 16QAM	1	1	20.34	20.56	20.70	21.50
CP-OFDM 64QAM	1	1	19.06	18.62	18.50	20.00	
CP-OFDM 256QAM	1	1	15.94	16.20	15.86	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	19.77	19.63	19.77	21.50
		1	215	19.92	19.94	19.86	21.50
		108	54	19.96	19.94	20.18	21.50
		216	0	20.16	20.06	19.84	21.50
	DFT-s-OFDM QPSK	1	1	20.44	20.48	20.74	21.50
		1	215	20.64	20.28	20.28	21.50
		108	54	20.59	20.39	20.23	21.50
		216	0	19.89	19.93	19.97	21.50
	DFT-s-OFDM 16QAM	1	1	19.55	19.59	19.59	21.50
		1	215	19.76	19.70	19.80	21.50
		108	54	20.45	20.33	20.21	21.50
	DFT-s-OFDM 64QAM	1	1	20.01	19.91	20.05	21.00
		1	215	19.36	19.26	19.40	21.00
		108	54	19.52	19.44	19.30	21.00
	DFT-s-OFDM 256QAM	1	1	17.90	18.06	18.08	19.00
		1	215	17.76	17.92	17.80	19.00
		108	54	17.48	17.34	17.38	19.00
	CP-OFDM QPSK	1	1	20.01	20.05	20.09	21.50
	CP-OFDM 16QAM	1	1	20.48	20.50	20.64	21.50
	CP-OFDM 64QAM	1	1	18.84	18.82	18.60	20.00
CP-OFDM 256QAM	1	1	15.86	16.06	15.92	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	19.71	19.75	19.83	21.50
		1	243	19.92	19.86	19.84	21.50
		120	60	20.00	20.04	20.02	21.50

		243	0	20.02	19.90	19.96	21.50	
	DFT-s-OFDM QPSK	1	1	20.40	20.52	20.60	21.50	
		1	243	20.48	20.32	20.14	21.50	
		120	60	20.55	20.37	20.29	21.50	
		243	0	20.01	20.03	19.97	21.50	
	DFT-s-OFDM 16QAM	1	1	19.63	19.55	19.65	21.50	
		1	243	19.82	19.68	19.74	21.50	
		120	60	20.33	20.33	20.23	21.50	
	DFT-s-OFDM 64QAM	1	1	20.09	20.01	19.95	21.00	
		1	243	19.38	19.32	19.24	21.00	
		120	60	19.36	19.42	19.38	21.00	
	DFT-s-OFDM 256QAM	1	1	17.94	18.06	17.90	19.00	
		1	243	17.78	17.82	17.68	19.00	
		120	60	17.38	17.40	17.44	19.00	
	CP-OFDM QPSK	1	1	20.09	20.17	20.11	21.50	
	CP-OFDM 16QAM	1	1	20.44	20.56	20.52	21.50	
	CP-OFDM 64QAM	1	1	18.90	18.72	18.68	20.00	
	CP-OFDM 256QAM	1	1	15.94	16.00	16.00	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				/	633332/3500	/		
100MHz	DFT-s-OFDM BPSK	1	1	/	19.93	/	21.50	
		1	271	/	19.94	/	21.50	
		135	67	/	20.08	/	21.50	
		270	0	/	19.96	/	21.50	
	DFT-s-OFDM QPSK	1	1	/	20.46	/	21.50	
		1	271	/	19.96	/	21.50	
		135	67	/	20.15	/	21.50	
		270	0	/	20.01	/	21.50	
	DFT-s-OFDM 16QAM	1	1	/	19.67	/	21.50	
		1	271	/	19.64	/	21.50	
		135	67	/	20.09	/	21.50	
	DFT-s-OFDM 64QAM	1	1	/	19.99	/	21.00	
		1	271	/	19.14	/	21.00	
		135	67	/	19.40	/	21.00	
	DFT-s-OFDM 256QAM	1	1	/	18.02	/	19.00	
		1	271	/	17.70	/	19.00	
		135	67	/	17.40	/	19.00	
		CP-OFDM QPSK	1	1	/	20.11	/	21.50
		CP-OFDM 16QAM	1	1	/	20.42	/	21.50
		CP-OFDM 64QAM	1	1	/	18.60	/	20.00
	CP-OFDM 256QAM	1	1	/	15.82	/	17.00	

NR n77 Subset 2 (SA)								
Normal power&Receiver off--Main Ant7				Maximum Output Power (dBm)			Tune-up	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)				
				647334/3710	656000/3840	664666/3970		
20MHz	DFT-s-OFDM BPSK	1	1	22.24	22.51	22.40	24.00	
		1	49	22.12	22.28	22.23	24.00	
		25	12	22.66	22.22	22.28	24.00	
		50	0	21.95	21.86	22.02	23.50	
	DFT-s-OFDM QPSK	1	1	22.30	22.48	22.05	24.00	
		1	49	22.65	22.16	22.60	24.00	
		25	12	22.75	22.10	22.75	24.00	
	DFT-s-OFDM 16QAM	1	1	21.38	21.33	21.32	23.00	
		1	49	20.77	21.03	20.94	22.50	
		1	49	21.06	20.88	21.04	22.50	
	DFT-s-OFDM 64QAM	25	12	21.36	21.06	21.32	22.50	
		1	1	19.41	19.37	19.24	21.00	
		1	49	19.53	19.47	19.54	21.00	
	DFT-s-OFDM 256QAM	25	12	19.91	19.64	19.98	21.00	
		1	1	17.79	18.14	18.05	19.50	
		1	49	17.89	18.12	18.09	19.50	
		25	17.86	17.66	17.83	19.50		
	CP-OFDM QPSK	1	1	20.49	20.99	20.66	22.00	
	CP-OFDM 16QAM	1	1	20.29	20.42	20.46	22.00	
	CP-OFDM 64QAM	1	1	18.68	18.76	18.84	20.00	
	CP-OFDM 256QAM	1	1	15.18	15.63	15.40	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				647667/3715	656000/3840	664333/3965		
30MHz	DFT-s-OFDM BPSK	1	1	22.40	22.71	22.26	24.00	
		1	76	22.04	22.48	22.23	24.00	
		36	18	22.76	22.28	22.22	24.00	
		75	0	21.85	21.64	21.96	23.50	
	DFT-s-OFDM QPSK	1	1	22.36	22.58	22.20	24.00	
		1	76	22.47	22.36	22.60	24.00	
		36	18	22.91	22.42	22.57	24.00	
	DFT-s-OFDM 16QAM	75	0	21.30	21.23	21.28	23.00	
		1	1	20.91	20.97	20.84	22.50	
		1	76	20.88	20.94	20.88	22.50	
	DFT-s-OFDM 64QAM	36	18	21.32	20.98	21.34	22.50	
		1	1	19.07	19.45	19.22	21.00	
		1	76	19.39	19.41	19.54	21.00	
			36	19.85	19.74	19.88	21.00	
		DFT-s-OFDM	1	1	17.77	17.92	17.85	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648000/3720	656000/3840	664000/3960		
40MHz	256QAM	1	76	17.95	17.82	18.03	19.50	
		36	18	17.76	17.76	17.81	19.50	
	CP-OFDM QPSK	1	1	20.57	20.65	20.54	22.00	
	CP-OFDM 16QAM	1	1	20.05	20.48	20.28	22.00	
	CP-OFDM 64QAM	1	1	18.46	18.82	18.60	20.00	
	CP-OFDM 256QAM	1	1	15.30	15.55	15.18	17.00	
	40MHz	DFT-s-OFDM BPSK	1	1	22.32	22.67	22.32	24.00
			1	104	22.06	22.58	22.27	24.00
			50	25	22.66	22.16	22.20	24.00
			100	0	22.09	21.86	22.04	23.50
		DFT-s-OFDM QPSK	1	1	22.30	22.52	22.28	24.00
			1	104	22.53	22.22	22.80	24.00
			50	25	22.87	22.32	22.65	24.00
		DFT-s-OFDM 16QAM	100	0	21.62	21.37	21.46	23.00
			1	1	20.73	20.99	20.80	22.50
			1	104	21.00	20.70	20.86	22.50
DFT-s-OFDM 64QAM		50	25	21.34	21.00	21.46	22.50	
		1	1	19.09	19.33	19.44	21.00	
		1	104	19.59	19.45	19.58	21.00	
DFT-s-OFDM 256QAM		50	25	19.87	19.78	20.02	21.00	
		1	1	17.89	18.10	18.09	19.50	
		1	104	17.73	18.12	18.23	19.50	
CP-OFDM QPSK	50	25	18.04	17.56	17.79	19.50		
	1	1	20.75	20.93	20.66	22.00		
	1	1	20.15	20.48	20.30	22.00		
CP-OFDM 16QAM	1	1	18.46	18.78	18.70	20.00		
CP-OFDM 64QAM	1	1	15.36	15.69	15.24	17.00		
CP-OFDM 256QAM	1	1						
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648333/3725	656000/3840	663666/3955		
50MHz	DFT-s-OFDM BPSK	1	1	22.46	22.43	22.34	24.00	
		1	131	22.36	22.14	22.55	24.00	
		64	32	22.64	22.34	22.16	24.00	
		128	0	22.05	21.68	22.10	23.50	
	DFT-s-OFDM QPSK	1	1	22.36	22.16	22.04	24.00	
		1	131	22.29	22.16	22.52	24.00	
		64	32	22.77	22.40	22.55	24.00	
	DFT-s-OFDM 16QAM	128	0	21.24	21.31	21.14	23.00	
		1	1	20.97	21.05	20.94	22.50	
		1	131	21.02	20.88	20.98	22.50	
	DFT-s-OFDM 64QAM	64	32	21.44	21.20	21.38	22.50	
		1	1	19.13	19.33	19.32	21.00	

	64QAM	1	131	19.41	19.55	19.78	21.00
		64	32	19.95	19.62	19.80	21.00
	DFT-s-OFDM 256QAM	1	1	17.75	18.26	17.93	19.50
		1	131	18.09	17.96	18.15	19.50
		64	32	17.76	17.62	17.79	19.50
	CP-OFDM QPSK	1	1	20.65	20.97	20.70	22.00
	CP-OFDM 16QAM	1	1	20.15	20.34	20.56	22.00
	CP-OFDM 64QAM	1	1	18.72	18.68	18.66	20.00
CP-OFDM 256QAM	1	1	15.34	15.51	15.36	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	22.56	22.31	22.26	24.00
		1	160	22.28	22.12	22.45	24.00
		81	40	22.54	22.40	22.60	24.00
		162	0	21.87	21.94	21.94	23.50
	DFT-s-OFDM QPSK	1	1	22.46	22.44	22.08	24.00
		1	160	22.41	22.12	22.46	24.00
		81	40	22.77	22.18	22.33	24.00
		162	0	21.60	21.33	21.42	23.00
	DFT-s-OFDM 16QAM	1	1	20.85	21.03	20.94	22.50
		1	160	21.06	20.84	20.88	22.50
		81	40	21.42	21.12	21.40	22.50
	DFT-s-OFDM 64QAM	1	1	19.25	19.39	19.24	21.00
		1	160	19.53	19.45	19.60	21.00
		81	40	19.89	19.64	19.88	21.00
	DFT-s-OFDM 256QAM	1	1	17.83	18.10	18.05	19.50
		1	160	17.91	18.00	18.01	19.50
		81	40	17.88	17.74	17.79	19.50
	CP-OFDM QPSK	1	1	20.55	20.85	20.74	22.00
CP-OFDM 16QAM	1	1	20.17	20.46	20.38	22.00	
CP-OFDM 64QAM	1	1	18.56	18.76	18.68	20.00	
CP-OFDM 256QAM	1	1	15.26	15.51	15.36	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	22.38	22.37	22.24	24.00
		1	187	22.42	22.30	22.49	24.00
		92	45	22.46	22.32	22.48	24.00
		180	0	21.79	21.76	21.92	23.50
	DFT-s-OFDM QPSK	1	1	22.48	22.32	22.22	24.00
		1	187	22.21	22.16	22.28	24.00
		92	45	22.61	22.24	22.23	24.00
		180	0	21.24	21.39	21.54	23.00
	DFT-s-OFDM	1	1	20.69	20.73	20.84	22.50

	16QAM	1	187	20.72	20.68	20.82	22.50	
		92	46	21.16	21.04	21.18	22.50	
	DFT-s-OFDM 64QAM	1	1	19.19	19.27	19.24	21.00	
		1	187	19.37	19.23	19.56	21.00	
		64QAM	92	46	19.63	19.54	19.84	21.00
			1	1	17.73	18.06	17.85	19.50
	DFT-s-OFDM 256QAM	1	187	18.11	17.78	18.15	19.50	
		92	46	17.88	17.62	17.85	19.50	
	CP-OFDM QPSK	1	1	20.59	20.63	20.68	22.00	
	CP-OFDM 16QAM	1	1	20.15	20.40	20.08	22.00	
CP-OFDM 64QAM	1	1	18.64	18.68	18.54	20.00		
CP-OFDM 256QAM	1	1	15.38	15.41	15.34	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649334/3740	656000/3840	662666/3940		
80MHz	DFT-s-OFDM BPSK	1	1	22.54	22.41	22.18	24.00	
		1	215	22.58	22.10	22.47	24.00	
		108	54	22.72	22.26	22.44	24.00	
		216	0	21.93	22.14	22.20	23.50	
	DFT-s-OFDM QPSK	1	1	22.62	22.44	22.26	24.00	
		1	215	22.37	22.28	22.38	24.00	
		108	54	22.73	22.46	22.63	24.00	
		216	0	21.20	21.13	21.34	23.00	
	DFT-s-OFDM 16QAM	1	1	20.61	21.05	20.90	22.50	
		1	215	20.84	20.90	21.06	22.50	
		108	54	21.54	21.44	21.22	22.50	
	DFT-s-OFDM 64QAM	1	1	19.25	19.31	19.44	21.00	
		1	215	19.61	19.47	19.46	21.00	
		108	54	19.99	19.68	19.92	21.00	
	DFT-s-OFDM 256QAM	1	1	17.83	18.02	18.15	19.50	
		1	215	18.07	18.08	18.13	19.50	
		108	54	17.84	17.56	17.63	19.50	
	CP-OFDM QPSK	1	1	20.61	20.53	20.78	22.00	
	CP-OFDM 16QAM	1	1	20.19	20.52	20.36	22.00	
	CP-OFDM 64QAM	1	1	18.42	18.86	18.54	20.00	
CP-OFDM 256QAM	1	1	15.16	15.61	15.32	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649666/3745	656000/3840	662333/3935		
90MHz	DFT-s-OFDM BPSK	1	1	22.52	22.45	22.32	24.00	
		1	243	22.52	22.32	22.37	24.00	
		120	60	22.72	22.30	22.62	24.00	
		243	0	22.01	21.90	22.14	23.50	
	DFT-s-OFDM QPSK	1	1	22.46	22.34	22.01	24.00	
		1	243	22.31	22.10	22.32	24.00	

		120	60	22.67	22.30	22.39	24.00
		243	0	21.42	21.21	21.18	23.00
	DFT-s-OFDM 16QAM	1	1	20.79	21.09	20.82	22.50
		1	243	20.90	21.02	20.92	22.50
		120	60	21.26	21.36	21.18	22.50
	DFT-s-OFDM 64QAM	1	1	19.33	19.59	19.50	21.00
		1	243	19.61	19.43	19.66	21.00
		120	60	19.75	19.64	19.74	21.00
	DFT-s-OFDM 256QAM	1	1	17.93	18.10	17.87	19.50
		1	243	17.95	18.08	18.19	19.50
		120	60	17.76	17.88	17.83	19.50
	CP-OFDM QPSK	1	1	20.49	20.63	20.48	22.00
	CP-OFDM 16QAM	1	1	20.27	20.38	20.34	22.00
CP-OFDM 64QAM	1	1	18.56	18.84	18.56	20.00	
CP-OFDM 256QAM	1	1	15.44	15.55	15.40	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	22.42	22.37	22.18	24.00
		1	271	22.36	22.20	22.43	24.00
		135	67	22.64	22.38	22.48	24.00
		270	0	21.97	21.94	21.98	23.50
	DFT-s-OFDM QPSK	1	1	22.40	22.32	22.12	24.00
		1	271	22.31	22.10	22.40	24.00
		135	67	22.61	22.28	22.43	24.00
	DFT-s-OFDM 16QAM	270	0	21.44	21.39	21.44	23.00
		1	1	20.71	20.91	20.80	22.50
		1	271	20.92	20.86	20.94	22.50
	DFT-s-OFDM 64QAM	135	67	21.34	21.22	21.30	22.50
		1	1	19.23	19.43	19.32	21.00
		1	271	19.43	19.39	19.48	21.00
	DFT-s-OFDM 256QAM	135	67	19.81	19.72	19.78	21.00
		1	1	17.83	18.04	17.93	19.50
		1	271	18.01	17.98	18.07	19.50
	CP-OFDM QPSK	135	67	17.82	17.72	17.77	19.50
	CP-OFDM 16QAM	1	1	20.49	20.69	20.58	22.00
	CP-OFDM 64QAM	1	1	20.21	20.34	20.28	22.00
	CP-OFDM 256QAM	1	1	18.56	18.74	18.64	20.00
		1	1	15.32	15.51	15.40	17.00

NR n77 Subset 2 (SA)							
Receiver on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	17.10	16.72	17.40	18.00
		1	49	17.19	16.93	17.21	18.00
		25	12	17.44	17.82	17.60	18.00
		50	0	17.53	17.39	17.33	18.00
	DFT-s-OFDM QPSK	1	1	17.50	17.03	16.97	18.00
		1	49	16.99	17.06	17.25	18.00
		25	12	17.42	17.11	17.33	18.00
	DFT-s-OFDM 16QAM	1	1	17.23	16.99	16.97	18.00
		1	49	17.80	17.72	17.64	18.00
		25	12	17.50	17.34	17.50	18.00
	DFT-s-OFDM 64QAM	1	1	16.94	16.94	17.44	18.00
		1	49	17.09	17.11	17.19	18.00
		25	12	17.42	17.32	17.32	18.00
	DFT-s-OFDM 256QAM	1	1	17.48	17.26	17.30	18.00
		1	49	17.88	17.78	17.86	18.00
		25	12	17.54	17.74	17.62	18.00
CP-OFDM QPSK	1	1	17.51	17.53	17.21	18.00	
CP-OFDM 16QAM	1	1	17.49	17.79	17.69	18.00	
CP-OFDM 64QAM	1	1	17.31	17.33	17.31	18.00	
CP-OFDM 256QAM	1	1	15.71	15.53	16.05	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	17.22	16.86	17.32	18.00
		1	76	17.13	17.03	17.17	18.00
		36	18	17.46	17.72	17.58	18.00
		75	0	17.51	17.53	17.33	18.00
	DFT-s-OFDM QPSK	1	1	17.50	17.01	16.91	18.00
		1	76	17.17	17.18	17.41	18.00
		36	18	17.56	17.29	17.29	18.00
	DFT-s-OFDM 16QAM	1	1	17.48	17.11	17.25	18.00
		1	1	17.13	16.99	17.15	18.00
		1	76	17.44	17.76	17.60	18.00
	DFT-s-OFDM 64QAM	36	18	17.42	17.34	17.64	18.00
		1	1	17.00	17.04	17.36	18.00
		1	76	17.05	17.03	17.31	18.00
	DFT-s-OFDM	36	18	17.58	17.28	17.22	18.00
		1	1	17.60	17.42	17.30	18.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648000/3720	656000/3840	664000/3960		
	256QAM	1	76	17.78	17.80	17.84	18.00	
		36	18	17.62	17.68	17.68	18.00	
	CP-OFDM QPSK	1	1	17.51	17.65	17.41	18.00	
	CP-OFDM 16QAM	1	1	17.53	17.89	17.79	18.00	
	CP-OFDM 64QAM	1	1	17.49	17.39	17.33	18.00	
	CP-OFDM 256QAM	1	1	15.79	15.73	15.99	17.00	
40MHz	DFT-s-OFDM BPSK	1	1	17.02	16.88	17.26	18.00	
		1	104	16.99	16.81	17.17	18.00	
		50	25	17.32	17.46	17.54	18.00	
		100	0	17.53	17.59	17.31	18.00	
	DFT-s-OFDM QPSK	1	1	17.44	16.97	16.93	18.00	
		1	104	17.23	16.94	17.23	18.00	
		50	25	17.52	17.13	16.99	18.00	
		100	0	17.46	17.01	16.99	18.00	
	DFT-s-OFDM 16QAM	1	1	17.15	16.91	17.05	18.00	
		1	104	17.84	17.90	17.80	18.00	
		50	25	17.26	17.38	17.42	18.00	
	DFT-s-OFDM 64QAM	1	1	17.10	16.88	17.18	18.00	
		1	104	16.93	16.99	17.25	18.00	
		50	25	17.38	17.34	17.24	18.00	
	DFT-s-OFDM 256QAM	1	1	17.52	17.38	17.24	18.00	
		1	104	17.82	17.48	17.74	18.00	
		50	25	17.44	17.42	17.60	18.00	
	CP-OFDM QPSK	1	1	17.29	17.53	17.39	18.00	
	CP-OFDM 16QAM	1	1	17.35	17.55	17.53	18.00	
	CP-OFDM 64QAM	1	1	17.27	17.45	17.19	18.00	
	CP-OFDM 256QAM	1	1	15.81	15.91	15.91	17.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					648333/3725	656000/3840	663666/3955	
	50MHz	DFT-s-OFDM BPSK	1	1	17.28	16.96	17.26	18.00
			1	131	16.93	17.01	17.35	18.00
			64	32	17.64	17.70	17.72	18.00
			128	0	17.51	17.49	17.43	18.00
DFT-s-OFDM QPSK		1	1	17.54	17.17	16.97	18.00	
		1	131	17.17	17.08	17.21	18.00	
		64	32	17.52	17.27	17.33	18.00	
DFT-s-OFDM 16QAM		128	0	17.34	17.05	17.31	18.00	
		1	1	17.11	17.23	17.25	18.00	
		1	131	17.50	17.80	17.52	18.00	
DFT-s-OFDM		64	32	17.26	17.48	17.56	18.00	
		1	1	17.04	16.98	17.38	18.00	

	64QAM	1	131	17.09	17.11	17.15	18.00
		64	32	17.52	17.36	17.30	18.00
	DFT-s-OFDM 256QAM	1	1	17.50	17.38	17.36	18.00
		1	131	17.86	17.64	17.58	18.00
		64	32	17.44	17.68	17.80	18.00
	CP-OFDM QPSK	1	1	17.37	17.61	17.45	18.00
	CP-OFDM 16QAM	1	1	17.43	17.71	17.69	18.00
	CP-OFDM 64QAM	1	1	17.39	17.33	17.29	18.00
CP-OFDM 256QAM	1	1	15.75	15.87	15.83	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	17.16	16.96	17.18	18.00
		1	160	17.01	16.95	17.25	18.00
		81	40	17.46	17.60	17.60	18.00
		162	0	17.49	17.57	17.43	18.00
	DFT-s-OFDM QPSK	1	1	17.44	17.11	16.87	18.00
		1	160	17.23	17.06	17.27	18.00
		81	40	17.44	17.23	17.19	18.00
		162	0	17.36	17.13	17.17	18.00
	DFT-s-OFDM 16QAM	1	1	17.11	17.09	17.07	18.00
		1	160	17.48	17.66	17.58	18.00
		81	40	17.26	17.38	17.54	18.00
	DFT-s-OFDM 64QAM	1	1	17.04	17.06	17.26	18.00
		1	160	17.01	16.97	17.17	18.00
		81	40	17.46	17.32	17.28	18.00
	DFT-s-OFDM 256QAM	1	1	17.62	17.48	17.32	18.00
		1	160	17.74	17.66	17.68	18.00
		81	40	17.54	17.54	17.72	18.00
	CP-OFDM QPSK	1	1	17.43	17.53	17.47	18.00
	CP-OFDM 16QAM	1	1	17.43	17.75	17.73	18.00
	CP-OFDM 64QAM	1	1	17.39	17.41	17.29	18.00
CP-OFDM 256QAM	1	1	15.73	15.81	15.85	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	17.10	17.12	17.12	18.00
		1	187	17.05	17.11	17.19	18.00
		92	45	17.36	17.42	17.42	18.00
		180	0	17.67	17.47	17.39	18.00
	DFT-s-OFDM QPSK	1	1	17.40	16.99	16.93	18.00
		1	187	17.15	16.92	17.21	18.00
		92	45	17.44	16.93	17.35	18.00
		180	0	17.50	16.97	16.97	18.00
	DFT-s-OFDM	1	1	16.97	17.01	17.17	18.00

	16QAM	1	187	17.86	17.82	17.98	18.00	
		92	46	17.28	17.42	17.30	18.00	
	DFT-s-OFDM 64QAM	1	1	17.00	17.08	17.22	18.00	
		1	187	16.95	17.03	17.21	18.00	
		DFT-s-OFDM 256QAM	92	46	17.18	17.10	17.06	18.00
			1	1	17.48	17.42	17.28	18.00
			1	187	17.76	17.40	17.62	18.00
			92	46	17.56	17.54	17.60	18.00
		CP-OFDM QPSK	1	1	17.27	17.55	17.35	18.00
		CP-OFDM 16QAM	1	1	17.33	17.53	17.79	18.00
	CP-OFDM 64QAM	1	1	17.25	17.27	17.23	18.00	
	CP-OFDM 256QAM	1	1	15.63	15.79	15.75	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649334/3740	656000/3840	662666/3940		
80MHz	DFT-s-OFDM BPSK	1	1	17.26	17.14	17.26	18.00	
		1	215	17.19	17.07	17.11	18.00	
		108	54	17.70	17.74	17.44	18.00	
		216	0	17.69	17.67	17.43	18.00	
	DFT-s-OFDM QPSK	1	1	17.38	17.23	16.85	18.00	
		1	215	17.25	17.04	17.11	18.00	
		108	54	17.34	17.09	17.33	18.00	
		216	0	17.22	16.91	17.29	18.00	
	DFT-s-OFDM 16QAM	1	1	17.19	17.17	17.27	18.00	
		1	215	17.86	17.42	17.70	18.00	
		108	54	17.44	17.38	17.60	18.00	
	DFT-s-OFDM 64QAM	1	1	17.00	17.20	17.22	18.00	
		1	215	17.11	17.03	17.09	18.00	
		108	54	17.32	17.36	17.06	18.00	
	DFT-s-OFDM 256QAM	1	1	17.40	17.38	17.50	18.00	
		1	215	17.68	17.74	17.82	18.00	
		108	54	17.72	17.38	17.40	18.00	
		CP-OFDM QPSK	1	1	17.41	17.65	17.49	18.00
		CP-OFDM 16QAM	1	1	17.41	17.69	17.91	18.00
		CP-OFDM 64QAM	1	1	17.57	17.43	17.15	18.00
	CP-OFDM 256QAM	1	1	15.65	15.91	15.97	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649666/3745	656000/3840	662333/3935		
90MHz	DFT-s-OFDM BPSK	1	1	16.92	17.06	17.06	18.00	
		1	243	17.07	17.15	17.19	18.00	
		120	60	17.58	17.58	17.50	18.00	
		243	0	17.49	17.63	17.41	18.00	
	DFT-s-OFDM QPSK	1	1	17.40	17.11	17.05	18.00	
		1	243	17.29	16.98	17.23	18.00	

		120	60	17.66	17.29	17.43	18.00
		243	0	17.36	17.27	17.17	18.00
	DFT-s-OFDM 16QAM	1	1	16.89	17.05	17.17	18.00
		1	243	17.88	17.60	17.76	18.00
		120	60	17.34	17.54	17.56	18.00
	DFT-s-OFDM 64QAM	1	1	17.00	17.16	17.12	18.00
		1	243	17.25	16.91	17.25	18.00
		120	60	17.48	17.34	17.32	18.00
	DFT-s-OFDM 256QAM	1	1	17.48	17.50	17.40	18.00
		1	243	17.70	17.68	17.80	18.00
		120	60	17.46	17.44	17.52	18.00
	CP-OFDM QPSK	1	1	17.33	17.35	17.61	18.00
	CP-OFDM 16QAM	1	1	17.37	17.53	17.69	18.00
CP-OFDM 64QAM	1	1	17.33	17.41	17.23	18.00	
CP-OFDM 256QAM	1	1	15.81	15.91	15.91	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	17.04	17.06	17.16	18.00
		1	271	17.07	17.03	17.15	18.00
		135	67	17.52	17.58	17.50	18.00
		270	0	17.57	17.65	17.51	18.00
	DFT-s-OFDM QPSK	1	1	17.34	17.13	16.91	18.00
		1	271	17.17	16.94	17.30	18.00
		135	67	17.30	17.13	17.35	18.00
		270	0	17.40	17.09	17.22	18.00
	DFT-s-OFDM 16QAM	1	1	17.01	17.09	17.11	18.00
		1	271	17.80	17.96	17.64	18.00
		135	67	17.28	17.44	17.46	18.00
	DFT-s-OFDM 64QAM	1	1	16.94	17.06	17.18	18.00
		1	271	17.09	16.97	17.13	18.00
		135	67	17.32	17.20	17.14	18.00
	DFT-s-OFDM 256QAM	1	1	17.50	17.50	17.42	18.00
		1	271	17.68	17.58	17.62	18.00
		135	67	17.50	17.56	17.58	18.00
	CP-OFDM QPSK	1	1	17.33	17.45	17.45	18.00
	CP-OFDM 16QAM	1	1	17.47	17.61	17.71	18.00
	CP-OFDM 64QAM	1	1	17.43	17.37	17.27	18.00
CP-OFDM 256QAM	1	1	15.73	15.87	15.89	17.00	

NR n77 Subset 2 (SA)							
Hotspot on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	20.27	19.97	19.75	21.50
		1	49	20.02	19.78	19.56	21.50
		25	12	19.82	20.08	20.30	21.50
		50	0	19.84	19.74	19.94	21.50
	DFT-s-OFDM QPSK	1	1	20.07	19.82	19.97	21.50
		1	49	19.98	19.84	20.10	21.50
		25	12	20.23	19.81	19.89	21.50
	DFT-s-OFDM 16QAM	1	1	19.69	20.01	19.61	21.50
		1	49	19.56	19.58	19.54	21.50
		25	12	19.75	20.19	20.07	21.50
	DFT-s-OFDM 64QAM	1	1	19.85	19.81	19.49	21.00
		1	49	19.10	19.20	19.18	21.00
		25	12	19.38	19.62	19.16	21.00
	DFT-s-OFDM 256QAM	1	1	17.58	17.72	17.92	19.00
		1	49	17.98	17.90	17.50	19.00
		25	12	17.66	17.14	17.28	19.00
CP-OFDM QPSK	1	1	19.79	19.95	19.71	21.50	
CP-OFDM 16QAM	1	1	20.24	20.10	20.10	21.50	
CP-OFDM 64QAM	1	1	18.36	18.54	18.46	20.00	
CP-OFDM 256QAM	1	1	15.62	15.38	15.52	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	20.27	19.85	19.71	21.50
		1	76	19.98	19.64	19.84	21.50
		36	18	19.72	20.34	20.16	21.50
		75	0	19.92	19.72	20.00	21.50
	DFT-s-OFDM QPSK	1	1	20.35	19.88	20.05	21.50
		1	76	19.90	19.92	20.20	21.50
		36	18	20.27	20.13	19.85	21.50
	DFT-s-OFDM 16QAM	75	0	20.38	19.93	20.14	21.50
		1	1	19.79	20.03	19.55	21.50
		1	76	19.58	19.86	19.58	21.50
	DFT-s-OFDM 64QAM	36	18	20.11	20.05	20.29	21.50
		1	1	19.81	19.63	19.37	21.00
		1	76	19.30	19.14	19.40	21.00
	DFT-s-OFDM	36	18	19.58	19.42	19.24	21.00
		1	1	17.64	17.88	18.02	19.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648000/3720	656000/3840	664000/3960		
40MHz	256QAM	1	76	17.80	17.66	17.76	19.00	
		36	18	17.72	17.38	17.36	19.00	
	CP-OFDM QPSK	1	1	20.07	20.15	19.77	21.50	
	CP-OFDM 16QAM	1	1	20.32	20.22	20.28	21.50	
	CP-OFDM 64QAM	1	1	18.50	18.48	18.50	20.00	
	CP-OFDM 256QAM	1	1	15.78	15.46	15.60	17.00	
	40MHz	DFT-s-OFDM BPSK	1	1	20.17	19.91	19.63	21.50
			1	104	20.00	19.70	19.78	21.50
			50	25	19.86	20.08	20.18	21.50
			100	0	19.76	19.92	19.94	21.50
		DFT-s-OFDM QPSK	1	1	20.31	19.90	20.05	21.50
			1	104	20.16	19.96	20.36	21.50
			50	25	20.31	19.95	19.81	21.50
			100	0	20.42	19.91	20.02	21.50
DFT-s-OFDM 16QAM		1	1	19.67	19.99	19.77	21.50	
		1	104	19.68	19.82	19.84	21.50	
		50	25	20.01	20.09	20.09	21.50	
DFT-s-OFDM 64QAM		1	1	19.81	19.87	19.65	21.00	
		1	104	19.06	19.20	19.26	21.00	
		50	25	19.60	19.58	19.30	21.00	
DFT-s-OFDM 256QAM	1	1	17.76	18.00	18.04	19.00		
	1	104	18.10	17.88	17.60	19.00		
	50	25	17.72	17.22	17.48	19.00		
CP-OFDM QPSK	1	1	19.89	20.25	19.95	21.50		
CP-OFDM 16QAM	1	1	20.36	20.28	20.38	21.50		
CP-OFDM 64QAM	1	1	18.42	18.66	18.42	20.00		
CP-OFDM 256QAM	1	1	15.94	15.46	15.44	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648333/3725	656000/3840	663666/3955		
50MHz	DFT-s-OFDM BPSK	1	1	20.19	19.97	19.69	21.50	
		1	131	20.06	19.78	19.68	21.50	
		64	32	19.72	20.14	20.24	21.50	
		128	0	19.86	19.82	19.92	21.50	
	DFT-s-OFDM QPSK	1	1	20.25	19.90	20.01	21.50	
		1	131	19.98	19.94	20.22	21.50	
		64	32	20.25	19.99	19.81	21.50	
		128	0	20.34	19.85	20.10	21.50	
	DFT-s-OFDM 16QAM	1	1	19.59	19.91	19.71	21.50	
		1	131	19.58	19.66	19.66	21.50	
		64	32	19.89	20.21	20.13	21.50	
	DFT-s-OFDM	1	1	19.93	19.79	19.51	21.00	

	64QAM	1	131	19.12	19.26	19.24	21.00
		64	32	19.44	19.56	19.12	21.00
	DFT-s-OFDM 256QAM	1	1	17.68	17.86	18.04	19.00
		1	131	17.96	17.84	17.68	19.00
		64	32	17.60	17.24	17.38	19.00
	CP-OFDM QPSK	1	1	19.97	20.11	19.81	21.50
	CP-OFDM 16QAM	1	1	20.32	20.16	20.30	21.50
	CP-OFDM 64QAM	1	1	18.54	18.56	18.46	20.00
CP-OFDM 256QAM	1	1	15.80	15.54	15.56	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	20.07	20.01	20.01	21.50
		1	160	19.94	19.84	19.88	21.50
		81	40	20.04	20.14	19.98	21.50
		162	0	20.02	20.06	20.00	21.50
	DFT-s-OFDM QPSK	1	1	20.43	20.02	19.93	21.50
		1	160	20.12	19.86	20.34	21.50
		81	40	20.29	19.87	20.13	21.50
		162	0	20.52	19.87	19.98	21.50
	DFT-s-OFDM 16QAM	1	1	19.51	19.67	19.69	21.50
		1	160	19.72	19.76	19.68	21.50
		81	40	20.03	19.93	20.09	21.50
	DFT-s-OFDM 64QAM	1	1	19.73	19.71	19.87	21.00
		1	160	19.08	19.06	19.30	21.00
		81	40	19.54	19.54	19.44	21.00
	DFT-s-OFDM 256QAM	1	1	18.00	17.92	17.88	19.00
		1	160	17.80	17.64	17.78	19.00
		81	40	17.64	17.60	17.60	19.00
	CP-OFDM QPSK	1	1	20.07	20.07	20.07	21.50
	CP-OFDM 16QAM	1	1	20.28	20.22	20.34	21.50
	CP-OFDM 64QAM	1	1	18.56	18.58	18.62	20.00
CP-OFDM 256QAM	1	1	16.14	15.86	15.80	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	20.17	20.01	20.01	21.50
		1	187	19.94	19.80	19.68	21.50
		92	45	19.88	19.82	20.02	21.50
		180	0	19.78	19.82	19.80	21.50
	DFT-s-OFDM QPSK	1	1	20.25	20.00	19.75	21.50
		1	187	20.02	19.86	20.30	21.50
		92	45	20.13	19.97	20.27	21.50
		180	0	20.18	19.89	19.92	21.50
	DFT-s-OFDM	1	1	19.57	19.69	19.59	21.50

	16QAM	1	187	19.68	19.56	19.74	21.50	
		92	46	19.83	20.05	19.85	21.50	
	DFT-s-OFDM 64QAM	1	1	19.69	19.63	19.77	21.00	
		1	187	19.16	19.12	19.06	21.00	
		DFT-s-OFDM 256QAM	1	1	17.76	17.98	17.68	19.00
			1	187	17.74	17.56	17.72	19.00
			92	46	17.68	17.42	17.52	19.00
		CP-OFDM QPSK	1	1	19.99	20.05	19.87	21.50
		CP-OFDM 16QAM	1	1	20.46	20.34	20.34	21.50
		CP-OFDM 64QAM	1	1	18.56	18.50	18.82	20.00
	CP-OFDM 256QAM	1	1	16.04	15.82	15.64	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649334/3740	656000/3840	662666/3940		
80MHz	DFT-s-OFDM BPSK	1	1	20.19	19.93	19.77	21.50	
		1	215	19.78	19.76	19.84	21.50	
		108	54	19.70	19.98	20.00	21.50	
		216	0	19.96	20.08	20.08	21.50	
	DFT-s-OFDM QPSK	1	1	20.29	19.88	19.95	21.50	
		1	215	20.14	20.00	20.28	21.50	
		108	54	20.25	20.01	20.13	21.50	
		216	0	20.24	19.81	19.98	21.50	
	DFT-s-OFDM 16QAM	1	1	19.60	19.75	19.89	21.50	
		1	215	19.92	19.74	19.78	21.50	
		108	54	20.21	19.97	20.17	21.50	
	DFT-s-OFDM 64QAM	1	1	19.71	19.79	19.71	21.00	
		1	215	19.22	19.32	19.10	21.00	
		108	54	19.56	19.50	19.40	21.00	
	DFT-s-OFDM 256QAM	1	1	18.14	17.74	18.02	19.00	
		1	215	18.00	17.80	17.64	19.00	
108		54	17.48	17.62	17.48	19.00		
	CP-OFDM QPSK	1	1	20.09	19.97	20.09	21.50	
	CP-OFDM 16QAM	1	1	20.58	20.36	20.40	21.50	
	CP-OFDM 64QAM	1	1	18.74	18.66	18.56	20.00	
	CP-OFDM 256QAM	1	1	15.90	15.98	15.84	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649666/3745	656000/3840	662333/3935		
90MHz	DFT-s-OFDM BPSK	1	1	20.05	19.99	19.87	21.50	
		1	243	20.12	19.94	19.86	21.50	
		120	60	20.06	19.92	19.88	21.50	
		243	0	19.76	19.86	19.98	21.50	
	DFT-s-OFDM QPSK	1	1	20.27	20.00	19.77	21.50	
		1	243	20.14	19.72	20.44	21.50	

		120	60	20.03	19.95	20.09	21.50
		243	0	20.34	20.05	20.16	21.50
	DFT-s-OFDM 16QAM	1	1	19.65	19.65	19.77	21.50
		1	243	19.58	19.70	19.60	21.50
		120	60	19.97	19.97	19.99	21.50
	DFT-s-OFDM 64QAM	1	1	19.59	19.85	19.73	21.00
		1	243	19.30	19.30	19.20	21.00
		120	60	19.58	19.52	19.56	21.00
	DFT-s-OFDM 256QAM	1	1	17.88	18.04	17.96	19.00
		1	243	17.68	17.88	17.90	19.00
		120	60	17.50	17.64	17.70	19.00
	CP-OFDM QPSK	1	1	19.97	20.23	20.01	21.50
	CP-OFDM 16QAM	1	1	20.54	20.44	20.32	21.50
CP-OFDM 64QAM	1	1	18.66	18.54	18.62	20.00	
CP-OFDM 256QAM	1	1	16.16	15.86	15.88	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	20.09	20.03	19.93	21.50
		1	271	19.94	19.86	19.82	21.50
		135	67	19.88	20.00	19.96	21.50
		270	0	19.86	19.96	19.90	21.50
	DFT-s-OFDM QPSK	1	1	20.35	19.94	19.85	21.50
		1	271	20.00	19.84	20.35	21.50
		135	67	20.13	19.97	20.42	21.50
		270	0	20.36	19.91	20.08	21.50
	DFT-s-OFDM 16QAM	1	1	19.55	19.77	19.67	21.50
		1	271	19.70	19.62	19.70	21.50
		135	67	20.03	19.99	20.05	21.50
	DFT-s-OFDM 64QAM	1	1	19.71	19.81	19.73	21.00
		1	271	19.16	19.16	19.16	21.00
		135	67	19.52	19.46	19.46	21.00
	DFT-s-OFDM 256QAM	1	1	17.96	17.90	17.88	19.00
		1	271	17.80	17.70	17.82	19.00
		135	67	17.62	17.50	17.56	19.00
	CP-OFDM QPSK	1	1	19.93	20.07	19.95	21.50
	CP-OFDM 16QAM	1	1	20.38	20.28	20.40	21.50
	CP-OFDM 64QAM	1	1	18.60	18.64	18.72	20.00
CP-OFDM 256QAM	1	1	15.98	15.86	15.82	17.00	

NR n77 Subset 1 (NSA)							
Normal power--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	22.12	22.12	22.38	24.00
		1	49	22.43	22.85	22.43	24.00
		25	12	22.28	22.54	22.36	24.00
		50	0	21.53	21.77	22.23	23.50
	DFT-s-OFDM QPSK	1	1	22.19	22.19	22.39	24.00
		1	49	22.53	22.17	22.41	24.00
		25	12	22.28	22.26	22.36	24.00
		50	0	21.96	21.82	21.38	23.00
	DFT-s-OFDM 16QAM	1	1	20.86	20.70	21.70	22.50
		1	49	20.94	20.84	20.84	22.50
		25	12	21.97	21.06	21.55	22.50
	DFT-s-OFDM 64QAM	1	1	19.87	19.65	19.71	21.00
		1	49	19.62	19.48	19.62	21.00
		25	12	20.07	20.17	19.85	21.00
	DFT-s-OFDM 256QAM	1	1	18.47	18.51	18.13	19.50
		1	49	18.58	18.32	18.38	19.50
25		12	18.10	18.22	18.08	19.50	
CP-OFDM QPSK	1	1	21.08	20.36	20.64	22.00	
CP-OFDM 16QAM	1	1	20.55	21.21	20.23	22.00	
CP-OFDM 64QAM	1	1	18.92	18.86	19.22	20.00	
CP-OFDM 256QAM	1	1	15.72	15.82	15.58	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	
30MHz	DFT-s-OFDM BPSK	1	1	22.24	22.22	22.36	24.00
		1	76	22.65	22.65	22.17	24.00
		36	18	22.10	22.56	22.44	24.00
		75	0	21.60	21.81	22.07	23.50
	DFT-s-OFDM QPSK	1	1	22.17	22.31	22.31	24.00
		1	76	22.43	22.29	22.49	24.00
		36	18	22.34	22.20	22.28	24.00
	DFT-s-OFDM 16QAM	75	0	22.06	21.74	21.26	23.00
		1	1	20.68	21.04	21.58	22.50
		1	76	21.10	20.88	20.88	22.50
	DFT-s-OFDM 16QAM	36	18	21.81	21.40	21.47	22.50
		DFT-s-OFDM	1	1	19.87	20.15	19.85

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				631332/3470	633332/3500	635332/3530		
	64QAM	1	76	19.34	19.34	19.66	21.00	
		36	18	20.15	20.13	20.07	21.00	
	DFT-s-OFDM 256QAM	1	1	18.19	18.45	18.23	19.50	
		1	76	18.38	18.64	18.08	19.50	
		36	18	17.94	18.32	17.98	19.50	
	CP-OFDM QPSK	1	1	20.88	20.48	20.92	22.00	
	CP-OFDM 16QAM	1	1	20.73	21.11	20.47	22.00	
	CP-OFDM 64QAM	1	1	18.92	19.04	18.94	20.00	
CP-OFDM 256QAM	1	1	15.44	15.88	15.70	17.00		
40MHz	DFT-s-OFDM BPSK	1	1	22.24	22.26	22.18	24.00	
		1	104	22.55	22.65	22.21	24.00	
		50	25	22.10	22.38	22.38	24.00	
		100	0	21.51	21.85	22.01	23.50	
	DFT-s-OFDM QPSK	1	1	22.03	22.35	22.35	24.00	
		1	104	22.45	22.31	22.55	24.00	
		50	25	22.18	22.24	22.16	24.00	
		100	0	22.08	21.62	21.22	23.00	
	DFT-s-OFDM 16QAM	1	1	20.64	20.86	21.52	22.50	
		1	104	21.00	20.72	20.74	22.50	
		50	25	21.75	21.22	21.57	22.50	
	DFT-s-OFDM 64QAM	1	1	19.91	20.11	19.69	21.00	
		1	104	19.40	19.36	19.48	21.00	
		50	25	20.13	19.95	19.95	21.00	
	DFT-s-OFDM 256QAM	1	1	18.27	18.31	18.29	19.50	
		1	104	18.38	18.46	18.18	19.50	
		50	25	17.88	18.20	18.04	19.50	
	CP-OFDM QPSK	1	1	20.86	20.48	20.74	22.00	
	CP-OFDM 16QAM	1	1	20.63	20.99	20.41	22.00	
	CP-OFDM 64QAM	1	1	19.02	18.90	19.02	20.00	
	CP-OFDM 256QAM	1	1	15.54	15.86	15.74	17.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					631666/3475	633332/3500	634998/3525	
	50MHz	DFT-s-OFDM	1	1	22.18	22.32	22.04	24.00

	BPSK	1	131	22.39	22.49	22.29	24.00
		64	32	22.10	22.40	22.22	24.00
		128	0	21.61	21.71	21.95	23.50
	DFT-s-OFDM QPSK	1	1	22.03	22.17	22.33	24.00
		1	131	22.29	22.21	22.41	24.00
		64	32	22.16	22.16	22.24	24.00
	DFT-s-OFDM 16QAM	128	0	22.16	21.48	21.22	23.00
		1	1	20.68	20.96	21.36	22.50
		1	131	20.88	20.54	20.72	22.50
	DFT-s-OFDM 64QAM	64	32	21.77	21.60	21.59	22.50
		1	1	19.93	19.99	19.73	21.00
		1	131	19.50	19.38	19.30	21.00
	DFT-s-OFDM 256QAM	64	32	20.11	20.05	20.05	21.00
		1	1	18.39	18.19	18.21	19.50
		1	131	18.24	18.48	18.02	19.50
	CP-OFDM QPSK	64	32	17.84	18.24	17.90	19.50
1		1	20.90	20.58	20.74	22.00	
1		1	20.45	20.81	20.51	22.00	
CP-OFDM 16QAM	1	1	19.12	18.98	19.00	20.00	
	1	1	15.64	15.82	15.82	17.00	
	1	1	20.90	20.58	20.74	22.00	
CP-OFDM 64QAM	1	1	19.12	18.98	19.00	20.00	
	1	1	15.64	15.82	15.82	17.00	
	1	1	20.90	20.58	20.74	22.00	
CP-OFDM 256QAM	1	1	19.12	18.98	19.00	20.00	
	1	1	15.64	15.82	15.82	17.00	
	1	1	20.90	20.58	20.74	22.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	22.38	22.68	22.00	24.00
		1	160	22.47	22.71	22.31	24.00
		81	40	22.20	22.56	22.60	24.00
		162	0	21.55	21.69	21.81	23.50
	DFT-s-OFDM QPSK	1	1	22.19	22.25	22.03	24.00
		1	160	22.19	22.27	22.35	24.00
		81	40	22.30	22.40	22.56	24.00
		162	0	22.02	21.66	21.38	23.00
	DFT-s-OFDM 16QAM	1	1	21.08	21.00	21.18	22.50
		1	160	21.12	20.96	20.76	22.50
		81	40	21.63	22.05	21.75	22.50
	DFT-s-OFDM 64QAM	1	1	19.89	19.93	19.81	21.00
		1	160	19.32	19.26	19.40	21.00
		81	40	20.15	20.35	20.21	21.00
	DFT-s-OFDM 256QAM	1	1	18.57	18.43	18.41	19.50
		1	160	18.22	18.14	17.96	19.50
81		40	18.22	18.16	18.14	19.50	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
	CP-OFDM QPSK	1	1	20.86	20.58	21.08	22.00
	CP-OFDM 16QAM	1	1	20.71	20.87	20.61	22.00
	CP-OFDM 64QAM	1	1	19.12	19.30	19.00	20.00
	CP-OFDM 256QAM	1	1	15.92	16.06	15.70	17.00
70MHz	DFT-s-OFDM BPSK	1	1	22.30	22.48	22.10	24.00
		1	187	22.25	22.51	22.01	24.00
		92	45	22.22	22.32	22.50	24.00
		180	0	21.57	21.61	21.87	23.50
	DFT-s-OFDM QPSK	1	1	22.03	22.31	22.01	24.00
		1	187	22.27	22.27	22.27	24.00
		92	45	22.30	22.30	22.46	24.00
		180	0	21.88	21.52	21.36	23.00
	DFT-s-OFDM 16QAM	1	1	20.80	20.86	21.22	22.50
		1	187	20.84	20.80	20.62	22.50
		92	46	21.63	22.19	21.61	22.50
	DFT-s-OFDM 64QAM	1	1	19.99	19.95	19.79	21.00
		1	187	19.44	19.16	19.10	21.00
		92	46	19.97	20.19	20.03	21.00
	DFT-s-OFDM 256QAM	1	1	18.37	18.41	18.41	19.50
		1	187	18.22	18.26	18.04	19.50
		92	46	18.12	18.14	17.86	19.50
	CP-OFDM QPSK	1	1	20.74	20.68	20.84	22.00
	CP-OFDM 16QAM	1	1	20.65	20.91	20.57	22.00
	CP-OFDM 64QAM	1	1	19.16	19.18	18.86	20.00
CP-OFDM 256QAM	1	1	15.62	15.78	15.78	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	22.46	22.66	22.10	24.00
		1	215	22.41	22.83	22.23	24.00
		108	54	22.32	22.72	22.28	24.00
		216	0	21.62	21.87	22.01	23.50
	DFT-s-OFDM QPSK	1	1	22.21	22.37	22.09	24.00
		1	215	22.21	22.23	22.51	24.00

		108	54	22.48	22.40	22.58	24.00
		216	0	21.90	21.66	21.42	23.00
	DFT-s-OFDM 16QAM	1	1	20.90	20.92	21.40	22.50
		1	215	21.06	20.96	20.90	22.50
		108	54	21.93	22.11	21.93	22.50
	DFT-s-OFDM 64QAM	1	1	19.83	19.83	19.75	21.00
		1	215	19.32	19.34	19.16	21.00
		108	54	20.27	20.39	20.25	21.00
	DFT-s-OFDM 256QAM	1	1	18.49	18.51	18.37	19.50
		1	215	18.22	18.28	18.12	19.50
		108	54	18.18	18.14	18.14	19.50
	CP-OFDM QPSK	1	1	20.90	20.74	20.96	22.00
	CP-OFDM 16QAM	1	1	20.67	21.05	20.49	22.00
CP-OFDM 64QAM	1	1	19.28	19.26	19.24	20.00	
CP-OFDM 256QAM	1	1	15.66	15.90	15.60	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	22.22	22.40	22.08	24.00
		1	243	22.45	22.75	22.35	24.00
		120	60	22.20	22.70	22.54	24.00
		243	0	21.67	21.89	22.07	23.50
	DFT-s-OFDM QPSK	1	1	22.03	22.25	22.15	24.00
		1	243	22.21	22.33	22.31	24.00
		120	60	22.30	22.36	22.40	24.00
	DFT-s-OFDM 16QAM	243	0	21.90	21.70	21.44	23.00
		1	1	21.06	21.14	21.24	22.50
		1	243	20.98	20.88	20.66	22.50
	DFT-s-OFDM 64QAM	120	60	21.77	22.23	21.69	22.50
		1	1	19.79	20.11	19.93	21.00
		1	243	19.28	19.22	19.40	21.00
	DFT-s-OFDM 256QAM	120	60	20.27	20.23	20.07	21.00
		1	1	18.49	18.29	18.55	19.50
		1	243	18.16	18.20	17.90	19.50
	CP-OFDM QPSK	120	60	17.98	18.16	18.10	19.50
		1	1	20.90	20.84	21.14	22.00
		1	1	20.81	20.77	20.53	22.00
	CP-OFDM 16QAM	1	1	19.22	19.08	19.12	20.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	633332/3500	/	
	64QAM						
	CP-OFDM 256QAM	1	1	16.00	15.86	15.62	17.00
100MHz	DFT-s-OFDM BPSK	1	1	/	22.33	/	24.00
		1	271	/	22.28	/	24.00
		135	67	/	22.47	/	24.00
		270	0	/	21.92	/	23.50
	DFT-s-OFDM QPSK	1	1	/	22.10	/	24.00
		1	271	/	22.24	/	24.00
		135	67	/	22.57	/	24.00
		270	0	/	21.45	/	23.00
	DFT-s-OFDM 16QAM	1	1	/	21.01	/	22.50
		1	271	/	21.17	/	22.50
		135	67	/	21.44	/	22.50
	DFT-s-OFDM 64QAM	1	1	/	19.56	/	21.00
		1	271	/	19.61	/	21.00
		135	67	/	20.02	/	21.00
	DFT-s-OFDM 256QAM	1	1	/	18.18	/	19.50
		1	271	/	17.99	/	19.50
		135	67	/	18.15	/	19.50
	CP-OFDM QPSK	1	1	/	20.97	/	22.00
	CP-OFDM 16QAM	1	1	/	20.74	/	22.00
	CP-OFDM 64QAM	1	1	/	18.89	/	20.00
CP-OFDM 256QAM	1	1	/	15.75	/	17.00	

NR n77 Subset 1 (NSA)							
Receiver on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	15.30	15.34	15.32	16.50
		1	49	15.95	15.75	15.39	16.50
		25	12	16.26	16.22	16.10	16.50
		50	0	15.81	15.71	15.49	16.50
	DFT-s-OFDM QPSK	1	1	15.36	15.14	15.70	16.50
		1	49	15.67	15.47	15.41	16.50
		25	12	15.97	15.79	15.93	16.50
		50	0	15.79	15.91	15.37	16.50

	DFT-s-OFDM 16QAM	1	1	15.27	15.53	15.11	16.50
		1	49	15.34	15.46	15.38	16.50
		25	12	15.45	15.49	15.79	16.50
	DFT-s-OFDM 64QAM	1	1	15.12	15.26	15.04	16.50
		1	49	15.41	15.27	15.27	16.50
		25	12	15.88	15.74	15.78	16.50
	DFT-s-OFDM 256QAM	1	1	15.57	15.55	15.61	16.50
		1	49	15.69	15.69	15.57	16.50
		25	12	15.41	15.99	15.73	16.50
	CP-OFDM QPSK	1	1	15.50	15.28	15.32	16.50
CP-OFDM 16QAM	1	1	15.40	15.16	15.64	16.50	
CP-OFDM 64QAM	1	1	15.58	15.66	15.46	16.50	
CP-OFDM 256QAM	1	1	15.37	15.39	15.43	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	
30MHz	DFT-s-OFDM BPSK	1	1	15.64	15.62	15.64	16.50
		1	76	16.07	15.65	15.43	16.50
		36	18	16.08	16.24	16.28	16.50
		75	0	15.87	15.71	15.43	16.50
	DFT-s-OFDM QPSK	1	1	15.44	15.56	15.54	16.50
		1	76	15.69	15.61	15.37	16.50
		36	18	16.13	15.77	16.11	16.50
	DFT-s-OFDM 16QAM	75	0	15.77	15.69	15.35	16.50
		1	1	15.29	15.39	15.29	16.50
		1	76	15.62	15.44	15.12	16.50
	DFT-s-OFDM 64QAM	36	18	15.73	15.41	15.75	16.50
		1	1	15.00	15.42	15.18	16.50
		1	76	15.81	15.53	15.35	16.50
	DFT-s-OFDM 256QAM	36	18	16.14	15.70	15.80	16.50
		1	1	15.71	15.83	15.73	16.50
		1	76	15.67	15.71	15.89	16.50
	CP-OFDM QPSK	36	18	15.69	16.03	15.73	16.50
		1	1	15.36	15.30	15.28	16.50
		1	1	15.32	15.46	15.76	16.50
	CP-OFDM 16QAM	1	1	15.86	15.92	15.36	16.50
		1	1	15.53	15.41	15.69	16.50
	CP-OFDM 64QAM	1	1	15.53	15.41	15.69	16.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				631332/3470	633332/3500	635332/3530		
				256QAM				
40MHz	DFT-s-OFDM BPSK	1	1	15.52	15.72	15.70	16.50	
		1	104	16.01	15.79	15.73	16.50	
		50	25	16.26	16.04	16.24	16.50	
		100	0	15.87	15.95	15.51	16.50	
	DFT-s-OFDM QPSK	1	1	15.44	15.50	15.58	16.50	
		1	104	15.61	15.57	15.45	16.50	
		50	25	15.91	15.87	16.11	16.50	
		100	0	15.95	15.91	15.53	16.50	
	DFT-s-OFDM 16QAM	1	1	15.37	15.65	15.23	16.50	
		1	104	15.54	15.60	15.30	16.50	
		50	25	15.53	15.55	15.73	16.50	
	DFT-s-OFDM 64QAM	1	1	15.34	15.24	15.16	16.50	
		1	104	15.69	15.47	15.19	16.50	
		50	25	16.12	15.74	15.98	16.50	
	DFT-s-OFDM 256QAM	1	1	15.61	15.63	15.75	16.50	
		1	104	15.81	15.85	15.93	16.50	
		50	25	15.51	15.99	15.89	16.50	
	CP-OFDM QPSK	1	1	15.34	15.42	15.40	16.50	
	CP-OFDM 16QAM	1	1	15.26	15.16	15.76	16.50	
	CP-OFDM 64QAM	1	1	15.72	15.90	15.62	16.50	
	CP-OFDM 256QAM	1	1	15.65	15.55	15.57	16.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					631666/3475	633332/3500	634998/3525	
					256QAM			
50MHz	DFT-s-OFDM BPSK	1	1	15.48	15.54	15.52	16.50	
		1	131	15.89	15.69	15.55	16.50	
		64	32	16.22	16.12	16.10	16.50	
		128	0	15.83	15.89	15.61	16.50	
	DFT-s-OFDM QPSK	1	1	15.28	15.34	15.60	16.50	
		1	131	15.69	15.43	15.43	16.50	
		64	32	15.93	15.93	15.93	16.50	
	DFT-s-OFDM 16QAM	128	0	15.77	15.81	15.51	16.50	
		1	1	15.45	15.47	15.25	16.50	
		1	131	15.40	15.42	15.30	16.50	
	DFT-s-OFDM 64QAM	64	32	15.53	15.53	15.71	16.50	
		1	1	15.18	15.34	15.24	16.50	
			1	131	15.59	15.45	15.17	16.50

		64	32	15.96	15.72	15.90	16.50
	DFT-s-OFDM 256QAM	1	1	15.57	15.73	15.69	16.50
		1	131	15.73	15.69	15.77	16.50
		64	32	15.59	15.97	15.81	16.50
	CP-OFDM QPSK	1	1	15.46	15.38	15.46	16.50
	CP-OFDM 16QAM	1	1	15.38	15.26	15.62	16.50
	CP-OFDM 64QAM	1	1	15.64	15.76	15.46	16.50
CP-OFDM 256QAM	1	1	15.55	15.59	15.63	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	15.46	15.50	15.54	16.50
		1	160	15.75	15.59	15.49	16.50
		81	40	15.98	15.82	15.94	16.50
		162	0	15.75	15.57	15.63	16.50
	DFT-s-OFDM QPSK	1	1	15.32	15.42	15.28	16.50
		1	160	15.57	15.57	15.43	16.50
		81	40	15.99	15.99	15.89	16.50
		162	0	15.69	15.77	15.43	16.50
	DFT-s-OFDM 16QAM	1	1	15.49	15.31	15.17	16.50
		1	160	15.48	15.48	15.26	16.50
		81	40	15.61	15.69	15.69	16.50
	DFT-s-OFDM 64QAM	1	1	15.28	15.28	15.20	16.50
		1	160	15.35	15.27	15.29	16.50
		81	40	15.88	15.70	15.76	16.50
	DFT-s-OFDM 256QAM	1	1	15.39	15.65	15.67	16.50
		1	160	15.65	15.79	15.63	16.50
		81	40	15.75	15.85	15.69	16.50
	CP-OFDM QPSK	1	1	15.34	15.42	15.46	16.50
	CP-OFDM 16QAM	1	1	15.30	15.16	15.42	16.50
	CP-OFDM 64QAM	1	1	15.56	15.70	15.48	16.50
CP-OFDM 256QAM	1	1	15.65	15.49	15.45	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM	1	1	15.62	15.64	15.34	16.50
	BPSK	1	187	15.67	16.01	15.53	16.50

		92	45	16.00	15.90	16.16	16.50
		180	0	15.85	15.95	15.57	16.50
	DFT-s-OFDM QPSK	1	1	15.30	15.52	15.36	16.50
		1	187	15.63	15.49	15.53	16.50
		92	45	16.01	15.95	16.19	16.50
		180	0	15.63	15.93	15.83	16.50
	DFT-s-OFDM 16QAM	1	1	15.59	15.71	15.43	16.50
		1	187	15.42	15.46	15.30	16.50
		92	46	15.53	15.49	15.59	16.50
	DFT-s-OFDM 64QAM	1	1	15.34	15.34	15.18	16.50
		1	187	15.45	15.17	15.41	16.50
		92	46	15.88	15.82	15.66	16.50
	DFT-s-OFDM 256QAM	1	1	15.79	15.81	15.63	16.50
		1	187	15.63	15.83	15.53	16.50
		92	46	15.91	15.71	15.47	16.50
CP-OFDM QPSK	1	1	15.44	15.30	15.62	16.50	
CP-OFDM 16QAM	1	1	15.46	15.44	15.38	16.50	
CP-OFDM 64QAM	1	1	15.56	15.88	15.68	16.50	
CP-OFDM 256QAM	1	1	15.73	15.63	15.45	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	15.68	15.48	15.54	16.50
		1	215	15.79	15.69	15.69	16.50
		108	54	16.22	16.08	16.18	16.50
		216	0	15.83	15.87	15.55	16.50
	DFT-s-OFDM QPSK	1	1	15.36	15.32	15.64	16.50
		1	215	15.55	15.53	15.49	16.50
		108	54	16.13	15.85	16.03	16.50
	DFT-s-OFDM 16QAM	216	0	15.91	15.71	15.53	16.50
		1	1	15.45	15.59	15.21	16.50
		1	215	15.52	15.60	15.44	16.50
	DFT-s-OFDM 64QAM	108	54	15.69	15.75	15.71	16.50
		1	1	15.12	15.16	15.08	16.50
		1	215	15.31	15.29	15.21	16.50
	DFT-s-OFDM 256QAM	108	54	15.80	15.58	15.94	16.50
		1	1	15.75	15.67	15.77	16.50
		1	215	15.75	15.69	15.65	16.50
	CP-OFDM	108	54	15.69	15.99	15.57	16.50
	CP-OFDM	1	1	15.54	15.56	15.64	16.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
	QPSK						
	CP-OFDM 16QAM	1	1	15.64	15.34	15.52	16.50
	CP-OFDM 64QAM	1	1	15.62	15.76	15.64	16.50
	CP-OFDM 256QAM	1	1	15.61	15.61	15.69	16.50
90MHz	DFT-s-OFDM BPSK	1	1	15.50	15.42	15.52	16.50
		1	243	15.83	15.79	15.61	16.50
		120	60	16.16	16.02	16.00	16.50
		243	0	15.81	15.73	15.65	16.50
	DFT-s-OFDM QPSK	1	1	15.28	15.34	15.46	16.50
		1	243	15.53	15.53	15.53	16.50
		120	60	15.97	15.89	15.97	16.50
	DFT-s-OFDM 16QAM	243	0	15.77	15.73	15.61	16.50
		1	1	15.51	15.49	15.33	16.50
		1	243	15.46	15.44	15.32	16.50
	DFT-s-OFDM 64QAM	120	60	15.57	15.61	15.65	16.50
		1	1	15.22	15.26	15.20	16.50
		1	243	15.43	15.33	15.19	16.50
	DFT-s-OFDM 256QAM	120	60	15.82	15.66	15.78	16.50
		1	1	15.57	15.59	15.61	16.50
		1	243	15.73	15.71	15.63	16.50
	CP-OFDM QPSK	120	60	15.69	15.81	15.65	16.50
		1	1	15.44	15.40	15.46	16.50
		1	1	15.46	15.36	15.48	16.50
		1	1	15.64	15.74	15.56	16.50
CP-OFDM 16QAM	1	1	15.55	15.61	15.51	16.50	
	1	1	15.44	15.40	15.46	16.50	
	1	1	15.46	15.36	15.48	16.50	
	1	1	15.64	15.74	15.56	16.50	
CP-OFDM 64QAM	1	1	15.55	15.61	15.51	16.50	
	1	1	15.44	15.40	15.46	16.50	
	1	1	15.46	15.36	15.48	16.50	
	1	1	15.64	15.74	15.56	16.50	
CP-OFDM 256QAM	1	1	15.55	15.61	15.51	16.50	
	1	1	15.44	15.40	15.46	16.50	
	1	1	15.46	15.36	15.48	16.50	
	1	1	15.64	15.74	15.56	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	633332/3500	/	
100MHz	DFT-s-OFDM BPSK	1	1	/	15.48	/	16.50
		1	271	/	15.55	/	16.50
		135	67	/	15.88	/	16.50
		270	0	/	15.63	/	16.50
	DFT-s-OFDM QPSK	1	1	/	15.38	/	16.50
		1	271	/	15.43	/	16.50
		135	67	/	15.85	/	16.50
		135	67	/	15.85	/	16.50

		270	0	/	15.71	/	16.50
DFT-s-OFDM 16QAM		1	1	/	15.15	/	16.50
		1	271	/	15.34	/	16.50
		135	67	/	15.63	/	16.50
DFT-s-OFDM 64QAM		1	1	/	15.12	/	16.50
		1	271	/	15.15	/	16.50
		135	67	/	15.68	/	16.50
DFT-s-OFDM 256QAM		1	1	/	15.67	/	16.50
		1	271	/	15.65	/	16.50
		135	67	/	15.67	/	16.50
CP-OFDM QPSK		1	1	/	15.52	/	16.50
CP-OFDM 16QAM		1	1	/	15.56	/	16.50
CP-OFDM 64QAM		1	1	/	15.66	/	16.50
CP-OFDM 256QAM		1	1	/	15.43	/	16.50

NR n77 Subset 1 (NSA)								
Hotspot on--Main Ant7				Maximum Output Power (dBm)			Tune-up	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)				
				630666/3460	633332/3500	635998/3540		
20MHz	DFT-s-OFDM BPSK	1	1	17.34	17.36	16.96	18.00	
		1	49	17.29	17.67	17.11	18.00	
		25	12	17.96	18.00	17.86	18.00	
		50	0	17.31	17.53	17.35	18.00	
	DFT-s-OFDM QPSK	1	1	17.72	17.28	17.38	18.00	
		1	49	17.33	17.41	16.93	18.00	
		25	12	17.08	17.36	17.56	18.00	
		50	0	17.50	17.62	17.82	18.00	
	DFT-s-OFDM 16QAM	1	1	17.01	17.27	17.21	18.00	
		1	49	17.76	17.80	17.84	18.00	
		25	12	17.74	17.90	17.62	18.00	
	DFT-s-OFDM 64QAM	1	1	17.10	17.62	17.28	18.00	
		1	49	17.29	17.47	17.05	18.00	
		25	12	17.26	17.18	17.42	18.00	
	DFT-s-OFDM 256QAM	1	1	17.40	17.86	17.86	18.00	
		1	49	17.54	17.66	17.62	18.00	
		25	12	17.44	17.10	17.56	18.00	
	CP-OFDM QPSK		1	1	17.27	17.31	17.33	18.00
	CP-OFDM		1	1	17.65	17.65	17.57	18.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	
				16QAM			
	CP-OFDM 64QAM	1	1	17.61	17.41	17.41	18.00
	CP-OFDM 256QAM	1	1	15.73	16.13	15.91	17.00
30MHz	DFT-s-OFDM BPSK	1	1	17.42	17.46	17.14	18.00
		1	76	17.13	17.33	17.31	18.00
		36	18	17.86	17.64	17.50	18.00
		75	0	17.51	17.53	17.21	18.00
DFT-s-OFDM QPSK	1	1	17.56	17.54	17.38	18.00	
	1	76	17.33	17.21	16.85	18.00	
	36	18	17.16	17.24	17.38	18.00	
		75	0	17.38	17.44	17.64	18.00
DFT-s-OFDM 16QAM	1	1	17.21	17.21	17.25	18.00	
	1	76	17.68	17.86	17.42	18.00	
	36	18	17.64	17.64	17.56	18.00	
DFT-s-OFDM 64QAM	1	1	17.26	17.44	17.22	18.00	
	1	76	17.15	17.35	16.97	18.00	
	36	18	17.36	17.12	17.62	18.00	
DFT-s-OFDM 256QAM	1	1	17.66	17.88	17.86	18.00	
	1	76	17.74	17.76	17.58	18.00	
	36	18	17.44	17.26	17.42	18.00	
	CP-OFDM QPSK	1	1	17.57	17.17	17.21	18.00
	CP-OFDM 16QAM	1	1	17.49	17.67	17.61	18.00
	CP-OFDM 64QAM	1	1	17.67	17.71	17.57	18.00
	CP-OFDM 256QAM	1	1	15.71	15.87	15.71	17.00
40MHz	DFT-s-OFDM BPSK	1	1	17.06	17.48	17.14	18.00
		1	104	16.93	17.29	17.33	18.00
		50	25	17.72	17.88	17.48	18.00
		100	0	17.59	17.45	17.13	18.00
DFT-s-OFDM QPSK	1	1	17.56	17.40	17.32	18.00	
	1	104	17.35	17.23	16.87	18.00	
	50	25	17.06	17.24	17.20	18.00	
		100	0	17.48	17.58	17.70	18.00
	DFT-s-OFDM	1	1	17.19	17.27	16.99	18.00

	16QAM	1	104	17.62	17.66	17.78	18.00
		50	25	17.74	17.68	17.46	18.00
	DFT-s-OFDM 64QAM	1	1	17.10	17.62	17.22	18.00
		1	104	17.27	17.29	16.85	18.00
		50	25	17.16	17.08	17.30	18.00
	DFT-s-OFDM 256QAM	1	1	17.64	17.70	17.68	18.00
		1	104	17.62	17.68	17.60	18.00
		50	25	17.28	17.02	17.36	18.00
	CP-OFDM QPSK	1	1	17.29	17.07	17.33	18.00
	CP-OFDM 16QAM	1	1	17.41	17.45	17.49	18.00
CP-OFDM 64QAM	1	1	17.75	17.41	17.61	18.00	
CP-OFDM 256QAM	1	1	15.67	15.85	15.71	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
50MHz	DFT-s-OFDM BPSK	1	1	17.26	17.56	16.96	18.00
		1	131	17.09	17.29	17.21	18.00
		64	32	17.84	17.96	17.68	18.00
		128	0	17.65	17.75	17.39	18.00
	DFT-s-OFDM QPSK	1	1	17.58	17.42	17.52	18.00
		1	131	17.15	17.21	16.97	18.00
		64	32	17.08	17.18	17.44	18.00
		128	0	17.56	17.54	17.58	18.00
	DFT-s-OFDM 16QAM	1	1	17.27	17.33	16.99	18.00
		1	131	17.66	17.78	17.48	18.00
		64	32	17.86	17.80	17.66	18.00
	DFT-s-OFDM 64QAM	1	1	17.20	17.42	17.02	18.00
		1	131	17.17	17.39	17.15	18.00
		64	32	17.20	17.32	17.40	18.00
	DFT-s-OFDM 256QAM	1	1	17.52	17.68	17.82	18.00
		1	131	17.62	17.76	17.68	18.00
		64	32	17.32	17.20	17.48	18.00
	CP-OFDM QPSK	1	1	17.29	17.29	17.33	18.00
	CP-OFDM 16QAM	1	1	17.53	17.57	17.71	18.00
	CP-OFDM 64QAM	1	1	17.87	17.51	17.67	18.00
CP-OFDM 256QAM	1	1	15.79	15.91	15.67	17.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	17.18	17.48	17.20	18.00
		1	160	17.17	17.23	17.17	18.00
		81	40	17.84	17.68	17.56	18.00
		162	0	17.47	17.67	17.29	18.00
	DFT-s-OFDM QPSK	1	1	17.58	17.30	17.42	18.00
		1	160	17.07	17.07	17.01	18.00
		81	40	17.22	17.20	17.28	18.00
		162	0	17.48	17.58	17.44	18.00
	DFT-s-OFDM 16QAM	1	1	17.05	17.05	17.07	18.00
		1	160	17.54	17.70	17.60	18.00
		81	40	17.54	17.84	17.58	18.00
	DFT-s-OFDM 64QAM	1	1	17.46	17.56	17.04	18.00
		1	160	17.35	17.15	17.03	18.00
		81	40	17.22	17.26	17.46	18.00
	DFT-s-OFDM 256QAM	1	1	17.62	17.74	17.62	18.00
		1	160	17.72	17.78	17.56	18.00
		81	40	17.34	17.26	17.40	18.00
	CP-OFDM QPSK	1	1	17.37	17.11	17.41	18.00
	CP-OFDM 16QAM	1	1	17.69	17.51	17.65	18.00
	CP-OFDM 64QAM	1	1	17.61	17.69	17.35	18.00
CP-OFDM 256QAM	1	1	15.77	15.97	15.63	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	16.98	17.16	17.00	18.00
		1	187	16.95	17.15	17.23	18.00
		92	45	17.84	17.74	17.58	18.00
		180	0	17.43	17.39	17.29	18.00
	DFT-s-OFDM QPSK	1	1	17.42	17.38	17.20	18.00
		1	187	17.05	17.25	16.95	18.00
		92	45	17.02	16.98	17.24	18.00
	DFT-s-OFDM 16QAM	180	0	17.28	17.52	17.38	18.00
		1	1	17.11	17.17	16.77	18.00
		1	187	17.62	17.72	17.54	18.00
	DFT-s-OFDM 64QAM	92	46	17.64	17.68	17.52	18.00
		1	1	17.40	17.48	17.20	18.00
		1	187	17.11	17.13	17.07	18.00
	92	46	17.36	17.22	17.22	18.00	

	DFT-s-OFDM 256QAM	1	1	17.58	17.58	17.60	18.00	
		1	187	17.66	17.54	17.52	18.00	
		92	46	17.14	17.12	17.34	18.00	
	CP-OFDM QPSK	1	1	17.15	17.07	17.19	18.00	
	CP-OFDM 16QAM	1	1	17.47	17.35	17.67	18.00	
	CP-OFDM 64QAM	1	1	17.53	17.43	17.33	18.00	
	CP-OFDM 256QAM	1	1	15.85	15.95	15.69	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				632666/3490	633332/3500	633998/3510		
80MHz	DFT-s-OFDM BPSK	1	1	17.20	17.28	17.18	18.00	
		1	215	17.31	17.25	17.33	18.00	
		108	54	17.62	17.78	17.74	18.00	
		216	0	17.47	17.63	17.35	18.00	
	DFT-s-OFDM QPSK	1	1	17.64	17.40	17.34	18.00	
		1	215	17.01	17.15	17.09	18.00	
		108	54	17.18	17.34	17.40	18.00	
	DFT-s-OFDM 16QAM	216	0	17.58	17.58	17.42	18.00	
		1	1	16.91	17.27	16.89	18.00	
		1	215	17.72	17.84	17.84	18.00	
	DFT-s-OFDM 64QAM	108	54	17.74	17.58	17.56	18.00	
		1	1	17.44	17.36	17.00	18.00	
		1	215	17.17	17.25	17.21	18.00	
	DFT-s-OFDM 256QAM	108	54	17.44	17.24	17.50	18.00	
		1	1	17.72	17.86	17.60	18.00	
		1	215	17.66	17.90	17.54	18.00	
	CP-OFDM	QPSK	108	54	17.42	17.10	17.30	18.00
			1	1	17.45	17.27	17.27	18.00
			1	1	17.57	17.65	17.71	18.00
		16QAM	1	1	17.63	17.63	17.55	18.00
1			1	15.89	15.75	15.49	17.00	
256QAM	1	1	15.89	15.75	15.49	17.00		
	1	1	15.89	15.75	15.49	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				633000/3495	633332/3500	633666/3505		
90MHz	DFT-s-OFDM BPSK	1	1	17.14	17.32	17.14	18.00	
		1	243	17.13	17.25	17.23	18.00	
		120	60	17.74	17.74	17.60	18.00	

		243	0	17.43	17.53	17.33	18.00	
	DFT-s-OFDM QPSK	1	1	17.48	17.40	17.34	18.00	
		1	243	17.13	17.17	17.01	18.00	
		120	60	17.20	17.16	17.32	18.00	
		243	0	17.44	17.48	17.54	18.00	
	DFT-s-OFDM 16QAM	1	1	17.03	17.15	16.97	18.00	
		1	243	17.62	17.70	17.84	18.00	
		120	60	17.64	17.70	17.52	18.00	
	DFT-s-OFDM 64QAM	1	1	17.30	17.40	17.12	18.00	
		1	243	17.19	17.09	17.03	18.00	
		120	60	17.28	17.18	17.32	18.00	
	DFT-s-OFDM 256QAM	1	1	17.58	17.72	17.70	18.00	
		1	243	17.68	17.72	17.52	18.00	
		120	60	17.28	17.18	17.38	18.00	
CP-OFDM QPSK	1	1	17.27	17.17	17.33	18.00		
CP-OFDM 16QAM	1	1	17.61	17.49	17.63	18.00		
CP-OFDM 64QAM	1	1	17.55	17.63	17.37	18.00		
CP-OFDM 256QAM	1	1	15.75	15.85	15.61	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				/	633332/3500	/		
100MHz	DFT-s-OFDM BPSK	1	1	/	17.24	/	18.00	
		1	271	/	17.11	/	18.00	
		135	67	/	17.42	/	18.00	
		270	0	/	17.39	/	18.00	
	DFT-s-OFDM QPSK	1	1	/	17.22	/	18.00	
		1	271	/	17.09	/	18.00	
		135	67	/	17.42	/	18.00	
	DFT-s-OFDM 16QAM	270	0	/	17.36	/	18.00	
		1	1	/	16.99	/	18.00	
		1	271	/	17.88	/	18.00	
	DFT-s-OFDM 64QAM	135	67	/	17.40	/	18.00	
		1	1	/	17.00	/	18.00	
		1	271	/	16.93	/	18.00	
	DFT-s-OFDM 256QAM	135	67	/	17.42	/	18.00	
		1	1	/	17.60	/	18.00	
		1	271	/	17.52	/	18.00	
	CP-OFDM QPSK	135	67	/	17.42	/	18.00	
			1	1	/	17.29	/	18.00

	CP-OFDM 16QAM	1	1	/	17.53	/	18.00
	CP-OFDM 64QAM	1	1	/	17.37	/	18.00
	CP-OFDM 256QAM	1	1	/	15.61	/	17.00

NR n77 Subset 1 (NSA)								
Receiver off--Main Ant7				Maximum Output Power (dBm)			Tune-up	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)				
				630666/3460	633332/3500	635998/3540		
20MHz	DFT-s-OFDM BPSK	1	1	19.71	19.65	19.93	21.50	
		1	49	19.90	20.00	19.84	21.50	
		25	12	19.96	19.98	20.12	21.50	
		50	0	19.96	20.10	19.76	21.50	
	DFT-s-OFDM QPSK	1	1	20.74	20.76	20.86	21.50	
		1	49	20.20	20.64	20.42	21.50	
		25	12	20.89	20.27	19.99	21.50	
	DFT-s-OFDM 16QAM	50	0	19.83	19.99	19.91	21.50	
		1	1	19.53	19.67	19.85	21.50	
		1	49	19.76	19.60	19.68	21.50	
	DFT-s-OFDM 64QAM	25	12	20.39	20.21	20.19	21.50	
		1	1	19.79	19.81	19.87	21.00	
		1	49	19.62	19.38	19.18	21.00	
	DFT-s-OFDM 256QAM	25	12	19.18	19.10	19.60	21.00	
		1	1	18.06	17.86	17.74	19.00	
		1	49	17.64	17.60	17.56	19.00	
	CP-OFDM	QPSK	25	12	17.36	17.46	17.50	19.00
			1	1	20.61	20.43	19.97	21.50
		16QAM	1	1	20.44	20.52	20.70	21.50
			1	1	19.14	18.34	18.88	20.00
256QAM	1	1	15.90	16.18	16.20	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
30MHz	DFT-s-OFDM BPSK	631000/3465	633332/3500	635666/3535	631000/3465	633332/3500	635666/3535	
		1	1	19.71	19.70	19.95	21.50	
		1	76	20.08	19.88	19.60	21.50	
		36	18	20.28	19.84	20.28	21.50	
	75	0	19.76	20.16	19.78	21.50		
DFT-s-OFDM	1	1	20.80	20.66	20.88	21.50		

	QPSK	1	76	20.18	20.82	20.34	21.50
		36	18	20.73	20.37	20.25	21.50
		75	0	19.75	19.95	19.87	21.50
	DFT-s-OFDM 16QAM	1	1	19.77	19.59	19.75	21.50
		1	76	19.80	19.60	19.78	21.50
		36	18	20.35	20.41	20.51	21.50
	DFT-s-OFDM 64QAM	1	1	19.95	19.71	19.91	21.00
		1	76	19.38	19.36	19.18	21.00
		36	18	19.20	19.42	19.32	21.00
	DFT-s-OFDM 256QAM	1	1	18.08	18.08	17.58	19.00
		1	76	17.64	17.68	17.56	19.00
		36	18	17.40	17.66	17.58	19.00
	CP-OFDM QPSK	1	1	20.29	20.57	20.15	21.50
CP-OFDM 16QAM	1	1	20.42	20.64	20.70	21.50	
CP-OFDM 64QAM	1	1	18.98	18.66	18.74	20.00	
CP-OFDM 256QAM	1	1	15.82	16.12	16.08	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631332/3470	633332/3500	635332/3530	
40MHz	DFT-s-OFDM BPSK	1	1	19.75	19.57	19.99	21.50
		1	104	20.06	19.96	19.70	21.50
		50	25	20.14	19.96	20.18	21.50
		100	0	19.82	20.02	19.80	21.50
	DFT-s-OFDM QPSK	1	1	20.64	20.70	20.76	21.50
		1	104	20.30	20.64	20.26	21.50
		50	25	20.75	20.33	20.07	21.50
		100	0	19.85	19.89	19.95	21.50
	DFT-s-OFDM 16QAM	1	1	19.63	19.55	19.81	21.50
		1	104	19.72	19.60	19.70	21.50
		50	25	20.17	20.37	20.35	21.50
	DFT-s-OFDM 64QAM	1	1	19.87	19.81	19.75	21.00
		1	104	19.40	19.46	19.28	21.00
		50	25	19.26	19.28	19.38	21.00
	DFT-s-OFDM 256QAM	1	1	18.04	18.00	17.64	19.00
		1	104	17.74	17.66	17.42	19.00
		50	25	17.46	17.52	17.46	19.00
	CP-OFDM QPSK	1	1	20.39	20.41	19.99	21.50
	CP-OFDM 16QAM	1	1	20.44	20.62	20.62	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
	CP-OFDM 64QAM	1	1	19.10	18.52	18.72	20.00
	CP-OFDM 256QAM	1	1	15.70	16.14	16.04	17.00
50MHz	DFT-s-OFDM BPSK	1	1	19.83	19.83	19.83	21.50
		1	131	19.84	19.78	19.92	21.50
		64	32	19.90	20.10	19.98	21.50
		128	0	20.04	19.96	19.86	21.50
	DFT-s-OFDM QPSK	1	1	20.50	20.60	20.76	21.50
		1	131	20.50	20.30	20.06	21.50
		64	32	20.65	20.51	20.35	21.50
		128	0	20.11	20.09	20.07	21.50
	DFT-s-OFDM 16QAM	1	1	19.67	19.61	19.79	21.50
		1	131	19.80	19.78	19.82	21.50
		64	32	20.41	20.25	20.21	21.50
	DFT-s-OFDM 64QAM	1	1	19.99	20.09	19.97	21.00
		1	131	19.30	19.36	19.30	21.00
		64	32	19.30	19.46	19.40	21.00
	DFT-s-OFDM 256QAM	1	1	18.00	17.96	17.86	19.00
		1	131	17.94	17.72	17.58	19.00
		64	32	17.32	17.30	17.44	19.00
	CP-OFDM QPSK	1	1	20.07	20.15	20.05	21.50
	CP-OFDM 16QAM	1	1	20.44	20.50	20.48	21.50
	CP-OFDM 64QAM	1	1	18.90	18.84	18.66	20.00
CP-OFDM 256QAM	1	1	16.10	16.00	15.96	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	19.57	19.67	19.73	21.50
		1	160	19.86	19.82	19.94	21.50
		81	40	19.96	20.06	20.08	21.50
		162	0	19.86	19.94	19.76	21.50
	DFT-s-OFDM QPSK	1	1	20.50	20.38	20.54	21.50
		1	160	20.46	20.40	20.12	21.50
		81	40	20.47	20.47	20.35	21.50
		162	0	19.91	19.97	19.97	21.50
	DFT-s-OFDM 16QAM	1	1	19.69	19.60	19.73	21.50
		1	160	19.82	19.62	19.68	21.50

		81	40	20.37	20.33	20.09	21.50
	DFT-s-OFDM 64QAM	1	1	20.01	19.89	19.75	21.00
		1	160	19.24	19.38	19.04	21.00
		81	40	19.44	19.50	19.44	21.00
	DFT-s-OFDM 256QAM	1	1	17.82	18.10	17.72	19.00
		1	160	17.68	17.82	17.70	19.00
		81	40	17.26	17.26	17.36	19.00
	CP-OFDM QPSK	1	1	19.95	20.07	20.05	21.50
	CP-OFDM 16QAM	1	1	20.52	20.36	20.58	21.50
CP-OFDM 64QAM	1	1	18.74	18.82	18.66	20.00	
CP-OFDM 256QAM	1	1	16.00	15.94	15.92	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	19.65	19.85	19.67	21.50
		1	187	19.90	19.96	19.94	21.50
		92	45	20.22	19.96	20.00	21.50
		180	0	19.84	19.84	20.16	21.50
	DFT-s-OFDM QPSK	1	1	20.56	20.36	20.60	21.50
		1	187	20.40	20.54	20.24	21.50
		92	45	20.61	20.19	20.27	21.50
	DFT-s-OFDM 16QAM	180	0	19.95	19.89	19.99	21.50
		1	1	19.61	19.57	19.59	21.50
		1	187	19.76	19.54	19.90	21.50
	DFT-s-OFDM 64QAM	92	46	20.35	20.37	20.45	21.50
		1	1	20.01	20.17	19.79	21.00
		1	187	19.26	19.20	19.32	21.00
	DFT-s-OFDM 256QAM	92	46	19.46	19.48	19.34	21.00
		1	1	18.10	17.96	17.96	19.00
		1	187	17.70	17.78	17.56	19.00
	CP-OFDM QPSK	92	46	17.50	17.32	17.30	19.00
		1	1	20.01	20.11	20.29	21.50
		1	1	20.34	20.56	20.70	21.50
	CP-OFDM 16QAM	1	1	19.06	18.62	18.50	20.00
		1	1	15.94	16.20	15.86	17.00
	CP-OFDM 64QAM	1	1				
	CP-OFDM 256QAM	1	1				
	Bandwidth	Modulation	RB	offset	Channel/Frequency(MHz)		

		allocation	offset	632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	19.77	19.63	19.77	21.50
		1	215	19.92	19.94	19.86	21.50
		108	54	19.96	19.94	20.18	21.50
		216	0	20.16	20.06	19.84	21.50
	DFT-s-OFDM QPSK	1	1	20.44	20.48	20.74	21.50
		1	215	20.64	20.28	20.28	21.50
		108	54	20.59	20.39	20.23	21.50
	DFT-s-OFDM 16QAM	1	1	19.55	19.59	19.59	21.50
		1	215	19.76	19.70	19.80	21.50
		108	54	20.45	20.33	20.21	21.50
	DFT-s-OFDM 64QAM	1	1	20.01	19.91	20.05	21.00
		1	215	19.36	19.26	19.40	21.00
		108	54	19.52	19.44	19.30	21.00
	DFT-s-OFDM 256QAM	1	1	17.90	18.06	18.08	19.00
		1	215	17.76	17.92	17.80	19.00
		108	54	17.48	17.34	17.38	19.00
	CP-OFDM QPSK	1	1	20.01	20.05	20.09	21.50
	CP-OFDM 16QAM	1	1	20.48	20.50	20.64	21.50
	CP-OFDM 64QAM	1	1	18.84	18.82	18.60	20.00
	CP-OFDM 256QAM	1	1	15.86	16.06	15.92	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	19.71	19.75	19.83	21.50
		1	243	19.92	19.86	19.84	21.50
		120	60	20.00	20.04	20.02	21.50
		243	0	20.02	19.90	19.96	21.50
	DFT-s-OFDM QPSK	1	1	20.40	20.52	20.60	21.50
		1	243	20.48	20.32	20.14	21.50
		120	60	20.55	20.37	20.29	21.50
	DFT-s-OFDM 16QAM	243	0	20.01	20.03	19.97	21.50
		1	1	19.63	19.55	19.65	21.50
		1	243	19.82	19.68	19.74	21.50
	DFT-s-OFDM 64QAM	120	60	20.33	20.33	20.23	21.50
		1	1	20.09	20.01	19.95	21.00
		1	243	19.38	19.32	19.24	21.00
	DFT-s-OFDM	120	60	19.36	19.42	19.38	21.00
		1	1	17.94	18.06	17.90	19.00

	256QAM	1	243	17.78	17.82	17.68	19.00
		120	60	17.38	17.40	17.44	19.00
	CP-OFDM QPSK	1	1	20.09	20.17	20.11	21.50
	CP-OFDM 16QAM	1	1	20.44	20.56	20.52	21.50
	CP-OFDM 64QAM	1	1	18.90	18.72	18.68	20.00
	CP-OFDM 256QAM	1	1	15.94	16.00	16.00	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	633332/3500	/	
100MHz	DFT-s-OFDM BPSK	1	1	/	19.93	/	21.50
		1	271	/	19.94	/	21.50
		135	67	/	20.08	/	21.50
		270	0	/	19.96	/	21.50
	DFT-s-OFDM QPSK	1	1	/	20.46	/	21.50
		1	271	/	19.96	/	21.50
		135	67	/	20.15	/	21.50
		270	0	/	20.01	/	21.50
	DFT-s-OFDM 16QAM	1	1	/	19.67	/	21.50
		1	271	/	19.64	/	21.50
		135	67	/	20.09	/	21.50
	DFT-s-OFDM 64QAM	1	1	/	19.99	/	21.00
		1	271	/	19.14	/	21.00
		135	67	/	19.40	/	21.00
	DFT-s-OFDM 256QAM	1	1	/	18.02	/	19.00
		1	271	/	17.70	/	19.00
		135	67	/	17.40	/	19.00
	CP-OFDM QPSK	1	1	/	20.11	/	21.50
	CP-OFDM 16QAM	1	1	/	20.42	/	21.50
	CP-OFDM 64QAM	1	1	/	18.60	/	20.00
CP-OFDM 256QAM	1	1	/	15.82	/	17.00	

NR n77 Subset 2 (NSA)							
Normal power--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM	1	1	22.24	22.51	22.40	24.00

	BPSK	1	49	22.12	22.28	22.23	24.00
		25	12	22.66	22.22	22.28	24.00
		50	0	21.95	21.86	22.02	23.50
	DFT-s-OFDM QPSK	1	1	22.30	22.48	22.05	24.00
		1	49	22.65	22.16	22.60	24.00
		25	12	22.75	22.10	22.75	24.00
	DFT-s-OFDM 16QAM	50	0	21.38	21.33	21.32	23.00
		1	1	20.77	21.03	20.94	22.50
		1	49	21.06	20.88	21.04	22.50
	DFT-s-OFDM 64QAM	25	12	21.36	21.06	21.32	22.50
		1	1	19.41	19.37	19.24	21.00
		1	49	19.53	19.47	19.54	21.00
	DFT-s-OFDM 256QAM	25	12	19.91	19.64	19.98	21.00
		1	1	17.79	18.14	18.05	19.50
1		49	17.89	18.12	18.09	19.50	
CP-OFDM QPSK	25	12	17.86	17.66	17.83	19.50	
	1	1	20.49	20.99	20.66	22.00	
	1	1	20.29	20.42	20.46	22.00	
CP-OFDM 16QAM	1	1	18.68	18.76	18.84	20.00	
	1	1	15.18	15.63	15.40	17.00	
	1	1	20.49	20.99	20.66	22.00	
CP-OFDM 64QAM	1	1	18.68	18.76	18.84	20.00	
	1	1	15.18	15.63	15.40	17.00	
	1	1	20.49	20.99	20.66	22.00	
CP-OFDM 256QAM	1	1	18.68	18.76	18.84	20.00	
	1	1	15.18	15.63	15.40	17.00	
	1	1	20.49	20.99	20.66	22.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	22.40	22.71	22.26	24.00
		1	76	22.04	22.48	22.23	24.00
		36	18	22.76	22.28	22.22	24.00
		75	0	21.85	21.64	21.96	23.50
	DFT-s-OFDM QPSK	1	1	22.36	22.58	22.20	24.00
		1	76	22.47	22.36	22.60	24.00
		36	18	22.91	22.42	22.57	24.00
		75	0	21.30	21.23	21.28	23.00
	DFT-s-OFDM 16QAM	1	1	20.91	20.97	20.84	22.50
		1	76	20.88	20.94	20.88	22.50
		36	18	21.32	20.98	21.34	22.50
	DFT-s-OFDM 64QAM	1	1	19.07	19.45	19.22	21.00
		1	76	19.39	19.41	19.54	21.00
		36	18	19.85	19.74	19.88	21.00
	DFT-s-OFDM 256QAM	1	1	17.77	17.92	17.85	19.50
		1	76	17.95	17.82	18.03	19.50
		36	18	17.76	17.76	17.81	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648000/3720	656000/3840	664000/3960		
	CP-OFDM QPSK	1	1	20.57	20.65	20.54	22.00	
	CP-OFDM 16QAM	1	1	20.05	20.48	20.28	22.00	
	CP-OFDM 64QAM	1	1	18.46	18.82	18.60	20.00	
	CP-OFDM 256QAM	1	1	15.30	15.55	15.18	17.00	
40MHz	DFT-s-OFDM BPSK	1	1	22.32	22.67	22.32	24.00	
		1	104	22.06	22.58	22.27	24.00	
		50	25	22.66	22.16	22.20	24.00	
		100	0	22.09	21.86	22.04	23.50	
	DFT-s-OFDM QPSK	1	1	22.30	22.52	22.28	24.00	
		1	104	22.53	22.22	22.80	24.00	
		50	25	22.87	22.32	22.65	24.00	
	DFT-s-OFDM 16QAM	100	0	21.62	21.37	21.46	23.00	
		1	1	20.73	20.99	20.80	22.50	
		1	104	21.00	20.70	20.86	22.50	
	DFT-s-OFDM 64QAM	50	25	21.34	21.00	21.46	22.50	
		1	1	19.09	19.33	19.44	21.00	
		1	104	19.59	19.45	19.58	21.00	
	DFT-s-OFDM 256QAM	50	25	19.87	19.78	20.02	21.00	
		1	1	17.89	18.10	18.09	19.50	
		1	104	17.73	18.12	18.23	19.50	
	CP-OFDM	256QAM	50	25	18.04	17.56	17.79	19.50
		QPSK	1	1	20.75	20.93	20.66	22.00
		16QAM	1	1	20.15	20.48	20.30	22.00
		64QAM	1	1	18.46	18.78	18.70	20.00
CP-OFDM 256QAM	1	1	15.36	15.69	15.24	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648333/3725	656000/3840	663666/3955		
50MHz	DFT-s-OFDM BPSK	1	1	22.46	22.43	22.34	24.00	
		1	131	22.36	22.14	22.55	24.00	
		64	32	22.64	22.34	22.16	24.00	
		128	0	22.05	21.68	22.10	23.50	
	DFT-s-OFDM QPSK	1	1	22.36	22.16	22.04	24.00	
		1	131	22.29	22.16	22.52	24.00	
		64	32	22.77	22.40	22.55	24.00	

		128	0	21.24	21.31	21.14	23.00
	DFT-s-OFDM 16QAM	1	1	20.97	21.05	20.94	22.50
		1	131	21.02	20.88	20.98	22.50
		64	32	21.44	21.20	21.38	22.50
	DFT-s-OFDM 64QAM	1	1	19.13	19.33	19.32	21.00
		1	131	19.41	19.55	19.78	21.00
		64	32	19.95	19.62	19.80	21.00
	DFT-s-OFDM 256QAM	1	1	17.75	18.26	17.93	19.50
		1	131	18.09	17.96	18.15	19.50
		64	32	17.76	17.62	17.79	19.50
CP-OFDM QPSK	1	1	20.65	20.97	20.70	22.00	
CP-OFDM 16QAM	1	1	20.15	20.34	20.56	22.00	
CP-OFDM 64QAM	1	1	18.72	18.68	18.66	20.00	
CP-OFDM 256QAM	1	1	15.34	15.51	15.36	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	22.56	22.31	22.26	24.00
		1	160	22.28	22.12	22.45	24.00
		81	40	22.54	22.40	22.60	24.00
		162	0	21.87	21.94	21.94	23.50
	DFT-s-OFDM QPSK	1	1	22.46	22.44	22.08	24.00
		1	160	22.41	22.12	22.46	24.00
		81	40	22.77	22.18	22.33	24.00
		162	0	21.60	21.33	21.42	23.00
	DFT-s-OFDM 16QAM	1	1	20.85	21.03	20.94	22.50
		1	160	21.06	20.84	20.88	22.50
		81	40	21.42	21.12	21.40	22.50
	DFT-s-OFDM 64QAM	1	1	19.25	19.39	19.24	21.00
		1	160	19.53	19.45	19.60	21.00
		81	40	19.89	19.64	19.88	21.00
	DFT-s-OFDM 256QAM	1	1	17.83	18.10	18.05	19.50
		1	160	17.91	18.00	18.01	19.50
		81	40	17.88	17.74	17.79	19.50
	CP-OFDM QPSK	1	1	20.55	20.85	20.74	22.00
	CP-OFDM 16QAM	1	1	20.17	20.46	20.38	22.00
	CP-OFDM 64QAM	1	1	18.56	18.76	18.68	20.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
	CP-OFDM 256QAM	1	1	15.26	15.51	15.36	17.00
70MHz	DFT-s-OFDM BPSK	1	1	22.38	22.37	22.24	24.00
		1	187	22.42	22.30	22.49	24.00
		92	45	22.46	22.32	22.48	24.00
		180	0	21.79	21.76	21.92	23.50
	DFT-s-OFDM QPSK	1	1	22.48	22.32	22.22	24.00
		1	187	22.21	22.16	22.28	24.00
		92	45	22.61	22.24	22.23	24.00
	DFT-s-OFDM 16QAM	180	0	21.24	21.39	21.54	23.00
		1	1	20.69	20.73	20.84	22.50
		1	187	20.72	20.68	20.82	22.50
	DFT-s-OFDM 64QAM	92	46	21.16	21.04	21.18	22.50
		1	1	19.19	19.27	19.24	21.00
		1	187	19.37	19.23	19.56	21.00
	DFT-s-OFDM 256QAM	92	46	19.63	19.54	19.84	21.00
		1	1	17.73	18.06	17.85	19.50
		1	187	18.11	17.78	18.15	19.50
	CP-OFDM QPSK	92	46	17.88	17.62	17.85	19.50
		1	1	20.59	20.63	20.68	22.00
	CP-OFDM 16QAM	1	1	20.15	20.40	20.08	22.00
	CP-OFDM 64QAM	1	1	18.64	18.68	18.54	20.00
CP-OFDM 256QAM	1	1	15.38	15.41	15.34	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649334/3740	656000/3840	662666/3940	
80MHz	DFT-s-OFDM BPSK	1	1	22.54	22.41	22.18	24.00
		1	215	22.58	22.10	22.47	24.00
		108	54	22.72	22.26	22.44	24.00
		216	0	21.93	22.14	22.20	23.50
	DFT-s-OFDM QPSK	1	1	22.62	22.44	22.26	24.00
		1	215	22.37	22.28	22.38	24.00
		108	54	22.73	22.46	22.63	24.00
	DFT-s-OFDM 16QAM	216	0	21.20	21.13	21.34	23.00
		1	1	20.61	21.05	20.90	22.50
		1	215	20.84	20.90	21.06	22.50
	DFT-s-OFDM 64QAM	108	54	21.54	21.44	21.22	22.50
		1	1	19.25	19.31	19.44	21.00
		1	215	19.61	19.47	19.46	21.00

		108	54	19.99	19.68	19.92	21.00
	DFT-s-OFDM 256QAM	1	1	17.83	18.02	18.15	19.50
		1	215	18.07	18.08	18.13	19.50
		108	54	17.84	17.56	17.63	19.50
	CP-OFDM QPSK	1	1	20.61	20.53	20.78	22.00
	CP-OFDM 16QAM	1	1	20.19	20.52	20.36	22.00
	CP-OFDM 64QAM	1	1	18.42	18.86	18.54	20.00
CP-OFDM 256QAM	1	1	15.16	15.61	15.32	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649666/3745	656000/3840	662333/3935	
90MHz	DFT-s-OFDM BPSK	1	1	22.52	22.45	22.32	24.00
		1	243	22.52	22.32	22.37	24.00
		120	60	22.72	22.30	22.62	24.00
		243	0	22.01	21.90	22.14	23.50
	DFT-s-OFDM QPSK	1	1	22.46	22.34	22.01	24.00
		1	243	22.31	22.10	22.32	24.00
		120	60	22.67	22.30	22.39	24.00
	DFT-s-OFDM 16QAM	243	0	21.42	21.21	21.18	23.00
		1	1	20.79	21.09	20.82	22.50
		1	243	20.90	21.02	20.92	22.50
	DFT-s-OFDM 64QAM	120	60	21.26	21.36	21.18	22.50
		1	1	19.33	19.59	19.50	21.00
		1	243	19.61	19.43	19.66	21.00
	DFT-s-OFDM 256QAM	120	60	19.75	19.64	19.74	21.00
		1	1	17.93	18.10	17.87	19.50
		1	243	17.95	18.08	18.19	19.50
	CP-OFDM	120	60	17.76	17.88	17.83	19.50
		1	1	20.49	20.63	20.48	22.00
		1	1	20.27	20.38	20.34	22.00
		1	1	18.56	18.84	18.56	20.00
1		1	15.44	15.55	15.40	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	22.42	22.37	22.18	24.00
		1	271	22.36	22.20	22.43	24.00
		135	67	22.64	22.38	22.48	24.00

		270	0	21.97	21.94	21.98	23.50
DFT-s-OFDM QPSK		1	1	22.40	22.32	22.12	24.00
		1	271	22.31	22.10	22.40	24.00
		135	67	22.61	22.28	22.43	24.00
		270	0	21.44	21.39	21.44	23.00
DFT-s-OFDM 16QAM		1	1	20.71	20.91	20.80	22.50
		1	271	20.92	20.86	20.94	22.50
		135	67	21.34	21.22	21.30	22.50
DFT-s-OFDM 64QAM		1	1	19.23	19.43	19.32	21.00
		1	271	19.43	19.39	19.48	21.00
		135	67	19.81	19.72	19.78	21.00
DFT-s-OFDM 256QAM		1	1	17.83	18.04	17.93	19.50
		1	271	18.01	17.98	18.07	19.50
		135	67	17.82	17.72	17.77	19.50
CP-OFDM QPSK		1	1	20.49	20.69	20.58	22.00
CP-OFDM 16QAM		1	1	20.21	20.34	20.28	22.00
CP-OFDM 64QAM		1	1	18.56	18.74	18.64	20.00
CP-OFDM 256QAM		1	1	15.32	15.51	15.40	17.00

NR n77 Subset 2 (NSA)							
Receiver on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	15.30	15.24	15.28	16.50
		1	49	15.39	15.35	15.11	16.50
		25	12	16.08	15.88	15.50	16.50
		50	0	15.67	15.87	15.93	16.50
	DFT-s-OFDM QPSK	1	1	15.38	15.44	15.28	16.50
		1	49	15.59	15.56	15.47	16.50
		25	12	15.99	15.74	15.64	16.50
		50	0	15.67	15.56	15.39	16.50
	DFT-s-OFDM 16QAM	1	1	15.19	15.13	15.09	16.50
		1	49	15.10	15.10	15.24	16.50
		25	12	15.73	15.71	15.79	16.50
	DFT-s-OFDM 64QAM	1	1	15.40	15.04	15.10	16.50
		1	49	15.33	15.41	15.37	16.50
		25	12	15.66	15.86	15.82	16.50
	DFT-s-OFDM 256QAM	1	1	16.11	15.85	16.13	16.50
		1	49	15.87	16.13	15.97	16.50

		25	12	15.79	15.81	15.99	16.50
	CP-OFDM QPSK	1	1	15.54	15.62	15.50	16.50
	CP-OFDM 16QAM	1	1	15.58	16.14	15.76	16.50
	CP-OFDM 64QAM	1	1	15.58	15.90	15.80	16.50
	CP-OFDM 256QAM	1	1	15.37	15.29	15.21	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	15.34	15.38	15.20	16.50
		1	76	15.39	15.27	15.11	16.50
		36	18	15.88	15.84	15.68	16.50
		75	0	15.67	15.83	15.91	16.50
	DFT-s-OFDM QPSK	1	1	15.32	15.24	15.24	16.50
		1	76	15.49	15.44	15.47	16.50
		36	18	15.87	15.62	15.54	16.50
		75	0	15.47	15.48	15.49	16.50
	DFT-s-OFDM 16QAM	1	1	15.11	15.19	15.23	16.50
		1	76	15.02	15.08	15.26	16.50
		36	18	15.73	15.71	15.57	16.50
	DFT-s-OFDM 64QAM	1	1	15.40	15.06	15.04	16.50
		1	76	15.13	15.33	15.17	16.50
		36	18	15.66	15.90	15.98	16.50
	DFT-s-OFDM 256QAM	1	1	15.81	15.99	16.03	16.50
		1	76	15.77	16.09	16.09	16.50
		36	18	15.87	15.81	15.97	16.50
	CP-OFDM QPSK	1	1	15.30	15.64	15.44	16.50
	CP-OFDM 16QAM	1	1	15.52	15.88	15.78	16.50
	CP-OFDM 64QAM	1	1	15.32	15.78	15.88	16.50
CP-OFDM 256QAM	1	1	15.25	15.35	15.31	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648000/3720	656000/3840	664000/3960	
40MHz	DFT-s-OFDM BPSK	1	1	15.42	15.42	15.04	16.50
		1	104	15.63	15.11	14.99	16.50
		50	25	15.80	15.94	15.52	16.50
		100	0	15.61	15.79	16.15	16.50
	DFT-s-OFDM QPSK	1	1	15.64	15.16	15.30	16.50
		1	104	15.37	15.44	15.39	16.50

		50	25	16.05	15.50	15.78	16.50
		100	0	15.39	15.70	15.69	16.50
	DFT-s-OFDM 16QAM	1	1	15.15	15.17	15.31	16.50
		1	104	15.08	15.22	15.04	16.50
		50	25	15.79	15.69	15.87	16.50
	DFT-s-OFDM 64QAM	1	1	15.42	15.10	15.08	16.50
		1	104	15.37	15.61	15.57	16.50
		50	25	15.62	16.00	15.76	16.50
	DFT-s-OFDM 256QAM	1	1	16.05	16.11	16.13	16.50
		1	104	15.93	16.11	16.15	16.50
		50	25	16.07	15.83	16.13	16.50
	CP-OFDM QPSK	1	1	15.64	15.70	15.56	16.50
CP-OFDM 16QAM	1	1	15.62	15.96	15.68	16.50	
CP-OFDM 64QAM	1	1	15.52	16.06	15.68	16.50	
CP-OFDM 256QAM	1	1	15.21	15.49	15.43	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648333/3725	656000/3840	663666/3955	
50MHz	DFT-s-OFDM BPSK	1	1	15.24	15.38	15.28	16.50
		1	131	15.47	15.35	15.19	16.50
		64	32	15.92	15.78	15.70	16.50
		128	0	15.65	16.05	16.15	16.50
	DFT-s-OFDM QPSK	1	1	15.38	15.40	15.22	16.50
		1	131	15.43	15.46	15.47	16.50
		64	32	15.73	15.50	15.64	16.50
	DFT-s-OFDM 16QAM	128	0	15.51	15.70	15.59	16.50
		1	1	15.29	15.07	15.19	16.50
		1	131	15.22	15.18	15.24	16.50
	DFT-s-OFDM 64QAM	64	32	15.61	15.99	15.81	16.50
		1	1	15.34	15.08	15.10	16.50
		1	131	15.39	15.33	15.29	16.50
	DFT-s-OFDM 256QAM	64	32	15.86	15.92	16.02	16.50
		1	1	15.91	15.89	16.01	16.50
		1	131	15.81	15.93	16.07	16.50
	CP-OFDM QPSK	64	32	15.79	15.85	16.13	16.50
		1	1	15.44	15.52	15.58	16.50
		1	1	15.74	16.10	15.72	16.50
	CP-OFDM 16QAM	1	1	15.68	15.78	15.82	16.50
	CP-OFDM 64QAM	1	1	15.68	15.78	15.82	16.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
	CP-OFDM 256QAM	1	1	15.41	15.45	15.37	16.50
60MHz	DFT-s-OFDM BPSK	1	1	15.44	15.22	15.30	16.50
		1	160	15.45	15.43	15.25	16.50
		81	40	15.84	15.58	15.84	16.50
		162	0	15.63	15.95	15.89	16.50
	DFT-s-OFDM QPSK	1	1	15.32	15.46	15.38	16.50
		1	160	15.51	15.30	15.33	16.50
		81	40	15.67	15.58	15.58	16.50
	DFT-s-OFDM 16QAM	1	1	15.09	15.15	15.17	16.50
		1	160	15.06	15.12	15.24	16.50
		81	40	15.89	15.75	15.59	16.50
	DFT-s-OFDM 64QAM	1	1	15.18	15.10	15.00	16.50
		1	160	15.29	15.21	15.47	16.50
		81	40	15.80	15.82	15.94	16.50
	DFT-s-OFDM 256QAM	1	1	15.79	15.77	15.87	16.50
		1	160	15.89	16.01	16.01	16.50
		81	40	15.79	15.81	15.99	16.50
	CP-OFDM QPSK	1	1	15.42	15.52	15.50	16.50
	CP-OFDM 16QAM	1	1	15.62	15.78	15.90	16.50
	CP-OFDM 64QAM	1	1	15.66	15.62	15.96	16.50
	CP-OFDM 256QAM	1	1	15.43	15.25	15.23	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	15.38	15.08	15.10	16.50
		1	187	15.29	15.25	15.19	16.50
		92	45	15.88	15.64	15.74	16.50
		180	0	15.67	15.85	15.81	16.50
	DFT-s-OFDM QPSK	1	1	15.30	15.48	15.44	16.50
		1	187	15.45	15.32	15.15	16.50
		92	45	15.53	15.36	15.40	16.50
	DFT-s-OFDM 16QAM	180	0	15.59	15.58	15.47	16.50
		1	1	15.11	14.95	15.15	16.50
		1	187	15.12	14.94	14.96	16.50
	DFT-s-OFDM 64QAM	92	46	15.83	15.57	15.57	16.50
		1	1	15.04	15.02	15.14	16.50
		1	187	15.03	15.33	15.37	16.50

		92	46	15.68	15.92	15.68	16.50
	DFT-s-OFDM 256QAM	1	1	15.59	15.85	15.91	16.50
		1	187	15.69	15.73	15.97	16.50
		92	46	15.59	15.75	15.75	16.50
	CP-OFDM QPSK	1	1	15.42	15.50	15.54	16.50
	CP-OFDM 16QAM	1	1	15.66	15.82	15.82	16.50
	CP-OFDM 64QAM	1	1	15.46	15.48	15.88	16.50
CP-OFDM 256QAM	1	1	15.31	15.31	15.19	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649334/3740	656000/3840	662666/3940	
80MHz	DFT-s-OFDM BPSK	1	1	15.36	15.34	15.08	16.50
		1	215	15.45	15.51	15.23	16.50
		108	54	15.68	15.54	15.86	16.50
		216	0	15.63	15.61	15.91	16.50
	DFT-s-OFDM QPSK	1	1	15.18	15.60	15.18	16.50
		1	215	15.21	15.58	15.43	16.50
		108	54	15.91	15.70	15.52	16.50
	DFT-s-OFDM 16QAM	216	0	15.47	15.74	15.63	16.50
		1	1	14.97	15.13	15.25	16.50
		1	215	15.32	15.00	15.30	16.50
	DFT-s-OFDM 64QAM	108	54	15.69	15.65	15.77	16.50
		1	1	15.04	15.00	14.96	16.50
		1	215	15.29	15.05	15.51	16.50
	DFT-s-OFDM 256QAM	108	54	15.64	15.90	15.86	16.50
		1	1	15.61	15.81	15.91	16.50
		1	215	15.75	16.07	16.07	16.50
	CP-OFDM	108	54	15.87	15.93	16.03	16.50
		1	1	15.32	15.64	15.42	16.50
		1	1	15.70	15.68	15.72	16.50
		1	1	15.68	15.84	15.68	16.50
1		1	15.37	15.37	15.37	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649666/3745	656000/3840	662333/3935	
90MHz	DFT-s-OFDM BPSK	1	1	15.36	15.18	15.16	16.50
		1	243	15.35	15.21	15.11	16.50
		120	60	15.90	15.70	15.56	16.50

		243	0	15.75	15.85	15.87	16.50
	DFT-s-OFDM QPSK	1	1	15.30	15.44	15.50	16.50
		1	243	15.43	15.52	15.37	16.50
		120	60	15.63	15.54	15.48	16.50
		243	0	15.59	15.74	15.45	16.50
	DFT-s-OFDM 16QAM	1	1	15.21	14.97	15.15	16.50
		1	243	15.24	15.16	15.06	16.50
		120	60	15.75	15.91	15.65	16.50
	DFT-s-OFDM 64QAM	1	1	15.16	15.26	15.28	16.50
		1	243	15.29	15.11	15.31	16.50
		120	60	15.86	15.96	15.78	16.50
	DFT-s-OFDM 256QAM	1	1	15.71	15.87	15.81	16.50
		1	243	15.85	15.99	15.95	16.50
		120	60	15.77	15.87	16.03	16.50
CP-OFDM QPSK	1	1	15.58	15.50	15.64	16.50	
CP-OFDM 16QAM	1	1	15.82	15.94	15.84	16.50	
CP-OFDM 64QAM	1	1	15.58	15.78	15.86	16.50	
CP-OFDM 256QAM	1	1	15.15	15.15	15.19	16.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	15.40	15.28	15.18	16.50
		1	271	15.39	15.31	15.19	16.50
		135	67	15.78	15.68	15.68	16.50
		270	0	15.65	15.79	15.97	16.50
	DFT-s-OFDM QPSK	1	1	15.36	15.38	15.36	16.50
		1	271	15.35	15.40	15.35	16.50
		135	67	15.73	15.56	15.60	16.50
	DFT-s-OFDM 16QAM	270	0	15.63	15.60	15.55	16.50
		1	1	15.13	15.07	15.15	16.50
		1	271	15.16	15.12	15.16	16.50
	DFT-s-OFDM 64QAM	135	67	15.75	15.73	15.63	16.50
		1	1	15.18	15.14	15.10	16.50
		1	271	15.19	15.23	15.39	16.50
	DFT-s-OFDM 256QAM	135	67	15.74	15.88	15.80	16.50
		1	1	15.79	15.83	15.81	16.50
		1	271	15.75	15.93	15.93	16.50
	CP-OFDM QPSK	135	67	15.73	15.85	15.91	16.50
		1	1	15.44	15.56	15.50	16.50

	CP-OFDM 16QAM	1	1	15.68	15.86	15.84	16.50
	CP-OFDM 64QAM	1	1	15.54	15.68	15.82	16.50
	CP-OFDM 256QAM	1	1	15.27	15.27	15.31	16.50

NR n77 Subset 2 (NSA)							
Hotspot on--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	17.10	16.72	17.40	18.00
		1	49	17.19	16.93	17.21	18.00
		25	12	17.44	17.82	17.60	18.00
		50	0	17.53	17.39	17.33	18.00
	DFT-s-OFDM QPSK	1	1	17.50	17.03	16.97	18.00
		1	49	16.99	17.06	17.25	18.00
		25	12	17.42	17.11	17.33	18.00
		50	0	17.44	16.95	17.09	18.00
	DFT-s-OFDM 16QAM	1	1	17.23	16.99	16.97	18.00
		1	49	17.80	17.72	17.64	18.00
		25	12	17.50	17.34	17.50	18.00
	DFT-s-OFDM 64QAM	1	1	16.94	16.94	17.44	18.00
		1	49	17.09	17.11	17.19	18.00
		25	12	17.42	17.32	17.32	18.00
	DFT-s-OFDM 256QAM	1	1	17.48	17.26	17.30	18.00
		1	49	17.88	17.78	17.86	18.00
		25	12	17.54	17.74	17.62	18.00
	CP-OFDM QPSK	1	1	17.51	17.53	17.21	18.00
	CP-OFDM 16QAM	1	1	17.49	17.79	17.69	18.00
	CP-OFDM 64QAM	1	1	17.31	17.33	17.31	18.00
CP-OFDM 256QAM	1	1	15.71	15.53	16.05	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	17.22	16.86	17.32	18.00
		1	76	17.13	17.03	17.17	18.00
		36	18	17.46	17.72	17.58	18.00
		75	0	17.51	17.53	17.33	18.00
	DFT-s-OFDM QPSK	1	1	17.50	17.01	16.91	18.00
		1	76	17.17	17.18	17.41	18.00

		36	18	17.56	17.29	17.29	18.00
		75	0	17.48	17.11	17.25	18.00
	DFT-s-OFDM 16QAM	1	1	17.13	16.99	17.15	18.00
		1	76	17.44	17.76	17.60	18.00
		36	18	17.42	17.34	17.64	18.00
	DFT-s-OFDM 64QAM	1	1	17.00	17.04	17.36	18.00
		1	76	17.05	17.03	17.31	18.00
		36	18	17.58	17.28	17.22	18.00
	DFT-s-OFDM 256QAM	1	1	17.60	17.42	17.30	18.00
		1	76	17.78	17.80	17.84	18.00
		36	18	17.62	17.68	17.68	18.00
	CP-OFDM QPSK	1	1	17.51	17.65	17.41	18.00
	CP-OFDM 16QAM	1	1	17.53	17.89	17.79	18.00
CP-OFDM 64QAM	1	1	17.49	17.39	17.33	18.00	
CP-OFDM 256QAM	1	1	15.79	15.73	15.99	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648000/3720	656000/3840	664000/3960	
40MHz	DFT-s-OFDM BPSK	1	1	17.02	16.88	17.26	18.00
		1	104	16.99	16.81	17.17	18.00
		50	25	17.32	17.46	17.54	18.00
		100	0	17.53	17.59	17.31	18.00
	DFT-s-OFDM QPSK	1	1	17.44	16.97	16.93	18.00
		1	104	17.23	16.94	17.23	18.00
		50	25	17.52	17.13	16.99	18.00
	DFT-s-OFDM 16QAM	100	0	17.46	17.01	16.99	18.00
		1	1	17.15	16.91	17.05	18.00
		1	104	17.84	17.90	17.80	18.00
	DFT-s-OFDM 64QAM	50	25	17.26	17.38	17.42	18.00
		1	1	17.10	16.88	17.18	18.00
		1	104	16.93	16.99	17.25	18.00
	DFT-s-OFDM 256QAM	50	25	17.38	17.34	17.24	18.00
		1	1	17.52	17.38	17.24	18.00
		1	104	17.82	17.48	17.74	18.00
	CP-OFDM QPSK	50	25	17.44	17.42	17.60	18.00
		1	1	17.29	17.53	17.39	18.00
		1	1	17.35	17.55	17.53	18.00
	CP-OFDM 16QAM	1	1	17.27	17.45	17.19	18.00
	CP-OFDM 64QAM	1	1				

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648333/3725	656000/3840	663666/3955	
				CP-OFDM 256QAM	1	1	
50MHz	DFT-s-OFDM BPSK	1	1	17.28	16.96	17.26	18.00
		1	131	16.93	17.01	17.35	18.00
		64	32	17.64	17.70	17.72	18.00
		128	0	17.51	17.49	17.43	18.00
	DFT-s-OFDM QPSK	1	1	17.54	17.17	16.97	18.00
		1	131	17.17	17.08	17.21	18.00
		64	32	17.52	17.27	17.33	18.00
	DFT-s-OFDM 16QAM	128	0	17.34	17.05	17.31	18.00
		1	1	17.11	17.23	17.25	18.00
		1	131	17.50	17.80	17.52	18.00
	DFT-s-OFDM 64QAM	64	32	17.26	17.48	17.56	18.00
		1	1	17.04	16.98	17.38	18.00
		1	131	17.09	17.11	17.15	18.00
	DFT-s-OFDM 256QAM	64	32	17.52	17.36	17.30	18.00
		1	1	17.50	17.38	17.36	18.00
		1	131	17.86	17.64	17.58	18.00
	CP-OFDM	64	32	17.44	17.68	17.80	18.00
		1	1	17.37	17.61	17.45	18.00
		1	1	17.43	17.71	17.69	18.00
		1	1	17.39	17.33	17.29	18.00
1		1	15.75	15.87	15.83	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
				DFT-s-OFDM BPSK	1	1	
60MHz	DFT-s-OFDM BPSK	1	160	17.01	16.95	17.25	18.00
		81	40	17.46	17.60	17.60	18.00
		162	0	17.49	17.57	17.43	18.00
		1	1	17.44	17.11	16.87	18.00
	DFT-s-OFDM QPSK	1	160	17.23	17.06	17.27	18.00
		81	40	17.44	17.23	17.19	18.00
		162	0	17.36	17.13	17.17	18.00
	DFT-s-OFDM 16QAM	1	1	17.11	17.09	17.07	18.00
		1	160	17.48	17.66	17.58	18.00
		81	40	17.26	17.38	17.54	18.00
	DFT-s-OFDM 64QAM	1	1	17.04	17.06	17.26	18.00
		1	160	17.01	16.97	17.17	18.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649000/3735	656000/3840	663000/3745		
	DFT-s-OFDM 256QAM	81	40	17.46	17.32	17.28	18.00	
		1	1	17.62	17.48	17.32	18.00	
		1	160	17.74	17.66	17.68	18.00	
		81	40	17.54	17.54	17.72	18.00	
	CP-OFDM QPSK	1	1	17.43	17.53	17.47	18.00	
	CP-OFDM 16QAM	1	1	17.43	17.75	17.73	18.00	
	CP-OFDM 64QAM	1	1	17.39	17.41	17.29	18.00	
CP-OFDM 256QAM	1	1	15.73	15.81	15.85	17.00		
70MHz	DFT-s-OFDM BPSK	1	1	17.10	17.12	17.12	18.00	
		1	187	17.05	17.11	17.19	18.00	
		92	45	17.36	17.42	17.42	18.00	
		180	0	17.67	17.47	17.39	18.00	
	DFT-s-OFDM QPSK	1	1	17.40	16.99	16.93	18.00	
		1	187	17.15	16.92	17.21	18.00	
		92	45	17.44	16.93	17.35	18.00	
	DFT-s-OFDM 16QAM	180	0	17.50	16.97	16.97	18.00	
		1	1	16.97	17.01	17.17	18.00	
		1	187	17.86	17.82	17.98	18.00	
	DFT-s-OFDM 64QAM	92	46	17.28	17.42	17.30	18.00	
		1	1	17.00	17.08	17.22	18.00	
		1	187	16.95	17.03	17.21	18.00	
	DFT-s-OFDM 256QAM	92	46	17.18	17.10	17.06	18.00	
		1	1	17.48	17.42	17.28	18.00	
		1	187	17.76	17.40	17.62	18.00	
	CP-OFDM	92	46	17.56	17.54	17.60	18.00	
		QPSK	1	1	17.27	17.55	17.35	18.00
		16QAM	1	1	17.33	17.53	17.79	18.00
		64QAM	1	1	17.25	17.27	17.23	18.00
		256QAM	1	1	15.63	15.79	15.75	17.00
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					649334/3740	656000/3840	662666/3940	
	80MHz	DFT-s-OFDM BPSK	1	1	17.26	17.14	17.26	18.00
1			215	17.19	17.07	17.11	18.00	
108			54	17.70	17.74	17.44	18.00	

		216	0	17.69	17.67	17.43	18.00
	DFT-s-OFDM QPSK	1	1	17.38	17.23	16.85	18.00
		1	215	17.25	17.04	17.11	18.00
		108	54	17.34	17.09	17.33	18.00
		216	0	17.22	16.91	17.29	18.00
	DFT-s-OFDM 16QAM	1	1	17.19	17.17	17.27	18.00
		1	215	17.86	17.42	17.70	18.00
		108	54	17.44	17.38	17.60	18.00
	DFT-s-OFDM 64QAM	1	1	17.00	17.20	17.22	18.00
		1	215	17.11	17.03	17.09	18.00
		108	54	17.32	17.36	17.06	18.00
	DFT-s-OFDM 256QAM	1	1	17.40	17.38	17.50	18.00
		1	215	17.68	17.74	17.82	18.00
		108	54	17.72	17.38	17.40	18.00
CP-OFDM QPSK	1	1	17.41	17.65	17.49	18.00	
CP-OFDM 16QAM	1	1	17.41	17.69	17.91	18.00	
CP-OFDM 64QAM	1	1	17.57	17.43	17.15	18.00	
CP-OFDM 256QAM	1	1	15.65	15.91	15.97	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649666/3745	656000/3840	662333/3935	
90MHz	DFT-s-OFDM BPSK	1	1	16.92	17.06	17.06	18.00
		1	243	17.07	17.15	17.19	18.00
		120	60	17.58	17.58	17.50	18.00
		243	0	17.49	17.63	17.41	18.00
	DFT-s-OFDM QPSK	1	1	17.40	17.11	17.05	18.00
		1	243	17.29	16.98	17.23	18.00
		120	60	17.66	17.29	17.43	18.00
	DFT-s-OFDM 16QAM	243	0	17.36	17.27	17.17	18.00
		1	1	16.89	17.05	17.17	18.00
		1	243	17.88	17.60	17.76	18.00
	DFT-s-OFDM 64QAM	120	60	17.34	17.54	17.56	18.00
		1	1	17.00	17.16	17.12	18.00
		1	243	17.25	16.91	17.25	18.00
	DFT-s-OFDM 256QAM	120	60	17.48	17.34	17.32	18.00
		1	1	17.48	17.50	17.40	18.00
		1	243	17.70	17.68	17.80	18.00
	CP-OFDM QPSK	120	60	17.46	17.44	17.52	18.00
	1	1	17.33	17.35	17.61	18.00	

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
	CP-OFDM 16QAM	1	1	17.37	17.53	17.69	18.00
	CP-OFDM 64QAM	1	1	17.33	17.41	17.23	18.00
	CP-OFDM 256QAM	1	1	15.81	15.91	15.91	17.00
100MHz	DFT-s-OFDM BPSK	1	1	17.04	17.06	17.16	18.00
		1	271	17.07	17.03	17.15	18.00
		135	67	17.52	17.58	17.50	18.00
		270	0	17.57	17.65	17.51	18.00
	DFT-s-OFDM QPSK	1	1	17.34	17.13	16.91	18.00
		1	271	17.17	16.94	17.30	18.00
		135	67	17.30	17.13	17.35	18.00
	DFT-s-OFDM 16QAM	270	0	17.40	17.09	17.22	18.00
		1	1	17.01	17.09	17.11	18.00
		1	271	17.80	17.96	17.64	18.00
	DFT-s-OFDM 64QAM	135	67	17.28	17.44	17.46	18.00
		1	1	16.94	17.06	17.18	18.00
		1	271	17.09	16.97	17.13	18.00
	DFT-s-OFDM 256QAM	135	67	17.32	17.20	17.14	18.00
		1	1	17.50	17.50	17.42	18.00
		1	271	17.68	17.58	17.62	18.00
	CP-OFDM QPSK	135	67	17.50	17.56	17.58	18.00
		1	1	17.33	17.45	17.45	18.00
		1	1	17.47	17.61	17.71	18.00
	CP-OFDM 16QAM	1	1	17.43	17.37	17.27	18.00
1		1	15.73	15.87	15.89	17.00	
1		1	15.73	15.87	15.89	17.00	

NR n77 Subset 2 (NSA)							
Receiver off--Main Ant7				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	20.27	19.97	19.75	21.50
		1	49	20.02	19.78	19.56	21.50
		25	12	19.82	20.08	20.30	21.50
		50	0	19.84	19.74	19.94	21.50
	DFT-s-OFDM QPSK	1	1	20.07	19.82	19.97	21.50
		1	49	19.98	19.84	20.10	21.50

		25	12	20.23	19.81	19.89	21.50
		50	0	20.42	19.75	20.04	21.50
	DFT-s-OFDM 16QAM	1	1	19.69	20.01	19.61	21.50
		1	49	19.56	19.58	19.54	21.50
		25	12	19.75	20.19	20.07	21.50
	DFT-s-OFDM 64QAM	1	1	19.85	19.81	19.49	21.00
		1	49	19.10	19.20	19.18	21.00
		25	12	19.38	19.62	19.16	21.00
	DFT-s-OFDM 256QAM	1	1	17.58	17.72	17.92	19.00
		1	49	17.98	17.90	17.50	19.00
		25	12	17.66	17.14	17.28	19.00
	CP-OFDM QPSK	1	1	19.79	19.95	19.71	21.50
	CP-OFDM 16QAM	1	1	20.24	20.10	20.10	21.50
CP-OFDM 64QAM	1	1	18.36	18.54	18.46	20.00	
CP-OFDM 256QAM	1	1	15.62	15.38	15.52	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	20.27	19.85	19.71	21.50
		1	76	19.98	19.64	19.84	21.50
		36	18	19.72	20.34	20.16	21.50
		75	0	19.92	19.72	20.00	21.50
	DFT-s-OFDM QPSK	1	1	20.35	19.88	20.05	21.50
		1	76	19.90	19.92	20.20	21.50
		36	18	20.27	20.13	19.85	21.50
	DFT-s-OFDM 16QAM	75	0	20.38	19.93	20.14	21.50
		1	1	19.79	20.03	19.55	21.50
		1	76	19.58	19.86	19.58	21.50
	DFT-s-OFDM 64QAM	36	18	20.11	20.05	20.29	21.50
		1	1	19.81	19.63	19.37	21.00
		1	76	19.30	19.14	19.40	21.00
	DFT-s-OFDM 256QAM	36	18	19.58	19.42	19.24	21.00
		1	1	17.64	17.88	18.02	19.00
		1	76	17.80	17.66	17.76	19.00
	CP-OFDM QPSK	36	18	17.72	17.38	17.36	19.00
		1	1	20.07	20.15	19.77	21.50
		1	1	20.32	20.22	20.28	21.50
	CP-OFDM 16QAM	1	1	18.50	18.48	18.50	20.00
	CP-OFDM 64QAM	1	1				

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648000/3720	656000/3840	664000/3960	
	CP-OFDM 256QAM	1	1	15.78	15.46	15.60	17.00
40MHz	DFT-s-OFDM BPSK	1	1	20.17	19.91	19.63	21.50
		1	104	20.00	19.70	19.78	21.50
		50	25	19.86	20.08	20.18	21.50
		100	0	19.76	19.92	19.94	21.50
	DFT-s-OFDM QPSK	1	1	20.31	19.90	20.05	21.50
		1	104	20.16	19.96	20.36	21.50
		50	25	20.31	19.95	19.81	21.50
		100	0	20.42	19.91	20.02	21.50
	DFT-s-OFDM 16QAM	1	1	19.67	19.99	19.77	21.50
		1	104	19.68	19.82	19.84	21.50
		50	25	20.01	20.09	20.09	21.50
		100	0	19.67	19.99	19.77	21.50
	DFT-s-OFDM 64QAM	1	1	19.81	19.87	19.65	21.00
		1	104	19.06	19.20	19.26	21.00
		50	25	19.60	19.58	19.30	21.00
		100	0	19.81	19.87	19.65	21.00
	DFT-s-OFDM 256QAM	1	1	17.76	18.00	18.04	19.00
		1	104	18.10	17.88	17.60	19.00
		50	25	17.72	17.22	17.48	19.00
	CP-OFDM QPSK	1	1	19.89	20.25	19.95	21.50
CP-OFDM 16QAM	1	1	20.36	20.28	20.38	21.50	
CP-OFDM 64QAM	1	1	18.42	18.66	18.42	20.00	
CP-OFDM 256QAM	1	1	15.94	15.46	15.44	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648333/3725	656000/3840	663666/3955	
50MHz	DFT-s-OFDM BPSK	1	1	20.19	19.97	19.69	21.50
		1	131	20.06	19.78	19.68	21.50
		64	32	19.72	20.14	20.24	21.50
		128	0	19.86	19.82	19.92	21.50
	DFT-s-OFDM QPSK	1	1	20.25	19.90	20.01	21.50
		1	131	19.98	19.94	20.22	21.50
		64	32	20.25	19.99	19.81	21.50
		128	0	20.34	19.85	20.10	21.50
	DFT-s-OFDM 16QAM	1	1	19.59	19.91	19.71	21.50
		1	131	19.58	19.66	19.66	21.50
		64	32	19.89	20.21	20.13	21.50
	DFT-s-OFDM 64QAM	1	1	19.93	19.79	19.51	21.00
		1	131	19.12	19.26	19.24	21.00

		64	32	19.44	19.56	19.12	21.00	
	DFT-s-OFDM 256QAM	1	1	17.68	17.86	18.04	19.00	
		1	131	17.96	17.84	17.68	19.00	
		64	32	17.60	17.24	17.38	19.00	
	CP-OFDM QPSK	1	1	19.97	20.11	19.81	21.50	
	CP-OFDM 16QAM	1	1	20.32	20.16	20.30	21.50	
	CP-OFDM 64QAM	1	1	18.54	18.56	18.46	20.00	
CP-OFDM 256QAM	1	1	15.80	15.54	15.56	17.00		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				648666/3730	656000/3840	663334/3950		
60MHz	DFT-s-OFDM BPSK	1	1	20.07	20.01	20.01	21.50	
		1	160	19.94	19.84	19.88	21.50	
		81	40	20.04	20.14	19.98	21.50	
		162	0	20.02	20.06	20.00	21.50	
	DFT-s-OFDM QPSK	1	1	20.43	20.02	19.93	21.50	
		1	160	20.12	19.86	20.34	21.50	
		81	40	20.29	19.87	20.13	21.50	
	DFT-s-OFDM 16QAM	162	0	20.52	19.87	19.98	21.50	
		1	1	19.51	19.67	19.69	21.50	
		1	160	19.72	19.76	19.68	21.50	
	DFT-s-OFDM 64QAM	81	40	20.03	19.93	20.09	21.50	
		1	1	19.73	19.71	19.87	21.00	
		1	160	19.08	19.06	19.30	21.00	
	DFT-s-OFDM 256QAM	81	40	19.54	19.54	19.44	21.00	
		1	1	18.00	17.92	17.88	19.00	
		1	160	17.80	17.64	17.78	19.00	
	CP-OFDM	QPSK	81	40	17.64	17.60	17.60	19.00
		QPSK	1	1	20.07	20.07	20.07	21.50
		16QAM	1	1	20.28	20.22	20.34	21.50
		64QAM	1	1	18.56	18.58	18.62	20.00
256QAM		1	1	16.14	15.86	15.80	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649000/3735	656000/3840	663000/3745		
70MHz	DFT-s-OFDM BPSK	1	1	20.17	20.01	20.01	21.50	
		1	187	19.94	19.80	19.68	21.50	
		92	45	19.88	19.82	20.02	21.50	

		180	0	19.78	19.82	19.80	21.50
	DFT-s-OFDM QPSK	1	1	20.25	20.00	19.75	21.50
		1	187	20.02	19.86	20.30	21.50
		92	45	20.13	19.97	20.27	21.50
		180	0	20.18	19.89	19.92	21.50
	DFT-s-OFDM 16QAM	1	1	19.57	19.69	19.59	21.50
		1	187	19.68	19.56	19.74	21.50
		92	46	19.83	20.05	19.85	21.50
	DFT-s-OFDM 64QAM	1	1	19.69	19.63	19.77	21.00
		1	187	19.16	19.12	19.06	21.00
		92	46	19.32	19.46	19.52	21.00
	DFT-s-OFDM 256QAM	1	1	17.76	17.98	17.68	19.00
		1	187	17.74	17.56	17.72	19.00
		92	46	17.68	17.42	17.52	19.00
CP-OFDM QPSK	1	1	19.99	20.05	19.87	21.50	
CP-OFDM 16QAM	1	1	20.46	20.34	20.34	21.50	
CP-OFDM 64QAM	1	1	18.56	18.50	18.82	20.00	
CP-OFDM 256QAM	1	1	16.04	15.82	15.64	17.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649334/3740	656000/3840	662666/3940	
80MHz	DFT-s-OFDM BPSK	1	1	20.19	19.93	19.77	21.50
		1	215	19.78	19.76	19.84	21.50
		108	54	19.70	19.98	20.00	21.50
		216	0	19.96	20.08	20.08	21.50
	DFT-s-OFDM QPSK	1	1	20.29	19.88	19.95	21.50
		1	215	20.14	20.00	20.28	21.50
		108	54	20.25	20.01	20.13	21.50
		216	0	20.24	19.81	19.98	21.50
	DFT-s-OFDM 16QAM	1	1	19.60	19.75	19.89	21.50
		1	215	19.92	19.74	19.78	21.50
		108	54	20.21	19.97	20.17	21.50
	DFT-s-OFDM 64QAM	1	1	19.71	19.79	19.71	21.00
		1	215	19.22	19.32	19.10	21.00
		108	54	19.56	19.50	19.40	21.00
	DFT-s-OFDM 256QAM	1	1	18.14	17.74	18.02	19.00
		1	215	18.00	17.80	17.64	19.00
		108	54	17.48	17.62	17.48	19.00
	CP-OFDM QPSK	1	1	20.09	19.97	20.09	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				649666/3745	656000/3840	662333/3935		
	CP-OFDM 16QAM	1	1	20.58	20.36	20.40	21.50	
	CP-OFDM 64QAM	1	1	18.74	18.66	18.56	20.00	
	CP-OFDM 256QAM	1	1	15.90	15.98	15.84	17.00	
90MHz	DFT-s-OFDM BPSK	1	1	20.05	19.99	19.87	21.50	
		1	243	20.12	19.94	19.86	21.50	
		120	60	20.06	19.92	19.88	21.50	
		243	0	19.76	19.86	19.98	21.50	
	DFT-s-OFDM QPSK	1	1	20.27	20.00	19.77	21.50	
		1	243	20.14	19.72	20.44	21.50	
		120	60	20.03	19.95	20.09	21.50	
	DFT-s-OFDM 16QAM	243	0	20.34	20.05	20.16	21.50	
		1	1	19.65	19.65	19.77	21.50	
		1	243	19.58	19.70	19.60	21.50	
	DFT-s-OFDM 64QAM	120	60	19.97	19.97	19.99	21.50	
		1	1	19.59	19.85	19.73	21.00	
		1	243	19.30	19.30	19.20	21.00	
	DFT-s-OFDM 256QAM	120	60	19.58	19.52	19.56	21.00	
		1	1	17.88	18.04	17.96	19.00	
		1	243	17.68	17.88	17.90	19.00	
	CP-OFDM	QPSK	120	60	17.50	17.64	17.70	19.00
			1	1	19.97	20.23	20.01	21.50
			1	1	20.54	20.44	20.32	21.50
		16QAM	1	1	18.66	18.54	18.62	20.00
1			1	16.16	15.86	15.88	17.00	
256QAM	1	1	19.97	20.23	20.01	21.50		
	1	1	20.54	20.44	20.32	21.50		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				650000/3750	656000/3840	662000/3930		
100MHz	DFT-s-OFDM BPSK	1	1	20.09	20.03	19.93	21.50	
		1	271	19.94	19.86	19.82	21.50	
		135	67	19.88	20.00	19.96	21.50	
		270	0	19.86	19.96	19.90	21.50	
	DFT-s-OFDM QPSK	1	1	20.35	19.94	19.85	21.50	
		1	271	20.00	19.84	20.35	21.50	
		135	67	20.13	19.97	20.42	21.50	
		270	0	20.36	19.91	20.08	21.50	
	DFT-s-OFDM	1	1	19.55	19.77	19.67	21.50	

	16QAM	1	271	19.70	19.62	19.70	21.50
		135	67	20.03	19.99	20.05	21.50
	DFT-s-OFDM 64QAM	1	1	19.71	19.81	19.73	21.00
		1	271	19.16	19.16	19.16	21.00
		135	67	19.52	19.46	19.46	21.00
	DFT-s-OFDM 256QAM	1	1	17.96	17.90	17.88	19.00
		1	271	17.80	17.70	17.82	19.00
		135	67	17.62	17.50	17.56	19.00
	CP-OFDM QPSK	1	1	19.93	20.07	19.95	21.50
	CP-OFDM 16QAM	1	1	20.38	20.28	20.40	21.50
	CP-OFDM 64QAM	1	1	18.60	18.64	18.72	20.00
	CP-OFDM 256QAM	1	1	15.98	15.86	15.82	17.00

9.5.2 LTE (EN-DC)

LTE B7							
Normal power--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	23.60	23.51	23.45	25.00
		1	13	24.06	23.62	23.68	25.00
		1	24	23.91	23.41	23.64	25.00
		12	0	22.94	22.61	22.41	24.00
		12	6	22.80	22.49	22.36	24.00
		12	13	22.75	22.40	22.53	24.00
		25	0	22.83	22.39	22.56	24.00
	16QAM	1	0	22.87	22.87	22.91	24.00
		1	13	22.95	22.97	23.03	24.00
		1	24	22.50	22.36	22.48	24.00
		12	0	21.79	21.43	21.75	23.00
		12	6	21.31	21.37	21.47	23.00
		12	13	21.78	21.52	21.60	23.00
		25	0	21.67	21.65	21.69	23.00
	64QAM	1	0	21.62	21.64	21.70	23.00
		1	13	22.01	21.85	21.83	23.00
		1	24	21.63	21.77	21.73	23.00
		12	0	20.68	20.66	20.64	22.00
		12	6	20.83	20.69	20.65	22.00
		12	13	20.42	20.40	20.46	22.00
		25	0	20.64	20.46	20.40	22.00
	256QAM	1	0	18.87	18.89	18.89	20.00
		1	13	18.95	18.83	19.07	20.00
		1	24	18.81	18.89	18.85	20.00
		12	0	18.71	18.57	18.63	20.00
		12	6	18.65	18.65	18.59	20.00
		12	13	18.81	18.63	18.71	20.00
		25	0	18.70	18.44	18.38	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	23.58	23.53	23.51	25.00
		1	25	24.04	23.36	23.86	25.00
		1	49	23.67	23.51	23.68	25.00
		25	0	22.74	22.61	22.27	24.00
		25	13	22.96	22.53	22.38	24.00
		25	25	22.93	22.56	22.35	24.00
		50	0	22.89	22.53	22.64	24.00
	16QAM	1	0	22.81	22.69	23.05	24.00

		1	25	22.79	22.69	22.77	24.00
		1	49	22.48	22.26	22.34	24.00
		25	0	21.99	21.35	21.81	23.00
		25	13	21.43	21.37	21.53	23.00
		25	25	21.90	21.28	21.78	23.00
		50	0	21.67	21.31	21.43	23.00
		1	0	21.60	21.54	21.60	23.00
	64QAM	1	25	22.07	21.95	21.93	23.00
		1	49	21.75	21.61	21.67	23.00
		25	0	20.58	20.64	20.58	22.00
		25	13	21.03	20.49	20.65	22.00
		25	25	20.42	20.38	20.46	22.00
		50	0	20.84	20.66	20.30	22.00
		256QAM	1	0	19.25	19.13	18.87
	1		25	19.31	19.13	18.83	20.00
	1		49	19.45	19.23	18.73	20.00
	25		0	18.81	18.91	18.91	20.00
	25		13	18.79	19.03	18.83	20.00
	25		25	18.89	19.13	19.01	20.00
	50		0	18.80	18.38	18.76	20.00
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)		
20825/2507.5					21100/2535	21375/2562.5	
15MHz	QPSK	1	0	23.66	23.53	23.49	25.00
		1	38	24.04	23.50	23.66	25.00
		1	74	23.93	23.33	23.74	25.00
		36	0	22.80	22.45	22.51	24.00
		36	18	23.04	22.67	22.54	24.00
		36	39	22.85	22.38	22.55	24.00
		75	0	22.91	22.45	22.60	24.00
	16QAM	1	0	23.15	22.75	22.75	24.00
		1	38	22.77	22.77	22.91	24.00
		1	74	22.52	22.30	22.38	24.00
		36	0	21.95	21.61	21.69	23.00
		36	18	21.53	21.61	21.29	23.00
		36	39	21.66	21.52	21.74	23.00
		75	0	21.51	21.63	21.57	23.00
	64QAM	1	0	21.66	21.62	21.84	23.00
		1	38	21.81	21.67	21.93	23.00
		1	74	21.61	21.57	21.55	23.00
		36	0	20.82	20.70	20.76	22.00
		36	18	21.01	20.73	20.79	22.00
		36	39	20.70	20.54	20.44	22.00
		75	0	20.78	20.62	20.56	22.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	256QAM	1	0	18.97	18.93	18.87	20.00
		1	38	18.95	18.85	18.85	20.00
		1	74	19.07	18.87	19.03	20.00
		36	0	18.75	18.71	18.89	20.00
		36	18	18.89	18.57	18.99	20.00
		36	39	18.91	18.85	18.95	20.00
		75	0	18.76	18.52	18.46	20.00
20MHz	QPSK	1	0	23.54	23.39	23.47	25.00
		1	50	24.00	23.48	23.70	25.00
		1	99	23.79	23.43	23.62	25.00
		50	0	22.84	22.45	22.37	24.00
		50	25	22.86	22.51	22.46	24.00
		50	50	22.85	22.46	22.47	24.00
		100	0	22.83	22.45	22.42	24.00
	16QAM	1	0	22.97	22.71	22.87	24.00
		1	50	22.83	22.85	22.89	24.00
		1	99	22.48	22.42	22.48	24.00
		50	0	21.77	21.43	21.59	23.00
		50	25	21.41	21.47	21.39	23.00
		50	50	21.72	21.46	21.58	23.00
		100	0	21.63	21.49	21.59	23.00
	64QAM	1	0	21.72	21.68	21.72	23.00
		1	50	21.89	21.73	21.83	23.00
		1	99	21.55	21.65	21.67	23.00
		50	0	20.72	20.52	20.60	22.00
		50	25	20.89	20.55	20.71	22.00
		50	50	20.52	20.50	20.40	22.00
		100	0	20.66	20.54	20.48	22.00
	256QAM	1	0	19.05	18.97	18.95	20.00
		1	50	19.01	18.93	19.07	20.00
		1	99	18.89	19.03	18.89	20.00
		50	0	18.71	18.77	18.73	20.00
		50	25	18.71	18.93	18.75	20.00
		50	50	18.65	18.69	18.85	20.00
		100	0	18.62	18.48	18.56	20.00

LTE B7							
Receiver on--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	16.71	16.64	16.46	18.00

		1	13	16.50	16.45	16.64	18.00
		1	24	16.55	16.42	16.57	18.00
		12	0	16.57	16.70	16.64	18.00
		12	6	16.49	16.70	16.39	18.00
		12	13	16.55	16.49	16.53	18.00
		25	0	16.58	16.60	16.55	18.00
		1	0	16.61	16.71	16.77	18.00
	16QAM	1	13	16.61	16.71	17.03	18.00
		1	24	16.61	16.95	16.81	18.00
		12	0	16.67	16.79	16.61	18.00
		12	6	16.62	16.58	16.80	18.00
		12	13	16.64	16.72	16.72	18.00
		25	0	16.72	16.78	16.68	18.00
		1	0	16.82	16.58	16.76	18.00
	64QAM	1	13	16.74	16.88	16.98	18.00
		1	24	16.70	16.78	16.52	18.00
		12	0	16.49	16.55	16.49	18.00
		12	6	16.67	16.71	16.71	18.00
		12	13	16.58	16.64	16.34	18.00
		25	0	16.71	16.61	16.51	18.00
		1	0	16.64	16.42	16.56	18.00
	256QAM	1	13	16.78	16.72	16.60	18.00
		1	24	16.53	16.59	16.87	18.00
		12	0	16.57	16.77	16.63	18.00
		12	6	16.46	16.74	16.78	18.00
		12	13	16.48	16.68	16.76	18.00
		25	0	16.68	16.74	16.70	18.00
		Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)	
10MHz	QPSK			20800/2505	21100/2535	21400/2565	
		1	0	16.53	16.78	16.56	18.00
		1	25	16.42	16.59	16.44	18.00
		1	49	16.79	16.52	16.55	18.00
		25	0	16.73	16.68	16.44	18.00
		25	13	16.77	16.70	16.47	18.00
		25	25	16.53	16.51	16.61	18.00
	16QAM	50	0	16.74	16.38	16.65	18.00
		1	0	16.85	17.01	16.63	18.00
		1	25	16.55	16.91	16.99	18.00
		1	49	16.91	17.01	16.79	18.00
		25	0	16.67	16.51	16.39	18.00
		25	13	16.52	16.34	16.60	18.00
		25	25	16.76	16.60	16.68	18.00
		50	0	16.80	16.82	16.92	18.00

	64QAM	1	0	16.64	16.66	16.94	18.00
		1	25	16.72	16.74	16.94	18.00
		1	49	16.56	16.72	16.50	18.00
		25	0	16.43	16.49	16.51	18.00
		25	13	16.75	16.75	16.49	18.00
		25	25	16.62	16.70	16.50	18.00
		50	0	16.45	16.31	16.61	18.00
	256QAM	1	0	16.66	16.58	16.58	18.00
		1	25	16.84	16.84	16.54	18.00
		1	49	16.51	16.49	16.59	18.00
		25	0	16.81	16.55	16.41	18.00
		25	13	16.44	16.88	16.60	18.00
		25	25	16.68	16.44	16.48	18.00
		50	0	16.42	16.76	16.48	18.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
15MHz	QPSK	1	0	20825/2507.5	21100/2535	21375/2562.5	18.00
		1	38	16.45	16.52	16.44	18.00
		1	74	16.54	16.55	16.58	18.00
		36	0	16.69	16.66	16.39	18.00
		36	18	16.61	16.46	16.54	18.00
		36	39	16.63	16.70	16.57	18.00
		75	0	16.47	16.53	16.45	18.00
	16QAM	1	0	16.60	16.60	16.55	18.00
		1	38	16.85	16.87	16.69	18.00
		1	74	16.73	16.85	17.15	18.00
		36	0	16.75	16.69	17.05	18.00
		36	18	16.45	16.59	16.59	18.00
		36	39	16.44	16.42	16.52	18.00
		75	0	16.54	16.74	16.84	18.00
	64QAM	1	0	16.62	16.70	16.64	18.00
		1	38	16.68	16.74	16.74	18.00
		1	74	16.56	17.02	17.02	18.00
		36	0	16.82	16.78	16.48	18.00
		36	18	16.55	16.49	16.43	18.00
		36	39	16.41	16.47	16.73	18.00
		75	0	16.54	16.54	16.28	18.00
	256QAM	1	0	16.49	16.61	16.61	18.00
		1	38	16.38	16.58	16.52	18.00
		1	74	16.70	16.66	16.70	18.00
		36	0	16.65	16.61	16.89	18.00
		36	18	16.73	16.55	16.67	18.00
		36	39	16.64	16.88	16.82	18.00
					16.46	16.54	16.52

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
				75	0	16.54	
20MHz	QPSK	1	0	16.57	16.60	16.52	18.00
		1	50	16.48	16.49	16.56	18.00
		1	99	16.61	16.48	16.41	18.00
		50	0	16.51	16.54	16.52	18.00
		50	25	16.55	16.56	16.45	18.00
		50	50	16.58	16.57	16.43	18.00
		100	0	16.56	16.56	16.47	18.00
	16QAM	1	0	16.69	16.79	16.69	18.00
		1	50	16.61	16.79	16.97	18.00
		1	99	16.69	16.79	16.87	18.00
		50	0	16.57	16.65	16.55	18.00
		50	25	16.54	16.50	16.64	18.00
		50	50	16.54	16.68	16.78	18.00
		100	0	16.58	16.74	16.72	18.00
	64QAM	1	0	16.66	16.66	16.78	18.00
		1	50	16.68	16.86	16.98	18.00
		1	99	16.70	16.62	16.50	18.00
		50	0	16.57	16.49	16.49	18.00
		50	25	16.53	16.59	16.63	18.00
		50	50	16.52	16.50	16.40	18.00
		100	0	16.55	16.45	16.49	18.00
	256QAM	1	0	16.48	16.50	16.40	18.00
		1	50	16.70	16.70	16.70	18.00
		1	99	16.49	16.61	16.73	18.00
		50	0	16.59	16.61	16.57	18.00
		50	25	16.56	16.72	16.70	18.00
		50	50	16.54	16.54	16.62	18.00
		100	0	16.58	16.66	16.54	18.00

LTE B7							
Receiver off--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	20.67	20.56	20.26	22.00
		1	13	20.83	20.63	20.52	22.00
		1	24	20.95	20.58	20.49	22.00
		12	0	20.99	20.48	20.55	22.00
		12	6	20.80	20.67	20.42	22.00
		12	13	20.85	20.73	20.40	22.00
		25	0	21.02	20.51	20.40	22.00

	16QAM	1	0	20.54	20.60	20.42	22.00
		1	13	20.60	20.54	20.46	22.00
		1	24	20.39	20.35	20.39	22.00
		12	0	20.50	20.38	20.44	22.00
		12	6	20.49	20.61	20.53	22.00
		12	13	20.90	20.72	20.62	22.00
		25	0	20.58	20.34	20.46	22.00
	64QAM	1	0	20.46	20.68	20.42	22.00
		1	13	20.72	20.96	20.68	22.00
		1	24	20.93	20.81	20.79	22.00
		12	0	20.35	20.49	20.41	22.00
		12	6	20.67	20.85	20.53	22.00
		12	13	20.56	20.58	20.66	22.00
		25	0	20.30	20.54	20.38	22.00
	256QAM	1	0	19.06	19.14	19.20	20.00
		1	13	19.18	19.08	19.36	20.00
		1	24	18.96	19.02	19.26	20.00
		12	0	18.57	18.39	18.57	20.00
		12	6	18.73	18.35	18.69	20.00
		12	13	18.47	18.31	18.61	20.00
		25	0	18.67	18.51	18.83	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	20.93	20.84	20.16	22.00
		1	25	20.89	20.65	20.38	22.00
		1	49	20.95	20.64	20.45	22.00
		25	0	20.75	20.56	20.23	22.00
		25	13	20.78	20.45	20.48	22.00
		25	25	20.97	20.61	20.50	22.00
		50	0	20.70	20.51	20.38	22.00
	16QAM	1	0	20.68	20.60	20.34	22.00
		1	25	20.50	20.52	20.36	22.00
		1	49	20.55	20.21	20.33	22.00
		25	0	20.58	20.16	20.36	22.00
		25	13	20.45	20.55	20.29	22.00
		25	25	20.86	20.72	20.66	22.00
		50	0	20.54	20.62	20.48	22.00
	64QAM	1	0	20.58	20.40	20.58	22.00
		1	25	20.70	20.88	20.86	22.00
		1	49	20.69	20.67	20.85	22.00
		25	0	20.37	20.65	20.65	22.00
		25	13	20.79	20.61	20.71	22.00
		25	25	20.62	20.38	20.66	22.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
	256QAM	50	0	20.26	20.20	20.38	22.00
		1	0	19.14	19.08	19.10	20.00
		1	25	19.22	18.90	18.96	20.00
		1	49	19.22	18.90	19.08	20.00
		25	0	18.53	18.79	18.45	20.00
		25	13	18.45	18.71	18.49	20.00
		25	25	18.61	18.81	18.55	20.00
		50	0	18.73	18.51	18.73	20.00
15MHz	QPSK	1	0	20.85	20.80	20.20	22.00
		1	38	20.99	20.59	20.62	22.00
		1	74	20.89	20.36	20.51	22.00
		36	0	20.89	20.54	20.53	22.00
		36	18	21.02	20.79	20.46	22.00
		36	39	21.03	20.57	20.50	22.00
		75	0	21.04	20.71	20.32	22.00
	16QAM	1	0	20.48	20.72	20.46	22.00
		1	38	20.48	20.44	20.52	22.00
		1	74	20.49	20.41	20.37	22.00
		36	0	20.34	20.28	20.46	22.00
		36	18	20.57	20.65	20.53	22.00
		36	39	20.68	20.62	20.52	22.00
		75	0	20.62	20.42	20.60	22.00
	64QAM	1	0	20.38	20.64	20.58	22.00
		1	38	20.84	20.92	20.56	22.00
		1	74	20.85	20.93	20.69	22.00
		36	0	20.55	20.35	20.47	22.00
		36	18	20.67	20.61	20.61	22.00
		36	39	20.42	20.38	20.52	22.00
		75	0	20.38	20.28	20.66	22.00
	256QAM	1	0	19.12	19.18	19.08	20.00
		1	38	19.30	19.32	19.24	20.00
		1	74	19.06	19.36	19.20	20.00
		36	0	18.71	18.59	18.37	20.00
		36	18	18.87	18.53	18.37	20.00
		36	39	18.63	18.51	18.39	20.00
		75	0	18.55	18.75	18.97	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	20.73	20.62	20.32	22.00
		1	50	20.81	20.71	20.54	22.00
		1	99	20.87	20.46	20.47	22.00

		50	0	20.85	20.48	20.39	22.00
		50	25	20.90	20.63	20.48	22.00
		50	50	20.91	20.57	20.50	22.00
		100	0	20.88	20.55	20.44	22.00
	16QAM	1	0	20.56	20.58	20.52	22.00
		1	50	20.60	20.56	20.50	22.00
		1	99	20.35	20.39	20.41	22.00
		50	0	20.42	20.30	20.38	22.00
		50	25	20.59	20.49	20.45	22.00
		50	50	20.78	20.68	20.56	22.00
		100	0	20.56	20.42	20.46	22.00
	64QAM	1	0	20.48	20.52	20.48	22.00
		1	50	20.82	20.82	20.64	22.00
		1	99	20.77	20.85	20.71	22.00
		50	0	20.43	20.43	20.47	22.00
		50	25	20.73	20.69	20.51	22.00
		50	50	20.40	20.44	20.54	22.00
		100	0	20.34	20.38	20.48	22.00
	256QAM	1	0	19.18	19.14	19.10	20.00
		1	50	19.36	19.32	19.24	20.00
		1	99	19.20	19.36	19.22	20.00
		50	0	18.65	18.59	18.49	20.00
		50	25	18.75	18.69	18.65	20.00
		50	50	18.57	18.67	18.53	20.00
		100	0	18.59	18.67	18.81	20.00

LTE B7							
Hotspot on--Main Ant3				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	17.55	17.66	17.51	19.00
		1	13	17.50	17.65	17.45	19.00
		1	24	17.72	17.35	17.32	19.00
		12	0	17.70	17.62	17.55	19.00
		12	6	17.64	17.53	17.44	19.00
		12	13	17.59	17.54	17.60	19.00
		25	0	17.62	17.51	17.61	19.00
	16QAM	1	0	17.75	17.71	17.73	19.00
		1	13	17.69	17.85	17.93	19.00
		1	24	17.83	17.37	17.71	19.00
		12	0	17.49	17.73	17.71	19.00
		12	6	17.69	17.67	17.41	19.00
		12	13	17.67	17.83	17.53	19.00

	64QAM	25	0	17.50	17.60	17.74	19.00
		1	0	17.60	17.80	17.82	19.00
		1	13	17.78	17.66	17.88	19.00
		1	24	17.82	17.54	17.60	19.00
		12	0	17.66	17.70	17.62	19.00
		12	6	17.54	17.28	17.36	19.00
		12	13	17.47	17.65	17.59	19.00
		25	0	17.71	17.49	17.45	19.00
	256QAM	1	0	17.42	17.62	17.66	19.00
		1	13	17.54	17.38	17.28	19.00
		1	24	17.67	18.03	17.61	19.00
		12	0	17.65	17.59	17.67	19.00
		12	6	17.61	17.73	17.83	19.00
		12	13	17.53	17.45	17.49	19.00
25		0	17.64	17.62	17.80	19.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	17.51	17.64	17.69	19.00
		1	25	17.42	17.71	17.51	19.00
		1	49	17.44	17.29	17.32	19.00
		25	0	17.60	17.42	17.59	19.00
		25	13	17.74	17.57	17.66	19.00
		25	25	17.45	17.54	17.58	19.00
		50	0	17.60	17.71	17.45	19.00
	16QAM	1	0	17.81	17.69	17.93	19.00
		1	25	17.69	17.61	17.75	19.00
		1	49	17.85	17.47	17.67	19.00
		25	0	17.51	17.89	17.93	19.00
		25	13	17.61	17.85	17.43	19.00
		25	25	17.57	17.59	17.81	19.00
		50	0	17.50	17.32	17.60	19.00
	64QAM	1	0	17.56	17.72	17.76	19.00
		1	25	17.78	17.60	17.86	19.00
		1	49	17.54	17.56	17.64	19.00
		25	0	17.48	17.50	17.38	19.00
		25	13	17.46	17.22	17.54	19.00
		25	25	17.45	17.57	17.71	19.00
		50	0	17.69	17.47	17.49	19.00
	256QAM	1	0	17.64	17.38	17.70	19.00
		1	25	17.34	17.32	17.46	19.00
		1	49	17.63	18.07	17.69	19.00
		25	0	17.63	17.61	17.65	19.00
		25	13	17.49	17.49	17.57	19.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
		25	25	17.59	17.49	17.37	19.00
		50	0	17.76	17.72	17.64	19.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	17.45	17.74	17.57	19.00
		1	38	17.50	17.47	17.61	19.00
		1	74	17.54	17.63	17.48	19.00
		36	0	17.62	17.40	17.43	19.00
		36	18	17.64	17.43	17.46	19.00
		36	39	17.43	17.60	17.60	19.00
		75	0	17.52	17.57	17.43	19.00
	16QAM	1	0	17.61	17.57	17.91	19.00
		1	38	17.75	17.87	17.79	19.00
		1	74	17.69	17.51	17.69	19.00
		36	0	17.65	17.67	17.85	19.00
		36	18	17.67	17.55	17.63	19.00
		36	39	17.49	17.81	17.65	19.00
		75	0	17.76	17.58	17.48	19.00
	64QAM	1	0	17.60	17.94	17.88	19.00
		1	38	17.68	17.60	17.88	19.00
		1	74	17.78	17.68	17.86	19.00
		36	0	17.62	17.58	17.46	19.00
		36	18	17.66	17.40	17.60	19.00
		36	39	17.53	17.61	17.41	19.00
		75	0	17.75	17.43	17.39	19.00
	256QAM	1	0	17.62	17.46	17.48	19.00
		1	38	17.58	17.52	17.46	19.00
		1	74	17.43	17.81	17.85	19.00
		36	0	17.67	17.65	17.69	19.00
		36	18	17.63	17.65	17.67	19.00
		36	39	17.43	17.41	17.49	19.00
		75	0	17.58	17.74	17.82	19.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	17.53	17.58	17.53	19.00
		1	50	17.56	17.57	17.55	19.00
		1	99	17.58	17.45	17.60	19.00
		50	0	17.51	17.52	17.53	19.00
		50	25	17.54	17.55	17.46	19.00
		50	50	17.53	17.54	17.44	19.00
		100	0	17.56	17.51	17.47	19.00
	16QAM	1	0	17.65	17.67	17.77	19.00
		1	50	17.67	17.75	17.77	19.00

		1	99	17.69	17.45	17.57	19.00
		50	0	17.57	17.67	17.71	19.00
		50	25	17.53	17.63	17.47	19.00
		50	50	17.53	17.69	17.63	19.00
		100	0	17.58	17.50	17.60	19.00
	64QAM	1	0	17.64	17.84	17.72	19.00
		1	50	17.66	17.72	17.82	19.00
		1	99	17.70	17.60	17.70	19.00
		50	0	17.56	17.58	17.50	19.00
		50	25	17.52	17.30	17.42	19.00
		50	50	17.51	17.67	17.51	19.00
		100	0	17.57	17.41	17.51	19.00
	256QAM	1	0	17.46	17.52	17.56	19.00
		1	50	17.46	17.40	17.38	19.00
		1	99	17.51	17.87	17.69	19.00
		50	0	17.57	17.69	17.51	19.00
		50	25	17.53	17.67	17.69	19.00
		50	50	17.53	17.39	17.43	19.00
		100	0	17.58	17.60	17.72	19.00

LTE B7							
Normal power&Receiver off--DIV Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	23.76	23.78	23.97	25.00
		1	13	23.96	23.96	23.81	25.00
		1	24	23.84	23.76	24.10	25.00
		12	0	22.74	22.99	23.08	24.00
		12	6	22.79	22.91	22.99	24.00
		12	13	22.83	22.86	22.92	24.00
		25	0	22.66	22.89	22.84	24.00
	16QAM	1	0	22.89	22.85	22.91	24.00
		1	13	23.06	23.08	23.00	24.00
		1	24	23.09	23.09	23.03	24.00
		12	0	21.91	21.91	21.87	23.00
		12	6	22.28	21.92	22.16	23.00
		12	13	22.27	22.01	21.91	23.00
		25	0	21.78	21.82	21.84	23.00
	64QAM	1	0	21.87	21.95	21.93	23.00
		1	13	21.85	21.87	21.99	23.00
		1	24	21.81	21.89	21.75	23.00
		12	0	20.82	21.04	20.72	22.00
		12	6	21.08	21.04	20.88	22.00

		12	13	21.00	20.86	20.86	22.00	
		25	0	20.97	21.05	21.13	22.00	
		256QAM	1	0	19.00	18.76	18.88	20.00
			1	13	18.96	18.96	18.92	20.00
			1	24	18.79	18.79	18.87	20.00
			12	0	18.83	18.95	18.77	20.00
			12	6	19.31	18.85	19.01	20.00
			12	13	18.99	18.83	18.97	20.00
			25	0	19.30	18.86	19.04	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up	
				20800/2505	21100/2535	21400/2565		
10MHz	QPSK	1	0	23.58	23.88	23.85	25.00	
		1	25	23.68	23.84	24.13	25.00	
		1	49	23.80	24.04	23.96	25.00	
		25	0	22.78	22.73	23.02	24.00	
		25	13	22.77	22.97	23.15	24.00	
		25	25	22.97	23.04	23.00	24.00	
		50	0	22.72	22.71	22.92	24.00	
	16QAM	1	0	22.87	22.97	22.99	24.00	
		1	25	22.96	22.90	23.06	24.00	
		1	49	23.09	23.15	22.95	24.00	
		25	0	22.09	21.75	21.99	23.00	
		25	13	22.16	21.84	21.92	23.00	
		25	25	22.45	22.07	21.79	23.00	
		50	0	21.90	21.90	21.72	23.00	
	64QAM	1	0	21.57	21.93	21.99	23.00	
		1	25	21.87	22.13	21.71	23.00	
		1	49	21.77	21.99	22.03	23.00	
		25	0	20.70	20.70	20.66	22.00	
		25	13	20.94	21.14	20.92	22.00	
		25	25	21.06	20.90	21.02	22.00	
		50	0	20.69	20.83	20.85	22.00	
	256QAM	1	0	19.12	18.80	18.82	20.00	
		1	25	18.72	18.92	18.68	20.00	
		1	49	18.83	18.67	19.05	20.00	
		25	0	18.81	18.97	18.69	20.00	
		25	13	19.43	19.01	18.91	20.00	
		25	25	19.07	18.95	19.23	20.00	
		50	0	19.22	19.02	19.06	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up	
				20825/2507.5	21100/2535	21375/2562.5		
15MHz	QPSK	1	0	23.58	23.76	23.93	25.00	
		1	38	23.74	23.80	24.07	25.00	

		1	74	23.78	23.98	24.22	25.00	
		36	0	22.82	22.81	22.88	24.00	
		36	18	22.91	22.79	22.85	24.00	
		36	39	22.89	23.10	22.98	24.00	
		75	0	22.60	23.01	22.90	24.00	
	16QAM	1	0	22.73	23.07	22.75	24.00	
		1	38	23.20	23.06	22.96	24.00	
		1	74	23.25	22.95	22.97	24.00	
		36	0	22.15	21.97	22.03	23.00	
		36	18	22.02	21.92	22.14	23.00	
		36	39	22.17	21.89	21.91	23.00	
		75	0	21.98	22.06	21.70	23.00	
	64QAM	1	0	21.61	21.79	21.79	23.00	
		1	38	21.89	21.87	21.93	23.00	
		1	74	21.77	21.81	21.77	23.00	
		36	0	20.88	20.82	20.86	22.00	
		36	18	21.16	21.08	20.96	22.00	
		36	39	21.08	20.82	20.88	22.00	
		75	0	20.97	20.81	21.03	22.00	
	256QAM	1	0	18.84	18.72	18.74	20.00	
		1	38	19.02	18.96	18.82	20.00	
		1	74	18.85	18.73	18.75	20.00	
		36	0	18.93	18.77	18.77	20.00	
		36	18	19.13	18.97	18.89	20.00	
		36	39	19.11	18.85	19.05	20.00	
		75	0	19.30	18.98	19.20	20.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
					20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	23.60	23.80	23.83	25.00	
		1	50	23.80	23.88	23.91	25.00	
		1	99	23.82	23.86	24.10	25.00	
		50	0	22.68	22.89	22.92	24.00	
		50	25	22.81	22.91	22.93	24.00	
		50	50	22.75	22.92	22.98	24.00	
		100	0	22.72	22.89	22.90	24.00	
	16QAM	1	0	22.85	22.89	22.85	24.00	
		1	50	23.08	22.98	23.02	24.00	
		1	99	23.15	22.93	22.99	24.00	
		50	0	21.97	21.89	21.93	23.00	
		50	25	22.14	21.92	22.00	23.00	
		50	50	22.23	21.91	21.93	23.00	
	100	0	21.86	21.92	21.82	23.00		
64QAM	1	0	21.73	21.83	21.85	23.00		

		1	50	21.79	21.93	21.83	23.00
		1	99	21.75	21.89	21.83	23.00
		50	0	20.84	20.88	20.76	22.00
		50	25	21.12	20.94	20.82	22.00
		50	50	20.90	20.90	20.88	22.00
		100	0	20.81	20.93	21.03	22.00
		100	0	20.81	20.93	21.03	22.00
	256QAM	1	0	18.94	18.78	18.72	20.00
		1	50	18.86	18.86	18.80	20.00
		1	99	18.81	18.85	18.83	20.00
		50	0	18.85	18.89	18.79	20.00
		50	25	19.23	18.95	18.93	20.00
		50	50	19.07	18.91	19.01	20.00
		100	0	19.22	18.94	19.08	20.00

LTE B7							
Receiver on&Hotspot on--DIV Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	21.57	21.82	21.94	23.00
		1	13	21.86	22.08	21.94	23.00
		1	24	21.92	21.84	21.95	23.00
		12	0	21.66	21.83	22.02	23.00
		12	6	21.96	21.98	21.93	23.00
		12	13	21.75	21.86	21.97	23.00
		25	0	21.70	21.91	21.98	23.00
	16QAM	1	0	22.21	22.09	22.03	23.00
		1	13	21.86	22.08	22.06	23.00
		1	24	22.43	22.11	22.15	23.00
		12	0	21.95	21.89	22.15	23.00
		12	6	22.06	21.88	22.12	23.00
		12	13	21.97	21.81	21.97	23.00
		25	0	21.85	21.85	22.01	23.00
	64QAM	1	0	21.82	22.00	21.92	23.00
		1	13	22.32	22.12	22.16	23.00
		1	24	22.19	22.01	22.19	23.00
		12	0	20.77	20.93	20.89	22.00
		12	6	21.03	20.89	20.97	22.00
		12	13	21.06	21.04	20.84	22.00
		25	0	20.89	20.83	20.99	22.00
	256QAM	1	0	18.80	18.84	18.76	20.00
		1	13	19.07	18.87	18.97	20.00
		1	24	18.77	18.87	18.73	20.00
		12	0	18.73	18.85	18.75	20.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz		12	6	18.78	19.08	19.06	20.00
		12	13	19.07	18.93	19.15	20.00
		25	0	19.07	18.99	19.09	20.00
	QPSK	1	0	21.69	21.80	21.68	23.00
		1	25	21.90	21.92	21.92	23.00
		1	49	21.84	22.04	22.15	23.00
		25	0	21.58	21.79	21.90	23.00
		25	13	21.88	21.90	21.95	23.00
		25	25	21.87	21.82	21.95	23.00
		50	0	21.96	21.89	21.96	23.00
	16QAM	1	0	22.19	21.95	22.03	23.00
		1	25	22.00	21.88	21.98	23.00
		1	49	22.49	22.17	22.27	23.00
		25	0	21.79	22.13	22.21	23.00
		25	13	21.84	22.12	21.90	23.00
		25	25	22.11	22.11	21.95	23.00
		50	0	22.05	21.85	22.09	23.00
	64QAM	1	0	22.00	21.76	22.02	23.00
		1	25	22.16	22.14	22.28	23.00
		1	49	22.31	21.91	21.93	23.00
		25	0	20.87	21.03	21.15	22.00
		25	13	20.91	20.83	21.09	22.00
		25	25	21.08	20.82	21.16	22.00
		50	0	21.03	21.13	21.13	22.00
	256QAM	1	0	18.64	18.74	18.64	20.00
1		25	19.09	18.93	19.11	20.00	
1		49	18.67	18.65	18.63	20.00	
25		0	18.65	19.07	18.91	20.00	
25		13	18.86	19.08	19.00	20.00	
25		25	19.11	19.11	19.19	20.00	
50		0	19.09	18.91	18.99	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	21.71	22.00	22.00	23.00
		1	38	21.76	22.00	22.04	23.00
		1	74	22.02	22.08	21.95	23.00
		36	0	21.72	21.87	21.86	23.00
		36	18	21.96	21.90	21.91	23.00
		36	39	21.75	22.04	21.91	23.00
		75	0	21.66	21.97	21.76	23.00
	16QAM	1	0	22.17	21.85	21.97	23.00

		1	38	21.96	22.06	21.94	23.00
		1	74	22.33	22.13	22.15	23.00
		36	0	22.01	22.09	21.97	23.00
		36	18	22.06	22.10	21.94	23.00
		36	39	22.01	21.97	22.05	23.00
		75	0	21.91	22.13	22.15	23.00
		1	0	21.86	21.82	22.10	23.00
	64QAM	1	38	22.20	21.84	22.30	23.00
		1	74	22.21	21.97	21.99	23.00
		36	0	20.93	21.03	20.99	22.00
		36	18	21.03	21.07	20.93	22.00
		36	39	20.96	20.86	21.10	22.00
		75	0	21.11	20.81	21.11	22.00
		256QAM	1	0	18.88	18.82	18.82
	1		38	18.83	18.91	19.05	20.00
	1		74	18.81	18.95	18.73	20.00
	36		0	18.79	18.97	18.73	20.00
	36		18	18.82	19.02	18.92	20.00
	36		39	18.93	18.87	19.11	20.00
	75		0	18.79	18.95	19.15	20.00
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)		
20850/2510					21100/2535	21350/2560	
20MHz	QPSK	1	0	21.65	21.86	21.86	23.00
		1	50	21.88	21.96	21.90	23.00
		1	99	21.90	21.92	22.06	23.00
		50	0	21.72	21.93	21.92	23.00
		50	25	21.86	21.96	21.89	23.00
		50	50	21.81	21.94	21.91	23.00
		100	0	21.76	21.91	21.88	23.00
	16QAM	1	0	22.19	21.97	22.07	23.00
		1	50	21.88	22.06	21.96	23.00
		1	99	22.31	22.01	22.17	23.00
		50	0	21.91	21.93	21.99	23.00
		50	25	22.02	21.92	21.98	23.00
		50	50	22.01	21.91	21.93	23.00
		100	0	21.93	21.95	22.05	23.00
	64QAM	1	0	21.84	21.86	21.96	23.00
		1	50	22.22	21.96	22.14	23.00
		1	99	22.23	21.93	22.07	23.00
		50	0	20.87	20.93	20.93	22.00
		50	25	20.93	20.95	20.89	22.00
		50	50	21.00	20.92	20.94	22.00
		100	0	20.99	20.91	21.05	22.00

	256QAM	1	0	18.80	18.78	18.70	20.00
		1	50	18.93	18.89	18.99	20.00
		1	99	18.67	18.83	18.75	20.00
		50	0	18.77	18.91	18.85	20.00
		50	25	18.84	18.94	18.90	20.00
		50	50	19.01	18.93	19.11	20.00
		100	0	18.91	18.95	19.03	20.00

LTE B26							
Normal power&Receiver off&Hotspot on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.37	23.36	23.40	25.00
		1	2	23.27	23.43	23.53	25.00
		1	5	23.52	23.44	23.72	25.00
		3	0	23.11	23.08	23.11	25.00
		3	2	23.05	23.13	23.16	25.00
		3	3	23.02	23.17	23.19	25.00
		6	0	22.43	22.18	22.22	24.00
	16QAM	1	0	22.54	22.47	22.61	24.00
		1	2	22.75	22.95	22.48	24.00
		1	5	22.56	22.37	22.16	24.00
		3	0	22.08	22.24	22.01	24.00
		3	2	22.22	22.10	22.20	24.00
		3	3	22.15	22.26	22.07	24.00
		6	0	21.12	21.40	21.18	23.00
	64QAM	1	0	21.47	21.26	21.66	23.00
		1	2	21.20	21.39	21.25	23.00
		1	5	21.53	21.63	21.37	23.00
		3	0	21.17	21.21	21.11	23.00
		3	2	21.01	21.06	21.10	23.00
		3	3	21.01	21.18	21.10	23.00
		6	0	20.29	20.21	20.38	22.00
	256QAM	1	0	18.99	18.95	18.73	20.00
		1	2	18.99	18.83	18.67	20.00
		1	5	18.87	19.01	18.75	20.00
		3	0	18.74	18.86	18.62	20.00
		3	2	18.89	19.15	18.79	20.00
		3	3	19.01	18.77	18.93	20.00
		6	0	18.71	18.59	18.57	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26705/815.5	26865/831.5	27025/847.5	

3MHz	QPSK	1	0	23.01	23.40	23.30	25.00
		1	7	23.37	23.35	23.39	25.00
		1	14	23.16	23.14	23.64	25.00
		8	0	22.25	22.22	22.03	24.00
		8	4	22.16	22.27	22.28	24.00
		8	7	22.18	22.27	22.29	24.00
		15	0	22.07	22.04	22.32	24.00
	16QAM	1	0	22.52	22.39	22.53	24.00
		1	7	22.61	22.53	22.42	24.00
		1	14	22.66	22.29	22.10	24.00
		8	0	21.11	21.24	21.05	23.00
		8	4	21.26	21.25	21.20	23.00
		8	7	21.19	21.05	21.09	23.00
		15	0	21.14	21.26	21.34	23.00
	64QAM	1	0	21.23	21.42	21.46	23.00
		1	7	21.34	21.41	21.41	23.00
		1	14	21.49	21.37	21.33	23.00
		8	0	20.09	20.19	20.09	22.00
		8	4	20.17	20.22	20.20	22.00
		8	7	20.07	20.24	20.24	22.00
		15	0	20.09	20.27	20.06	22.00
	256QAM	1	0	19.13	18.85	18.63	20.00
		1	7	19.25	19.03	18.79	20.00
		1	14	19.19	19.03	18.67	20.00
		8	0	18.64	18.78	18.70	20.00
		8	4	19.07	18.89	18.73	20.00
		8	7	19.33	18.77	18.45	20.00
		15	0	18.65	18.73	18.55	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	23.35	23.56	23.26	25.00
		1	13	23.27	23.21	23.43	25.00
		1	24	23.24	23.16	23.70	25.00
		12	0	22.25	22.40	22.21	24.00
		12	6	22.12	22.33	22.36	24.00
		12	13	22.44	22.01	22.37	24.00
		25	0	22.19	22.18	22.24	24.00
	16QAM	1	0	22.34	22.37	22.57	24.00
		1	13	22.63	22.81	22.50	24.00
		1	24	22.60	22.29	22.10	24.00
		12	0	21.07	21.28	21.13	23.00
		12	6	21.18	21.05	21.02	23.00
		12	13	21.23	21.22	21.15	23.00

	64QAM	25	0	21.06	21.26	21.32	23.00
		1	0	21.19	21.50	21.64	23.00
		1	13	21.36	21.41	21.37	23.00
		1	24	21.31	21.29	21.55	23.00
		12	0	20.15	20.27	20.37	22.00
		12	6	20.33	20.38	20.06	22.00
		12	13	20.31	20.42	20.28	22.00
		25	0	20.19	20.11	20.40	22.00
	256QAM	1	0	19.13	18.81	18.85	20.00
		1	13	19.23	18.83	18.77	20.00
		1	24	19.15	18.69	18.83	20.00
		12	0	18.76	18.84	18.60	20.00
		12	6	18.87	18.77	18.89	20.00
		12	13	18.89	18.75	18.89	20.00
25		0	18.69	18.83	18.63	20.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
10MHz	QPSK	1	0	23.15	23.30	23.30	25.00
		1	25	23.23	23.17	23.25	25.00
		1	49	23.40	23.18	23.66	25.00
		25	0	22.19	22.28	22.39	24.00
		25	13	22.28	22.23	22.18	24.00
		25	25	22.28	22.35	22.19	24.00
		50	0	22.27	22.08	22.12	24.00
	16QAM	1	0	22.60	22.51	22.59	24.00
		1	25	22.71	22.65	22.66	24.00
		1	49	22.70	22.39	22.22	24.00
		25	0	21.17	21.32	21.13	23.00
		25	13	21.12	21.13	21.08	23.00
		25	25	21.37	21.16	21.31	23.00
		50	0	21.22	21.18	21.16	23.00
	64QAM	1	0	21.23	21.32	21.62	23.00
		1	25	21.50	21.33	21.53	23.00
		1	49	21.27	21.55	21.49	23.00
		25	0	20.17	20.07	20.23	22.00
		25	13	20.25	20.06	20.20	22.00
		25	25	20.13	20.28	20.24	22.00
		50	0	20.31	20.19	20.32	22.00
	256QAM	1	0	18.99	18.91	18.73	20.00
		1	25	18.87	18.89	18.59	20.00
		1	49	18.91	18.83	18.71	20.00
		25	0	18.68	18.88	18.64	20.00
25		13	18.80	19.06	18.66	20.00	

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26765/821.5	26865/831.5	26965/841.5	
				25	25	18.76	
		50	0	18.85	18.69	18.77	20.00
15MHz	QPSK	1	0	23.21	23.40	23.22	25.00
		1	38	23.31	23.29	23.33	25.00
		1	74	23.28	23.22	23.54	25.00
		36	0	22.19	22.18	22.23	24.00
		36	18	22.20	22.19	22.22	24.00
		36	39	22.22	22.17	22.21	24.00
		75	0	22.21	22.20	22.24	24.00
	16QAM	1	0	22.42	22.55	22.67	24.00
		1	38	22.81	22.73	22.62	24.00
		1	74	22.60	22.35	22.12	24.00
		36	0	21.17	21.20	21.19	23.00
		36	18	21.18	21.21	21.18	23.00
		36	39	21.21	21.18	21.23	23.00
		75	0	21.24	21.18	21.28	23.00
	64QAM	1	0	21.29	21.42	21.58	23.00
		1	38	21.36	21.45	21.41	23.00
		1	74	21.39	21.41	21.45	23.00
		36	0	20.15	20.13	20.17	22.00
		36	18	20.17	20.16	20.12	22.00
		36	39	20.23	20.24	20.22	22.00
		75	0	20.21	20.19	20.26	22.00
	256QAM	1	0	19.07	18.95	18.77	20.00
		1	38	19.21	18.95	18.73	20.00
		1	74	19.09	19.09	18.91	20.00
		36	0	18.80	18.74	18.62	20.00
		36	18	19.23	19.13	18.89	20.00
		36	39	18.99	18.91	18.59	20.00
		75	0	18.73	18.63	18.61	20.00

LTE B26							
Receiver on--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	17.51	17.26	17.54	19.00
		1	2	17.23	17.58	17.34	19.00
		1	5	17.23	17.38	17.09	19.00
		3	0	17.30	17.30	17.22	19.00
		3	2	17.48	17.55	17.23	19.00
		3	3	17.36	17.13	17.25	19.00

	16QAM	6	0	17.38	17.27	17.30	19.00	
		1	0	17.14	17.60	17.44	19.00	
		1	2	17.77	17.49	17.35	19.00	
		1	5	17.92	17.52	17.48	19.00	
		3	0	17.47	17.45	17.45	19.00	
		3	2	17.83	17.21	17.47	19.00	
		3	3	17.90	17.52	17.48	19.00	
		6	0	17.36	17.48	17.54	19.00	
	64QAM	1	0	17.14	17.32	17.38	19.00	
		1	2	17.26	17.18	17.34	19.00	
		1	5	17.34	17.60	17.36	19.00	
		3	0	17.49	17.05	17.29	19.00	
		3	2	17.49	17.27	17.19	19.00	
		3	3	17.54	17.28	17.58	19.00	
		6	0	17.30	17.10	17.30	19.00	
	256QAM	1	0	17.39	17.51	17.25	19.00	
		1	2	17.34	17.42	17.10	19.00	
		1	5	17.54	17.54	17.40	19.00	
		3	0	17.03	17.33	17.17	19.00	
		3	2	17.46	17.22	17.46	19.00	
		3	3	17.22	17.22	17.44	19.00	
		6	0	17.62	17.58	17.44	19.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
	3MHz	QPSK			26705/815.5	26865/831.5	27025/847.5	
1			0	17.37	17.36	17.32	19.00	
1			7	17.41	17.44	17.30	19.00	
1			14	17.31	17.34	17.31	19.00	
8			0	17.26	17.34	17.32	19.00	
8			4	17.38	17.37	17.47	19.00	
8			7	17.38	17.49	17.39	19.00	
15		0	17.48	17.35	17.22	19.00		
16QAM		1	0	17.42	17.60	17.32	19.00	
		1	7	17.77	17.55	17.53	19.00	
		1	14	17.78	17.64	17.60	19.00	
		8	0	17.51	17.45	17.31	19.00	
		8	4	17.65	17.31	17.59	19.00	
		8	7	17.58	17.48	17.52	19.00	
		15	0	17.62	17.42	17.54	19.00	
64QAM		1	0	17.52	17.52	17.62	19.00	
		1	7	17.44	17.48	17.56	19.00	
		1	14	17.38	17.38	17.28	19.00	
		8	0	17.41	17.41	17.29	19.00	
		8	4	17.43	17.47	17.55	19.00	

		8	7	17.62	17.52	17.34	19.00	
		15	0	17.34	17.30	17.26	19.00	
		256QAM	1	0	17.35	17.17	17.39	19.00
			1	7	17.10	17.22	17.10	19.00
			1	14	17.56	17.26	17.60	19.00
			8	0	17.25	17.25	17.17	19.00
			8	4	17.52	17.32	17.34	19.00
			8	7	17.56	17.48	17.32	19.00
			15	0	17.52	17.34	17.28	19.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up	
				26715/816.5	26865/831.5	27015/846.5		
5MHz	QPSK	1	0	17.21	17.48	17.58	19.00	
		1	13	17.37	17.22	17.36	19.00	
		1	24	17.59	17.60	17.47	19.00	
		12	0	17.14	17.50	17.40	19.00	
		12	6	17.56	17.53	17.41	19.00	
		12	13	17.16	17.51	17.29	19.00	
		25	0	17.52	17.25	17.48	19.00	
	16QAM	1	0	17.52	17.36	17.52	19.00	
		1	13	17.43	17.59	17.59	19.00	
		1	24	17.86	17.56	17.62	19.00	
		12	0	17.43	17.17	17.51	19.00	
		12	6	17.81	17.31	17.55	19.00	
		12	13	17.56	17.24	17.32	19.00	
		25	0	17.74	17.52	17.58	19.00	
	64QAM	1	0	17.26	17.22	17.52	19.00	
		1	13	17.66	17.66	17.66	19.00	
		1	24	17.36	17.52	17.24	19.00	
		12	0	17.15	17.17	17.41	19.00	
		12	6	17.43	17.21	17.57	19.00	
		12	13	17.72	17.42	17.32	19.00	
		25	0	17.46	17.54	17.04	19.00	
	256QAM	1	0	17.19	17.35	17.53	19.00	
		1	13	17.06	17.30	17.02	19.00	
		1	24	17.62	17.32	17.50	19.00	
		12	0	17.23	17.23	17.09	19.00	
		12	6	17.52	17.46	17.26	19.00	
		12	13	17.28	17.46	17.12	19.00	
		25	0	17.44	17.38	17.38	19.00	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up	
				26740/819	26865/831.5	26990/844		
10MHz	QPSK	1	0	17.45	17.40	17.34	19.00	
		1	25	17.43	17.36	17.48	19.00	

		1	49	17.27	17.34	17.29	19.00	
		25	0	17.26	17.42	17.30	19.00	
		25	13	17.32	17.51	17.49	19.00	
		25	25	17.32	17.39	17.25	19.00	
		50	0	17.26	17.25	17.40	19.00	
	16QAM	1	0	17.42	17.32	17.40	19.00	
		1	25	17.67	17.53	17.61	19.00	
		1	49	17.80	17.66	17.50	19.00	
		25	0	17.49	17.47	17.45	19.00	
		25	13	17.67	17.47	17.41	19.00	
		25	25	17.58	17.50	17.46	19.00	
		50	0	17.62	17.52	17.66	19.00	
	64QAM	1	0	17.34	17.30	17.48	19.00	
		1	25	17.54	17.38	17.66	19.00	
		1	49	17.34	17.54	17.54	19.00	
		25	0	17.41	17.49	17.23	19.00	
		25	13	17.51	17.43	17.39	19.00	
		25	25	17.66	17.50	17.42	19.00	
		50	0	17.46	17.48	17.16	19.00	
	256QAM	1	0	17.13	17.21	17.41	19.00	
		1	25	17.10	17.40	17.34	19.00	
		1	49	17.62	17.44	17.56	19.00	
		25	0	17.07	17.45	17.13	19.00	
		25	13	17.38	17.26	17.44	19.00	
		25	25	17.28	17.26	17.40	19.00	
		50	0	17.48	17.36	17.32	19.00	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
	15MHz	QPSK			26765/821.5	26865/831.5	26965/841.5	
1			0	17.35	17.34	17.38	19.00	
1			38	17.41	17.38	17.34	19.00	
1			74	17.37	17.40	17.37	19.00	
36			0	17.30	17.32	17.32	19.00	
36			18	17.34	17.37	17.35	19.00	
36			39	17.32	17.35	17.33	19.00	
75		0	17.32	17.33	17.32	19.00		
16QAM		1	0	17.36	17.44	17.38	19.00	
		1	38	17.61	17.47	17.45	19.00	
		1	74	17.66	17.48	17.48	19.00	
		36	0	17.43	17.31	17.41	19.00	
		36	18	17.63	17.35	17.51	19.00	
		36	39	17.68	17.36	17.50	19.00	
		75	0	17.52	17.36	17.52	19.00	
64QAM		1	0	17.42	17.38	17.54	19.00	

		1	38	17.54	17.46	17.48	19.00
		1	74	17.46	17.48	17.36	19.00
		36	0	17.33	17.33	17.33	19.00
		36	18	17.41	17.37	17.39	19.00
		36	39	17.54	17.36	17.38	19.00
		75	0	17.38	17.34	17.22	19.00
		1	0	17.25	17.23	17.35	19.00
	256QAM	1	38	17.14	17.26	17.20	19.00
		1	74	17.58	17.30	17.48	19.00
		36	0	17.15	17.31	17.19	19.00
		36	18	17.46	17.34	17.44	19.00
		36	39	17.40	17.34	17.24	19.00
		75	0	17.54	17.36	17.36	19.00

LTE B41									
Normal power--DIV Ant1				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					
				39675/249 8.5	40148/254 5.8	40620/25 93	41093/264 0.3	41565/268 7.5	
5MHz	QPSK	1	0	23.31	23.30	23.54	22.84	22.88	24.50
		1	13	23.58	23.61	23.44	22.99	22.74	24.50
		1	24	23.04	23.51	23.05	22.91	22.79	24.50
		12	0	22.31	22.59	22.29	21.86	21.95	23.50
		12	6	22.32	22.55	22.30	21.91	21.51	23.50
		12	13	22.41	22.46	22.06	21.59	21.60	23.50
		25	0	22.14	22.62	22.43	21.88	21.73	23.50
	16QAM	1	0	22.40	22.68	22.59	22.21	21.96	23.50
		1	13	22.41	22.85	22.36	22.32	21.81	23.50
		1	24	22.21	22.61	22.21	22.07	21.83	23.50
		12	0	21.28	21.56	21.21	21.11	20.69	22.50
		12	6	21.31	21.55	21.49	20.99	20.81	22.50
		12	13	21.32	21.25	21.14	20.94	20.67	22.50
		25	0	21.30	21.49	21.33	21.01	20.82	22.50
	64QAM	1	0	21.22	21.82	21.33	20.85	20.95	22.50
		1	13	21.34	21.56	21.37	21.03	20.68	22.50
		1	24	21.24	21.46	21.25	20.85	20.73	22.50
		12	0	20.28	20.38	20.19	19.81	19.75	21.50
		12	6	20.13	20.62	20.32	19.80	19.83	21.50
		12	13	20.08	20.48	20.09	19.93	19.51	21.50
		25	0	20.06	20.43	20.30	19.98	19.65	21.50
	256QAM	1	0	18.24	18.26	18.08	18.04	17.61	19.50
		1	13	18.08	18.32	18.21	18.01	17.72	19.50
		1	24	18.16	18.29	17.90	17.80	17.52	19.50

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up	
				39700/250 1	40160/254 7	40620/25 93	41080/263 9	41540/268 5		
		12	0	18.28	18.46	18.56	18.20	17.67	19.50	
		12	6	18.20	18.66	18.32	17.84	17.52	19.50	
		12	13	18.05	18.50	18.17	18.01	17.59	19.50	
		25	0	18.32	18.61	18.28	17.82	17.55	19.50	
10MHz	QPSK	1	0	23.39	23.26	23.56	23.08	22.66	24.50	
		1	25	23.66	23.73	23.46	22.83	22.74	24.50	
		1	49	23.04	23.41	23.29	22.71	22.55	24.50	
		25	0	22.19	22.83	22.59	21.88	22.03	23.50	
		25	13	22.22	22.43	22.56	21.59	21.79	23.50	
		25	25	22.23	22.66	22.04	21.81	21.55	23.50	
		50	0	22.36	22.62	22.25	21.56	21.71	23.50	
	16QAM	1	0	22.34	22.44	22.75	21.99	21.72	23.50	
		1	25	22.69	22.71	22.40	22.38	21.85	23.50	
		1	49	22.13	22.71	22.03	22.13	21.77	23.50	
		25	0	21.44	21.60	21.27	20.89	20.87	22.50	
		25	13	21.33	21.77	21.41	20.81	20.69	22.50	
		25	25	21.04	21.35	21.04	20.80	20.75	22.50	
	64QAM	50	0	21.20	21.61	21.19	20.75	20.76	22.50	
		1	0	21.12	21.92	21.37	21.07	20.71	22.50	
		1	25	21.32	21.50	21.31	21.05	20.64	22.50	
		1	49	21.48	21.38	21.41	20.91	20.95	22.50	
		25	0	20.30	20.14	20.49	19.73	19.57	21.50	
		25	13	20.11	20.54	20.44	19.72	19.65	21.50	
	256QAM	25	25	19.92	20.34	20.27	20.13	19.63	21.50	
		50	0	20.08	20.45	20.44	20.00	19.73	21.50	
		1	0	18.24	18.46	18.28	18.10	17.60	19.50	
		1	25	18.32	18.32	18.25	17.99	17.76	19.50	
		1	49	17.92	18.41	18.08	17.62	17.80	19.50	
		25	0	18.46	18.44	18.26	17.86	17.61	19.50	
			25	13	18.24	18.68	18.40	17.74	17.54	19.50
			25	25	17.79	18.50	18.27	17.71	17.55	19.50
			50	0	18.42	18.69	18.14	17.82	17.61	19.50
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up	
				39725/250 3.5	40173/254 8.3	40620/25 93	41068/263 7.8	41515/268 2.5		
15MHz	QPSK	1	0	23.27	23.18	23.34	23.00	23.00	24.50	
		1	38	23.64	23.71	23.16	22.95	22.64	24.50	
		1	74	23.18	23.63	23.25	22.89	22.77	24.50	
		36	0	22.21	22.75	22.53	21.82	21.85	23.50	
		36	18	22.22	22.57	22.50	21.77	21.59	23.50	

		36	39	22.47	22.44	22.06	21.57	21.68	23.50		
		75	0	22.24	22.56	22.43	21.92	21.67	23.50		
	16QAM		1	0	22.40	22.60	22.59	21.93	22.06	23.50	
			1	38	22.47	22.69	22.64	22.34	21.73	23.50	
			1	74	22.29	22.57	22.07	22.07	21.83	23.50	
			36	0	21.30	21.44	21.17	20.93	20.63	22.50	
			36	18	21.27	21.65	21.35	20.89	20.59	22.50	
			36	39	21.36	21.37	21.26	20.90	20.61	22.50	
			75	0	21.34	21.45	21.23	20.85	20.80	22.50	
			75	0	21.34	21.45	21.23	20.85	20.80	22.50	
	64QAM		1	0	21.36	21.82	21.39	20.95	21.01	22.50	
			1	38	21.54	21.46	21.27	20.91	20.56	22.50	
			1	74	21.32	21.42	21.47	20.97	20.81	22.50	
			36	0	20.38	20.24	20.35	19.99	19.52	21.50	
			36	18	20.07	20.84	20.12	19.90	19.63	21.50	
			36	39	20.10	20.36	20.09	19.99	19.69	21.50	
			75	0	20.18	20.59	20.34	19.70	19.55	21.50	
	256QAM		1	0	18.20	18.22	17.98	17.98	17.56	19.50	
			1	38	18.30	18.50	18.31	17.77	17.66	19.50	
			1	74	18.18	18.31	18.00	17.68	17.56	19.50	
			36	0	18.54	18.58	18.32	18.22	17.81	19.50	
			36	18	18.18	18.70	18.40	17.74	17.64	19.50	
			36	39	17.79	18.48	18.13	17.99	17.77	19.50	
			75	0	18.20	18.73	18.40	17.96	17.75	19.50	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up	
					39750/250 6	40185/254 9.5	40620/25 93	41055/263 6.5	41490/268 0		
	20MHz	QPSK		1	0	23.35	23.30	23.44	22.94	22.84	24.50
				1	50	23.46	23.55	23.28	22.87	22.62	24.50
1				99	23.06	23.50	23.07	22.75	22.69	24.50	
50				0	22.33	22.32	22.37	21.74	21.83	23.50	
50				25	22.20	22.51	22.38	21.75	21.57	23.50	
50				50	22.31	22.60	22.08	21.61	21.54	23.50	
100				0	22.20	22.52	22.27	21.74	21.65	23.50	
16QAM			1	0	22.46	22.62	22.77	21.85	22.22	23.50	
			1	50	22.45	22.77	22.70	22.24	21.73	23.50	
			1	99	22.19	22.59	22.07	21.97	21.73	23.50	
			50	0	21.48	21.40	21.09	20.95	20.67	22.50	
			50	25	21.35	21.57	21.45	20.83	20.55	22.50	
			50	50	21.36	21.33	21.24	20.90	20.79	22.50	
			100	0	21.28	21.41	21.19	20.81	20.90	22.50	
64QAM			1	0	21.40	21.96	21.31	20.85	20.95	22.50	
			1	50	21.62	21.58	21.37	20.87	20.68	22.50	
			1	99	21.30	21.56	21.49	21.07	20.71	22.50	

		50	0	20.30	20.36	20.45	19.87	19.58	21.50	
		50	25	20.03	20.80	20.08	19.98	19.81	21.50	
		50	50	20.00	20.28	20.25	20.03	19.67	21.50	
		100	0	20.16	20.49	20.44	19.74	19.51	21.50	
	256QAM		1	0	18.26	18.26	18.08	18.06	17.74	19.50
			1	50	18.36	18.52	18.31	17.85	17.76	19.50
			1	99	18.28	18.25	18.12	17.56	17.54	19.50
			50	0	18.58	18.52	18.42	18.24	17.99	19.50
			50	25	18.30	18.88	18.58	17.68	17.76	19.50
			50	50	17.83	18.56	18.31	17.93	17.75	19.50
			100	0	18.14	18.89	18.54	17.84	17.73	19.50

LTE B41									
Receiver on--DIV Ant1				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					
				39675/249 8.5	40148/254 5.8	40620/25 93	41093/264 0.3	41565/268 7.5	
5MHz	QPSK	1	0	22.04	22.33	22.27	21.75	21.62	23.50
		1	13	22.31	22.41	22.11	21.78	21.80	23.50
		1	24	22.09	21.96	21.82	21.58	21.64	23.50
		12	0	22.24	22.05	22.18	21.55	21.62	23.50
		12	6	21.95	22.40	22.29	21.56	21.58	23.50
		12	13	22.30	22.71	22.05	21.88	21.68	23.50
		25	0	22.05	22.45	22.32	21.63	21.80	23.50
	16QAM	1	0	21.74	22.18	22.37	21.88	21.52	23.50
		1	13	21.93	22.05	21.88	21.96	21.61	23.50
		1	24	21.67	21.93	21.80	22.26	21.92	23.50
		12	0	21.30	21.60	21.21	21.09	20.55	22.50
		12	6	21.43	21.57	21.57	20.97	20.60	22.50
		12	13	21.38	21.71	21.32	20.98	20.82	22.50
		25	0	21.40	21.45	21.15	21.07	20.88	22.50
	64QAM	1	0	21.24	21.86	21.45	20.85	20.66	22.50
		1	13	21.76	21.38	21.79	20.99	20.80	22.50
		1	24	21.24	21.92	21.39	20.99	20.80	22.50
		12	0	20.14	20.22	20.61	19.79	19.56	21.50
		12	6	20.01	21.20	20.48	20.12	19.76	21.50
		12	13	20.10	20.62	20.03	19.85	19.64	21.50
		25	0	20.04	20.59	20.46	19.74	19.72	21.50
	256QAM	1	0	18.24	18.62	18.08	18.08	17.82	19.50
		1	13	18.42	18.48	18.53	18.21	17.76	19.50
		1	24	18.40	18.29	18.42	17.86	17.58	19.50
		12	0	18.70	18.48	18.78	18.22	17.62	19.50
		12	6	18.54	19.00	18.58	17.76	17.64	19.50

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up	
				39700/250	40160/254	40620/25	41080/263	41540/268		
				1	7	93	9	5		
		12	13	17.67	18.84	18.25	18.03	17.83	19.50	
		25	0	18.36	19.23	18.64	17.96	17.82	19.50	
10MHz	QPSK	1	0	22.20	22.23	22.17	21.83	21.74	23.50	
		1	25	22.35	22.21	21.81	21.84	21.82	23.50	
		1	49	22.13	22.26	21.92	21.62	21.52	23.50	
		25	0	22.36	22.17	22.12	21.57	21.74	23.50	
		25	13	22.25	22.38	22.49	21.58	21.72	23.50	
		25	25	22.44	22.47	22.01	21.72	21.84	23.50	
		50	0	22.03	22.33	22.24	21.59	21.56	23.50	
	16QAM	1	0	21.72	22.28	22.45	21.72	21.78	23.50	
		1	25	22.01	22.05	22.20	21.68	21.53	23.50	
		1	49	21.69	21.75	21.78	22.32	21.78	23.50	
		25	0	21.36	21.90	21.47	21.17	20.73	22.50	
		25	13	21.45	21.57	21.49	20.99	20.70	22.50	
		25	25	21.40	21.55	21.30	21.04	20.82	22.50	
		50	0	21.64	21.35	21.01	20.75	20.66	22.50	
	64QAM	1	0	21.22	21.88	21.29	20.71	20.58	22.50	
		1	25	21.56	21.60	21.49	21.21	20.94	22.50	
		1	49	21.20	21.82	21.15	21.21	20.58	22.50	
		25	0	20.06	20.28	20.65	19.99	19.56	21.50	
		25	13	19.91	20.96	20.20	19.86	19.60	21.50	
		25	25	20.16	20.56	19.99	20.09	19.52	21.50	
		50	0	20.24	20.59	20.26	19.76	19.78	21.50	
	256QAM	1	0	18.34	18.56	17.88	18.18	17.88	19.50	
		1	25	18.26	18.42	18.39	18.09	17.58	19.50	
		1	49	18.58	18.41	18.42	17.92	17.78	19.50	
		25	0	18.62	18.48	18.56	18.12	17.61	19.50	
		25	13	18.48	19.18	18.46	17.66	17.80	19.50	
		25	25	17.67	18.84	18.33	18.11	17.53	19.50	
		50	0	18.48	19.09	18.80	17.76	17.58	19.50	
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
					39725/250	40173/254	40620/25	41068/263	41515/268	
3.5					8.3	93	7.8	2.5		
15MHz	QPSK	1	0	21.90	22.21	22.21	21.75	21.70	23.50	
		1	38	22.31	22.25	22.11	21.70	21.78	23.50	
		1	74	22.07	22.06	21.78	21.70	21.54	23.50	
		36	0	22.34	22.01	22.30	21.63	21.55	23.50	
		36	18	22.07	22.42	22.19	21.52	21.56	23.50	
		36	39	22.14	22.63	22.19	21.72	21.82	23.50	
		75	0	22.03	22.51	22.22	21.67	21.84	23.50	

	16QAM	1	0	21.92	22.06	22.39	21.80	21.74	23.50
		1	38	22.05	22.13	22.08	21.84	21.67	23.50
		1	74	21.60	21.83	21.82	22.26	21.96	23.50
		36	0	21.18	21.58	21.35	21.05	20.63	22.50
		36	18	21.29	21.83	21.67	21.09	20.72	22.50
		36	39	21.42	21.73	21.46	20.98	20.68	22.50
		75	0	21.62	21.39	21.09	20.81	20.72	22.50
	64QAM	1	0	21.48	21.94	21.41	20.81	20.54	22.50
		1	38	21.74	21.46	21.53	21.01	20.84	22.50
		1	74	21.46	21.94	21.31	21.25	20.82	22.50
		36	0	20.04	20.38	20.59	19.95	19.66	21.50
		36	18	19.75	21.20	20.22	19.92	19.68	21.50
		36	39	20.06	20.54	20.09	19.95	19.66	21.50
		75	0	20.10	20.55	20.30	19.68	19.54	21.50
	256QAM	1	0	18.30	18.44	18.18	18.16	17.80	19.50
		1	38	18.32	18.58	18.51	17.95	17.66	19.50
		1	74	18.50	18.41	18.42	17.80	17.70	19.50
		36	0	18.72	18.48	18.68	18.16	17.57	19.50
		36	18	18.28	18.86	18.48	17.58	17.58	19.50
		36	39	17.79	18.62	18.29	18.19	17.81	19.50
		75	0	18.40	19.15	18.70	17.96	17.70	19.50
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	22.00	22.17	22.25	21.71	21.70	23.50
		1	50	22.31	22.33	21.97	21.70	21.76	23.50
		1	99	22.01	22.06	21.90	21.52	21.64	23.50
		50	0	22.34	22.07	22.24	21.65	21.52	23.50
		50	25	22.03	22.38	22.27	21.62	21.60	23.50
		50	50	22.24	22.45	22.11	21.74	21.74	23.50
		100	0	22.05	22.41	22.18	21.57	21.70	23.50
	16QAM	1	0	21.82	22.14	22.33	21.90	21.56	23.50
		1	50	22.03	22.11	21.98	21.86	21.55	23.50
		1	99	21.53	21.87	21.80	22.10	21.78	23.50
		50	0	21.28	21.68	21.27	21.07	20.55	22.50
		50	25	21.41	21.65	21.55	20.91	20.70	22.50
		50	50	21.26	21.57	21.40	20.88	20.66	22.50
		100	0	21.50	21.43	21.13	20.91	20.80	22.50
	64QAM	1	0	21.30	21.80	21.35	20.75	20.54	22.50
		1	50	21.62	21.48	21.63	21.03	20.86	22.50
		1	99	21.30	21.90	21.33	21.07	20.74	22.50
		50	0	20.10	20.20	20.67	19.87	19.54	21.50
		50	25	19.87	21.04	20.32	19.96	19.62	21.50

		50	50	20.12	20.50	20.07	19.93	19.60	21.50
		100	0	20.10	20.61	20.42	19.76	19.62	21.50
	256QAM	1	0	18.30	18.48	18.02	18.00	17.74	19.50
		1	50	18.34	18.56	18.39	18.05	17.72	19.50
		1	99	18.40	18.29	18.30	17.74	17.60	19.50
		50	0	18.62	18.40	18.62	18.08	17.59	19.50
		50	25	18.38	18.96	18.52	17.66	17.58	19.50
		50	50	17.73	18.68	18.31	18.01	17.67	19.50
		100	0	18.26	19.07	18.70	17.90	17.76	19.50

LTE B41									
Receiver off--DIV Ant1				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					
				39675/249 8.5	40148/254 5.8	40620/25 93	41093/264 0.3	41565/268 7.5	
5MHz	QPSK	1	0	20.84	21.13	21.05	20.57	20.68	22.50
		1	13	21.15	21.26	20.77	20.52	20.66	22.50
		1	24	20.83	21.23	20.74	20.53	20.76	22.50
		12	0	21.20	21.29	21.28	20.63	20.62	22.50
		12	6	21.13	21.24	21.03	20.64	20.72	22.50
		12	13	21.28	21.49	20.95	20.64	20.80	22.50
		25	0	21.05	21.39	21.10	20.65	20.64	22.50
	16QAM	1	0	20.84	21.10	21.19	20.13	20.42	22.00
		1	13	20.93	21.17	21.06	20.66	20.51	22.00
		1	24	20.53	21.09	20.57	20.37	20.74	22.00
		12	0	21.50	21.40	21.23	21.09	20.71	22.00
		12	6	21.39	21.53	21.61	20.75	20.74	22.00
		12	13	21.28	21.47	21.40	21.00	20.72	22.00
		25	0	21.26	21.47	21.13	20.79	20.70	22.00
	64QAM	1	0	21.24	21.82	21.39	21.01	20.66	22.00
		1	13	21.60	21.74	21.53	20.95	20.62	22.00
		1	24	21.52	21.70	21.37	21.05	20.72	22.00
		12	0	20.20	20.34	20.57	19.85	19.78	21.50
		12	6	19.87	20.92	20.08	20.14	19.70	21.50
		12	13	20.24	20.48	20.17	20.19	19.64	21.50
		25	0	20.14	20.67	20.26	19.82	19.66	21.50
	256QAM	1	0	18.34	18.54	18.02	18.10	17.62	19.50
		1	13	18.40	18.58	18.47	17.93	17.82	19.50
		1	24	18.46	18.25	18.30	17.84	17.52	19.50
		12	0	18.66	18.42	18.48	18.26	17.52	19.50
		12	6	18.34	18.90	18.40	17.70	17.54	19.50
		12	13	17.85	18.78	18.43	17.99	17.69	19.50
		25	0	18.36	18.87	18.62	17.94	17.82	19.50

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39700/250 1	40160/254 7	40620/25 93	41080/263 9	41540/268 5	
10MHz	QPSK	1	0	21.10	21.19	21.15	20.58	20.60	22.50
		1	25	21.45	21.16	20.79	20.54	20.54	22.50
		1	49	20.99	21.17	20.82	20.62	20.76	22.50
		25	0	21.32	21.19	21.24	20.60	20.72	22.50
		25	13	21.01	21.34	21.23	20.54	20.55	22.50
		25	25	21.16	21.69	20.85	20.56	20.94	22.50
		50	0	20.95	21.11	21.20	20.54	20.72	22.50
	16QAM	1	0	21.08	21.24	21.41	20.07	20.70	22.00
		1	25	20.95	21.15	21.06	20.68	20.57	22.00
		1	49	20.63	20.83	20.43	20.35	20.74	22.00
		25	0	21.28	21.68	21.37	20.81	20.79	22.00
		25	13	21.53	21.71	21.57	20.85	20.66	22.00
		25	25	21.36	21.43	21.06	20.90	20.60	22.00
		50	0	21.18	21.65	21.09	20.97	20.60	22.00
	64QAM	1	0	21.34	21.86	21.17	20.93	20.52	22.00
		1	25	21.42	21.42	21.73	21.07	20.68	22.00
		1	49	21.28	21.74	21.33	20.97	20.64	22.00
		25	0	20.40	20.24	20.53	19.79	19.72	21.50
		25	13	19.87	20.96	20.18	20.00	19.60	21.50
		25	25	20.32	20.42	20.09	19.97	19.72	21.50
		50	0	20.34	20.41	20.28	19.94	19.58	21.50
	256QAM	1	0	18.52	18.42	17.96	17.94	17.55	19.50
		1	25	18.28	18.82	18.61	18.09	17.68	19.50
		1	49	18.36	18.17	18.32	17.76	17.60	19.50
25		0	18.68	18.40	18.32	18.38	17.71	19.50	
25		13	18.56	18.94	18.52	17.68	17.80	19.50	
25		25	17.85	18.66	18.51	18.23	17.55	19.50	
50		0	18.26	19.13	18.66	17.80	17.72	19.50	
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
15MHz	QPSK	1	0	20.80	21.03	21.23	20.57	20.66	22.50
		1	38	21.33	21.24	20.87	20.70	20.76	22.50
		1	74	20.77	21.11	21.00	20.64	20.76	22.50
		36	0	21.12	21.17	21.32	20.63	20.72	22.50
		36	18	21.11	21.24	20.97	20.53	20.64	22.50
		36	39	21.20	21.63	21.05	20.70	20.84	22.50
		75	0	20.99	21.19	20.98	20.53	20.78	22.50
	16QAM	1	0	20.86	21.00	21.13	20.19	20.64	22.00
		1	38	21.01	21.21	21.12	20.68	20.59	22.00
		1	74	20.77	21.11	21.00	20.64	20.76	22.50

		1	74	20.43	20.89	20.71	20.27	20.56	22.00		
		36	0	21.48	21.52	21.11	21.01	20.73	22.00		
		36	18	21.43	21.45	21.37	20.75	20.50	22.00		
		36	39	21.40	21.35	21.26	20.98	20.62	22.00		
		75	0	21.22	21.53	21.17	20.99	20.76	22.00		
		1	0	21.32	21.90	21.37	20.91	20.42	22.00		
		1	38	21.62	21.52	21.73	20.99	20.90	22.00		
	64QAM	1	74	21.40	21.74	21.59	21.09	20.80	22.00		
		36	0	20.34	20.20	20.47	20.01	19.60	21.50		
		36	18	20.05	20.94	20.34	20.02	19.60	21.50		
		36	39	20.06	20.50	20.07	19.99	19.60	21.50		
		75	0	20.16	20.53	20.30	19.84	19.66	21.50		
		1	0	18.48	18.52	18.00	18.02	17.74	19.50		
		1	38	18.48	18.64	18.55	17.95	17.80	19.50		
	256QAM	1	74	18.40	18.35	18.46	17.76	17.53	19.50		
		36	0	18.58	18.66	18.60	18.38	17.69	19.50		
		36	18	18.48	18.94	18.46	17.72	17.72	19.50		
		36	39	17.93	18.84	18.41	18.09	17.55	19.50		
		75	0	18.22	18.87	18.74	17.92	17.60	19.50		
		Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
						39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	20.88	20.99	21.07	20.55	20.56	22.50		
		1	50	21.25	21.25	20.85	20.62	20.62	22.50		
		1	99	20.83	21.14	20.84	20.54	20.60	22.50		
		50	0	21.18	21.17	21.18	20.55	20.64	22.50		
		50	25	21.03	21.24	21.09	20.56	20.66	22.50		
		50	50	21.20	21.47	20.99	20.56	20.72	22.50		
		100	0	21.05	21.29	21.02	20.55	20.60	22.50		
	16QAM	1	0	20.90	21.04	21.21	20.15	20.52	22.00		
		1	50	20.89	21.17	21.06	20.54	20.55	22.00		
		1	99	20.55	20.99	20.53	20.27	20.68	22.00		
		50	0	21.36	21.50	21.15	20.95	20.61	22.00		
		50	25	21.39	21.51	21.49	20.83	20.60	22.00		
		50	50	21.36	21.41	21.24	20.90	20.58	22.00		
		100	0	21.34	21.47	21.15	20.81	20.70	22.00		
	64QAM	1	0	21.30	21.90	21.29	20.85	20.52	22.00		
		1	50	21.60	21.58	21.55	20.87	20.72	22.00		
		1	99	21.42	21.74	21.45	21.07	20.62	22.00		
		50	0	20.18	20.24	20.51	19.87	19.62	21.50		
		50	25	19.91	20.90	20.16	19.98	19.54	21.50		
		50	50	20.10	20.40	20.13	20.03	19.66	21.50		
		100	0	20.12	20.57	20.34	19.74	19.68	21.50		

	256QAM	1	0	18.42	18.40	18.06	18.04	17.62	19.50
		1	50	18.46	18.68	18.43	17.89	17.66	19.50
		1	99	18.40	18.17	18.28	17.80	17.58	19.50
		50	0	18.68	18.52	18.46	18.20	17.59	19.50
		50	25	18.42	18.84	18.48	17.56	17.60	19.50
		50	50	17.81	18.70	18.29	18.01	17.65	19.50
		100	0	18.30	18.97	18.66	17.98	17.72	19.50

LTE B41									
Hotspot on--DIV Ant1				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					
				39675/249	40148/254	40620/25	41093/264	41565/268	
				8.5	5.8	93	0.3	7.5	
5MHz	QPSK	1	0	20.11	20.40	20.54	20.14	19.91	21.50
		1	13	20.92	20.77	20.36	20.29	19.61	21.50
		1	24	20.36	20.58	20.09	20.09	20.01	21.50
		12	0	20.61	20.84	20.55	19.94	19.69	21.50
		12	6	20.72	20.97	20.48	20.05	19.73	21.50
		12	13	20.71	20.96	20.58	20.07	19.83	21.50
		25	0	20.72	20.70	20.41	20.14	19.75	21.50
	16QAM	1	0	20.49	20.47	20.76	19.70	19.89	21.50
		1	13	20.44	20.66	20.55	20.11	19.70	21.50
		1	24	19.84	20.28	19.88	19.62	19.75	21.50
		12	0	20.95	20.91	20.58	20.24	19.68	21.50
		12	6	20.76	20.98	20.94	20.36	19.69	21.50
		12	13	21.03	20.92	20.69	20.61	19.91	21.50
		25	0	21.05	20.82	20.52	20.28	19.77	21.50
	64QAM	1	0	20.83	20.80	20.88	20.36	19.77	21.50
		1	13	21.13	20.85	20.82	20.26	19.89	21.50
		1	24	20.93	20.78	20.90	20.60	19.97	21.50
		12	0	20.24	20.44	20.75	19.89	19.78	21.50
		12	6	19.81	20.94	20.32	20.28	19.58	21.50
		12	13	20.30	20.44	20.15	20.03	19.64	21.50
		25	0	20.18	20.61	20.54	19.68	19.84	21.50
	256QAM	1	0	18.38	18.58	18.30	18.10	17.70	19.50
		1	13	18.42	18.94	18.53	18.03	17.66	19.50
		1	24	18.12	18.17	18.32	17.90	17.68	19.50
		12	0	18.42	18.94	18.66	18.04	17.81	19.50
		12	6	18.52	18.90	18.80	17.76	17.84	19.50
		12	13	17.61	19.00	18.35	17.95	17.63	19.50
		25	0	18.50	18.99	18.44	18.16	17.72	19.50
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39700/250	40160/254	40620/25	41080/263	41540/268	

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39725/250 3.5	40173/254 8.3	40620/25 93	41068/263 7.8	41515/268 2.5	
10MHz	QPSK	on		1	7	93	9	5	
		1	0	20.05	20.56	20.30	20.18	19.69	21.50
		1	25	20.92	20.79	20.34	20.31	19.85	21.50
		1	49	20.56	20.56	20.31	19.75	19.83	21.50
		25	0	20.63	20.78	20.59	20.06	19.65	21.50
		25	13	20.56	20.87	20.40	20.19	19.51	21.50
		25	25	20.97	21.06	20.38	19.75	19.75	21.50
	50	0	20.48	20.54	20.23	19.82	19.83	21.50	
	16QAM	1	0	20.31	20.45	20.72	19.72	19.65	21.50
		1	25	20.22	20.50	20.57	20.17	19.84	21.50
		1	49	19.94	20.26	19.88	19.53	19.57	21.50
		25	0	21.03	20.91	20.74	20.32	19.66	21.50
		25	13	20.70	21.22	21.12	20.18	19.69	21.50
		25	25	20.85	20.74	20.87	20.71	19.81	21.50
		50	0	21.01	20.90	20.58	20.00	19.75	21.50
	64QAM	1	0	20.93	20.76	20.78	20.12	19.83	21.50
		1	25	20.97	20.77	21.02	20.18	20.07	21.50
		1	49	21.07	20.66	20.84	20.70	19.95	21.50
		25	0	20.18	20.22	20.73	20.11	19.84	21.50
		25	13	19.77	20.96	20.30	20.28	19.76	21.50
		25	25	20.44	20.68	19.93	20.19	19.56	21.50
		50	0	20.24	20.39	20.54	19.60	19.76	21.50
	256QAM	1	0	18.42	18.48	18.16	17.84	17.78	19.50
		1	25	18.48	18.80	18.37	18.05	17.76	19.50
		1	49	18.22	18.03	18.26	18.06	17.74	19.50
		25	0	18.52	18.82	18.74	18.02	17.63	19.50
		25	13	18.54	18.94	18.66	17.60	17.90	19.50
		25	25	17.65	18.92	18.31	18.03	17.75	19.50
50		0	18.44	19.03	18.46	18.00	17.86	19.50	
15MHz	QPSK	1	0	20.19	20.44	20.50	19.94	19.85	21.50
		1	38	20.94	20.67	20.48	20.29	19.81	21.50
		1	74	20.38	20.48	20.15	20.11	19.91	21.50
		36	0	20.69	20.66	20.45	19.88	19.87	21.50
		36	18	20.70	20.75	20.60	19.95	19.81	21.50
		36	39	20.89	21.00	20.50	19.89	19.95	21.50
		75	0	20.48	20.72	20.25	19.96	19.71	21.50
	16QAM	1	0	20.51	20.51	20.96	19.70	19.87	21.50
		1	38	20.16	20.86	20.57	20.09	19.72	21.50
		1	74	20.00	20.40	19.86	19.58	19.73	21.50
		36	0	20.95	20.91	20.50	20.18	19.80	21.50

	64QAM	36	18	20.76	21.08	20.92	20.36	19.61	21.50
		36	39	20.85	20.98	20.93	20.51	20.05	21.50
		75	0	20.77	20.90	20.36	20.10	19.89	21.50
		1	0	20.83	20.84	20.90	20.32	19.67	21.50
		1	38	20.95	20.83	21.00	20.04	19.87	21.50
		1	74	21.07	20.76	20.64	20.66	19.91	21.50
		36	0	20.28	20.48	20.47	19.99	19.76	21.50
		36	18	19.91	20.68	20.26	20.14	19.72	21.50
		36	39	20.16	20.48	19.97	20.01	19.70	21.50
	75	0	20.08	20.57	20.54	19.96	19.72	21.50	
	256QAM	1	0	18.56	18.60	18.02	17.94	17.52	19.50
		1	38	18.62	18.86	18.49	17.93	17.84	19.50
		1	74	18.26	18.33	18.42	18.10	17.90	19.50
		36	0	18.72	18.58	18.54	18.16	17.85	19.50
		36	18	18.44	19.04	18.48	17.55	17.78	19.50
		36	39	17.67	18.76	18.51	18.09	17.61	19.50
		75	0	18.34	19.01	18.44	18.16	17.76	19.50
	Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)				
39750/2506					40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	20.21	20.36	20.42	19.98	19.77	21.50
		1	50	20.69	20.83	20.40	20.19	19.69	21.50
		1	99	20.34	20.53	20.15	19.93	19.87	21.50
		50	0	20.51	20.68	20.53	19.84	19.69	21.50
		50	25	20.60	20.81	20.46	19.99	19.69	21.50
		50	50	20.75	20.86	20.42	19.91	19.91	21.50
		100	0	20.60	20.64	20.35	19.98	19.77	21.50
	16QAM	1	0	20.33	20.41	20.78	19.58	19.77	21.50
		1	50	20.28	20.68	20.45	20.11	19.68	21.50
		1	99	19.84	20.32	19.90	19.62	19.71	21.50
		50	0	20.87	20.85	20.62	20.28	19.78	21.50
		50	25	20.84	21.04	20.90	20.34	19.69	21.50
		50	50	20.95	20.80	20.77	20.49	19.87	21.50
		100	0	20.89	20.92	20.44	20.16	19.87	21.50
	64QAM	1	0	20.71	20.84	20.84	20.28	19.77	21.50
		1	50	20.99	20.89	20.92	20.16	19.87	21.50
		1	99	20.93	20.78	20.74	20.56	19.87	21.50
		50	0	20.16	20.38	20.59	19.95	19.80	21.50
		50	25	19.89	20.78	20.18	20.14	19.60	21.50
		50	50	20.22	20.46	20.07	19.99	19.74	21.50
		100	0	20.10	20.47	20.50	19.78	19.80	21.50
	256QAM	1	0	18.58	18.54	18.00	18.00	17.60	19.50
		1	50	18.62	18.76	18.51	17.93	17.74	19.50

		1	99	18.32	18.15	18.38	17.98	17.76	19.50
		50	0	18.60	18.70	18.62	18.10	17.67	19.50
		50	25	18.56	19.02	18.48	17.60	17.72	19.50
		50	50	17.69	18.82	18.43	17.97	17.59	19.50
		100	0	18.46	18.87	18.54	18.04	17.68	19.50

9.6 WLAN Mode

Wi-Fi 2.4G Normal power& Receiver off Mode	Channel /Frequency (MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	19.00	17.41
	6/2437	19.00	17.67
	11/2462	19.00	17.34
802.11g (6M)	1/2412	16.00	14.34
	6/2437	16.00	14.48
	11/2462	16.00	14.32
802.11n-HT20 (MCS0)	1/2412	15.00	13.23
	6/2437	15.00	13.44
	11/2462	15.00	13.25
802.11n-HT40 (MCS0)	3/2422	15.00	13.53
	6/2437	15.00	13.63
	9/2452	15.00	13.29

Wi-Fi 2.4G Receiver on Mode	Channel /Frequency (MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	17.00	15.62
	6/2437	17.00	16.14
	11/2462	17.00	16.03
802.11g (6M)	1/2412	16.00	14.34
	6/2437	16.00	14.48
	11/2462	16.00	14.32
802.11n-HT20 (MCS0)	1/2412	15.00	13.23
	6/2437	15.00	13.44
	11/2462	15.00	13.25
802.11n-HT40 (MCS0)	3/2422	15.00	13.53
	6/2437	15.00	13.63
	9/2452	15.00	13.29

Wi-Fi 2.4G WWAN+WLAN Receiver on Mode	Channel /Frequency (MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	17.00	15.62
	6/2437	17.00	16.14

	11/2462	17.00	16.03
802.11g (6M)	1/2412	16.00	14.34
	6/2437	16.00	14.48
	11/2462	16.00	14.32
802.11n-HT20 (MCS0)	1/2412	15.00	13.23
	6/2437	15.00	13.44
	11/2462	15.00	13.25
802.11n-HT40 (MCS0)	3/2422	15.00	13.53
	6/2437	15.00	13.63
	9/2452	15.00	13.29

Wi-Fi 2.4G WWAN+WLAN Hotspot on Mode	Channel /Frequency (MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	15.00	13.81
	6/2437	15.00	14.13
	11/2462	15.00	14.13
802.11g (6M)	1/2412	15.00	13.52
	6/2437	15.00	13.67
	11/2462	15.00	13.62
802.11n-HT20 (MCS0)	1/2412	15.00	13.23
	6/2437	15.00	13.44
	11/2462	15.00	13.25
802.11n-HT40 (MCS0)	3/2422	15.00	13.53
	6/2437	15.00	13.63
	9/2452	15.00	13.29

Normal power& Receiver on& Receiver off			
5GHz Wi-Fi (U-NII-1)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	36/5180	16.00	14.36
	40/5200	16.00	14.32
	44/5220	16.00	14.33
	48/5240	16.00	14.27
802.11nHT20(MCS0)	36/5180	15.00	13.20
	40/5200	15.00	13.18
	44/5220	15.00	13.20
	48/5240	15.00	13.16
802.11nHT40(MCS0)	38/5190	15.00	13.08
	46/5230	15.00	13.13
802.11ac-VHT20(MCS0)	36/5180	14.00	12.10

	40/5200	14.00	12.18
	44/5220	14.00	12.14
	48/5240	14.00	12.13
802.11ac-VHT40(MCS0)	38/5190	13.00	11.04
	46/5230	13.00	11.04
802.11ac-VHT80(MCS0)	42/5210	12.00	9.66
5GHz Wi-Fi (U-NII-2A)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	52/5260	16.00	14.32
	56/5280	16.00	14.29
	60/5300	16.00	14.34
	64/5320	16.00	14.29
802.11nHT20(MCS0)	52/5260	15.00	13.13
	56/5280	15.00	13.21
	60/5300	15.00	13.23
	64/5320	15.00	13.15
802.11nHT40(MCS0)	54/5270	15.00	13.16
	62/5310	15.00	13.06
802.11ac-VHT20(MCS0)	52/5260	14.00	12.18
	56/5280	14.00	12.17
	60/5300	14.00	12.11
	64/5320	14.00	12.04
802.11ac-VHT40(MCS0)	54/5270	13.00	11.16
	62/5310	13.00	10.95
802.11ac-VHT80(MCS0)	58/5290	12.00	9.72
5GHz Wi-Fi (U-NII-2C)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	16.00	14.41
	116/5580	16.00	14.36
	132/5660	16.00	14.50
	140/5700	16.00	14.52
802.11nHT20 (MCS0)	100/5500	15.00	13.30
	116/5580	15.00	13.24
	132/5660	15.00	13.31
	140/5700	15.00	13.34
802.11nHT40 (MCS0)	102/5510	15.00	13.14
	110/5550	15.00	13.12
	118/5590	15.00	13.20
	134/5670	15.00	13.26
802.11ac-VHT20 (MCS0)	100/5500	14.00	12.12
	116/5580	14.00	12.13
	132/5660	14.00	12.22

	140/5700	14.00	12.27
802.11ac-VHT40 (MCS0)	102/5510	13.00	10.97
	110/5550	13.00	11.04
	118/5590	13.00	11.10
	134/5670	13.00	11.90
802.11ac-VHT80 (MCS0)	106/5530	12.00	9.77
	122/5610	12.00	9.84
5GHz Wi-Fi (U-NII-3)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	149/5745	16.00	14.42
	157/5785	16.00	14.46
	165/5825	16.00	14.42
802.11nHT20(MCS0)	149/5745	15.00	13.25
	157/5785	15.00	13.27
	165/5825	15.00	13.29
802.11nHT40(MCS0)	151/5755	15.00	13.21
	159/5795	15.00	13.26
802.11ac-VHT20(MCS0)	149/5745	14.00	12.22
	157/5785	14.00	12.23
	165/5825	14.00	12.26
802.11ac-VHT40(MCS0)	151/5755	13.00	11.12
	159/5795	13.00	11.16
802.11ac-VHT80(MCS0)	155/5775	12.00	9.80

WWAN+WLAN Receiver on & Hotspot on			
5GHz Wi-Fi (U-NII-1)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	36/5180	12.50	11.40
	40/5200	12.50	11.17
	44/5220	12.50	11.31
	48/5240	12.50	11.19
802.11nHT20(MCS0)	36/5180	12.00	10.51
	40/5200	12.00	10.56
	44/5220	12.00	10.58
	48/5240	12.00	10.62
802.11nHT40(MCS0)	38/5190	12.00	10.52
	46/5230	12.00	10.49
802.11ac-VHT20(MCS0)	36/5180	12.00	10.55
	40/5200	12.00	11.07
	44/5220	12.00	11.11
	48/5240	12.00	11.18
802.11ac-VHT40(MCS0)	38/5190	12.00	10.45
	46/5230	12.00	10.62

802.11ac-VHT80(MCS0)	42/5210	12.00	9.66
5GHz Wi-Fi (U-NII-2A)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	52/5260	12.50	11.24
	56/5280	12.50	11.23
	60/5300	12.50	11.38
	64/5320	12.50	11.18
802.11nHT20(MCS0)	52/5260	12.00	10.65
	56/5280	12.00	10.68
	60/5300	12.00	10.71
	64/5320	12.00	10.56
802.11nHT40(MCS0)	54/5270	12.00	10.51
	62/5310	12.00	10.56
802.11ac-VHT20(MCS0)	52/5260	12.00	11.19
	56/5280	12.00	11.23
	60/5300	12.00	11.20
	64/5320	12.00	11.05
802.11ac-VHT40(MCS0)	54/5270	12.00	11.02
	62/5310	12.00	10.96
802.11ac-VHT80(MCS0)	58/5290	12.00	9.72
5GHz Wi-Fi (U-NII-2C)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	12.50	11.29
	116/5580	12.50	11.31
	132/5660	12.50	11.30
	140/5700	12.50	11.24
802.11nHT20 (MCS0)	100/5500	12.00	10.66
	116/5580	12.00	10.62
	132/5660	12.00	10.59
	140/5700	12.00	10.63
802.11nHT40 (MCS0)	102/5510	12.00	10.57
	110/5550	12.00	10.60
	118/5590	12.00	10.69
	134/5670	12.00	11.07
802.11ac-VHT20 (MCS0)	100/5500	12.00	11.26
	116/5580	12.00	11.23
	132/5660	12.00	11.17
	140/5700	12.00	11.16
802.11ac-VHT40 (MCS0)	102/5510	12.00	11.04
	110/5550	12.00	11.06
	118/5590	12.00	11.09
	134/5670	12.00	10.98

802.11ac-VHT80 (MCS0)	106/5530	12.00	9.77
	122/5610	12.00	9.84
5GHz Wi-Fi (U-NII-3)	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	149/5745	12.50	11.15
	157/5785	12.50	11.18
	165/5825	12.50	11.20
802.11nHT20(MCS0)	149/5745	12.00	10.58
	157/5785	12.00	10.57
	165/5825	12.00	10.58
802.11nHT40(MCS0)	151/5755	12.00	10.96
	159/5795	12.00	10.88
802.11ac-VHT20(MCS0)	149/5745	12.00	11.04
	157/5785	12.00	11.12
	165/5825	12.00	11.06
802.11ac-VHT40(MCS0)	151/5755	12.00	10.69
	159/5795	12.00	10.97
802.11ac-VHT80(MCS0)	155/5775	12.00	9.80

9.7 Bluetooth Mode

Bluetooth	Conducted Power(dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/2402 MHz	Ch 39/2441 MHz	Ch 78/2480 MHz	
GFSK	7.65	8.70	7.81	9.50
$\pi/4$ DQPSK	7.43	8.76	7.56	9.50
8DPSK	7.61	8.79	7.79	9.50
Bluetooth LE	Ch 0/2402 MHz	Ch 19/2440 MHz	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK(1M)	-5.24	-4.73	-5.30	2.50
GFSK(2M)	-5.38	-4.70	-5.30	2.50

10 Measured and Reported (Scaled) SAR Results

10.1 EUT Antenna Locations

The Detailed Antenna Locations Refer to *Antenna Locations*.

Ant 0	GSM 1900; WCDMA Band 2/4; LTE Band 2/4/25/66; NR n2(SA)/ NR n66(SA)
Ant 1	LTE Band 7/38/41 (ENDC)
Ant 3	LTE Band 7/38/41; NR n7(SA&NSA)/ NR n38(SA)/ NR n41(SA&NSA)
Ant 4	GSM 850; WCDMA Band 5; LTE Band 5/12/13/17/26; NR n5(SA&NSA)/ NR n26(SA)/ NR n71(SA)
Ant 7	LTE Band 48; NR n48(SA)/ NR n77(SA)/ NR n78(SA)
Ant 6	Wi-Fi 2.4G/ Wi-Fi 5G/ Bluetooth

Overall (Length x Width): 164.09 mm x 75.04 mm							
Overall Diagonal: 174.81 mm/Display Diagonal: 162.73mm							
Distance of the Antenna to the EUT Surface/Edge							
Antenna		Back Side	Front Side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna	Ant 0	<25mm	<25mm	<25mm	<25mm	>25mm	<25mm
	Ant 3	<25mm	<25mm	<25mm	>25mm	<25mm	>25mm
	Ant 4	<25mm	<25mm	<25mm	>25mm	<25mm	>25mm
	Ant 7	<25mm	<25mm	>25mm	<25mm	<25mm	>25mm
Div-Antenna	Ant 1	<25mm	<25mm	<25mm	>25mm	>25mm	<25mm
Bluetooth/Wi-Fi Antenna	Ant 6	<25mm	<25mm	>25mm	<25mm	<25mm	>25mm
Hotspot mode, Positions for SAR Tests							
Mode		Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna	Ant 0	Yes	Yes	Yes	Yes	N/A	Yes
	Ant 3	Yes	Yes	Yes	N/A	Yes	N/A
	Ant 4	Yes	Yes	Yes	N/A	Yes	N/A
	Ant 7	Yes	Yes	N/A	Yes	Yes	N/A
Div-Antenna	Ant 1	Yes	Yes	Yes	N/A	N/A	Yes
Bluetooth/Wi-Fi Antenna	Ant 6	Yes	Yes	N/A	Yes	Yes	N/A

Note:

- Per KDB 941225 D06, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, the test distance is 10mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.
- For smart phones with an overall diagonal dimension is 162.73mm. Per KDB 648474 D04, for smart phones with a display diagonal dimension $> 15.0\text{ cm}$ or an overall diagonal dimension $> 16.0\text{ cm}$, product specific 10-g SAR must be tested as a phablet to determine SAR compliance. For Phablet, Since hotspot mode 1-g *reported* SAR $< 1.2\text{W/kg}$, product specific 10-g SAR is no required.
- Per FCC KDB 447498 D01, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - $\leq 0.8\text{ W/kg}$ or 2.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\leq 100\text{MHz}$
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.

- c) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz.
4. When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
5. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.

10.2 Measured SAR Results

Note:

1. The value with blue color is the maximum SAR Value of each test band.
2. For GSM, when multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.
3. For WCDMA, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
4. For LTE, QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(1g).

Head SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
GSM 850	Main	Left Cheek	0	GSM	Receiver on	N/A	N/A	190/836.6	32.00	30.90	0.619	-0.010	1.29	0.797	/
		Left Tilt	0	GSM	Receiver on	N/A	N/A	190/836.6	32.00	30.90	0.449	0.070	1.29	0.578	/
		Right Cheek	0	GSM	Receiver on	N/A	N/A	190/836.6	32.00	30.90	0.616	0.110	1.29	0.794	/
		Right Tilt	0	GSM	Receiver on	N/A	N/A	190/836.6	32.00	30.90	0.663	0.010	1.29	0.854	/
		Right Tilt	0	GSM	Receiver on	N/A	N/A	128/824.2	32.00	30.74	0.737	0.020	1.34	0.985	26
		Right Tilt	0	GSM	Receiver on	N/A	N/A	251/848.8	32.00	30.83	0.597	0.060	1.31	0.782	/
GSM 1900	Main	Left Cheek	0	GSM	Receiver on	N/A	N/A	661/1880	31.50	30.14	0.067	0.164	1.37	0.092	/
		Left Tilt	0	GSM	Receiver on	N/A	N/A	661/1880	31.50	30.14	0.057	0.028	1.37	0.078	/
		Right Cheek	0	GSM	Receiver on	N/A	N/A	661/1880	31.50	30.14	0.098	0.046	1.37	0.134	27
		Right Tilt	0	GSM	Receiver on	N/A	N/A	661/1880	31.50	30.14	0.053	0.036	1.37	0.073	/
WCDMA II	Main	Left Cheek	0	RMC 12.2K	Receiver on	N/A	N/A	9400/1880	24.50	23.27	0.147	-0.190	1.33	0.195	28
		Left Tilt	0	RMC 12.2K	Receiver on	N/A	N/A	9400/1880	24.50	23.27	0.088	0.010	1.33	0.117	/
		Right Cheek	0	RMC 12.2K	Receiver on	N/A	N/A	9400/1880	24.50	23.27	0.078	-0.184	1.33	0.104	/
		Right Tilt	0	RMC 12.2K	Receiver on	N/A	N/A	9400/1880	24.50	23.27	0.082	0.020	1.33	0.109	/
WCDMA IV	Main	Left Cheek	0	RMC 12.2K	Receiver on	N/A	N/A	1413/1732.6	24.50	23.38	0.135	0.022	1.29	0.175	29
		Left Tilt	0	RMC 12.2K	Receiver on	N/A	N/A	1413/1732.6	24.50	23.38	0.060	0.039	1.29	0.078	/
		Right Cheek	0	RMC 12.2K	Receiver on	N/A	N/A	1413/1732.6	24.50	23.38	0.068	0.103	1.29	0.088	/
		Right Tilt	0	RMC 12.2K	Receiver on	N/A	N/A	1413/1732.6	24.50	23.38	0.045	0.150	1.29	0.058	/
WCDMA V	Main	Left Cheek	0	RMC 12.2K	Receiver on	N/A	N/A	4183/836.6	22.50	21.11	0.352	0.080	1.38	0.485	/
		Left Tilt	0	RMC 12.2K	Receiver on	N/A	N/A	4183/836.6	22.50	21.11	0.305	-0.050	1.38	0.420	/
		Right Cheek	0	RMC 12.2K	Receiver on	N/A	N/A	4183/836.6	22.50	21.11	0.476	-0.034	1.38	0.656	30
		Right Tilt	0	RMC 12.2K	Receiver on	N/A	N/A	4183/836.6	22.50	21.11	0.417	-0.020	1.38	0.574	/
LTE 7	Main	Left Cheek	0	QPSK	Receiver on	1	99	20850/2510	20.50	19.76	0.415	0.016	1.19	0.492	/
			0	QPSK	Receiver on	50%	50	20850/2510	20.50	19.71	0.333	0.020	1.20	0.399	/
		Left Tilt	0	QPSK	Receiver on	1	99	20850/2510	20.50	19.76	0.314	0.120	1.19	0.372	/
			0	QPSK	Receiver on	50%	50	20850/2510	20.50	19.71	0.320	0.020	1.20	0.384	/
		Right Cheek	0	QPSK	Receiver on	1	99	20850/2510	20.50	19.76	0.943	0.040	1.19	1.118	/

			0	QPSK	Receiver on	1	0	21100/2535	20.50	19.45	0.935	-0.060	1.27	1.191	/		
			0	QPSK	Receiver on	1	99	21350/2560	20.50	19.33	0.723	-0.018	1.31	0.947	/		
			0	QPSK	Receiver on	50%	50	20850/2510	20.50	19.71	0.995	0.010	1.20	1.194	31		
			0	QPSK	Receiver on	50%	25	21100/2535	20.50	19.51	0.942	0.052	1.26	1.183	/		
			0	QPSK	Receiver on	50%	50	21350/2560	20.50	19.42	0.785	0.190	1.28	1.007	/		
			0	QPSK	Receiver on	100%	0	20850/2510	20.50	19.68	0.973	-0.093	1.21	1.175	/		
			0	QPSK	Receiver on	100%	0	21100/2535	20.50	19.47	0.941	-0.085	1.27	1.193	/		
			0	QPSK	Receiver on	100%	0	21350/2560	20.50	19.34	0.836	0.190	1.31	1.092	/		
		0	QPSK	Receiver on	1	99	20850/2510	20.50	19.76	0.643	0.060	1.19	0.762	/			
		0	QPSK	Receiver on	50%	50	20850/2510	20.50	19.71	0.628	0.120	1.20	0.753	/			
		Right Cheek Repeat	0	QPSK	Receiver on	50%	50	20850/2510	20.50	19.71	0.965	-0.029	1.20	1.158	/		
LTE 7	Main	Right Cheek CA	0	QPSK	Receiver on	1	99	20850/2510	20.50	20.41	0.468	0.018	1.02	0.478	/		
			1	0	21048/2529.8												
LTE 12 (LTE 17)	Main	Left Cheek	0	QPSK	Receiver on	1	25	23060/704	22.50	21.49	0.594	0.040	1.26	0.750	/		
			0	QPSK	Receiver on	50%	25	23095/707.5	22.50	21.46	0.506	0.060	1.27	0.643	/		
		Left Tilt	0	QPSK	Receiver on	1	25	23060/704	22.50	21.49	0.429	0.060	1.26	0.541	/		
			0	QPSK	Receiver on	50%	25	23095/707.5	22.50	21.46	0.365	0.030	1.27	0.464	/		
		Right Cheek	0	QPSK	Receiver on	1	25	23060/704	22.50	21.49	0.695	0.060	1.26	0.877	/		
			0	QPSK	Receiver on	1	25	23095/707.5	22.50	21.45	0.561	0.020	1.27	0.714	/		
			0	QPSK	Receiver on	1	49	23130/711	22.50	21.27	0.425	0.080	1.33	0.564	/		
		Right Tilt	0	QPSK	Receiver on	50%	25	23095/707.5	22.50	21.46	0.601	0.150	1.27	0.764	/		
			0	QPSK	Receiver on	1	25	23060/704	22.50	21.49	0.712	0.090	1.26	0.898	32		
			0	QPSK	Receiver on	1	25	23095/707.5	22.50	21.45	0.538	0.080	1.27	0.685	/		
			0	QPSK	Receiver on	1	49	23130/711	22.50	21.27	0.579	0.050	1.33	0.769	/		
			0	QPSK	Receiver on	50%	25	23095/707.5	22.50	21.46	0.587	0.080	1.27	0.746	/		
		LTE 13	Main	Left Cheek	0	QPSK	Receiver on	1	49	23230/782	22.50	21.58	0.517	0.020	1.24	0.639	/
					0	QPSK	Receiver on	50%	13	23230/782	22.50	21.39	0.425	0.050	1.29	0.549	/
Left Tilt	0			QPSK	Receiver on	1	49	23230/782	22.50	21.58	0.591	0.030	1.24	0.730	/		
	0			QPSK	Receiver on	50%	13	23230/782	22.50	21.39	0.486	0.080	1.29	0.628	/		
Right Cheek	0			QPSK	Receiver on	1	49	23230/782	22.50	21.58	0.609	0.010	1.24	0.753	/		
	0			QPSK	Receiver on	50%	13	23230/782	22.50	21.39	0.506	0.070	1.29	0.653	/		
Right Tilt	0			QPSK	Receiver on	1	49	23230/782	22.50	21.58	0.741	0.040	1.24	0.916	33		
	0	QPSK	Receiver on	50%	13	23230/782	22.50	21.39	0.622	0.060	1.29	0.803	/				
	0	QPSK	Receiver on	100%	0	23230/782	22.50	21.35	0.464	0.053	1.30	0.605	/				
LTE 25 (LTE 2)	Main	Left Cheek	0	QPSK	Receiver on	1	99	26140/1860	25.00	23.68	0.204	0.160	1.36	0.276	34		
			0	QPSK	Receiver on	50%	0	26590/1905	24.00	22.59	0.162	0.020	1.38	0.224	/		
		Left Tilt	0	QPSK	Receiver on	1	99	26140/1860	25.00	23.68	0.071	0.030	1.36	0.096	/		
			0	QPSK	Receiver on	50%	0	26590/1905	24.00	22.59	0.057	0.120	1.38	0.079	/		
		Right Cheek	0	QPSK	Receiver on	1	99	26140/1860	25.00	23.68	0.111	0.010	1.36	0.150	/		
			0	QPSK	Receiver on	50%	0	26590/1905	24.00	22.59	0.094	0.010	1.38	0.130	/		
Right Tilt	0	QPSK	Receiver on	1	99	26140/1860	25.00	23.68	0.113	0.040	1.36	0.153	/				

			0	QPSK	Receiver on	50%	0	26590/1905	24.00	22.59	0.100	0.010	1.38	0.138	/		
LTE 26 (LTE 5)	Main	Left Cheek	0	QPSK	Receiver on	1	74	26765/821.5	21.50	20.29	0.738	0.040	1.32	0.975	35		
			0	QPSK	Receiver on	1	74	26865/831.5	21.50	20.24	0.716	0.020	1.34	0.957	/		
			0	QPSK	Receiver on	1	74	26965/841.5	21.50	20.34	0.717	-0.060	1.31	0.937	/		
			0	QPSK	Receiver on	50%	18	26765/821.5	21.50	20.26	0.582	-0.020	1.33	0.774	/		
			0	QPSK	Receiver on	100%	0	26965/841.5	21.50	20.22	0.571	0.020	1.34	0.767	/		
		Left Tilt	0	QPSK	Receiver on	1	74	26965/841.5	21.50	20.34	0.603	0.160	1.31	0.788	/		
			0	QPSK	Receiver on	50%	18	26765/821.5	21.50	20.26	0.544	0.110	1.33	0.724	/		
		Right Cheek	0	QPSK	Receiver on	1	74	26965/841.5	21.50	20.34	0.612	0.000	1.31	0.799	/		
			0	QPSK	Receiver on	50%	18	26765/821.5	21.50	20.26	0.518	0.090	1.33	0.689	/		
		Right Tilt	0	QPSK	Receiver on	1	74	26965/841.5	21.50	20.34	0.606	-0.100	1.31	0.792	/		
0	QPSK		Receiver on	50%	18	26765/821.5	21.50	20.26	0.542	0.050	1.33	0.721	/				
LTE 41 (LTE 38)	Main	Left Cheek	0	QPSK	Receiver on	1	50	41490/2680	22.50	21.78	0.209	0.020	1.18	0.247	/		
			0	QPSK	Receiver on	50%	50	41490/2680	22.50	21.79	0.211	0.013	1.18	0.248	/		
		Left Tilt	0	QPSK	Receiver on	1	50	41490/2680	22.50	21.78	0.272	0.014	1.18	0.321	/		
			0	QPSK	Receiver on	50%	50	41490/2680	22.50	21.79	0.268	0.020	1.18	0.316	/		
		Right Cheek	0	QPSK	Receiver on	1	50	41490/2680	22.50	21.78	0.432	0.034	1.18	0.510	/		
			0	QPSK	Receiver on	50%	50	41490/2680	22.50	21.79	0.485	0.080	1.18	0.571	36		
Right Tilt	0	QPSK	Receiver on	1	50	41490/2680	22.50	21.78	0.332	-0.020	1.18	0.392	/				
	0	QPSK	Receiver on	50%	50	41490/2680	22.50	21.79	0.282	0.040	1.18	0.332	/				
LTE 41	Main	Right Cheek CA	0	QPSK	Receiver on	1	99	39750/2506	22.50	22.44	0.209	0.120	1.01	0.212	/		
			1			0	39948/2525.8										
LTE 48	Main	Left Cheek	0	QPSK	Receiver on	1	99	56640/3690	22.00	20.81	0.706	0.011	1.32	0.929	/		
			0	QPSK	Receiver on	1	99	56340/3660	22.00	20.51	0.705	0.027	1.41	0.994	/		
			0	QPSK	Receiver on	1	50	56490/3675	22.00	20.62	0.695	-0.010	1.37	0.955	/		
			0	QPSK	Receiver on	50%	50	56640/3690	22.00	20.81	0.702	0.015	1.32	0.923	/		
			0	QPSK	Receiver on	50%	50	56340/3660	22.00	20.54	0.695	0.012	1.40	0.973	/		
			0	QPSK	Receiver on	50%	0	56490/3675	22.00	20.64	0.706	0.030	1.37	0.966	/		
			0	QPSK	Receiver on	100%	0	56640/3690	22.00	20.68	0.698	0.016	1.36	0.946	/		
			0	QPSK	Receiver on	100%	0	56340/3660	22.00	20.37	0.708	-0.027	1.46	1.030	37		
			0	QPSK	Receiver on	100%	0	56490/3675	22.00	20.55	0.699	0.050	1.40	0.976	/		
		Left Tilt	0	QPSK	Receiver on	1	99	56640/3690	22.00	20.81	0.334	0.110	1.32	0.439	/		
			0	QPSK	Receiver on	50%	50	56640/3690	22.00	20.81	0.337	0.016	1.32	0.443	/		
		Right Cheek	0	QPSK	Receiver on	1	99	56640/3690	22.00	20.81	0.226	0.040	1.32	0.297	/		
			0	QPSK	Receiver on	50%	50	56640/3690	22.00	20.81	0.220	0.020	1.32	0.289	/		
		Right Tilt	0	QPSK	Receiver on	1	99	56640/3690	22.00	20.81	0.179	0.036	1.32	0.235	/		
			0	QPSK	Receiver on	50%	50	56640/3690	22.00	20.81	0.189	0.014	1.32	0.249	/		
		LTE 66 (LTE 4)	Main	Left Cheek	0	QPSK	Receiver on	1	50	132072/1720	25.00	23.87	0.137	0.080	1.30	0.178	38
					0	QPSK	Receiver on	50%	0	132072/1720	24.00	22.75	0.106	0.050	1.33	0.141	/
				Left Tilt	0	QPSK	Receiver on	1	50	132072/1720	25.00	23.87	0.051	0.020	1.30	0.066	/
0	QPSK				Receiver on	50%	0	132072/1720	24.00	22.75	0.041	0.120	1.33	0.054	/		
Right Cheek	0			QPSK	Receiver on	1	50	132072/1720	25.00	23.87	0.088	0.070	1.30	0.115	/		
	0			QPSK	Receiver on	50%	0	132072/1720	24.00	22.75	0.066	0.090	1.33	0.088	/		

		Right Tilt	0	QPSK	Receiver on	1	50	132072/1720	25.00	23.87	0.057	0.040	1.30	0.074	/
			0	QPSK	Receiver on	50%	0	132072/1720	24.00	22.75	0.046	0.050	1.33	0.061	/

Band	Antenna	Test Position	Dist. (mm)	Type	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.			
n2	Main	Left Cheek	0	SA	DFT-s-OFDM	Receiver on	1	214	378000/1890	24.50	23.46	0.121	-0.170	1.27	0.154	39			
			0			Receiver on	50%	54	378000/1890	24.50	23.39	0.115	0.029	1.29	0.148	/			
		Left Tilt	0			Receiver on	1	214	378000/1890	24.50	23.46	0.036	0.024	1.27	0.046	/			
			0			Receiver on	50%	54	378000/1890	24.50	23.39	0.039	0.080	1.29	0.050	/			
		Right Cheek	0			Receiver on	1	214	378000/1890	24.50	23.46	0.085	-0.019	1.27	0.108	/			
			0			Receiver on	50%	54	378000/1890	24.50	23.39	0.084	0.022	1.29	0.108	/			
		Right Tilt	0			Receiver on	1	214	378000/1890	24.50	23.46	0.052	0.013	1.27	0.066	/			
			0			Receiver on	50%	54	378000/1890	24.50	23.39	0.055	0.010	1.29	0.071	/			
n7	Main	Left Cheek	0	SA	DFT-s-OFDM	Receiver on	1	104	502000/2510	21.00	20.15	0.174	0.015	1.22	0.212	/			
			0			Receiver on	50%	25	502000/2510	21.00	20.28	0.201	0.010	1.18	0.237	/			
		Left Tilt	0			Receiver on	1	104	502000/2510	21.00	20.15	0.234	-0.028	1.22	0.285	/			
			0			Receiver on	50%	25	502000/2510	21.00	20.28	0.235	0.017	1.18	0.277	/			
		Right Cheek	0			Receiver on	1	104	502000/2510	21.00	20.15	0.814	-0.033	1.22	0.990	/			
			0			Receiver on	1	1	507000/2535	21.00	20.10	0.918	0.027	1.23	1.129	/			
			0			Receiver on	1	1	512000/2560	21.00	19.96	0.927	0.014	1.27	1.178	/			
			0			Receiver on	50%	25	502000/2510	21.00	20.28	0.814	-0.030	1.18	0.961	/			
			0			Receiver on	50%	25	507000/2535	21.00	20.12	0.982	0.046	1.22	1.203	/			
			0			Receiver on	50%	25	512000/2560	21.00	19.92	0.928	0.030	1.28	1.190	/			
		Right Cheek Repeat	0			Receiver on	100%	0	502000/2510	21.00	20.28	0.832	0.010	1.18	0.982	/			
			0			Receiver on	100%	0	507000/2535	21.00	20.17	0.978	-0.018	1.21	1.184	/			
			0			Receiver on	100%	0	512000/2560	21.00	20.00	1.000	0.080	1.26	1.259	40			
			0			Receiver on	100%	0	512000/2560	21.00	20.00	0.992	0.060	1.26	1.249	/			
		Main	Right Cheek			0	NSA	DFT-s-OFDM	Receiver on	1	1	502000/2510	19.00	18.08	0.491	0.036	1.24	0.607	/
						0			Receiver on	50%	25	502000/2510	19.00	18.15	0.481	0.010	1.22	0.585	/
	Right Cheek SIM2		0	Receiver on	100%	0			512000/2560	21.00	20.00	0.997	0.020	1.26	1.255	/			
			0	Receiver on	100%	0			512000/2560	21.00	20.00	0.997	0.020	1.26	1.255	/			
	n26 (n5)	Main	Left Cheek	0	SA	DFT-s-OFDM	Receiver on	1	104	164800/824	24.50	22.91	0.763	0.027	1.44	1.100	/		
				0			Receiver on	1	1	166300/831.5	24.50	22.86	0.780	0.030	1.46	1.138	/		
0				Receiver on			1	1	167800/839	24.50	22.91	0.776	0.016	1.44	1.119	/			
0				Receiver on			50%	25	164800/824	24.50	23.03	0.789	-0.023	1.40	1.107	41			
0				Receiver on			50%	25	166300/831.5	24.50	23.01	0.780	0.018	1.41	1.099	/			
0				Receiver on			50%	25	167800/839	24.50	22.94	0.774	0.024	1.43	1.109	/			

		Left Tilt	0	NSA	DFT-s-OFDM	Receiver on	100%	0	164800/824	23.50	22.02	0.626	-0.014	1.41	0.880	/				
			0			Receiver on	100%	0	166300/831.5	23.50	22.00	0.626	0.010	1.41	0.884	/				
			0			Receiver on	100%	0	167800/839	23.50	21.97	0.614	0.020	1.42	0.873	/				
			0			Receiver on	1	104	164800/824	24.50	22.91	0.467	0.027	1.44	0.673	/				
		Right Cheek	0			Receiver on	50%	25	164800/824	24.50	23.03	0.468	0.015	1.40	0.657	/				
			0			Receiver on	1	104	164800/824	24.50	22.91	0.636	0.010	1.44	0.917	/				
			0			Receiver on	1	1	166300/831.5	24.50	22.86	0.635	-0.028	1.46	0.926	/				
			0			Receiver on	1	1	167800/839	24.50	22.91	0.642	-0.010	1.44	0.926	/				
			0			Receiver on	50%	25	164800/824	24.50	23.03	0.644	0.040	1.40	0.903	/				
			0			Receiver on	50%	25	166300/831.5	24.50	23.01	0.648	0.028	1.41	0.913	/				
			0			Receiver on	50%	25	167800/839	24.50	22.94	0.650	0.015	1.43	0.931	/				
			0			Receiver on	1	104	164800/824	24.50	22.91	0.422	0.012	1.44	0.609	/				
		Right Tilt	0			Receiver on	50%	25	164800/824	24.50	23.03	0.417	0.031	1.40	0.585	/				
			0			Receiver on	1	104	166300/831.5	21.50	19.91	0.293	0.032	1.44	0.423	/				
		Main	Left Cheek			0	Receiver on	50%	25	164800/824	21.50	20.04	0.284	0.015	1.40	0.397	/			
						0	Receiver on	1	104	166300/831.5	21.50	19.91	0.219	0.040	1.44	0.316	/			
Left Tilt	0		Receiver on	50%	25	164800/824	21.50	20.04	0.226	0.018	1.40	0.316	/							
	0		Receiver on	1	104	166300/831.5	21.50	19.91	0.294	0.120	1.44	0.424	/							
Right Cheek	0		Receiver on	50%	25	164800/824	21.50	20.04	0.291	0.000	1.40	0.407	/							
	0		Receiver on	1	104	166300/831.5	21.50	19.91	0.252	0.020	1.44	0.363	/							
Right Tilt	0		Receiver on	50%	25	164800/824	21.50	20.04	0.268	0.012	1.40	0.375	/							
	0		Receiver on	1	104	166300/831.5	21.50	19.91	0.294	0.120	1.44	0.424	/							
n41 (n38)	Main	Left Cheek	0	SA	DFT-s-OFDM	Receiver on	1	271	528000/2640	21.00	20.34	0.194	0.017	1.16	0.226	/				
			0			Receiver on	50%	67	509202/2546.01	21.00	20.39	0.543	0.030	1.15	0.625	/				
		Left Tilt	0			Receiver on	1	271	528000/2640	21.00	20.34	0.104	0.049	1.16	0.121	/				
			0			Receiver on	50%	67	509202/2546.01	21.00	20.39	0.314	0.014	1.15	0.361	/				
		Right Cheek	0			Receiver on	1	271	528000/2640	21.00	20.34	0.341	-0.120	1.16	0.397	/				
			0			Receiver on	50%	67	509202/2546.01	21.00	20.39	1.050	0.180	1.15	1.208	42				
			0			Receiver on	50%	67	518598/2592.99	21.00	19.95	0.948	0.027	1.27	1.207	/				
			0			Receiver on	50%	67	528000/2640	21.00	19.89	0.915	0.021	1.29	1.181	/				
			0			Receiver on	100%	0	509202/2546.01	21.00	20.10	0.982	-0.030	1.23	1.208	/				
			0			Receiver on	100%	0	518598/2592.99	21.00	19.93	0.937	0.110	1.28	1.199	/				
			0			Receiver on	100%	0	528000/2640	21.00	19.92	0.864	0.039	1.28	1.108	/				
			0			Receiver on	50%	67	509202/2546.01	21.00	20.39	0.986	0.012	1.15	1.135	/				
		Right Cheek Repeat	0			Receiver on	1	271	528000/2640	21.00	20.34	0.274	0.024	1.16	0.319	/				
			0			Receiver on	50%	67	509202/2546.01	21.00	20.39	0.603	0.080	1.15	0.694	/				
		n41	Main			Right Cheek	0	NSA	DFT-s-OFDM	Receiver on	1	271	528000/2640	19.00	17.93	0.215	0.010	1.28	0.275	/
							0			Receiver on	50%	67	509202/2546.01	19.00	18.08	0.591	0.170	1.24	0.730	/
n48	Main	Left Cheek	0	SA	DFT-s-OFDM	Receiver on	1	271	643332/3649.98	18.00	17.45	0.710	0.060	1.14	0.806	/				
			0			Receiver on	1	271	640000/3600	18.00	17.22	0.780	0.017	1.20	0.933	/				
			0			Receiver on	1	271	641666/3624.99	18.00	17.34	0.747	-0.040	1.16	0.870	/				
			0			Receiver on	50%	67	640000/3600	18.00	17.22	0.827	0.023	1.20	0.990	/				

			0	SA	DFT-s-OFDM	Receiver on	50%	67	643332/3649.98	18.00	17.18	0.837	0.030	1.21	1.011	/	
			0			Receiver on	50%	67	641666/3624.99	18.00	17.20	0.839	0.025	1.20	1.009	/	
			0			Receiver on	100%	0	640000/3600	18.00	17.15	0.957	0.020	1.22	1.164	43	
			0			Receiver on	100%	0	643332/3649.98	18.00	17.24	0.815	-0.013	1.19	0.971	/	
			0			Receiver on	100%	0	641666/3624.99	18.00	17.18	0.834	0.089	1.21	1.007	/	
		Left Cheek Repeat	0			Receiver on	100%	0	640000/3600	18.00	17.15	0.938	0.050	1.22	1.141	/	
			0			Receiver on	1	271	643332/3649.98	18.00	17.45	0.275	0.046	1.14	0.312	/	
		Left Tilt	0			Receiver on	50%	67	640000/3600	18.00	17.22	0.319	0.026	1.20	0.382	/	
			0			Receiver on	1	271	643332/3649.98	18.00	17.45	0.353	0.190	1.14	0.401	/	
		Right Cheek	0			Receiver on	50%	67	640000/3600	18.00	17.22	0.379	-0.069	1.20	0.454	/	
			0			Receiver on	1	271	643332/3649.98	18.00	17.45	0.161	0.011	1.14	0.183	/	
		Right Tilt	0			Receiver on	50%	67	640000/3600	18.00	17.22	0.220	-0.030	1.20	0.263	/	
			0			Receiver on	1	1	352000/1760	24.50	23.32	0.044	0.025	1.31	0.058	/	
		n66	Main			SA	DFT-s-OFDM	QPSK	Receiver on	50%	54	349000/1745	24.50	23.40	0.042	-0.120	1.29
Receiver on	1			1	352000/1760				24.50	23.32	0.029	0.026	1.31	0.038	/		
Receiver on	50%			54	349000/1745				24.50	23.40	0.029	-0.020	1.29	0.037	/		
Receiver on	1			1	352000/1760				24.50	23.32	0.075	0.028	1.31	0.098	44		
Receiver on	50%			54	349000/1745				24.50	23.40	0.070	0.059	1.29	0.090	/		
Receiver on	1			1	352000/1760				24.50	23.32	0.041	0.012	1.31	0.054	/		
Receiver on	50%			54	349000/1745				24.50	23.40	0.045	-0.020	1.29	0.058	/		
Receiver on	1			1	352000/1760				24.50	23.32	0.041	0.012	1.31	0.054	/		
n71	Main	SA	DFT-s-OFDM	QPSK	Receiver on	50%	25	136100/680.5	24.50	23.19	0.326	0.022	1.35	0.441	/		
					Receiver on	1	104	134600/673	24.50	23.06	0.273	0.061	1.39	0.380	/		
					Receiver on	50%	25	136100/680.5	24.50	23.19	0.295	0.042	1.35	0.399	/		
					Receiver on	1	104	134600/673	24.50	23.06	0.315	0.015	1.39	0.439	/		
					Receiver on	50%	25	136100/680.5	24.50	23.19	0.348	0.100	1.35	0.471	/		
					Receiver on	1	104	134600/673	24.50	23.06	0.465	-0.024	1.39	0.648	/		
					Receiver on	50%	25	136100/680.5	24.50	23.19	0.495	-0.030	1.35	0.669	45		
					Receiver on	1	1	650000/3750	18.00	17.34	0.752	-0.017	1.16	0.875	/		
n77 (n78)	Main	SA	DFT-s-OFDM	QPSK	Receiver on	1	1	656000/3840	18.00	17.13	0.769	0.049	1.22	0.940	/		
					Receiver on	1	271	662000/3930	18.00	17.30	0.992	0.010	1.17	1.165	46		
					Receiver on	50%	67	662000/3930	18.00	17.35	0.981	0.012	1.16	1.139	/		
					Receiver on	50%	67	650000/3750	18.00	17.30	0.754	-0.040	1.17	0.886	/		
					Receiver on	50%	67	656000/3840	18.00	17.13	0.815	-0.013	1.22	0.996	/		
					Receiver on	100%	0	650000/3750	18.00	17.40	0.757	-0.060	1.15	0.869	/		
					Receiver on	100%	0	656000/3840	18.00	17.09	0.809	0.056	1.23	0.998	/		
					Receiver on	100%	0	662000/3930	18.00	17.22	0.972	0.120	1.20	1.163	/		
					Left Cheek Repeat	0	Receiver on	1	271	662000/3930	18.00	17.30	0.985	0.020	1.17	1.157	/
					Left Tilt	0	Receiver on	1	1	650000/3750	18.00	17.34	0.293	0.048	1.16	0.341	/
						0	Receiver on	50%	67	662000/3930	18.00	17.35	0.338	0.028	1.16	0.393	/
					Right	0	Receiver on	1	1	650000/3750	18.00	17.34	0.354	0.070	1.16	0.412	/

		Cheek	0			Receiver on	50%	67	662000/3930	18.00	17.35	0.234	0.012	1.16	0.272	/	
		Right Tilt	0			Receiver on	1	1	650000/3750	18.00	17.34	0.168	0.062	1.16	0.196	/	
			0			Receiver on	50%	67	662000/3930	18.00	17.35	0.120	-0.080	1.16	0.139	/	
		Left Cheek	0			Receiver on	1	1	633332/3500	18.00	17.22	0.793	0.120	1.20	0.949	/	
			0			Receiver on	50%	67	633332/3500	18.00	17.42	0.889	0.070	1.14	1.016	/	
n77	Main	Left Cheek	0	NSA	DFT-s-OFDM	Receiver on	1	271	656000/3840	16.50	15.40	0.315	-0.017	1.29	0.406	/	
			0			QPSK	Receiver on	50%	67	650000/3750	16.50	15.73	0.469	0.010	1.19	0.560	/
n77	Main	Left Cheek	0	SA	CP-OFDM	Receiver on	1	1	662000/3930	18.00	17.45	0.850	0.110	1.14	0.965	/	
			0			QPSK	Receiver on	1	1	650000/3750	18.00	17.33	0.798	-0.150	1.17	0.931	/
			0			QPSK	Receiver on	1	1	656000/3840	18.00	17.45	0.710	0.056	1.14	0.806	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
2.4G	ANT 6	Left Cheek	0	802.11b	100.0%	Receiver on	6/2437	17.00	16.14	0.487	0.100	1.22	0.594	47
		Left Tilt	0	802.11b	100.0%	Receiver on	6/2437	17.00	16.14	0.443	0.035	1.22	0.540	/
		Right Cheek	0	802.11b	100.0%	Receiver on	6/2437	17.00	16.14	0.114	0.018	1.22	0.139	/
		Right Tilt	0	802.11b	100.0%	Receiver on	6/2437	17.00	16.14	0.112	0.010	1.22	0.137	/
2.4G	ANT 6	Left Cheek	0	802.11b	100.0%	WWAN+WLAN Receiver on	6/2437	12.00	11.25	0.155	0.050	1.19	0.184	/
		Left Tilt	0	802.11b	100.0%	WWAN+WLAN Receiver on	6/2437	12.00	11.25	0.142	0.026	1.19	0.169	/
		Right Cheek	0	802.11b	100.0%	WWAN+WLAN Receiver on	6/2437	12.00	11.25	0.042	-0.071	1.19	0.050	/
		Right Tilt	0	802.11b	100.0%	WWAN+WLAN Receiver on	6/2437	12.00	11.25	0.045	0.040	1.19	0.053	/
U-NII-1	ANT 6	Left Cheek	0	802.11a	100.0%	Receiver on	36/5180	16.00	14.36	0.536	-0.070	1.46	0.782	48
		Left Tilt	0	802.11a	100.0%	Receiver on	36/5180	16.00	14.36	0.427	0.028	1.46	0.623	/
		Right Cheek	0	802.11a	100.0%	Receiver on	36/5180	16.00	14.36	0.123	0.050	1.46	0.179	/
		Right Tilt	0	802.11a	100.0%	Receiver on	36/5180	16.00	14.36	0.163	0.019	1.46	0.238	/
U-NII-1	ANT 6	Left Cheek	0	802.11a	100.0%	WWAN+WLAN Receiver on	36/5180	12.50	11.55	0.188	0.042	1.24	0.234	/
		Left Tilt	0	802.11a	100.0%	WWAN+WLAN Receiver on	36/5180	12.50	11.55	0.083	-0.013	1.24	0.103	/
		Right Cheek	0	802.11a	100.0%	WWAN+WLAN Receiver on	36/5180	12.50	11.55	0.050	0.020	1.24	0.062	/
		Right Tilt	0	802.11a	100.0%	WWAN+WLAN Receiver on	36/5180	12.50	11.55	0.034	0.012	1.24	0.042	/
U-NII-2A	ANT 6	Left Cheek	0	802.11a	100.0%	Receiver on	60/5300	16.00	14.34	0.467	0.070	1.47	0.684	/
		Left Tilt	0	802.11a	100.0%	Receiver on	60/5300	16.00	14.34	0.524	0.048	1.47	0.768	/
		Right Cheek	0	802.11a	100.0%	Receiver on	60/5300	16.00	14.34	0.182	-0.022	1.47	0.267	/
		Right Tilt	0	802.11a	100.0%	Receiver on	60/5300	16.00	14.34	0.242	-0.030	1.47	0.355	/
U-NII-2A	ANT 6	Left Cheek	0	802.11a	100.0%	WWAN+WLAN	60/5300	12.50	11.38	0.172	0.014	1.29	0.223	/

								Receiver on							
		Left Tilt	0	802.11a	100.0%			WWAN+WLAN Receiver on	60/5300	12.50	11.38	0.130	-0.010	1.29	0.168 /
		Right Cheek	0	802.11a	100.0%			WWAN+WLAN Receiver on	60/5300	12.50	11.38	0.053	0.069	1.29	0.069 /
		Right Tilt	0	802.11a	100.0%			WWAN+WLAN Receiver on	60/5300	12.50	11.38	0.064	0.098	1.29	0.083 /
U-NII-2C	ANT 6	Left Cheek	0	802.11a	100.0%			Receiver on	140/5700	16.00	14.52	0.240	0.190	1.41	0.337 /
		Left Tilt	0	802.11a	100.0%			Receiver on	140/5700	16.00	14.52	0.331	0.000	1.41	0.465 /
		Right Cheek	0	802.11a	100.0%			Receiver on	140/5700	16.00	14.52	0.177	0.018	1.41	0.249 /
		Right Tilt	0	802.11a	100.0%			Receiver on	140/5700	16.00	14.52	0.160	0.027	1.41	0.225 /
U-NII-2C	ANT 6	Left Cheek	0	802.11a	100.0%			WWAN+WLAN Receiver on	116/5580	12.50	11.31	0.090	0.100	1.32	0.118 /
		Left Tilt	0	802.11a	100.0%			WWAN+WLAN Receiver on	116/5580	12.50	11.31	0.135	0.023	1.32	0.178 /
		Right Cheek	0	802.11a	100.0%			WWAN+WLAN Receiver on	116/5580	12.50	11.31	0.067	-0.060	1.32	0.088 /
		Right Tilt	0	802.11a	100.0%			WWAN+WLAN Receiver on	116/5580	12.50	11.31	0.061	0.030	1.32	0.080 /
U-NII-3	ANT 6	Left Cheek	0	802.11a	100.0%			Receiver on	157/5785	16.00	14.46	0.276	0.050	1.43	0.393 /
		Left Tilt	0	802.11a	100.0%			Receiver on	157/5785	16.00	14.46	0.277	-0.180	1.43	0.395 /
		Right Cheek	0	802.11a	100.0%			Receiver on	157/5785	16.00	14.46	0.152	0.017	1.43	0.217 /
		Right Tilt	0	802.11a	100.0%			Receiver on	157/5785	16.00	14.46	0.205	0.032	1.43	0.292 /
U-NII-3	ANT 6	Left Cheek	0	802.11a	100.0%			WWAN+WLAN Receiver on	165/5825	12.50	11.20	0.091	0.035	1.35	0.123 /
		Left Tilt	0	802.11a	100.0%			WWAN+WLAN Receiver on	165/5825	12.50	11.20	0.103	0.029	1.35	0.139 /
		Right Cheek	0	802.11a	100.0%			WWAN+WLAN Receiver on	165/5825	12.50	11.20	0.059	-0.025	1.35	0.080 /
		Right Tilt	0	802.11a	100.0%			WWAN+WLAN Receiver on	165/5825	12.50	11.20	0.084	0.015	1.35	0.113 /
Bluetooth	ANT 6	Left Cheek	0	DH5	75.9%			Full Power	39/2441	9.50	8.70	0.090	0.030	1.58	0.142 49
		Left Tilt	0	DH5	75.9%			Full Power	39/2441	9.50	8.70	0.071	0.180	1.58	0.112 /
		Right Cheek	0	DH5	75.9%			Full Power	39/2441	9.50	8.70	0.039	0.040	1.58	0.061 /
		Right Tilt	0	DH5	75.9%			Full Power	39/2441	9.50	8.70	0.030	0.080	1.58	0.047 /

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
LTE 7	Main	Right Cheek	0	QPSK	Receiver on	1	99	20850/2510	18.00	16.61	0.423	0.070	1.38	0.583	/
			0	QPSK	Receiver on	50%	50	20850/2510	18.00	16.58	0.445	0.120	1.39	0.617	50
LTE 7	DIV	Left Cheek	0	QPSK	Receiver on	1	99	21350/2560	23.00	22.06	0.196	0.050	1.24	0.243	/
			0	QPSK	Receiver on	50%	25	21100/2535	23.00	21.96	0.109	-0.049	1.27	0.138	/

		Left Tilt	0	QPSK	Receiver on	1	99	21350/2560	23.00	22.06	0.097	0.044	1.24	0.120	/
			0	QPSK	Receiver on	50%	25	21100/2535	23.00	21.96	0.050	0.071	1.27	0.064	/
		Right Cheek	0	QPSK	Receiver on	1	99	21350/2560	23.00	22.06	0.120	0.030	1.24	0.149	/
			0	QPSK	Receiver on	50%	25	21100/2535	23.00	21.96	0.111	0.180	1.27	0.141	/
		Right Tilt	0	QPSK	Receiver on	1	99	21350/2560	23.00	22.06	0.101	0.107	1.24	0.125	/
			0	QPSK	Receiver on	50%	25	21100/2535	23.00	21.96	0.050	-0.057	1.27	0.064	/
LTE 26	Main	Left Cheek	0	QPSK	Receiver on	1	38	26765/821.5	19.00	17.41	0.194	-0.010	1.44	0.280	51
			0	QPSK	Receiver on	50%	18	26865/831.5	19.00	17.37	0.176	0.065	1.46	0.256	/
		Left Tilt	0	QPSK	Receiver on	1	38	26765/821.5	19.00	17.41	0.118	-0.036	1.44	0.170	/
			0	QPSK	Receiver on	50%	18	26865/831.5	19.00	17.37	0.123	0.020	1.46	0.179	/
		Right Cheek	0	QPSK	Receiver on	1	38	26765/821.5	19.00	17.41	0.175	0.010	1.44	0.252	/
			0	QPSK	Receiver on	50%	18	26865/831.5	19.00	17.37	0.178	-0.032	1.46	0.259	/
		Right Tilt	0	QPSK	Receiver on	1	38	26765/821.5	19.00	17.41	0.165	0.013	1.44	0.238	/
			0	QPSK	Receiver on	50%	18	26865/831.5	19.00	17.37	0.164	0.030	1.46	0.239	/
LTE 41	DIV	Left Cheek	0	QPSK	Receiver on	1	50	40185/2549.5	23.50	22.33	0.407	0.060	1.31	0.533	52
			0	QPSK	Receiver on	50%	50	40185/2549.5	23.50	22.45	0.335	0.030	1.27	0.427	/
		Left Tilt	0	QPSK	Receiver on	1	50	40185/2549.5	23.50	22.33	0.170	0.020	1.31	0.223	/
			0	QPSK	Receiver on	50%	50	40185/2549.5	23.50	22.45	0.140	0.030	1.27	0.178	/
		Right Cheek	0	QPSK	Receiver on	1	50	40185/2549.5	23.50	22.33	0.248	-0.020	1.31	0.325	/
			0	QPSK	Receiver on	50%	50	40185/2549.5	23.50	22.45	0.211	0.090	1.27	0.269	/
		Right Tilt	0	QPSK	Receiver on	1	50	40185/2549.5	23.50	22.33	0.279	0.030	1.31	0.365	/
			0	QPSK	Receiver on	50%	50	40185/2549.5	23.50	22.45	0.232	0.050	1.27	0.295	/

Body-worn SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
GSM 1900	Main	Back Side	15	GSM	Receiver off	N/A	N/A	661/1880	30.50	29.23	0.264	-0.023	1.34	0.354	53
		Front Side	15	GSM	Receiver off	N/A	N/A	661/1880	30.50	29.23	0.206	0.016	1.34	0.276	/
WCDMA II	Main	Back Side	15	RMC	Receiver off	N/A	N/A	9400/1880	23.00	22.12	0.359	0.080	1.22	0.440	54
		Front Side	15	RMC	Receiver off	N/A	N/A	9400/1880	23.00	22.12	0.277	0.028	1.22	0.339	/
WCDMA IV	Main	Back Side	15	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.42	0.490	0.180	1.28	0.628	55
		Front Side	15	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.42	0.384	0.040	1.28	0.492	/
LTE 7	Main	Back Side	15	QPSK	Receiver off	1	99	20850/2510	22.50	22.08	0.534	0.030	1.10	0.588	/
			15	QPSK	Receiver off	50%	25	20850/2510	22.50	22.03	0.563	-0.030	1.11	0.627	56
		Front Side	15	QPSK	Receiver off	1	99	20850/2510	22.50	22.08	0.337	0.024	1.10	0.371	/
			15	QPSK	Receiver off	50%	25	20850/2510	22.50	22.03	0.323	0.012	1.11	0.360	/
LTE 7	Main	Back Side	15	QPSK	Receiver off	1	99	20850/2510	22.50	22.42	0.248	0.050	1.02	0.253	/
						1	0	21048/2529.8							
LTE 41 (LTE 38)	Main	Back Side	15	QPSK	Receiver off	1	50	41490/2680	25.00	23.79	0.412	0.080	1.32	0.544	57
			15	QPSK	Receiver off	50%	25	41490/2680	24.00	22.76	0.200	0.015	1.33	0.266	/
		Front Side	15	QPSK	Receiver off	1	50	41490/2680	25.00	23.79	0.211	-0.024	1.32	0.279	/
			15	QPSK	Receiver off	50%	25	41490/2680	24.00	22.76	0.165	0.050	1.33	0.220	/
LTE 41	Main	Back Side	15	QPSK	Receiver off	1	99	39750/2506	25.00	24.51	0.149	0.012	1.12	0.167	/
						1	0	39948/2525.8							
LTE 48	Main	Back Side	15	QPSK	Receiver off	1	99	56640/3690	24.00	22.83	0.325	0.030	1.31	0.425	58
			15	QPSK	Receiver off	50%	0	56640/3690	23.00	21.74	0.271	0.014	1.34	0.362	/
		Front Side	15	QPSK	Receiver off	1	99	56640/3690	24.00	22.83	0.172	0.022	1.31	0.225	/
			15	QPSK	Receiver off	50%	0	56640/3690	23.00	21.74	0.137	0.015	1.34	0.183	/
LTE 66 (LTE 4)	Main	Back Side	15	QPSK	Receiver off	1	50	132572/1770	24.00	22.85	0.337	0.012	1.30	0.439	/
			15	QPSK	Receiver off	50%	0	132072/1720	24.00	22.66	0.364	0.160	1.36	0.496	59
		Front Side	15	QPSK	Receiver off	1	50	132572/1770	24.00	22.85	0.247	0.024	1.30	0.322	/
			15	QPSK	Receiver off	50%	0	132072/1720	24.00	22.66	0.343	-0.160	1.36	0.467	/

Band	Antenna	Test Position	Dist. (mm)	Type	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
n2	Main	Back Side	15	SA	DFT-s-OFDM	Receiver off	1	214	378000/1890	24.50	23.46	0.316	0.047	1.27	0.402	/
			15			Receiver off	50%	54	378000/1890	24.50	23.39	0.321	-0.140	1.29	0.414	60
		Front Side	15		QPSK	Receiver off	1	214	378000/1890	24.50	23.46	0.287	0.022	1.27	0.365	/
			15			Receiver off	50%	54	378000/1890	24.50	23.39	0.263	-0.012	1.29	0.340	/
n7	Main	Back Side	15	SA	DFT-s-OFDM	Receiver off	1	104	502000/2510	23.50	22.22	0.415	0.090	1.34	0.557	/
			15			Receiver off	50%	25	502000/2510	23.50	22.32	0.427	0.030	1.31	0.560	61
		Front Side	15		QPSK	Receiver off	1	104	502000/2510	23.50	22.22	0.198	0.190	1.34	0.266	/
			15			Receiver off	50%	25	502000/2510	23.50	22.32	0.195	0.040	1.31	0.256	/
n7	Main	Back Side	15	NSA	DFT-s-OFDM	Receiver off	1	104	502000/2510	22.50	21.27	0.223	0.021	1.33	0.296	/

			15		QPSK	Receiver off	50%	25	502000/2510	22.50	21.45	0.277	0.018	1.27	0.353	/			
n41 (n38)	Main	Back Side	15	SA	DFT-s-OFDM	Receiver off	1	271	528000/2640	23.50	22.08	0.414	0.026	1.39	0.574	/			
			15			Receiver off	50%	67	509202/2546.01	23.50	22.17	0.525	0.090	1.36	0.713	62			
		Front Side	15		QPSK	Receiver off	1	271	528000/2640	23.50	22.08	0.178	0.017	1.39	0.247	/			
			15			Receiver off	50%	67	509202/2546.01	23.50	22.17	0.296	-0.060	1.36	0.402	/			
n41	Main	Back Side	15	NSA	DFT-s-OFDM	Receiver off	1	271	528000/2640	22.00	21.12	0.312	0.014	1.22	0.382	/			
			15		QPSK	Receiver off	50%	67	509202/2546.01	22.00	21.04	0.386	0.020	1.25	0.481	/			
n48	Main	Back Side	15	SA	DFT-s-OFDM	Receiver off	1	271	643332/3649.98	24.00	22.52	0.457	0.040	1.41	0.643	/			
			15			Receiver off	50%	67	640000/3600	24.00	22.58	0.507	-0.190	1.39	0.703	63			
		Front Side	15		QPSK	Receiver off	1	271	643332/3649.98	24.00	22.52	0.303	0.015	1.41	0.426	/			
			15			Receiver off	50%	67	640000/3600	24.00	22.58	0.301	0.042	1.39	0.417	/			
n66)	Main	Back Side	15	SA	DFT-s-OFDM	Receiver off	1	1	352000/1760	23.50	22.03	0.480	0.070	1.40	0.673	64			
			15			Receiver off	50%	54	349000/1745	23.50	22.05	0.435	0.016	1.40	0.607	/			
		Front Side	15		QPSK	Receiver off	1	1	352000/1760	23.50	22.03	0.304	0.080	1.40	0.426	/			
			15			Receiver off	50%	54	349000/1745	23.50	22.05	0.315	-0.011	1.40	0.440	/			
n77 (n78)	Main	Back Side	15	SA	DFT-s-OFDM	Receiver off	1	1	650000/3750	24.00	22.40	0.478	0.013	1.45	0.691	/			
			15			Receiver off	50%	67	662000/3930	24.00	22.61	0.519	-0.160	1.38	0.715	65			
		Front Side	15			QPSK	Receiver off	1	1	650000/3750	24.00	22.40	0.290	0.012	1.45	0.419	/		
			15				Receiver off	50%	67	662000/3930	24.00	22.61	0.317	0.016	1.38	0.437	/		
		Back Side	SIM2			15	Receiver off	50%	67	662000/3930	24.00	22.61	0.477	0.110	1.38	0.657	/		
						Back Side	Earphone	15	Receiver off	50%	67	662000/3930	24.00	22.61	0.460	0.170	1.38	0.634	/
		Back Side						15	Receiver off	1	271	633332/3500	24.00	22.24	0.412	0.037	1.50	0.618	/
						15	Receiver off	50%	67	633332/3500	24.00	22.57	0.381	0.015	1.39	0.530	/		
		Back Side				15	SA	CP-OFDM	Receiver off	1	1	656000/3840	22.00	20.69	0.242	0.090	1.35	0.327	/
						15		QPSK											
n77	Main	Back Side	15	NSA	DFT-s-OFDM	Receiver off	1	1	650000/3750	21.50	20.35	0.194	0.011	1.30	0.253	/			
			15		QPSK	Receiver off	50%	67	662000/3930	21.50	20.42	0.308	-0.030	1.28	0.395	/			

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
2.4G	ANT 6	Back Side	15	802.11b	100.0%	Receiver off	6/2437	19.00	17.67	0.165	0.053	1.36	0.224	66
		Front Side	15	802.11b	100.0%	Receiver off	6/2437	19.00	17.67	0.091	0.030	1.36	0.124	/
U-NII-1	ANT 6	Back Side	15	802.11a	100.0%	Receiver off	36/5180	16.00	14.36	0.251	0.099	1.46	0.366	/
		Front Side	15	802.11a	100.0%	Receiver off	36/5180	16.00	14.36	0.084	0.014	1.46	0.123	/
U-NII-2A	ANT 6	Back Side	15	802.11a	100.0%	Receiver off	60/5300	16.00	14.34	0.235	0.099	1.47	0.344	/
		Front Side	15	802.11a	100.0%	Receiver off	60/5300	16.00	14.34	0.096	-0.120	1.47	0.141	/
U-NII-2C	ANT 6	Back Side	15	802.11a	100.0%	Receiver off	140/5700	16.00	14.52	0.256	0.035	1.41	0.360	67
		Front Side	15	802.11a	100.0%	Receiver off	140/5700	16.00	14.52	0.084	0.013	1.41	0.118	/
U-NII-3	ANT 6	Back Side	15	802.11a	100.0%	Receiver off	157/5785	16.00	14.46	0.242	0.072	1.43	0.345	/
		Front Side	15	802.11a	100.0%	Receiver off	157/5785	16.00	14.46	0.101	0.019	1.43	0.144	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
LTE 7	Main	Back Side	15	QPSK	Receiver off	1	99	20850/2510	22.00	20.87	0.239	0.010	1.30	0.310	/
			15	QPSK	Receiver off	50%	50	20850/2510	22.00	20.91	0.196	0.026	1.29	0.252	/
LTE 7	DIV	Back Side	15	QPSK	Receiver off	1	99	21350/2560	25.00	24.10	0.497	-0.042	1.23	0.611	68
			15	QPSK	Receiver off	50%	50	21350/2560	24.00	22.98	0.453	0.035	1.26	0.573	/
		Front Side	15	QPSK	Receiver off	1	99	21350/2560	25.00	24.10	0.485	-0.070	1.23	0.597	/
			15	QPSK	Receiver off	50%	50	21350/2560	24.00	22.98	0.356	0.011	1.26	0.450	/
LTE 41	DIV	Back Side	15	QPSK	Receiver off	1	50	40185/2549.5	22.50	21.25	0.345	-0.160	1.33	0.460	69
			15	QPSK	Receiver off	50%	50	40185/2549.5	22.50	21.47	0.315	0.052	1.27	0.399	/
		Front Side	15	QPSK	Receiver off	1	50	40185/2549.5	22.50	21.25	0.298	-0.085	1.33	0.397	/
			15	QPSK	Receiver off	50%	50	40185/2549.5	22.50	21.47	0.275	-0.130	1.27	0.349	/

Hotspot SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.	
GSM850	Main	Back Side	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	190/836.6	30.50	28.84	0.325	-0.061	1.47	0.476	/	
		Front Side	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	190/836.6	30.50	28.84	0.342	0.024	1.47	0.501	/	
		Left Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	190/836.6	30.50	28.84	0.272	0.090	1.47	0.399	/	
		Right Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	190/836.6	30.50	28.84	0.151	-0.030	1.47	0.222	/	
		Top Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	190/836.6	30.50	28.84	0.521	-0.120	1.47	0.764	70	
		Bottom Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	10	CS	Hotspot on	N/A	N/A	190/836.6	34.00	32.38	0.321	0.029	1.45	0.466	/	
GSM1900	Main	Back Side	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	661/1880	25.50	24.04	0.372	0.012	1.40	0.521	/	
		Front Side	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	661/1880	25.50	24.04	0.305	0.048	1.40	0.427	/	
		Left Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	661/1880	25.50	24.04	0.047	0.027	1.40	0.066	/	
		Right Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	661/1880	25.50	24.04	0.113	0.011	1.40	0.158	/	
		Top Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		Bottom Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	661/1880	25.50	24.04	0.615	0.061	1.40	0.861	/	
		Bottom Edge	10	GPRS 4TX Slots	Hotspot on	N/A	N/A	512/1850.2	25.50	23.88	0.680	-0.024	1.45	0.987	71	
WCDMA II	Main	Back Side	10	RMC	Hotspot on	N/A	N/A	9400/1880	21.50	20.19	0.421	0.013	1.35	0.569	/	
		Front Side	10	RMC	Hotspot on	N/A	N/A	9400/1880	21.50	20.19	0.342	0.051	1.35	0.462	/	
		Left Edge	10	RMC	Hotspot on	N/A	N/A	9400/1880	21.50	20.19	0.048	0.020	1.35	0.065	/	
		Right Edge	10	RMC	Hotspot on	N/A	N/A	9400/1880	21.50	20.19	0.095	0.030	1.35	0.128	/	
		Top Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	9400/1880	21.50	20.19	0.715	-0.027	1.35	0.967	/	
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	9262/1852.4	21.50	20.18	0.840	-0.025	1.36	1.138	72	
		Bottom Edge Repeat	10	RMC	Hotspot on	N/A	N/A	9262/1852.4	21.50	20.18	0.826	0.016	1.36	1.119	/	
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	9538/1907.6	21.50	20.17	0.592	0.015	1.36	0.804	/	
WCDMA IV	Main	Back Side	10	RMC	Hotspot on	N/A	N/A	1413/1732.6	21.50	20.33	0.439	0.010	1.31	0.575	/	
		Front Side	10	RMC	Hotspot on	N/A	N/A	1413/1732.6	21.50	20.33	0.352	0.018	1.31	0.461	/	
		Left Edge	10	RMC	Hotspot on	N/A	N/A	1413/1732.6	21.50	20.33	0.059	0.036	1.31	0.077	/	
		Right Edge	10	RMC	Hotspot on	N/A	N/A	1413/1732.6	21.50	20.33	0.064	-0.024	1.31	0.084	/	
		Top Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	1413/1732.6	21.50	20.33	0.818	-0.021	1.31	1.071	/	
		Bottom Edge Repeat	10	RMC	Hotspot on	N/A	N/A	1413/1732.6	21.50	20.33	0.824	0.100	1.31	1.079	73	
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	1312/1712.4	21.50	20.31	0.791	0.050	1.32	1.040	/	
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	1513/1752.6	21.50	20.31	0.803	-0.040	1.32	1.056	/	
WCDMA V	Main	Back Side	10	RMC	Hotspot on	N/A	N/A	4183/836.6	24.50	23.36	0.326	0.030	1.30	0.424	/	
		Front Side	10	RMC	Hotspot on	N/A	N/A	4183/836.6	24.50	23.36	0.221	0.012	1.30	0.287	/	
		Left Edge	10	RMC	Hotspot on	N/A	N/A	4183/836.6	24.50	23.36	0.174	0.017	1.30	0.226	/	
		Right Edge	10	RMC	Hotspot on	N/A	N/A	4183/836.6	24.50	23.36	0.101	0.060	1.30	0.131	/	

		Top Edge	10	RMC	Hotspot on	N/A	N/A	4183/836.6	24.50	23.36	0.364	0.031	1.30	0.473	74		
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/		
LTE 7	Main	Back Side	10	QPSK	Hotspot on	1	99	20850/2510	21.50	20.87	0.801	0.180	1.16	0.926	/		
			10	QPSK	Hotspot on	1	50	21100/2535	21.50	20.71	0.931	0.070	1.20	1.117	75		
			10	QPSK	Hotspot on	1	50	21350/2560	21.50	20.54	0.892	0.025	1.25	1.113	/		
			10	QPSK	Hotspot on	50%	50	20850/2510	21.50	20.91	0.691	-0.100	1.15	0.792	/		
			10	QPSK	Hotspot on	100%	0	20850/2510	21.50	20.88	0.786	0.060	1.15	0.907	/		
			10	QPSK	Hotspot on	100%	0	21100/2535	21.50	20.55	0.865	0.016	1.24	1.077	/		
			10	QPSK	Hotspot on	100%	0	21350/2560	21.50	20.44	0.852	0.024	1.28	1.088	/		
		Back Side Repeat	10	QPSK	Hotspot on	1	50	21100/2535	21.50	20.71	0.916	0.029	1.20	1.099	/		
		Front Side	10	QPSK	Hotspot on	1	99	20850/2510	21.50	20.87	0.371	0.036	1.16	0.429	/		
			10	QPSK	Hotspot on	50%	50	20850/2510	21.50	20.91	0.368	0.090	1.15	0.422	/		
		Left Edge	10	QPSK	Hotspot on	1	99	20850/2510	21.50	20.87	0.636	0.017	1.16	0.735	/		
			10	QPSK	Hotspot on	50%	50	20850/2510	21.50	20.91	0.598	0.016	1.15	0.685	/		
		Right Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		Top Edge	10	QPSK	Hotspot on	1	99	20850/2510	21.50	20.87	0.241	0.024	1.16	0.279	/		
			10	QPSK	Hotspot on	50%	50	20850/2510	21.50	20.91	0.175	0.017	1.15	0.200	/		
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		LTE 7	Main	Back Side	10	QPSK	Hotspot on	1	99	20850/2510	21.50	21.46	0.371	0.010	1.01	0.374	/
					1			0	21048/2529.8								
LTE 12 (LTE 17)	Main	Back Side	10	QPSK	Hotspot on	1	49	23130/711	25.00	23.54	0.297	-0.032	1.40	0.416	76		
			10	QPSK	Hotspot on	50%	0	23060/704	24.00	22.43	0.226	0.025	1.44	0.324	/		
		Front Side	10	QPSK	Hotspot on	1	49	23130/711	25.00	23.54	0.237	0.060	1.40	0.332	/		
			10	QPSK	Hotspot on	50%	0	23060/704	24.00	22.43	0.195	0.015	1.44	0.280	/		
		Left Edge	10	QPSK	Hotspot on	1	49	23130/711	25.00	23.54	0.209	-0.070	1.40	0.293	/		
			10	QPSK	Hotspot on	50%	0	23060/704	24.00	22.43	0.172	0.025	1.44	0.247	/		
		Right Edge	10	QPSK	Hotspot on	1	49	23130/711	25.00	23.54	0.123	0.049	1.40	0.172	/		
			10	QPSK	Hotspot on	50%	0	23060/704	24.00	22.43	0.096	0.080	1.44	0.138	/		
		Top Edge	10	QPSK	Hotspot on	1	49	23130/711	25.00	23.54	0.254	0.012	1.40	0.355	/		
			10	QPSK	Hotspot on	50%	0	23060/704	24.00	22.43	0.165	-0.026	1.44	0.237	/		
Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/			
	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/			
LTE 13	Main	Back Side	10	QPSK	Hotspot on	1	49	23230/782	25.00	23.30	0.247	0.031	1.48	0.365	/		
			10	QPSK	Hotspot on	50%	13	23230/782	24.00	22.19	0.205	0.024	1.52	0.311	/		
		Front Side	10	QPSK	Hotspot on	1	49	23230/782	25.00	23.30	0.200	0.140	1.48	0.296	/		
			10	QPSK	Hotspot on	50%	13	23230/782	24.00	22.19	0.165	0.022	1.52	0.250	/		
		Left Edge	10	QPSK	Hotspot on	1	49	23230/782	25.00	23.30	0.171	-0.019	1.48	0.253	/		
			10	QPSK	Hotspot on	50%	13	23230/782	24.00	22.19	0.146	0.026	1.52	0.221	/		
		Right Edge	10	QPSK	Hotspot on	1	49	23230/782	25.00	23.30	0.080	0.060	1.48	0.118	/		
			10	QPSK	Hotspot on	50%	13	23230/782	24.00	22.19	0.070	0.040	1.52	0.106	/		

		Top Edge	10	QPSK	Hotspot on	1	49	23230/782	25.00	23.30	0.263	0.023	1.48	0.389	77	
			10	QPSK	Hotspot on	50%	13	23230/782	24.00	22.19	0.215	0.028	1.52	0.326	/	
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 25 (LTE 2)	Main	Back Side	10	QPSK	Hotspot on	1	99	26590/1905	21.50	20.47	0.462	0.050	1.27	0.586	/	
			10	QPSK	Hotspot on	50%	25	26590/1905	21.50	20.48	0.468	-0.036	1.26	0.592	/	
		Front Side	10	QPSK	Hotspot on	1	99	26590/1905	21.50	20.47	0.386	0.020	1.27	0.489	/	
			10	QPSK	Hotspot on	50%	25	26590/1905	21.50	20.48	0.415	0.015	1.26	0.525	/	
		Left Edge	10	QPSK	Hotspot on	1	99	26590/1905	21.50	20.47	0.097	0.028	1.27	0.123	/	
			10	QPSK	Hotspot on	50%	25	26590/1905	21.50	20.48	0.094	-0.019	1.26	0.119	/	
		Right Edge	10	QPSK	Hotspot on	1	99	26590/1905	21.50	20.47	0.057	0.045	1.27	0.072	/	
			10	QPSK	Hotspot on	50%	25	26590/1905	21.50	20.48	0.039	0.013	1.26	0.049	/	
		Top Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Bottom Edge	10	QPSK	Hotspot on	1	99	26590/1905	21.50	20.47	0.807	0.021	1.27	1.023	/	
			10	QPSK	Hotspot on	1	0	26140/1860	21.50	20.45	1.070	0.170	1.27	1.363	78	
			10	QPSK	Hotspot on	1	0	26365/1882.5	21.50	20.44	0.982	0.015	1.28	1.253	/	
			10	QPSK	Hotspot on	50%	25	26590/1905	21.50	20.48	0.826	-0.060	1.26	1.045	/	
			10	QPSK	Hotspot on	50%	25	26140/1860	21.50	20.37	0.935	-0.200	1.30	1.213	/	
			10	QPSK	Hotspot on	50%	25	26365/1882.5	21.50	20.41	0.932	0.040	1.29	1.198	/	
			10	QPSK	Hotspot on	100%	0	26590/1905	21.50	20.51	0.826	0.060	1.26	1.037	/	
			10	QPSK	Hotspot on	100%	0	26140/1860	21.50	20.38	1.020	-0.020	1.29	1.320	/	
		Bottom Edge SIM2	10	QPSK	Hotspot on	1	0	26140/1860	21.50	20.45	0.893	0.110	1.27	1.137	/	
		Back Side Earphone	10	QPSK	Hotspot on	1	0	26140/1860	21.50	20.45	0.466	-0.100	1.27	0.593	/	
Bottom Edge Repeat	10	QPSK	Hotspot on	1	0	26140/1860	21.50	20.45	0.986	0.060	1.27	1.256	/			
LTE 26 (LTE 5)	Main	Back Side	10	QPSK	Hotspot on	1	74	26965/841.5	25.00	23.54	0.358	-0.010	1.40	0.501	79	
			10	QPSK	Hotspot on	50%	0	26965/841.5	24.00	22.23	0.268	0.022	1.50	0.403	/	
		Front Side	10	QPSK	Hotspot on	1	74	26965/841.5	25.00	23.54	0.250	0.049	1.40	0.350	/	
			10	QPSK	Hotspot on	50%	0	26965/841.5	24.00	22.23	0.193	-0.029	1.50	0.290	/	
		Left Edge	10	QPSK	Hotspot on	1	74	26965/841.5	25.00	23.54	0.183	0.080	1.40	0.256	/	
			10	QPSK	Hotspot on	50%	0	26965/841.5	24.00	22.23	0.144	-0.013	1.50	0.216	/	
		Right Edge	10	QPSK	Hotspot on	1	74	26965/841.5	25.00	23.54	0.086	-0.010	1.40	0.120	/	
			10	QPSK	Hotspot on	50%	0	26965/841.5	24.00	22.23	0.070	0.060	1.50	0.105	/	
		Top Edge	10	QPSK	Hotspot on	1	74	26965/841.5	25.00	23.54	0.338	0.024	1.40	0.473	/	
			10	QPSK	Hotspot on	50%	0	26965/841.5	24.00	22.23	0.257	0.010	1.50	0.386	/	
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 41 (LTE 38)	Main	Back Side	10	QPSK	Hotspot on	1	50	41490/2680	23.00	22.72	0.679	0.031	1.07	0.724	80	
			10	QPSK	Hotspot on	50%	25	41490/2680	23.00	22.68	0.628	0.023	1.08	0.676	/	

		Front Side	10	QPSK	Hotspot on	1	50	41490/2680	23.00	22.72	0.247	0.011	1.07	0.263	/		
			10	QPSK	Hotspot on	50%	25	41490/2680	23.00	22.68	0.246	-0.014	1.08	0.265	/		
		Left Edge	10	QPSK	Hotspot on	1	50	41490/2680	23.00	22.72	0.547	0.080	1.07	0.583	/		
			10	QPSK	Hotspot on	50%	25	41490/2680	23.00	22.68	0.481	0.019	1.08	0.518	/		
		Right Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		Top Edge	10	QPSK	Hotspot on	1	50	41490/2680	23.00	22.72	0.098	0.030	1.07	0.105	/		
			10	QPSK	Hotspot on	50%	25	41490/2680	23.00	22.68	0.095	0.015	1.08	0.102	/		
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		LTE 41	Main	Back Side	10	QPSK	Hotspot on	1	99	39750/2506	23.00	22.62	0.191	-0.023	1.09	0.208	/
					1			0	39948/2525.8								
		LTE 48	Main	Back Side	10	QPSK	Hotspot on	1	99	56640/3690	23.00	21.80	0.508	0.017	1.32	0.670	/
					10	QPSK	Hotspot on	50%	50	56640/3690	23.00	21.83	0.536	0.032	1.31	0.702	81
Front Side	10			QPSK	Hotspot on	1	99	56640/3690	23.00	21.80	0.231	-0.040	1.32	0.305	/		
	10			QPSK	Hotspot on	50%	50	56640/3690	23.00	21.83	0.235	0.060	1.31	0.308	/		
Left Edge	10			QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
	10			QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
Right Edge	10			QPSK	Hotspot on	1	99	56640/3690	23.00	21.80	0.429	0.017	1.32	0.566	/		
	10			QPSK	Hotspot on	50%	50	56640/3690	23.00	21.83	0.386	0.140	1.31	0.505	/		
Top Edge	10			QPSK	Hotspot on	1	99	56640/3690	23.00	21.80	0.287	0.011	1.32	0.378	/		
	10			QPSK	Hotspot on	50%	50	56640/3690	23.00	21.83	0.275	0.090	1.31	0.360	/		
Bottom Edge	10			QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
	10			QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
LTE 66 (LTE 4)	Main			Back Side	10	QPSK	Hotspot on	1	50	132072/1720	21.00	20.53	0.586	0.026	1.11	0.653	/
					10	QPSK	Hotspot on	50%	0	132072/1720	21.00	20.57	0.591	-0.090	1.10	0.653	/
		Front Side	10	QPSK	Hotspot on	1	50	132072/1720	21.00	20.53	0.503	0.014	1.11	0.560	/		
			10	QPSK	Hotspot on	50%	0	132072/1720	21.00	20.57	0.502	0.017	1.10	0.554	/		
		Left Edge	10	QPSK	Hotspot on	1	50	132072/1720	21.00	20.53	0.092	0.021	1.11	0.103	/		
			10	QPSK	Hotspot on	50%	0	132072/1720	21.00	20.57	0.068	0.025	1.10	0.075	/		
		Right Edge	10	QPSK	Hotspot on	1	50	132072/1720	21.00	20.53	0.051	-0.031	1.11	0.057	/		
			10	QPSK	Hotspot on	50%	0	132072/1720	21.00	20.57	0.082	0.070	1.10	0.091	/		
		Top Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		Bottom Edge	10	QPSK	Hotspot on	1	50	132072/1720	21.00	20.53	1.010	0.013	1.11	1.125	/		
			10	QPSK	Hotspot on	1	0	132322/1745	21.00	20.51	1.080	0.069	1.12	1.209	/		
			10	QPSK	Hotspot on	1	50	132572/1770	21.00	20.50	1.080	-0.020	1.12	1.212	/		
			10	QPSK	Hotspot on	50%	0	132072/1720	21.00	20.57	1.090	0.014	1.10	1.203	/		
10	QPSK		Hotspot on	50%	0	132322/1745	21.00	20.42	1.030	0.026	1.14	1.177	/				
10	QPSK		Hotspot on	50%	25	132572/1770	21.00	20.33	1.120	-0.025	1.17	1.307	82				
10	QPSK		Hotspot on	100%	0	132072/1720	21.00	20.54	1.100	-0.055	1.11	1.223	/				
10	QPSK		Hotspot on	100%	0	132322/1745	21.00	20.34	1.030	0.028	1.16	1.199	/				
10	QPSK	Hotspot on	100%	0	132572/1770	21.00	20.43	1.020	0.020	1.14	1.163	/					

		Bottom Edge Repeat	10	QPSK	Hotspot on	50%	25	132572/1770	21.00	20.33	1.030	0.036	1.17	1.202	/
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Band	Antenna	Test Position	Dist. (mm)	Type	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.	
n2	Main	Back Side	10	SA	DFT-s-OFDM QPSK	Hotspot on	1	214	378000/1890	22.50	21.04	0.428	0.022	1.40	0.599	/	
			10			Hotspot on	50%	54	378000/1890	22.50	20.95	0.375	0.038	1.43	0.536	/	
		Front Side	10			Hotspot on	1	214	378000/1890	22.50	21.04	0.326	-0.070	1.40	0.456	/	
			10			Hotspot on	50%	54	378000/1890	22.50	20.95	0.328	0.013	1.43	0.469	/	
		Left Edge	10			Hotspot on	1	214	378000/1890	22.50	21.04	0.001	0.120	1.40	0.001	/	
			10			Hotspot on	50%	54	378000/1890	22.50	20.95	0.001	0.010	1.43	0.001	/	
		Right Edge	10			Hotspot on	1	214	378000/1890	22.50	21.04	0.214	-0.011	1.40	0.300	/	
			10			Hotspot on	50%	54	378000/1890	22.50	20.95	0.156	0.036	1.43	0.223	/	
		Top Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Bottom Edge	10			Hotspot on	1	214	378000/1890	22.50	21.04	0.959	0.010	1.40	1.342	/	
			10			Hotspot on	1	214	374000/1870	22.50	21.02	0.875	0.058	1.41	1.230	/	
			10			Hotspot on	1	1	376000/1880	22.50	21.02	0.941	-0.016	1.41	1.323	/	
			10			Hotspot on	50%	54	378000/1890	22.50	20.95	0.875	0.025	1.43	1.250	/	
			10			Hotspot on	50%	54	374000/1870	22.50	20.90	0.925	0.049	1.45	1.337	/	
			10			Hotspot on	50%	54	376000/1880	22.50	20.88	0.906	-0.012	1.45	1.316	/	
			10			Hotspot on	100%	0	376000/1880	22.50	21.17	0.847	0.026	1.36	1.150	/	
			10			Hotspot on	100%	0	374000/1870	22.50	20.93	0.876	0.090	1.44	1.257	/	
			10			Hotspot on	100%	0	378000/1890	22.50	21.04	0.882	0.013	1.40	1.234	/	
			10			Hotspot on	1	214	378000/1890	22.50	21.04	0.962	-0.020	1.40	1.346	83	
n2	Main	Bottom Edge	10	SA	CP-OFDM QPSK	Hotspot on	1	1	374000/1870	22.50	21.27	0.874	0.042	1.33	1.160	/	
n7	Main	Back Side	10	SA	DFT-s-OFDM QPSK	Hotspot on	1	104	502000/2510	22.50	21.27	0.621	0.027	1.33	0.824	/	
			10			Hotspot on	1	1	507000/2535	22.50	21.25	0.693	0.100	1.33	0.924	/	
			10			Hotspot on	1	104	512000/2560	22.50	21.15	0.683	-0.060	1.36	0.932	/	
			10			Hotspot on	50%	25	502000/2510	22.50	21.45	0.648	0.082	1.27	0.825	/	
			10			Hotspot on	50%	25	507000/2535	22.50	21.23	0.701	0.019	1.34	0.939	/	
			10			Hotspot on	50%	25	512000/2560	22.50	21.10	0.686	0.026	1.38	0.947	/	
			10			Hotspot on	100%	0	502000/2510	22.50	21.45	0.584	0.038	1.27	0.744	/	
			10			Hotspot on	100%	0	507000/2535	22.50	21.20	0.692	0.010	1.35	0.933	/	
			10			Hotspot on	100%	0	512000/2560	22.50	21.14	0.705	-0.030	1.37	0.964	84	
			Front Side			10	Hotspot on	1	104	502000/2510	22.50	21.27	0.246	0.031	1.33	0.327	/
		10				Hotspot on	50%	25	502000/2510	22.50	21.45	0.239	0.032	1.27	0.304	/	
		Left Edge	10			Hotspot on	1	104	502000/2510	22.50	21.27	0.390	0.050	1.33	0.518	/	
			10			Hotspot on	50%	25	502000/2510	22.50	21.45	0.390	-0.100	1.27	0.497	/	
		Right Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

		Top Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
			10			Hotspot on	1	104	502000/2510	22.50	21.27	0.142	-0.050	1.33	0.188	/				
			10			Hotspot on	50%	25	502000/2510	22.50	21.45	0.140	0.027	1.27	0.178	/				
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
		Bottom Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
n7	Main	Back Side	10	NSA	DFT-s-OFDM	Hotspot on	1	104	502000/2510	21.00	20.15	0.269	0.020	1.22	0.327	/				
			10			QPSK	Hotspot on	50%	25	502000/2510	21.00	20.28	0.345	0.018	1.18	0.407	/			
n26 (n5)	Main	Back Side	10	SA& NSA	DFT-s-OFDM QPSK	Hotspot on	1	104	164800/824	24.50	22.91	0.263	-0.070	1.44	0.379	85				
			10			Hotspot on	50%	25	164800/824	24.50	23.03	0.245	0.030	1.40	0.344	/				
		Front Side	10			Hotspot on	1	104	164800/824	24.50	22.91	0.173	0.012	1.44	0.249	/				
			10			Hotspot on	50%	25	164800/824	24.50	23.03	0.167	-0.028	1.40	0.234	/				
		Left Edge	10			Hotspot on	1	104	164800/824	24.50	22.91	0.171	0.016	1.44	0.247	/				
			10			Hotspot on	50%	25	164800/824	24.50	23.03	0.167	0.022	1.40	0.234	/				
		Right Edge	10			Hotspot on	1	104	164800/824	24.50	22.91	0.079	0.038	1.44	0.114	/				
			10			Hotspot on	50%	25	164800/824	24.50	23.03	0.085	0.015	1.40	0.119	/				
		Top Edge	10			Hotspot on	1	104	164800/824	24.50	22.91	0.261	0.040	1.44	0.376	/				
			10			Hotspot on	50%	25	164800/824	24.50	23.03	0.232	0.018	1.40	0.325	/				
		Bottom Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
		n41 (n38)	Main			Back Side	10	SA	DFT-s-OFDM QPSK	Hotspot on	1	271	528000/2640	21.00	20.34	0.459	0.050	1.16	0.534	/
							10			Hotspot on	50%	67	509202/2546.01	21.00	20.39	0.585	0.020	1.15	0.673	86
Front Side	10			Hotspot on	1	271	528000/2640			21.00	20.34	0.129	0.021	1.16	0.150	/				
	10			Hotspot on	50%	67	509202/2546.01			21.00	20.39	0.232	0.013	1.15	0.267	/				
Left Edge	10			Hotspot on	1	271	528000/2640			21.00	20.34	0.268	-0.040	1.16	0.312	/				
	10			Hotspot on	50%	67	509202/2546.01			21.00	20.39	0.444	0.090	1.15	0.511	/				
Right Edge	10			Hotspot on	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A	/				
	10			Hotspot on	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A	/				
Top Edge	10			Hotspot on	1	271	528000/2640			21.00	20.34	0.063	0.011	1.16	0.073	/				
	10			Hotspot on	50%	67	509202/2546.01			21.00	20.39	0.178	0.026	1.15	0.205	/				
Bottom Edge	10			Hotspot on	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A	/				
	10			Hotspot on	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A	/				
n41	Main	Back Side	10	NSA	DFT-s-OFDM	Hotspot on	1	271	528000/2640	19.00	17.93	0.246	0.080	1.28	0.315	/				
			10			QPSK	Hotspot on	50%	67	509202/2546.01	19.00	18.08	0.327	0.025	1.24	0.404	/			
n48	Main	Back Side	10	SA	DFT-s-OFDM QPSK	Hotspot on	1	271	643332/3649.98	21.50	20.40	0.637	0.015	1.29	0.821	/				
			10			Hotspot on	1	271	640000/3600	21.50	20.14	0.545	0.037	1.37	0.745	/				
			10			Hotspot on	1	271	641666/3624.99	21.50	20.23	0.548	-0.013	1.34	0.734	/				
			10			Hotspot on	50%	67	640000/3600	21.50	20.18	0.698	-0.020	1.36	0.946	87				
			10			Hotspot on	50%	67	641666/3624.99	21.50	20.16	0.570	0.017	1.36	0.776	/				
			10			Hotspot on	50%	67	643332/3649.98	21.50	20.11	0.623	0.030	1.38	0.858	/				
			10			Hotspot on	100%	0	643332/3649.98	21.50	20.20	0.665	-0.050	1.35	0.897	/				
			10			Hotspot on	100%	0	640000/3600	21.50	20.06	0.663	0.026	1.39	0.924	/				
			10			Hotspot on	100%	0	641666/3624.99	21.50	20.07	0.608	0.059	1.39	0.845	/				
		10	Front Side			Hotspot on	1	271	643332/3649.98	21.50	20.40	0.304	0.070	1.29	0.392	/				

		Left Edge	10	SA	DFT-s-OFDM	Hotspot on	50%	67	640000/3600	21.50	20.18	0.279	0.035	1.36	0.378	/				
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
		Right Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
			10			Hotspot on	1	271	643332/3649.98	21.50	20.40	0.519	-0.019	1.29	0.669	/				
		Top Edge	10			Hotspot on	50%	67	640000/3600	21.50	20.18	0.495	0.044	1.36	0.671	/				
			10			Hotspot on	1	271	643332/3649.98	21.50	20.40	0.237	0.180	1.29	0.305	/				
		Bottom Edge	10			Hotspot on	50%	67	640000/3600	21.50	20.18	0.236	0.020	1.36	0.320	/				
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
							10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
							10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
n66	Main	Back Side	10	SA	DFT-s-OFDM	Hotspot on	1	1	349000/1745	22.50	21.21	0.523	-0.180	1.35	0.704	/				
			10			Hotspot on	50%	54	346000/1730	22.50	21.24	0.565	0.011	1.34	0.755	/				
		Front Side	10			Hotspot on	1	1	349000/1745	22.50	21.21	0.352	0.020	1.35	0.474	/				
			10			Hotspot on	50%	54	346000/1730	22.50	21.24	0.436	-0.160	1.34	0.583	/				
		Left Edge	10			Hotspot on	1	1	349000/1745	22.50	21.21	0.001	0.027	1.35	0.001	/				
			10			Hotspot on	50%	54	346000/1730	22.50	21.24	0.001	0.020	1.34	0.001	/				
		Right Edge	10			Hotspot on	1	1	349000/1745	22.50	21.21	0.080	0.010	1.35	0.108	/				
			10			Hotspot on	50%	54	346000/1730	22.50	21.24	0.101	0.038	1.34	0.135	/				
		Top Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
		Bottom Edge	10			Hotspot on	1	1	349000/1745	22.50	21.21	0.789	-0.015	1.35	1.062	/				
			10			Hotspot on	1	214	346000/1730	22.50	21.14	0.812	0.011	1.37	1.111	/				
			10			Hotspot on	1	1	352000/1760	22.50	21.12	0.914	0.040	1.37	1.256	88				
			10			Hotspot on	50%	54	346000/1730	22.50	21.24	0.835	0.026	1.34	1.116	/				
			10			Hotspot on	50%	54	349000/1745	22.50	21.23	0.908	-0.100	1.34	1.216	/				
			10			Hotspot on	50%	54	352000/1760	22.50	21.21	0.772	0.015	1.35	1.039	/				
			10			Hotspot on	100%	0	352000/1760	22.50	21.26	0.819	0.017	1.33	1.090	/				
			10			Hotspot on	100%	0	346000/1730	22.50	21.25	0.899	0.029	1.33	1.199	/				
10	Hotspot on	100%	0	349000/1745	22.50	21.13	0.819	-0.040	1.37	1.123	/									
n66	Main	Bottom Edge Repeat	10	SA	DFT-s-OFDM	Hotspot on	1	1	352000/1760	22.50	21.12	0.863	0.017	1.37	1.186	/				
n71	Main	Back Side	10	SA	DFT-s-OFDM	Hotspot on	1	104	134600/673	24.50	23.06	0.176	0.019	1.39	0.245	/				
			10			Hotspot on	50%	25	136100/680.5	24.50	23.19	0.190	0.030	1.35	0.257	89				
		Front Side	10			Hotspot on	1	104	134600/673	24.50	23.06	0.110	0.037	1.39	0.153	/				
			10			Hotspot on	50%	25	136100/680.5	24.50	23.19	0.122	0.022	1.35	0.165	/				
		Left Edge	10			Hotspot on	1	104	134600/673	24.50	23.06	0.155	-0.049	1.39	0.216	/				
			10			Hotspot on	50%	25	136100/680.5	24.50	23.19	0.165	0.020	1.35	0.223	/				
		Right Edge	10			Hotspot on	1	104	134600/673	24.50	23.06	0.066	0.040	1.39	0.092	/				
			10			Hotspot on	50%	25	136100/680.5	24.50	23.19	0.056	0.026	1.35	0.076	/				
		Top Edge	10			Hotspot on	1	104	134600/673	24.50	23.06	0.171	0.018	1.39	0.238	/				
			10			Hotspot on	50%	25	136100/680.5	24.50	23.19	0.148	0.049	1.35	0.200	/				
		Bottom Edge	10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
			10			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/				
		n77	Main			Back Side	10	SA	DFT-s-OFDM	Hotspot on	1	1	650000/3750	21.50	20.35	0.610	0.023	1.30	0.795	/

(n78)			10	QPSK	Hotspot on	50%	67	662000/3930	21.50	20.42	0.622	-0.022	1.28	0.798	90				
			Front Side		10	Hotspot on	1	1	650000/3750	21.50	20.35	0.300	0.015	1.30	0.391	/			
					10	Hotspot on	50%	67	662000/3930	21.50	20.42	0.311	0.010	1.28	0.399	/			
			Left Edge		10	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/			
					10	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/			
			Right Edge		10	Hotspot on	1	1	650000/3750	21.50	20.35	0.503	0.070	1.30	0.655	/			
					10	Hotspot on	50%	67	662000/3930	21.50	20.42	0.378	0.026	1.28	0.485	/			
			Top Edge		10	Hotspot on	1	1	650000/3750	21.50	20.35	0.299	0.012	1.30	0.390	/			
					10	Hotspot on	50%	67	662000/3930	21.50	20.42	0.210	-0.037	1.28	0.269	/			
			Bottom Edge		10	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/			
					10	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/			
			Back Side		10	Hotspot on	1	1	633332/3500	21.50	20.46	0.617	0.022	1.27	0.784	/			
					10	Hotspot on	50%	67	633332/3500	21.50	20.15	0.573	0.028	1.36	0.782	/			
			Main		Back Side	10	NSA	DFT-s-OFDM	Hotspot on	1	1	650000/3750	18.00	17.34	0.296	0.100	1.16	0.345	/
						10		QPSK	Hotspot on	50%	67	662000/3930	18.00	17.35	0.272	-0.011	1.16	0.316	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
2.4G	ANT 6	Back Side	10	802.11b	100.0%	Receiver off	6/2437	19.00	17.67	0.472	0.080	1.36	0.641	91
		Front Side	10	802.11b	100.0%	Receiver off	6/2437	19.00	17.67	0.215	0.025	1.36	0.292	/
		Left Edge	10	802.11b	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Right Edge	10	802.11b	100.0%	Receiver off	6/2437	19.00	17.67	0.252	0.033	1.36	0.342	/
		Top Edge	10	802.11b	100.0%	Receiver off	6/2437	19.00	17.67	0.118	0.021	1.36	0.160	/
		Bottom Edge	10	802.11b	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
2.4G	ANT 6	Back Side	10	802.11b	100.0%	WWAN+WLAN Hotspot on	6/2437	15.00	14.13	0.109	-0.020	1.22	0.133	/
U-NII-1	ANT 6	Back Side	10	802.11a	100.0%	Receiver off	36/5180	16.00	14.36	0.564	0.016	1.46	0.823	/
		Back Side	10	802.11a	100.0%	Receiver off	44/5220	16.00	14.33	0.505	-0.037	1.47	0.742	/
		Back Side	10	802.11a	100.0%	Receiver off	48/5240	16.00	14.27	0.450	0.022	1.49	0.670	/
		Front Side	10	802.11a	100.0%	Receiver off	36/5180	16.00	14.36	0.092	0.019	1.46	0.134	/
		Left Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Right Edge	10	802.11a	100.0%	Receiver off	36/5180	16.00	14.36	0.733	0.020	1.46	1.069	92
		Right Edge	10	802.11a	100.0%	Receiver off	44/5220	16.00	14.33	0.658	-0.028	1.47	0.967	/
		Right Edge	10	802.11a	100.0%	Receiver off	48/5240	16.00	14.27	0.565	-0.017	1.49	0.841	/
		Top Edge	10	802.11a	100.0%	Receiver off	36/5180	16.00	14.36	0.236	0.021	1.46	0.344	/
		Bottom Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
U-NII-1	ANT 6	Back Side	10	802.11a	100.0%	WWAN+WLAN Hotspot on	36/5180	12.50	11.40	0.206	-0.090	1.29	0.265	/
		Right Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	36/5180	12.50	11.40	0.324	0.013	1.29	0.417	/
U-NII-2A	ANT 6	Back Side	10	802.11a	100.0%	Receiver off	60/5300	16.00	14.34	0.367	-0.098	1.47	0.538	/
		Front Side	10	802.11a	100.0%	Receiver off	60/5300	16.00	14.34	0.090	0.010	1.47	0.132	/

		Left Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Right Edge	10	802.11a	100.0%	Receiver off	60/5300	16.00	14.34	0.423	-0.080	1.47	0.620	/
		Top Edge	10	802.11a	100.0%	Receiver off	60/5300	16.00	14.34	0.258	0.026	1.47	0.378	/
		Bottom Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
U-NII-2A	ANT 6	Back Side	10	802.11a	100.0%	WWAN+WLAN Hotspot on	60/5300	12.50	11.38	0.186	0.031	1.29	0.241	/
U-NII-2C	ANT 6	Back Side	10	802.11a	100.0%	Receiver off	140/5700	16.00	14.52	0.376	-0.049	1.41	0.529	/
		Front Side	10	802.11a	100.0%	Receiver off	140/5700	16.00	14.52	0.052	0.027	1.41	0.073	/
		Left Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Right Edge	10	802.11a	100.0%	Receiver off	140/5700	16.00	14.52	0.151	0.012	1.41	0.212	/
		Top Edge	10	802.11a	100.0%	Receiver off	140/5700	16.00	14.52	0.206	0.060	1.41	0.290	/
		Bottom Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
U-NII-2C	ANT 6	Back Side	10	802.11a	100.0%	WWAN+WLAN Hotspot on	116/5580	12.50	11.31	0.194	0.040	1.32	0.255	/
U-NII-3	ANT 6	Back Side	10	802.11a	100.0%	Receiver off	157/5785	16.00	14.46	0.386	0.030	1.43	0.550	/
		Front Side	10	802.11a	100.0%	Receiver off	157/5785	16.00	14.46	0.088	-0.022	1.43	0.125	/
		Left Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Right Edge	10	802.11a	100.0%	Receiver off	157/5785	16.00	14.46	0.168	0.013	1.43	0.240	/
		Top Edge	10	802.11a	100.0%	Receiver off	157/5785	16.00	14.46	0.195	0.015	1.43	0.278	/
		Bottom Edge	10	802.11a	100.0%	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
U-NII-3	ANT 6	Back Side	10	802.11a	100.0%	WWAN+WLAN Hotspot on	165/5825	12.50	11.20	0.178	-0.010	1.35	0.240	/
Bluetooth	ANT 6	Back Side	10	DH5	75.9%	Full Power	39/2441	9.50	8.70	0.040	0.100	1.58	0.063	93
		Front Side	10	DH5	75.9%	Full Power	39/2441	9.50	8.70	0.012	0.060	1.58	0.019	/
		Left Edge	10	DH5	75.9%	Full Power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Right Edge	10	DH5	75.9%	Full Power	39/2441	9.50	8.70	0.011	-0.040	1.58	0.017	/
		Top Edge	10	DH5	75.9%	Full Power	39/2441	9.50	8.70	0.001	0.012	1.58	0.002	/
		Bottom Edge	10	DH5	75.9%	Full Power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.	
LTE 7	Main	Back Side	10	QPSK	Hotspot on	1	99	21350/2560	19.00	17.60	0.305	0.029	1.38	0.421	/	
			10	QPSK	Hotspot on	50%	25	21100/2535	19.00	17.55	0.258	-0.010	1.40	0.360	/	
LTE 7	DIV	Back Side	10	QPSK	Hotspot on	1	99	21350/2560	23.00	22.06	0.502	0.040	1.24	0.623	94	
			10	QPSK	Hotspot on	50%	25	21100/2535	23.00	21.96	0.457	0.021	1.27	0.581	/	
		Front Side	10	QPSK	Hotspot on	1	99	21350/2560	23.00	22.06	0.473	-0.085	1.24	0.587	/	
			10	QPSK	Hotspot on	50%	25	21100/2535	23.00	21.96	0.302	0.070	1.27	0.384	/	
		Left Edge	10	QPSK	Hotspot on	1	99	21350/2560	23.00	22.06	0.497	0.014	1.24	0.617	/	
			10	QPSK	Hotspot on	50%	25	21100/2535	23.00	21.96	0.344	0.066	1.27	0.437	/	
		Right Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
Top Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/		

			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	
		Bottom Edge	10	QPSK	Hotspot on	1	99	21350/2560	23.00	22.06	0.300	0.020	1.24	0.372	/	
			10	QPSK	Hotspot on	50%	25	21100/2535	23.00	21.96	0.218	-0.014	1.27	0.277	/	
LTE 41	DIV	Back Side	10	QPSK	Hotspot on	1	50	40185/2549.5	21.50	20.83	0.619	0.044	1.17	0.722	95	
			10	QPSK	Hotspot on	50%	50	40185/2549.5	21.50	20.86	0.557	0.037	1.16	0.645	/	
		Front Side	10	QPSK	Hotspot on	1	50	40185/2549.5	21.50	20.83	0.365	0.024	1.17	0.426	/	
			10	QPSK	Hotspot on	50%	50	40185/2549.5	21.50	20.86	0.468	0.013	1.16	0.542	/	
		Left Edge	10	QPSK	Hotspot on	1	50	40185/2549.5	21.50	20.83	0.356	0.010	1.17	0.415	/	
			10	QPSK	Hotspot on	50%	50	40185/2549.5	21.50	20.86	0.432	-0.020	1.16	0.501	/	
		Right Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Bottom Edge	10	QPSK	Hotspot on	1	50	40185/2549.5	21.50	20.83	0.307	0.040	1.17	0.358	/	
			10	QPSK	Hotspot on	50%	50	40185/2549.5	21.50	20.86	0.322	0.027	1.16	0.373	/	

Product-specific 10g SAR Evaluation

Band	Antenna	Test Position	Mode	Power Reduction	RB	Offset	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR 1g (W/Kg)	Scaling Factor	Report SAR1g (W/kg)	0mm SAR	
GSM1900	Main	Back Side	GPRS 4TX Slots	Receiver off	N/A	N/A	661/1880	26.50	25.50	0.521	1.26	0.655	NO	
		Front Side	GPRS 4TX Slots	Receiver off	N/A	N/A	661/1880	25.50	25.50	0.427	1.00	0.427	NO	
		Left Edge	GPRS 4TX Slots	Receiver off	N/A	N/A	661/1880	25.50	25.50	0.066	1.00	0.066	NO	
		Right Edge	GPRS 4TX Slots	Receiver off	N/A	N/A	661/1880	25.50	25.50	0.158	1.00	0.158	NO	
		Top Edge	GPRS 4TX Slots	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Bottom Edge	GPRS 4TX Slots	Receiver off	N/A	N/A	661/1880	26.50	25.50	0.861	1.26	1.084	NO	
WCDMA II	Main	Back Side	RMC	Receiver off	N/A	N/A	9400/1880	23.00	21.50	0.569	1.41	0.804	NO	
		Front Side	RMC	Receiver off	N/A	N/A	9400/1880	23.00	21.50	0.462	1.41	0.653	NO	
		Left Edge	RMC	Receiver off	N/A	N/A	9400/1880	23.00	21.50	0.065	1.41	0.092	NO	
		Right Edge	RMC	Receiver off	N/A	N/A	9400/1880	23.00	21.50	0.128	1.41	0.181	NO	
		Top Edge	RMC	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Bottom Edge	RMC	Receiver off	N/A	N/A	9400/1880	23.00	21.50	0.967	1.41	1.366	YES	
WCDMA IV	Main	Back Side	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.50	0.575	1.26	0.724	NO	
		Front Side	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.50	0.461	1.26	0.580	NO	
		Left Edge	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.50	0.077	1.26	0.097	NO	
		Right Edge	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.50	0.084	1.26	0.105	NO	
		Top Edge	RMC	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Bottom Edge	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.50	1.071	1.26	1.348	YES	
LTE 7	Main	Back Side	QPSK	Receiver off	1	99	20850/2510	22.50	21.50	0.926	1.26	1.166	NO	
			QPSK	Receiver off	50%	50	20850/2510	22.50	21.50	0.792	1.26	0.997	NO	
		Front Side	QPSK	Receiver off	1	99	20850/2510	22.50	21.50	0.429	1.26	0.540	NO	
			QPSK	Receiver off	50%	50	20850/2510	22.50	21.50	0.422	1.26	0.531	NO	
		Left Edge	QPSK	Receiver off	1	99	20850/2510	22.50	21.50	0.735	1.26	0.926	NO	
			QPSK	Receiver off	50%	50	20850/2510	22.50	21.50	0.685	1.26	0.862	NO	
		Right Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Top Edge	QPSK	Receiver off	1	99	20850/2510	22.50	21.50	0.279	1.26	0.351	NO	
			QPSK	Receiver off	50%	50	20850/2510	22.50	21.50	0.200	1.26	0.252	NO	
		Bottom Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LTE 25 (LTE 2)	Main	Back Side	QPSK	Receiver off	1	99	26590/1905	21.50	21.50	0.586	1.00	0.586	NO	
			QPSK	Receiver off	50%	25	26590/1905	21.50	21.50	0.592	1.00	0.592	NO	
		Front Side	QPSK	Receiver off	1	99	26590/1905	21.50	21.50	0.489	1.00	0.489	NO	
			QPSK	Receiver off	50%	25	26590/1905	21.50	21.50	0.525	1.00	0.525	NO	
		Left Edge	QPSK	Receiver off	1	99	26590/1905	21.50	21.50	0.123	1.00	0.123	NO	
			QPSK	Receiver off	50%	25	26590/1905	21.50	21.50	0.119	1.00	0.119	NO	
		Right Edge	QPSK	Receiver off	1	99	26590/1905	21.50	21.50	0.072	1.00	0.072	NO	
			QPSK	Receiver off	50%	25	26590/1905	21.50	21.50	0.049	1.00	0.049	NO	
Top Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			

			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Bottom Edge	QPSK	Receiver off	1	99	26590/1905	21.50	21.50	1.023	1.00	1.023	NO	
			QPSK	Receiver off	50%	25	26590/1905	21.50	21.50	1.045	1.00	1.045	NO	
LTE 41 (LTE 38)	Main	Back Side	QPSK	Receiver off	1	50	41490/2680	25.00	23.00	0.724	1.58	1.148	NO	
			QPSK	Receiver off	50%	25	41490/2680	24.00	23.00	0.676	1.26	0.851	NO	
		Front Side	QPSK	Receiver off	1	50	41490/2680	25.00	23.00	0.263	1.58	0.418	NO	
			QPSK	Receiver off	50%	25	41490/2680	24.00	23.00	0.265	1.26	0.333	NO	
		Left Edge	QPSK	Receiver off	1	50	41490/2680	25.00	23.00	0.583	1.58	0.925	NO	
			QPSK	Receiver off	50%	25	41490/2680	24.00	23.00	0.518	1.26	0.652	NO	
		Right Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Top Edge	QPSK	Receiver off	1	50	41490/2680	25.00	23.00	0.105	1.58	0.166	NO	
			QPSK	Receiver off	50%	25	41490/2680	24.00	23.00	0.102	1.26	0.129	NO	
Bottom Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
LTE 48	Main	Back Side	QPSK	Receiver off	1	99	56640/3690	24.00	23.00	0.670	1.26	0.843	NO	
			QPSK	Receiver off	50%	50	56640/3690	23.00	23.00	0.702	1.00	0.702	NO	
		Front Side	QPSK	Receiver off	1	99	56640/3690	24.00	23.00	0.305	1.26	0.383	NO	
			QPSK	Receiver off	50%	50	56640/3690	23.00	23.00	0.308	1.00	0.308	NO	
		Left Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Right Edge	QPSK	Receiver off	1	99	56640/3690	24.00	23.00	0.566	1.26	0.712	NO	
			QPSK	Receiver off	50%	50	56640/3690	23.00	23.00	0.505	1.00	0.505	NO	
		Top Edge	QPSK	Receiver off	1	99	56640/3690	24.00	23.00	0.378	1.26	0.476	NO	
			QPSK	Receiver off	50%	50	56640/3690	23.00	23.00	0.360	1.00	0.360	NO	
Bottom Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
LTE 66 (LTE 4)	Main	Back Side	QPSK	Receiver off	1	50	132072/1720	21.00	21.00	0.653	1.00	0.653	NO	
			QPSK	Receiver off	50%	0	132072/1720	21.00	21.00	0.653	1.00	0.653	NO	
		Front Side	QPSK	Receiver off	1	50	132072/1720	21.00	21.00	0.560	1.00	0.560	NO	
			QPSK	Receiver off	50%	0	132072/1720	21.00	21.00	0.554	1.00	0.554	NO	
		Left Edge	QPSK	Receiver off	1	50	132072/1720	21.00	21.00	0.103	1.00	0.103	NO	
			QPSK	Receiver off	50%	0	132072/1720	21.00	21.00	0.075	1.00	0.075	NO	
		Right Edge	QPSK	Receiver off	1	50	132072/1720	21.00	21.00	0.057	1.00	0.057	NO	
			QPSK	Receiver off	50%	0	132072/1720	21.00	21.00	0.091	1.00	0.091	NO	
		Top Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	QPSK	Receiver off	1	50	132072/1720	21.50	21.50	1.125	1.00	1.125	NO			
	QPSK	Receiver off	50%	0	132072/1720	21.00	21.00	1.203	1.00	1.203	YES			

Band	Antenna	Test Position	Type	Mode	Power Reduction	RB	offset	Channel Frequency(MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Scaling Factor	Report SAR1g (W/Kg)	0mm SAR	
n2	Main	Back Side	SA	DFT-s-OFDM QPSK	Hotspot on	1	104	380000/1900	24.50	22.50	0.606	1.58	0.960	NO	
					Hotspot on	50%	25	380000/1900	24.50	22.50	0.525	1.58	0.832	NO	
		Front Side			Hotspot on	1	104	380000/1900	24.50	22.50	0.462	1.58	0.732	NO	
					Hotspot on	50%	25	380000/1900	24.50	22.50	0.459	1.58	0.728	NO	
		Left Edge			Hotspot on	1	104	380000/1900	24.50	22.50	0.001	1.58	0.002	NO	
					Hotspot on	50%	25	380000/1900	24.50	22.50	0.001	1.58	0.002	NO	
		Right Edge			Hotspot on	1	104	380000/1900	24.50	22.50	0.303	1.58	0.480	NO	
					Hotspot on	50%	25	380000/1900	24.50	22.50	0.218	1.58	0.346	NO	
		Top Edge			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Bottom Edge			Hotspot on	1	104	380000/1900	24.50	22.50	1.358	1.58	2.152	YES	
Hotspot on	50%		25	380000/1900	24.50	22.50	1.225	1.58	1.941	YES					
n7	Main	Back Side	SA	DFT-s-OFDM QPSK	Hotspot on	1	104	502000/2510	23.50	22.50	0.824	1.26	1.038	NO	
					Hotspot on	50%	25	502000/2510	23.50	22.50	0.825	1.26	1.039	NO	
		Front Side			Hotspot on	1	104	502000/2510	23.50	22.50	0.327	1.26	0.411	NO	
					Hotspot on	50%	25	502000/2510	23.50	22.50	0.304	1.26	0.383	NO	
		Left Edge			Hotspot on	1	104	502000/2510	23.50	22.50	0.518	1.26	0.652	NO	
					Hotspot on	50%	25	502000/2510	23.50	22.50	0.497	1.26	0.625	NO	
		Right Edge			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
					Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Top Edge			Hotspot on	1	104	502000/2510	23.50	22.50	0.188	1.26	0.237	NO	
					Hotspot on	50%	25	502000/2510	23.50	22.50	0.178	1.26	0.224	NO	
		Bottom Edge			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Hotspot on	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
n41 (n38)	Main	Back Side	SA	DFT-s-OFDM QPSK	Hotspot on	1	271	528000/2640	23.50	21.00	0.534	1.78	0.950	NO	
					Hotspot on	50%	67	509202/2546.01	23.50	21.00	0.673	1.78	1.197	NO	
		Front Side			Hotspot on	1	271	528000/2640	23.50	21.00	0.150	1.78	0.267	NO	
					Hotspot on	50%	67	509202/2546.01	23.50	21.00	0.267	1.78	0.475	NO	
		Left Edge			Hotspot on	1	271	528000/2640	23.50	21.00	0.312	1.78	0.555	NO	
					Hotspot on	50%	67	509202/2546.01	23.50	21.00	0.511	1.78	0.909	NO	
		Right Edge			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
					Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Top Edge			Hotspot on	1	271	528000/2640	23.50	21.00	0.073	1.78	0.130	NO	
					Hotspot on	50%	67	509202/2546.01	23.50	21.00	0.205	1.78	0.364	NO	
		Bottom Edge			Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Hotspot on	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
n48	Main	Back Side	SA	DFT-s-OFDM QPSK	Hotspot on	1	271	643332/3649.98	24.00	21.50	0.821	1.78	1.459	YES	
					Hotspot on	50%	67	640000/3600	24.00	21.50	0.946	1.78	1.682	YES	
		Front Side			Hotspot on	1	271	643332/3649.98	24.00	21.50	0.392	1.78	0.696	NO	

		Left Edge			Hotspot on	50%	67	640000/3600	24.00	21.50	0.378	1.78	0.672	NO	
					Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					Hotspot on	1	271	643332/3649.98	24.00	21.50	0.669	1.78	1.189	NO	
					Hotspot on	50%	67	640000/3600	24.00	21.50	0.671	1.78	1.193	NO	
					Hotspot on	1	271	643332/3649.98	24.00	21.50	0.305	1.78	0.543	NO	
					Hotspot on	50%	67	640000/3600	24.00	21.50	0.320	1.78	0.569	NO	
					Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
n66	Main	SA	DFT-s-OFDM QPSK	Back Side	Hotspot on	1	1	349000/1745	23.50	22.50	0.704	1.26	0.886	NO	
				Hotspot on	50%	54	346000/1730	23.50	22.50	0.755	1.26	0.951	NO		
				Front Side	Hotspot on	1	1	349000/1745	23.50	22.50	0.474	1.26	0.596	NO	
				Hotspot on	50%	54	346000/1730	23.50	22.50	0.583	1.26	0.734	NO		
				Left Edge	Hotspot on	1	1	349000/1745	23.50	22.50	0.001	1.26	0.002	NO	
				Hotspot on	50%	54	346000/1730	23.50	22.50	0.001	1.26	0.002	NO		
				Right Edge	Hotspot on	1	1	349000/1745	23.50	22.50	0.108	1.26	0.136	NO	
				Hotspot on	50%	54	346000/1730	23.50	22.50	0.135	1.26	0.170	NO		
				Top Edge	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
				Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
				Bottom Edge	Hotspot on	1	1	349000/1745	23.50	22.50	1.062	1.26	1.337	YES	
Hotspot on	50%	54	346000/1730	23.50	22.50	1.116	1.26	1.405	YES						
n77 (n78)	Main	SA	DFT-s-OFDM QPSK	Back Side	Hotspot on	1	1	650000/3750	24.00	21.50	0.795	1.78	1.414	YES	
				Hotspot on	50%	67	662000/3930	24.00	21.50	0.798	1.78	1.418	YES		
				Front Side	Hotspot on	1	1	650000/3750	24.00	21.50	0.391	1.78	0.695	NO	
				Hotspot on	50%	67	662000/3930	24.00	21.50	0.399	1.78	0.709	NO		
				Left Edge	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
				Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
				Right Edge	Hotspot on	1	1	650000/3750	24.00	21.50	0.655	1.78	1.166	NO	
				Hotspot on	50%	67	662000/3930	24.00	21.50	0.485	1.78	0.862	NO		
				Top Edge	Hotspot on	1	1	650000/3750	24.00	21.50	0.390	1.78	0.693	NO	
				Hotspot on	50%	67	662000/3930	24.00	21.50	0.269	1.78	0.479	NO		
				Bottom Edge	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A						

Band	Antenna	Test Position	Mode	Power Reduction	RB	Offset	Channel Frequency(MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Scaling Factor	Report SAR1g (W/kg)	0mm SAR
LTE 41	DIV	Back Side	QPSK	Receiver off	1	50	40185/2549.5	22.50	21.50	0.722	1.26	0.909	NO
			QPSK	Receiver off	50%	50	40185/2549.5	22.50	21.50	0.645	1.26	0.813	NO
		Front Side	QPSK	Receiver off	1	50	40185/2549.5	22.50	21.50	0.426	1.26	0.536	NO
			QPSK	Receiver off	50%	50	40185/2549.5	22.50	21.50	0.542	1.26	0.683	NO
		Left Edge	QPSK	Receiver off	1	50	40185/2549.5	22.50	21.50	0.415	1.26	0.523	NO
			QPSK	Receiver off	50%	50	40185/2549.5	22.50	21.50	0.501	1.26	0.630	NO

		Right Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Top Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Bottom Edge	QPSK	Receiver off	1	50	40185/2549.5	22.50	21.50	0.358	1.26	0.451	NO	
			QPSK	Receiver off	50%	50	40185/2549.5	22.50	21.50	0.373	1.26	0.470	NO	
LTE 7	Main	Back Side	QPSK	Receiver off	1	99	21350/2560	22.00	19.00	0.421	2.00	0.840	NO	
			QPSK	Receiver off	50%	25	21100/2535	22.00	19.00	0.360	2.00	0.719	NO	
LTE 7	DIV	Back Side	QPSK	Receiver off	1	99	21350/2560	25.00	23.00	0.623	1.58	0.988	NO	
			QPSK	Receiver off	50%	25	21100/2535	24.00	23.00	0.581	1.26	0.731	NO	
		Front Side	QPSK	Receiver off	1	99	21350/2560	25.00	23.00	0.587	1.58	0.931	NO	
			QPSK	Receiver off	50%	25	21100/2535	24.00	23.00	0.384	1.26	0.483	NO	
		Left Edge	QPSK	Receiver off	1	99	21350/2560	25.00	23.00	0.617	1.58	0.978	NO	
			QPSK	Receiver off	50%	25	21100/2535	24.00	23.00	0.437	1.26	0.550	NO	
		Right Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Top Edge	QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
			QPSK	Receiver off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Bottom Edge	QPSK	Receiver off	1	99	21350/2560	25.00	23.00	0.372	1.58	0.590	NO	
			QPSK	Receiver off	50%	25	21100/2535	24.00	23.00	0.277	1.26	0.349	NO	

Product-specific 10g SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/kg)	Plot No.
WCDMA II	Main	Bottom Edge	0	RMC	Receiver off	N/A	N/A	9400/1880	23.00	22.12	1.950	0.011	1.22	2.388	/
			0	RMC	Receiver off	N/A	N/A	9262/1852.4	23.00	22.15	2.380	-0.070	1.22	2.895	96
			0	RMC	Receiver off	N/A	N/A	9538/1907.6	23.00	22.13	1.750	0.025	1.22	2.138	/
WCDMA IV	Main	Bottom Edge	0	RMC	Receiver off	N/A	N/A	1413/1732.6	22.50	21.42	2.320	-0.083	1.28	2.975	/
			0	RMC	Receiver off	N/A	N/A	1312/1712.4	22.50	21.36	2.410	-0.063	1.30	3.133	97
			0	RMC	Receiver off	N/A	N/A	1513/1752.6	22.50	21.40	2.370	-0.057	1.29	3.053	/
		Bottom Edge Repeat	0	RMC	Receiver off	N/A	N/A	1312/1712.4	22.50	21.36	2.280	0.010	1.30	2.964	/
LTE 66 (LTE 4)	Main	Bottom Edge	0	QPSK	Receiver off	1	50	132072/1720	21.00	20.53	1.830	-0.055	1.11	2.039	/
			0	QPSK	Receiver off	1	0	132322/1745	21.00	20.51	1.800	-0.068	1.12	2.015	/
			0	QPSK	Receiver off	1	50	132572/1770	21.00	20.50	2.310	-0.046	1.12	2.592	/
			0	QPSK	Receiver off	50%	0	132072/1720	21.00	20.57	2.150	-0.055	1.10	2.374	/
			0	QPSK	Receiver off	50%	0	132322/1745	21.00	20.42	2.060	-0.054	1.14	2.354	/
			0	QPSK	Receiver off	50%	25	132572/1770	21.00	20.33	2.330	-0.053	1.17	2.719	98
			0	QPSK	Receiver off	100%	0	132072/1720	21.00	20.54	2.120	-0.054	1.11	2.357	/
			0	QPSK	Receiver off	100%	0	132322/1745	21.00	20.34	2.060	-0.052	1.16	2.398	/

		0	QPSK	Receiver off	100%	0	132572/1770	21.00	20.43	2.290	-0.060	1.14	2.611	/
	Bottom Edge Repeat	0	RMC	Receiver off	50%	25	132572/1770	21.00	20.33	2.150	0.030	1.17	2.509	/

Band	Antenna	Test Position	Dist. (mm)	Type	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/kg)	Plot No.
n2	Main	SA	Bottom Edge	0	DFT-s-OFDM QPSK	Receiver off	1	214	378000/1890	24.50	23.34	2.210	0.028	1.31	2.887	/
				0	DFT-s-OFDM QPSK	Receiver off	1	214	374000/1870	24.50	23.30	2.450	0.015	1.32	3.230	/
				0	DFT-s-OFDM QPSK	Receiver off	1	1	376000/1880	24.50	23.25	2.320	-0.014	1.33	3.094	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	54	378000/1890	24.50	23.39	2.140	0.025	1.29	2.763	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	54	374000/1870	24.50	23.33	2.570	0.190	1.31	3.365	99
				0	DFT-s-OFDM QPSK	Receiver off	50%	54	376000/1880	24.50	23.31	2.430	0.027	1.32	3.196	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	376000/1880	23.50	22.37	2.020	-0.150	1.30	2.620	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	374000/1870	23.50	22.22	1.930	0.090	1.34	2.592	/
			0	DFT-s-OFDM QPSK	Receiver off	100%	0	378000/1890	23.50	22.45	1.810	0.035	1.27	2.305	/	
			Bottom Edge SIM2	0	DFT-s-OFDM QPSK	Receiver off	50%	54	374000/1870	24.50	23.33	2.430	0.190	1.31	3.181	/
			Back Side Earphone	0	DFT-s-OFDM QPSK	Receiver off	50%	54	374000/1870	24.50	23.33	0.971	0.032	1.31	1.271	/
			Bottom Edge Repeat	0	DFT-s-OFDM QPSK	Receiver off	50%	54	374000/1870	24.50	23.33	2.350	0.060	1.31	3.077	/
n2	Main	SA	Bottom Edge	0	CP-OFDM QPSK	Receiver off	1	1	378000/1890	22.50	21.64	1.960	0.010	1.22	2.389	/
n48	Main	SA	Back Side	0	DFT-s-OFDM QPSK	Receiver off	1	271	643332/3649.98	24.00	22.52	1.620	-0.015	1.41	2.278	/
				0	DFT-s-OFDM QPSK	Receiver off	1	271	640000/3600	24.00	22.20	1.810	0.030	1.51	2.740	/
				0	DFT-s-OFDM QPSK	Receiver off	1	271	641666/3624.99	24.00	22.42	1.690	0.037	1.44	2.432	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	67	640000/3600	24.00	22.58	2.140	-0.033	1.39	2.968	100
				0	DFT-s-OFDM QPSK	Receiver off	50%	67	641666/3624.99	24.00	22.27	1.960	0.040	1.49	2.919	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	67	643332/3649.98	24.00	22.51	1.870	0.013	1.41	2.635	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	643332/3649.98	23.00	21.31	1.490	0.011	1.48	2.199	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	641666/3624.99	23.00	21.08	1.620	-0.030	1.56	2.521	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	640000/3600	23.00	21.17	1.610	0.017	1.52	2.454	/
			Back Side Repeat	0	DFT-s-OFDM QPSK	Receiver off	100%	0	641666/3624.99	23.00	21.08	1.620	-0.030	1.56	2.521	/
n66	Main	SA	Bottom Edge	0	DFT-s-OFDM QPSK	Receiver off	1	1	352000/1760	23.50	21.95	2.090	0.020	1.43	2.986	/
				0	DFT-s-OFDM QPSK	Receiver off	1	1	346000/1730	23.50	22.09	2.160	-0.160	1.38	2.989	/
				0	DFT-s-OFDM QPSK	Receiver off	1	1	349000/1745	23.50	21.87	2.140	0.013	1.46	3.115	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	54	349000/1745	23.50	22.00	2.080	0.015	1.41	2.938	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	54	346000/1730	23.50	22.14	2.090	0.020	1.37	2.859	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	54	352000/1760	23.50	22.00	2.230	0.010	1.41	3.150	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	352000/1760	23.50	22.04	1.780	0.026	1.40	2.491	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	346000/1730	23.50	22.08	1.820	-0.070	1.39	2.524	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	349000/1745	23.50	21.90	1.650	0.030	1.45	2.385	/

			Bottom Edge Repeat	0	DFT-s-OFDM QPSK	Receiver off	50%	54	352000/1760	23.50	22.00	2.280	-0.040	1.41	3.221	101
n77 (n78)	Main	SA	Back Side	0	DFT-s-OFDM QPSK	Receiver off	1	1	650000/3750	24.00	22.40	1.620	0.020	1.45	2.342	/
				0	DFT-s-OFDM QPSK	Receiver off	1	1	656000/3840	24.00	22.32	1.090	-0.050	1.47	1.605	/
				0	DFT-s-OFDM QPSK	Receiver off	1	271	662000/3930	24.00	22.40	1.940	0.037	1.45	2.804	102
				0	DFT-s-OFDM QPSK	Receiver off	50%	67	650000/3750	24.00	22.61	1.430	0.017	1.38	1.969	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	67	656000/3840	24.00	22.28	1.120	0.022	1.49	1.664	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	67	662000/3930	24.00	22.43	1.860	0.030	1.44	2.670	/
				0	DFT-s-OFDM QPSK	Receiver off	100%	0	650000/3750	23.00	21.44	0.956	-0.130	1.43	1.369	/
			Back Side	0	DFT-s-OFDM QPSK	Receiver off	1	271	633332/3500	24.00	22.24	1.520	0.030	1.50	2.280	/
				0	DFT-s-OFDM QPSK	Receiver off	50%	67	633332/3500	24.00	22.57	1.410	0.028	1.39	1.960	/
						Back Side Repeat	0	DFT-s-OFDM QPSK	Receiver off	1	271	662000/3930	24.00	22.40	1.760	0.012

10.3 Simultaneous Transmission Analysis

Simultaneous Transmission Configurations	Head	Body-worn	Hotspot	Product Specific 10-g SAR
2G/3G/4G/5G NR + Bluetooth	Yes	Yes	Yes	Yes
2G/3G/4G/5G NR + Wi-Fi 2.4GHz	Yes	Yes	Yes	Yes
2G/3G/4G/5G NR + Wi-Fi 5GHz	Yes	Yes	Yes	Yes
Wi-Fi 2.4GHz + Bluetooth	N/A	N/A	N/A	N/A
Wi-Fi 5GHz + Bluetooth	N/A	N/A	N/A	N/A
Wi-Fi 2.4GHz + Wi-Fi 5GHz	N/A	N/A	N/A	N/A

General Note:

1. The Scaled SAR summation is calculated based on the same configuration and test position.
2. Per KDB 447498 D01, simultaneous transmission SAR is compliant if,
 - i) Scalar SAR summation < 1.6W/kg, simultaneously transmission SAR measurement is not necessary.
 - ii) $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.

The Maximum SAR1g Value for 2G/3G/4G Antenna

Test Position		SAR _{1g} (W/kg)	GSM	GSM	WCDMA	WCDMA	WCDMA	LTE 7	LTE 12	LTE 13	LTE 25	LTE 26	LTE 41	LTE 48	LTE 66	MAX. SAR _{1g}
		850	1900	Band II	Band IV	Band V		(LTE 17)		(LTE 2)	(LTE 5)	(LTE 38)		(LTE 4)		
		ANT 4	ANT 0	ANT 0	ANT 0	ANT 4	ANT 3	ANT 4	ANT 4	ANT 0	ANT 4	ANT 3	ANT 7	ANT 0		
Head	Left Cheek	0.797	0.092	0.195	0.175	0.485	0.492	0.750	0.639	0.276	0.975	0.248	1.030	0.178	1.030	
	Left Tilt	0.578	0.078	0.117	0.078	0.420	0.384	0.541	0.730	0.096	0.788	0.321	0.443	0.066	0.788	
	Right Cheek	0.794	0.134	0.104	0.088	0.656	1.194	0.877	0.753	0.150	0.799	0.571	0.297	0.115	1.194	
	Right Tilt	0.985	0.073	0.109	0.058	0.574	0.762	0.898	0.916	0.153	0.792	0.392	0.249	0.074	0.985	
Body worn	Back Side	NA	0.354	0.440	0.628	NA	0.627	0.544	NA	NA	NA	NA	0.425	0.496	0.628	
	Front Side	NA	0.276	0.339	0.492	NA	0.371	0.279	NA	NA	NA	NA	0.225	0.467	0.492	
Hotspot	Back Side	0.476	0.521	0.569	0.575	0.424	1.117	0.416	0.365	0.592	0.501	0.724	0.702	0.653	1.117	
	Front Side	0.501	0.427	0.462	0.461	0.287	0.429	0.332	0.296	0.525	0.350	0.265	0.308	0.560	0.560	
	Left Edge	0.399	0.066	0.065	0.077	0.226	0.735	0.293	0.253	0.123	0.256	0.583	N/A	0.103	0.735	
	Right Edge	0.222	0.158	0.128	0.084	0.131	N/A	0.172	0.118	0.072	0.120	N/A	0.566	0.091	0.566	
	Top Edge	0.764	N/A	N/A	N/A	0.473	0.279	0.355	0.389	N/A	0.473	0.105	0.378	N/A	0.764	
	Bottom Edge	N/A	0.987	1.138	1.079	0.424	N/A	N/A	N/A	1.363	N/A	N/A	N/A	N/A	1.307	1.363
Product Specific 10-g SAR	Back Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Front Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Bottom Edge	N/A	N/A	2.895	3.133	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.719	3.133

The Maximum SAR_{1g} Value for 5G NR SA Antenna

Test Position		SAR _{1g} (W/kg)	NR n2	NR n7	NR n26 (NR n5)	NR n41 (NR n38)	NR n48	NR n66	NR n71	NR n77 (NR n 78)	MAX.
		ANT 0	ANT3	ANT 4	ANT 3	ANT 7	ANT 0	ANT 4	ANT 7	SAR _{1g}	
		SA	SA	SA	SA	SA	SA	SA	SA		
Head	Left Cheek	0.154	0.237	1.138	0.625	1.164	0.058	0.441	1.165	1.165	
	Left Tilt	0.050	0.285	0.673	0.361	0.382	0.038	0.399	0.393	0.673	
	Right Cheek	0.108	1.259	0.931	1.208	0.454	0.098	0.471	0.412	1.259	
	Right Tilt	0.071	0.711	0.609	0.694	0.263	0.058	0.669	0.196	0.711	
Body worn	Back Side	0.414	0.560	0.379	0.713	0.703	0.673	0.257	0.715	0.715	
	Front Side	0.365	0.266	0.249	0.402	0.426	0.440	0.165	0.437	0.440	
Hotspot	Back Side	0.599	0.964	0.379	0.673	0.946	0.755	0.257	0.798	0.964	
	Front Side	0.469	0.327	0.249	0.267	0.392	0.583	0.165	0.399	0.583	
	Left Edge	0.001	0.518	0.247	0.511	N/A	0.001	0.223	N/A	0.518	
	Right Edge	0.300	N/A	0.119	N/A	0.671	0.135	0.092	0.655	0.671	
	Top Edge	N/A	0.188	0.376	0.205	0.320	N/A	0.238	0.390	0.390	
	Bottom Edge	1.346	N/A	N/A	N/A	N/A	1.256	N/A	N/A	1.346	
Product Specific 10-g SAR	Back Side	1.271	N/A	N/A	N/A	2.968	N/A	N/A	2.804	2.968	
	Front Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Bottom Edge	3.365	N/A	N/A	N/A	N/A	3.221	N/A	N/A	3.365	

The Maximum SAR_{1g} Value for 5G NR/ENDC Antenna

Band		NR Full Power + LTE Full Power																
		LTE 7	LTE 7	LTE 26 (LTE 5)	LTE 66 (LTE 4)	LTE 41 (LTE 38)	NR n7	NR n26 (NR n5)	NR n41	NR n77 (NR n78)	DC_ 41A-n41A	DC_ 7A-n5A	DC_ 7A-n7A	DC_ 4A-n78A	DC_ 5A-n78 A	DC_ 7A-n78A	DC_ 38A-n78A	DC_ 41A-n7A
		ANT 3	ANT1	ANT 4	ANT 0	ANT 1	ANT 3	ANT 4	ANT 3	ANT 7	ANT 1+ ANT 3	ANT 3+ ANT 4	ANT1+ ANT 3	ANT 0+ ANT 7	ANT 4+ ANT 7	ANT1+ ANT 7	ANT1+ ANT 7	ANT1+ ANT 7
Head	Left Cheek	0.492	0.243	0.280	0.178	0.533	0.237	0.423	0.625	0.560	1.158	0.915	0.480	0.738	0.840	0.803	1.093	1.093
	Left Tilt	0.384	0.120	0.179	0.066	0.223	0.285	0.316	0.361	0.393	0.584	0.700	0.405	0.459	0.572	0.513	0.616	0.616
	Right Cheek	0.617	0.149	0.259	0.115	0.325	0.607	0.424	0.730	0.412	1.055	1.041	0.756	0.527	0.671	0.561	0.737	0.737
	Right Tilt	0.762	0.125	0.239	0.074	0.365	0.711	0.375	0.694	0.196	1.059	1.137	0.836	0.270	0.435	0.321	0.561	0.561
Body worn	Back Side	0.310	0.611	NA	0.496	0.460	0.353	0.379	0.481	0.395	0.941	0.689	0.964	0.891	0.395	1.006	0.855	0.855
	Front Side	0.371	0.597	NA	0.467	0.397	0.266	0.249	0.402	0.437	0.799	0.620	0.863	0.904	0.437	1.034	0.834	0.834
Hotspot	Back Side	0.421	0.623	0.501	0.653	0.722	0.407	0.379	0.404	0.345	1.126	0.800	1.030	0.998	0.846	0.968	1.067	1.067
	Front Side	0.429	0.587	0.350	0.560	0.542	0.327	0.249	0.267	0.399	0.809	0.678	0.914	0.959	0.749	0.986	0.941	0.941
	Left Edge	0.735	0.617	0.256	0.103	0.501	0.518	0.247	0.511	N/A	1.012	0.982	1.135	0.103	0.256	0.617	0.501	0.501
	Right Edge	N/A	N/A	0.120	0.091	N/A	N/A	0.119	N/A	0.655	N/A	0.119	N/A	0.746	0.775	0.655	0.655	0.655
	Top Edge	0.279	N/A	0.473	N/A	N/A	0.188	0.376	0.205	0.390	0.205	0.655	0.188	0.390	0.863	0.390	0.390	0.390
	Bottom Edge	N/A	0.372	N/A	1.307	0.373	N/A	N/A	N/A	N/A	0.373	N/A	0.372	1.307	N/A	0.372	0.373	0.373
Product Specific 10-g SAR	Back Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Front Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

About Bluetooth, Wi-Fi and 2G/ 3G/ 4G /5G NR Antenna

SAR _{1g/10g} (W/kg)		Wi-Fi 2.4G	Wi-Fi 5G				MAX. (Wi-Fi 2.4G, Wi-Fi 5G) SAR _{1g}
			U-NII-1	U-NII-2A	U-NII-2C	U-NII-3	
Test Position							
Head	Left, Cheek	0.184	0.234	0.223	0.118	0.123	0.234
	Left, Tilt	0.169	0.103	0.168	0.178	0.139	0.178
	Right, Cheek	0.050	0.062	0.069	0.088	0.080	0.088
	Right, Tilt	0.053	0.042	0.083	0.080	0.113	0.113
Hotspot	Back Side	0.133	0.265	0.241	0.255	0.240	0.265
	Right Edge	N/A	0.417	N/A	N/A	N/A	0.417

SAR _{1g/10g} (W/kg)		2G/ 3G/ 4G	5G NR		Wi-Fi	Wi-Fi 5G				Bluetooth	MAX. ΣSAR _{1g/10g}
			SA	ENDC	2.4G	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3		
			1	2	3	4	5	6	7		
Head	Left, Cheek	1.030	1.165	1.158	NA	NA	NA	NA	NA	0.142	1.307
	Left, Tilt	0.788	0.673	0.700	NA	NA	NA	NA	NA	0.112	0.900
	Right, Cheek	1.194	1.259	1.055	NA	NA	NA	NA	NA	0.061	1.320
	Right, Tilt	0.985	0.711	1.137	NA	NA	NA	NA	NA	0.047	1.184
Body worn	Back Side	0.628	0.715	1.006	0.224	0.366	0.344	0.360	0.345	0.063	1.372
	Front Side	0.492	0.440	1.034	0.124	0.123	0.141	0.118	0.144	0.019	1.178
Hotspot	Back Side	1.117	0.964	1.126	NA	NA	NA	NA	NA	0.063	1.189
	Front Side	0.560	0.583	0.986	0.292	0.134	0.132	0.073	0.125	0.019	1.278
	Left Edge	0.735	0.518	1.135	N/A	N/A	N/A	N/A	N/A	N/A	1.135
	Right Edge	0.566	0.671	0.775	0.342	NA	0.620	0.212	0.240	0.017	1.395
	Top Edge	0.764	0.390	0.863	0.160	0.344	0.378	0.290	0.278	0.002	1.241
	Bottom Edge	1.363	1.346	1.307	N/A	N/A	N/A	N/A	N/A	N/A	1.363
Product Specific 10-g SAR	Back Side	N/A	2.968	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.968
	Front Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bottom Edge	3.133	3.365	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.365

Note:

1. The value with blue color is the maximum ΣSAR_{1g/10g} Value.

2. MAX. ΣSAR_{1g/10g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}

MAX. ΣSAR_{1g} =1.395 W/kg<1.6W/kg and MAX. ΣSAR_{10g} = 3.365 W/kg<4 W/kg, so the Simultaneous transmission SAR with volume scan are not required for WWAN and WLAN Antenna.

11 Measurement Uncertainty

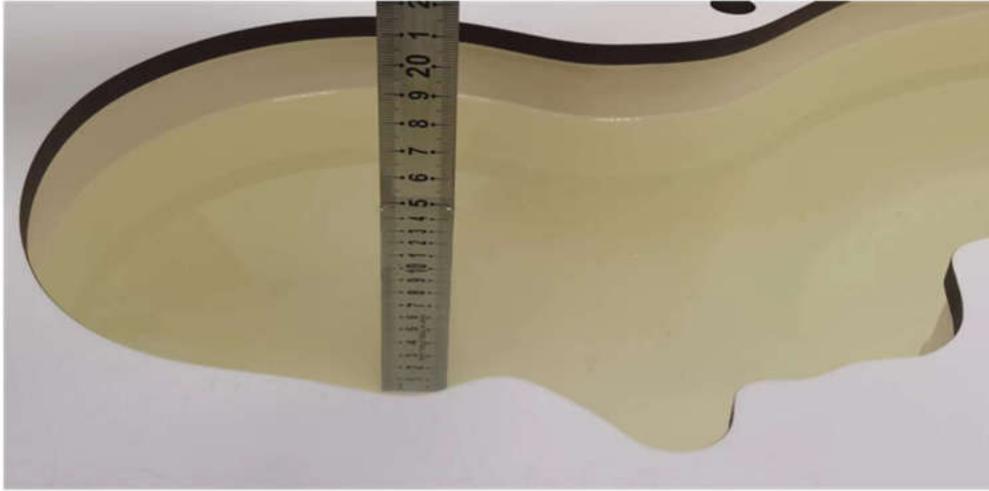
Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528- 2013 is not required in SAR reports submitted for equipment approval. This also applies to the 10-g SAR required for phablets in KDB Publication 648474.

ANNEX A: Test Layout

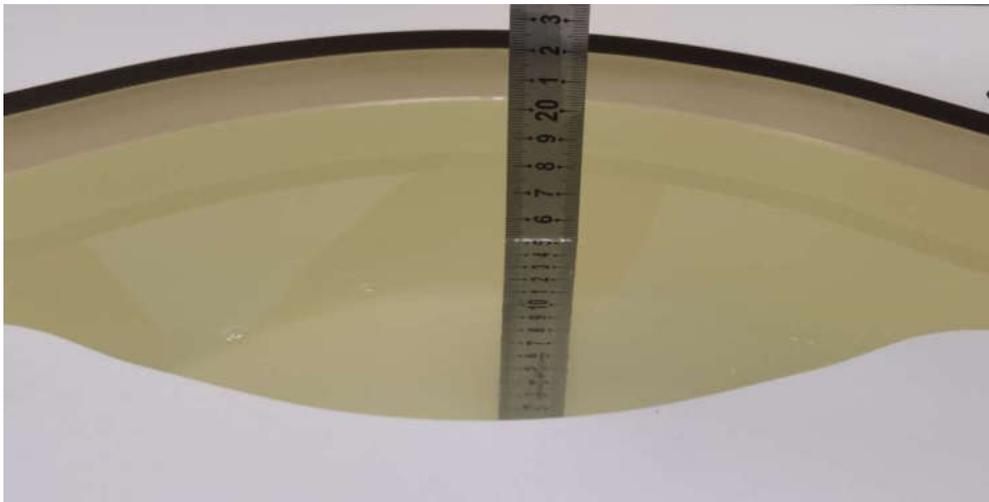


Tissue Simulating Liquids

For the measurement of the field distribution inside the flat phantom with DASy, the phantom must be filled with around 25 liters of homogeneous tissue simulating liquid. For SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is > 15 cm, which is shown as below.



Picture 3: liquid depth in the head Phantom



Picture 4: Liquid depth in the flat Phantom

ANNEX B: System Check Results

Plot 1 System Performance Check at 750 MHz TSL

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3

Date: 2024/1/20

Communication System: CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 750$ MHz; $\sigma = 0.88$ S/m; $\epsilon_r = 42.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.03, 9.80, 9.03); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.15 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.165V/m; Power Drift = -0.08 dB

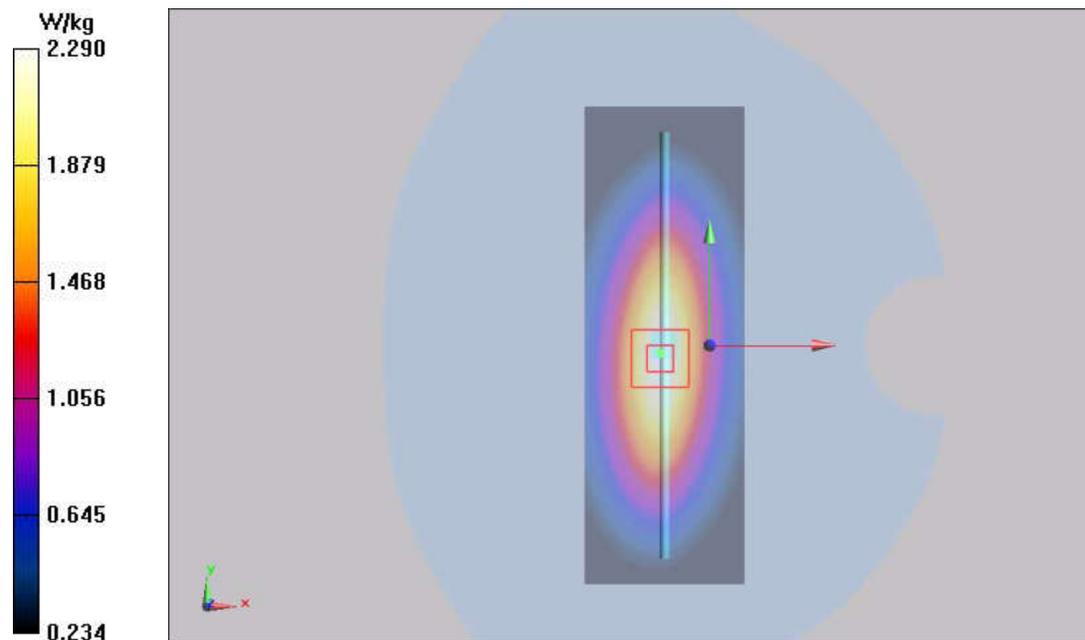
Peak SAR (extrapolated) = 3.16 W/kg

SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.41 W/kg

Smallest distance from peaks to all points 3 dB below = 8.7 mm

Ratio of SAR at M2 to SAR at M1 = 62.5%

Maximum value of SAR (measured) = 2.29 W/kg



Plot 2 System Performance Check at 835 MHz TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2

Date: 2024/1/22

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.88 \text{ S/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.58 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.241 V/m; Power Drift = -0.076 dB

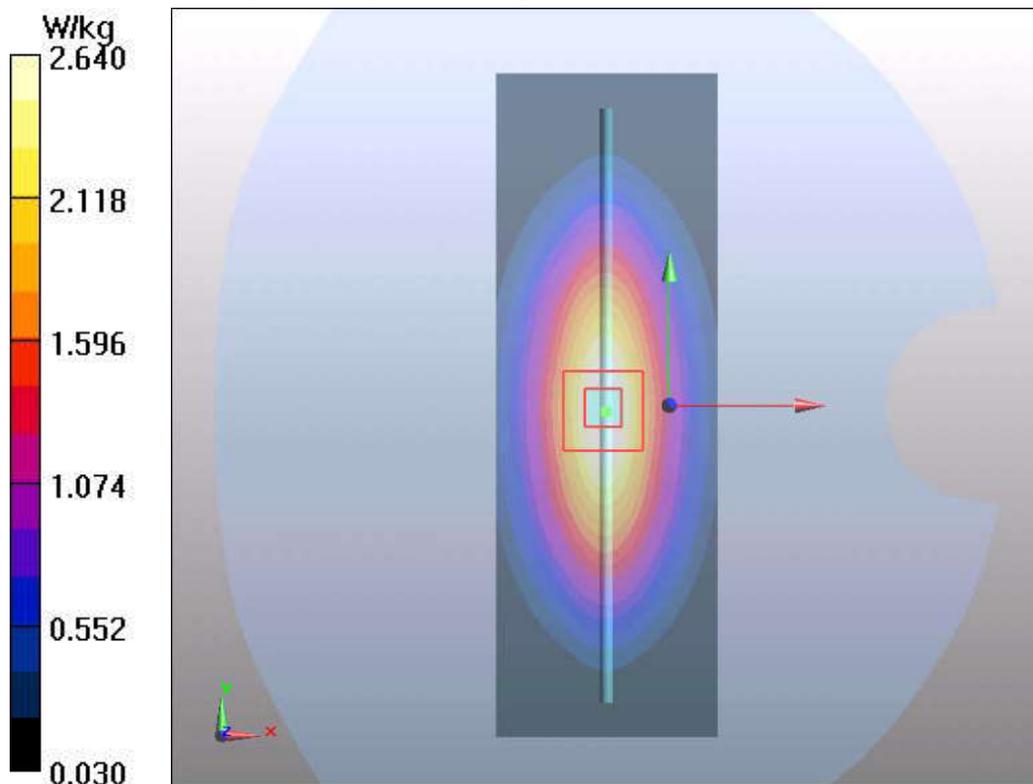
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.6 W/kg

Smallest distance from peaks to all points 3 dB below = 16.6 mm

Ratio of SAR at M2 to SAR at M1 = 68.1%

Maximum value of SAR (measured) = 2.64 W/kg



Plot 3 System Performance Check at 835 MHz TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2

Date: 2024/1/23

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ S/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.59 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.023 V/m; Power Drift = -0.06 dB

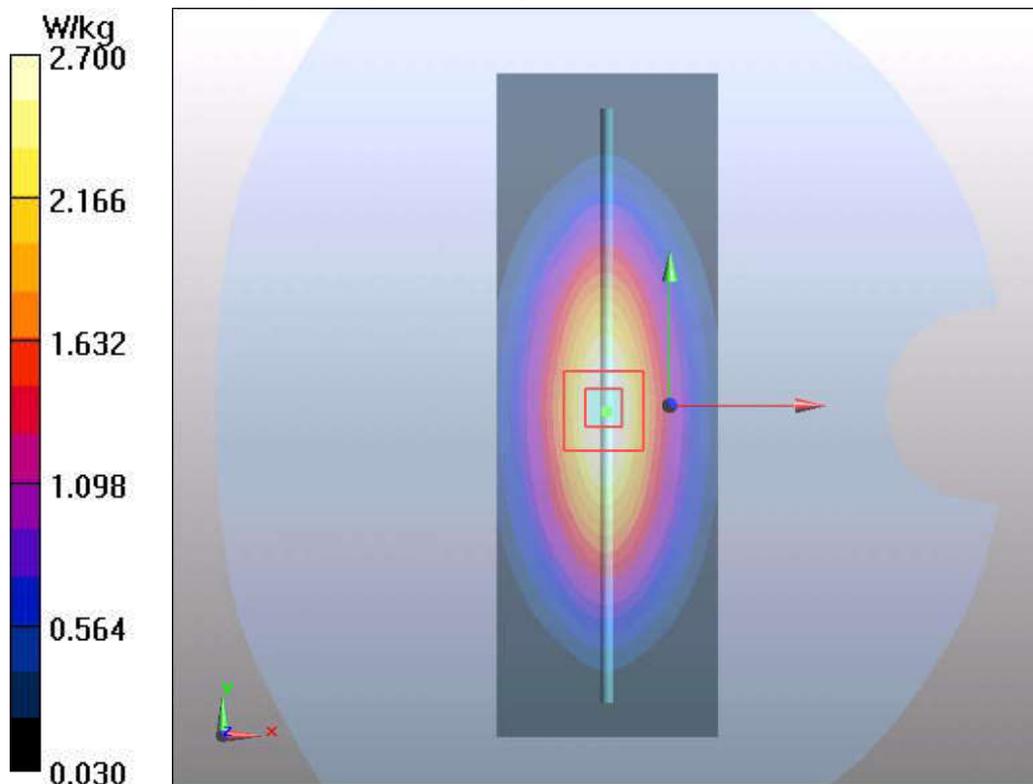
Peak SAR (extrapolated) = 3.25 W/kg

SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.65 W/kg

Smallest distance from peaks to all points 3 dB below = 15.7 mm

Ratio of SAR at M2 to SAR at M1 = 65.4%

Maximum value of SAR (measured) = 2.70 W/kg



Plot 4 System Performance Check at 835 MHz TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2

Date: 2024/2/18

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ S/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.59 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.023 V/m; Power Drift = -0.06 dB

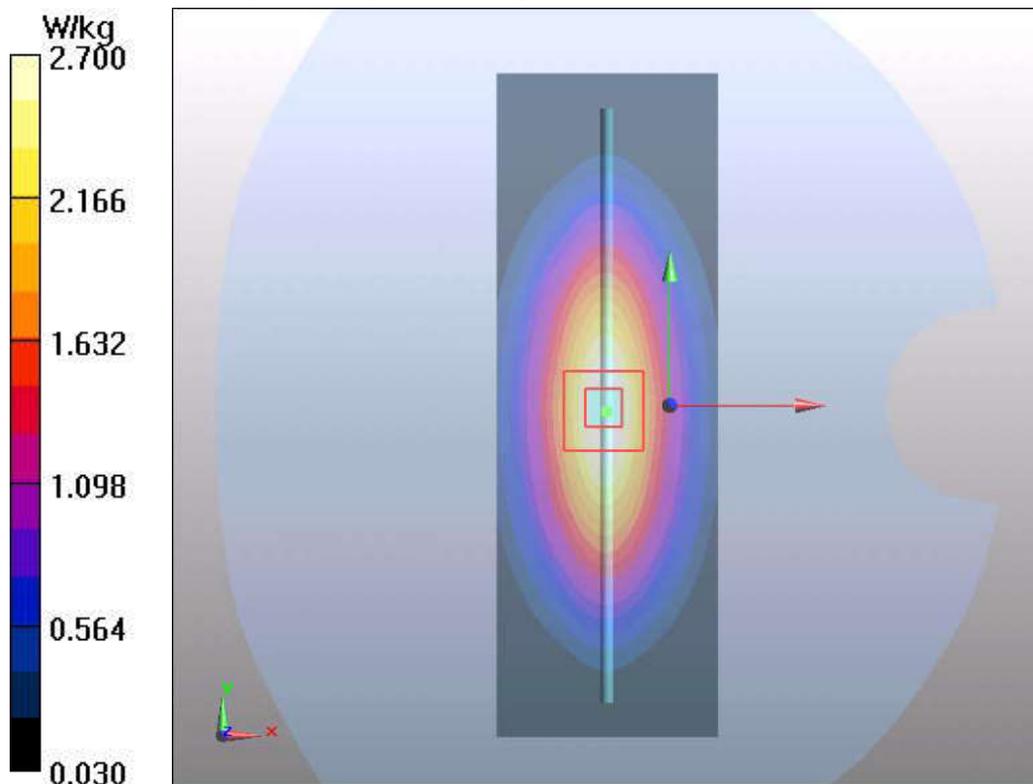
Peak SAR (extrapolated) = 3.25 W/kg

SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.65 W/kg

Smallest distance from peaks to all points 3 dB below = 15.7 mm

Ratio of SAR at M2 to SAR at M1 = 65.4%

Maximum value of SAR (measured) = 2.70 W/kg



Plot 5 System Performance Check at 1750 MHz TSL

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2

Date: 2024/1/19

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.34$ S/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.18 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 80.385 V/m; Power Drift = 0.075 dB

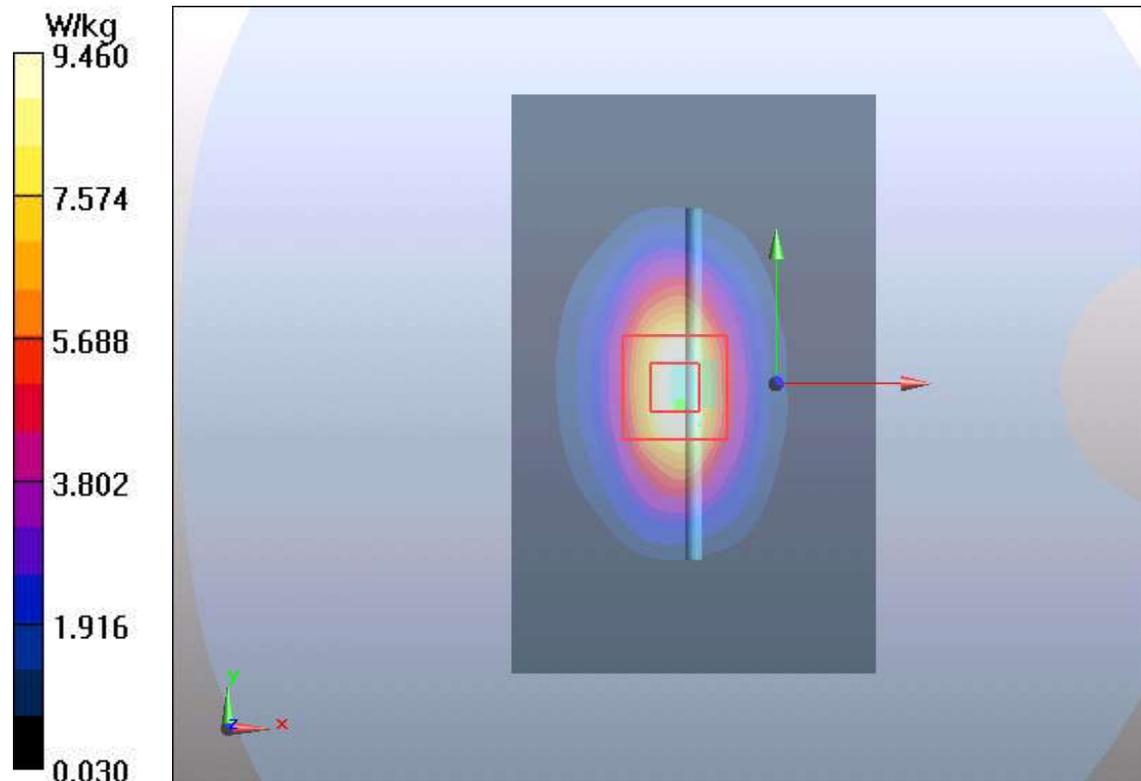
Peak SAR (extrapolated) = 15.5 W/kg

SAR(1 g) = 8.95 W/kg; SAR(10 g) = 4.8 W/kg

Smallest distance from peaks to all points 3 dB below = 10mm

Ratio of SAR at M2 to SAR at M1 = 53.5%

Maximum value of SAR (measured) = 9.46 W/kg



Plot 6 System Performance Check at 1750 MHz TSL

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2

Date: 2024/1/21

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.34$ S/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.77 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 80.134 V/m; Power Drift = 0.055 dB

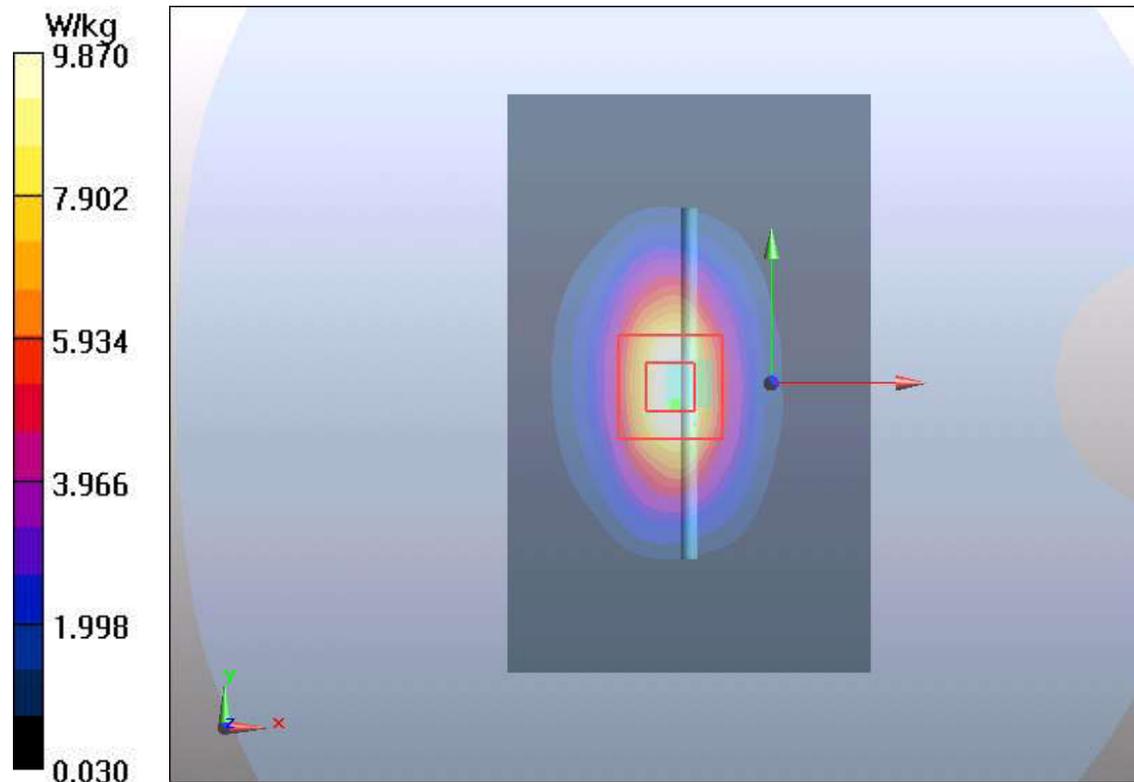
Peak SAR (extrapolated) = 15.81 W/kg

SAR(1 g) = 9.11 W/kg; SAR(10 g) = 4.77 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6mm

Ratio of SAR at M2 to SAR at M1 = 54.6%

Maximum value of SAR (measured) = 9.87 W/kg



Plot 7 System Performance Check at 1900 MHz TSL

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2

Date: 2024/2/2

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.41$ S/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 10.23 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 85.857V/m; Power Drift = 0.026 dB

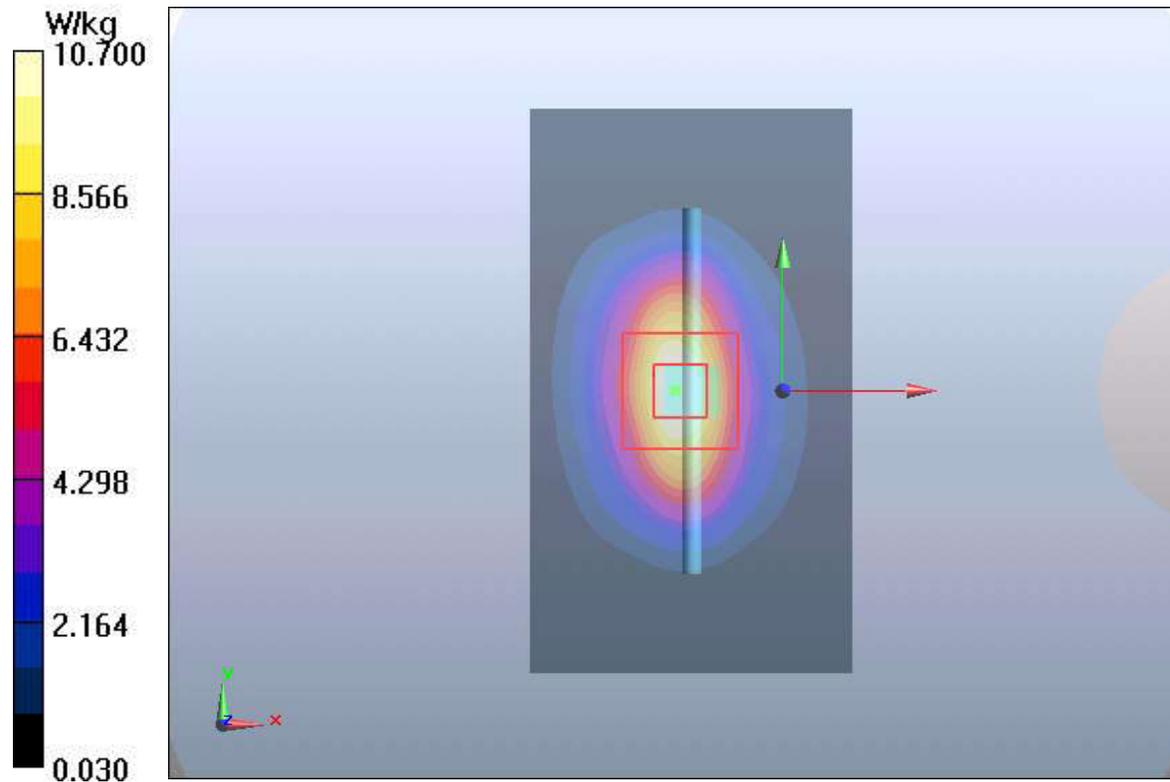
Peak SAR (extrapolated) = 17.84 W/kg

SAR(1 g) = 9.88 W/kg; SAR(10 g) = 4.9 W/kg

Smallest distance from peaks to all points 3 dB below = 11.4 mm

Ratio of SAR at M2 to SAR at M1 = 52.7%

Maximum value of SAR (measured) = 10.70 W/kg



Plot 8 System Performance Check at 1900 MHz TSL

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2

Date: 2024/2/3

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.43 \text{ S/m}$; $\epsilon_r = 40.2$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 10.43 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.324 V/m; Power Drift = 0.013 dB

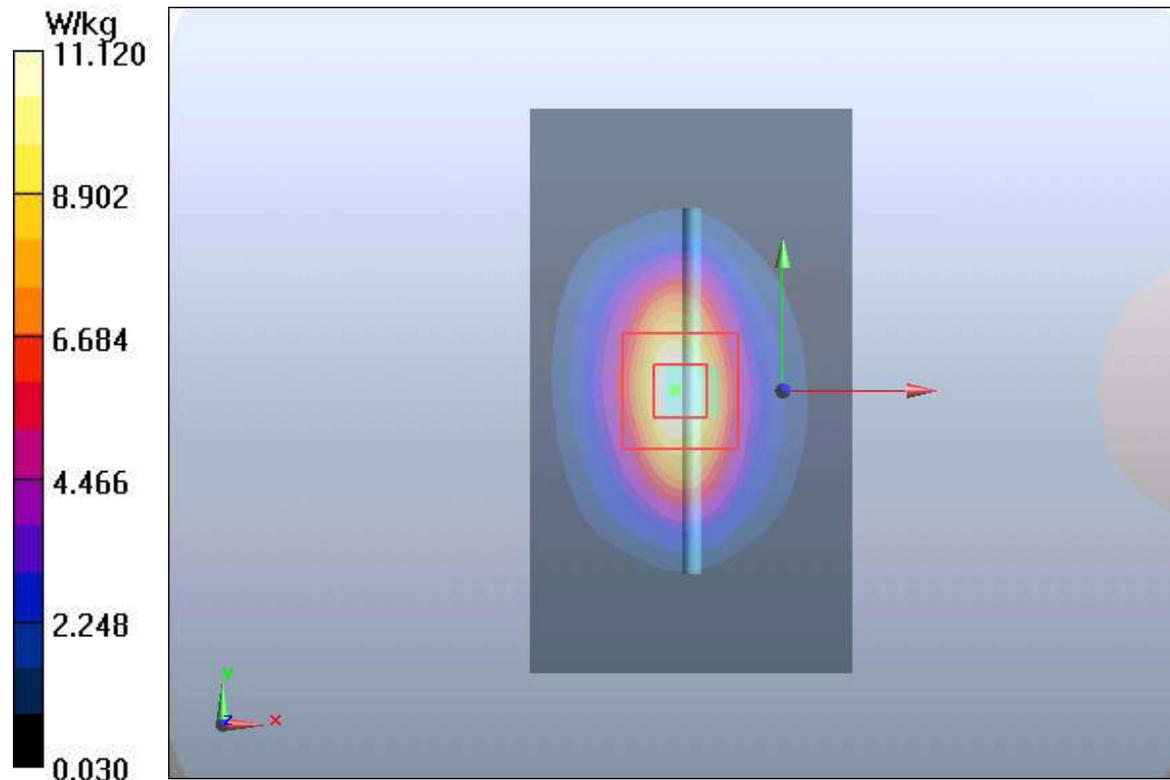
Peak SAR (extrapolated) = 19.2 W/kg

SAR(1 g) = 9.85 W/kg; SAR(10 g) = 4.93 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2mm

Ratio of SAR at M2 to SAR at M1 = 56.3%

Maximum value of SAR (measured) = 11.12 W/kg



Plot 9 System Performance Check at 1900 MHz

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2

Date: 2024/2/4

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.40$ S/m; $\epsilon_r = 40.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.86 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.368 V/m; Power Drift = 0.013 dB

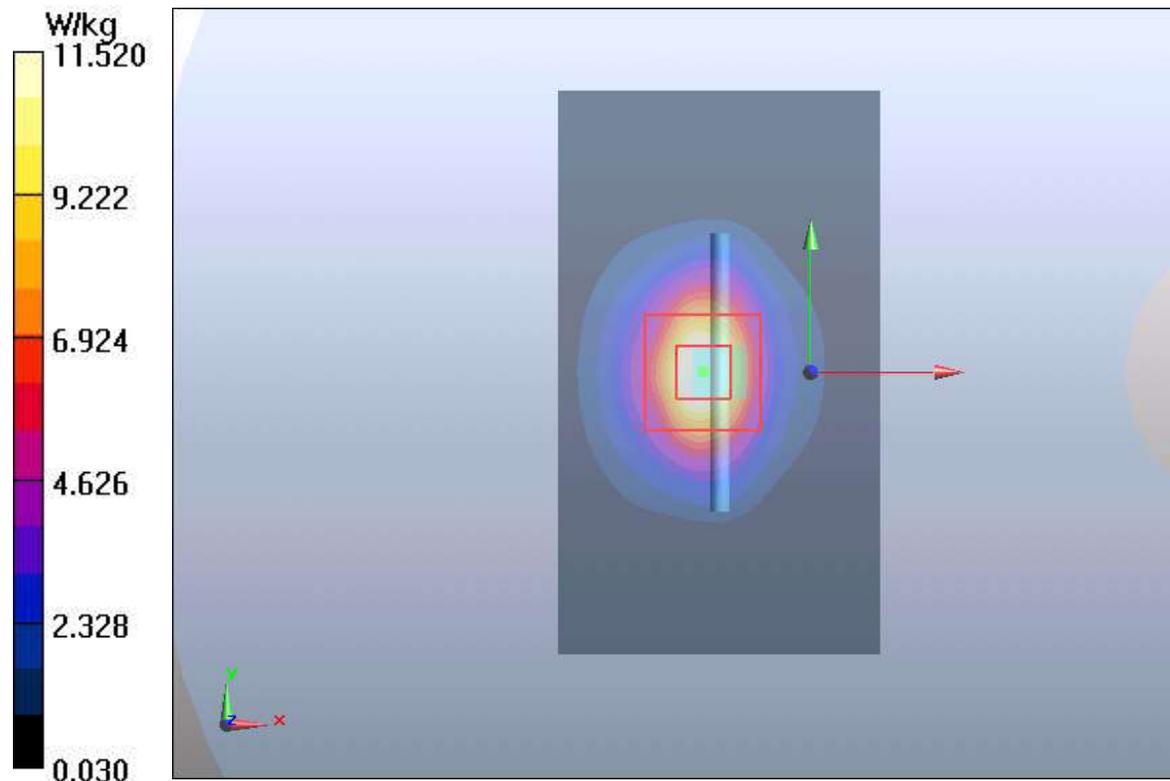
Peak SAR (extrapolated) = 20.12 W/kg

SAR(1 g) = 9.55 W/kg; SAR(10 g) = 4.99 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 52.5%

Maximum value of SAR (measured) = 11.52 W/kg



Plot 10 System Performance Check at 2450 MHz TSL

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2

Date: 2024/2/1

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.81$ S/m; $\epsilon_r = 38.6$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.18, 7.67, 7.29); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 14.26 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.834 V/m; Power Drift = 0.015 dB

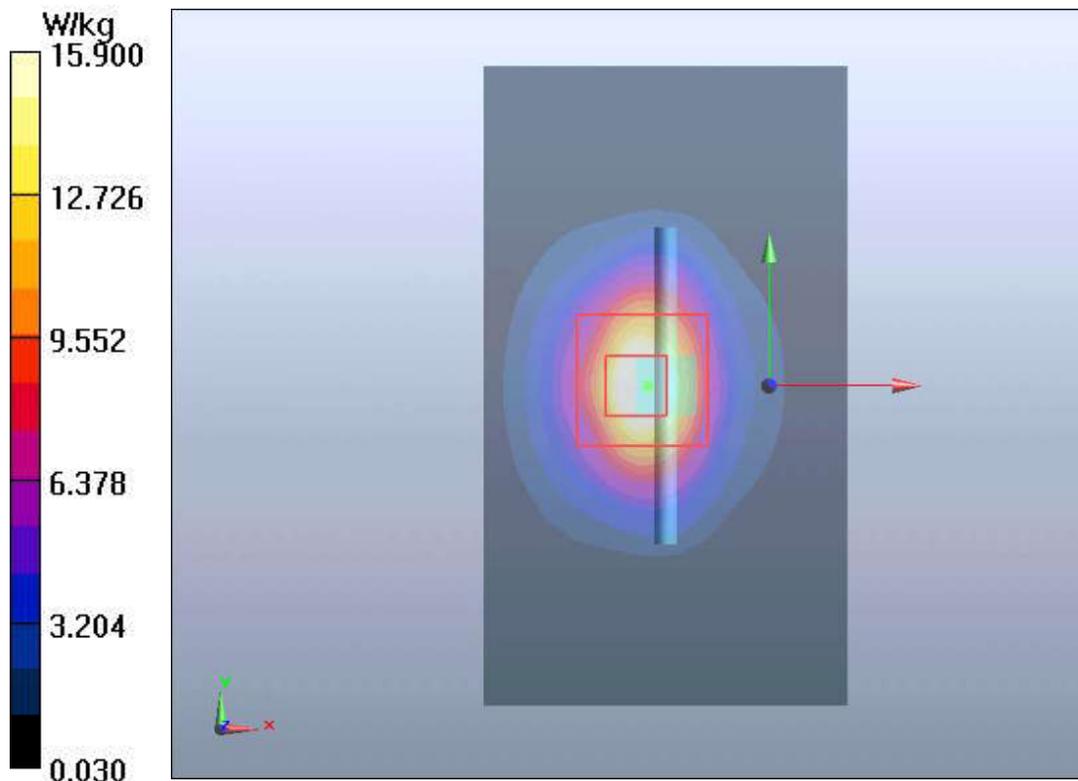
Peak SAR (extrapolated) = 30.10 W/kg

SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.22 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 47%

Maximum value of SAR (measured) = 15.90 W/kg



Plot 11 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2

Date: 2024/1/24

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.01$ S/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 14.43 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.998 V/m; Power Drift = -0.04 dB

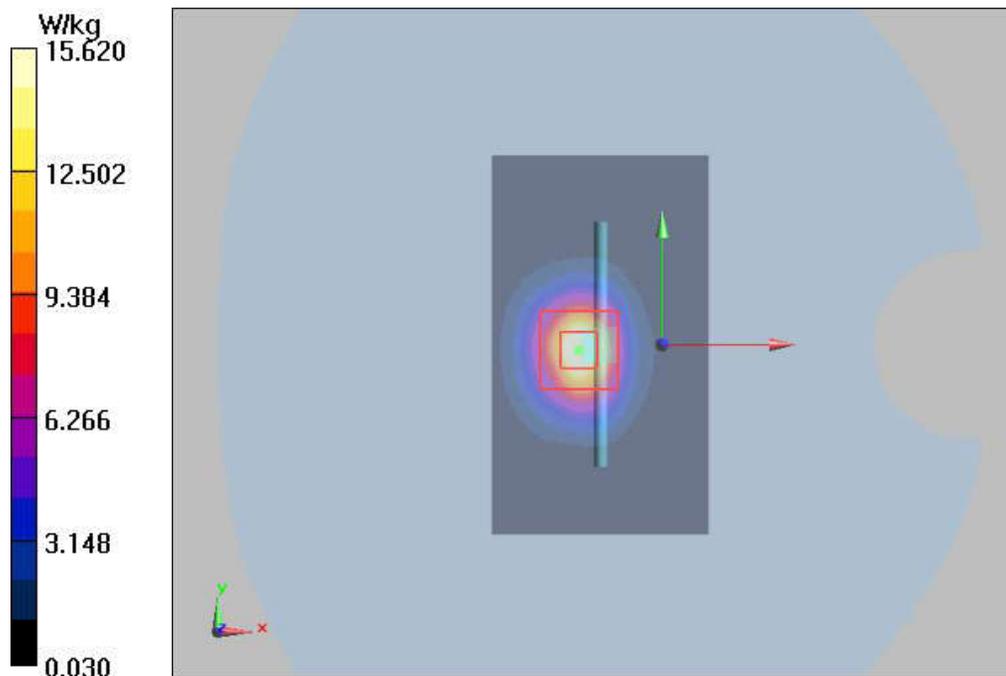
Peak SAR (extrapolated) = 31.85W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.07 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 44.2%

Maximum value of SAR (measured) = 15.62 W/kg



Plot 12 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2

Date: 2024/1/26

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.94$ S/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 15.02 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.359 V/m; Power Drift = -0.015 dB

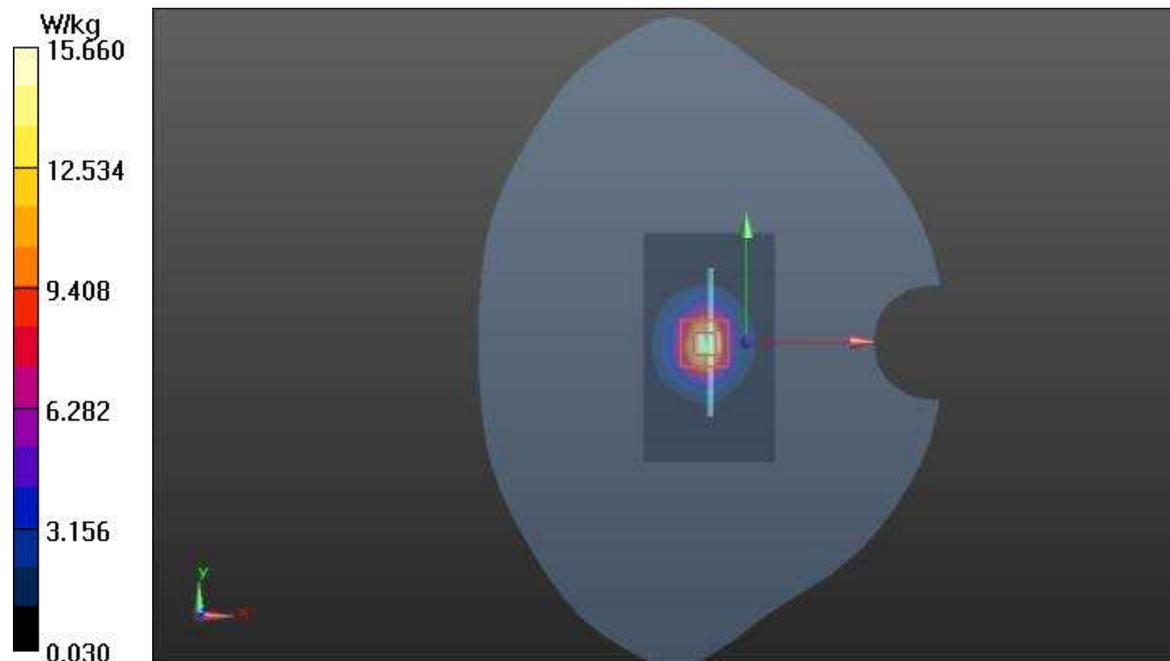
Peak SAR (extrapolated) = 30.62 W/kg

SAR(1 g) = 13.88 W/kg; SAR(10 g) = 6.09 W/kg

Smallest distance from peaks to all points 3 dB below = 10.3 mm

Ratio of SAR at M2 to SAR at M1 = 48.6%

Maximum value of SAR (measured) = 15.66 W/kg



Plot 13 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2

Date: 2024/1/27

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.99$ S/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 14.20 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.465 V/m; Power Drift = 0.146 dB

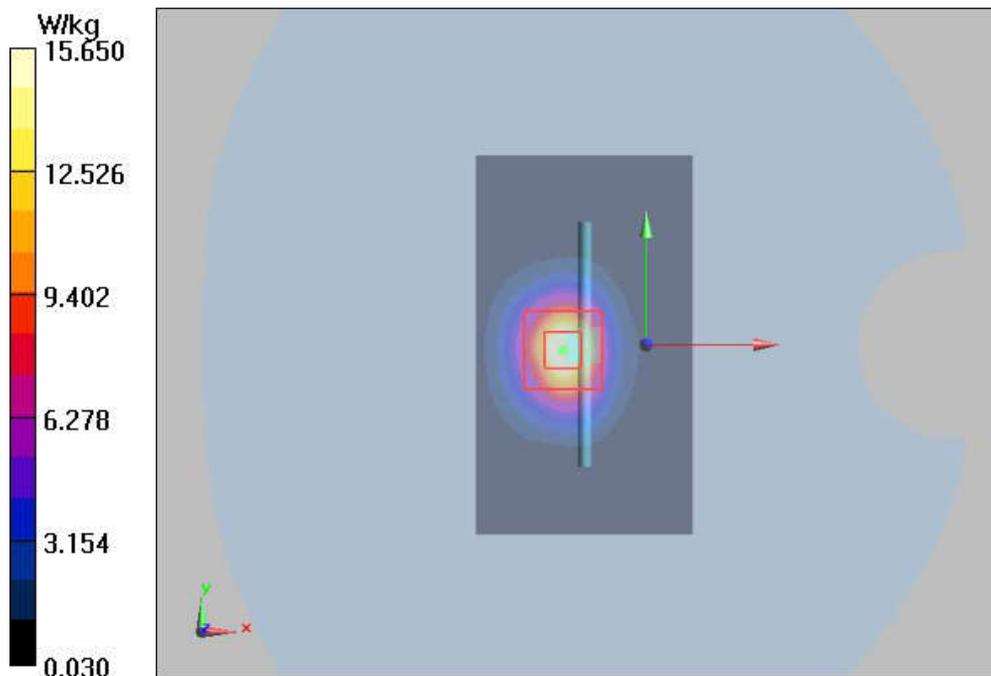
Peak SAR (extrapolated) = 31.85 W/kg

SAR(1 g) = 13.94 W/kg; SAR(10 g) = 6.11 W/kg

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 47.1%

Maximum value of SAR (measured) = 15.650 W/kg



Plot 14 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2

Date: 2024/1/28

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.95$ S/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (6x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 15.19 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 82.192 V/m; Power Drift = -0.012 dB

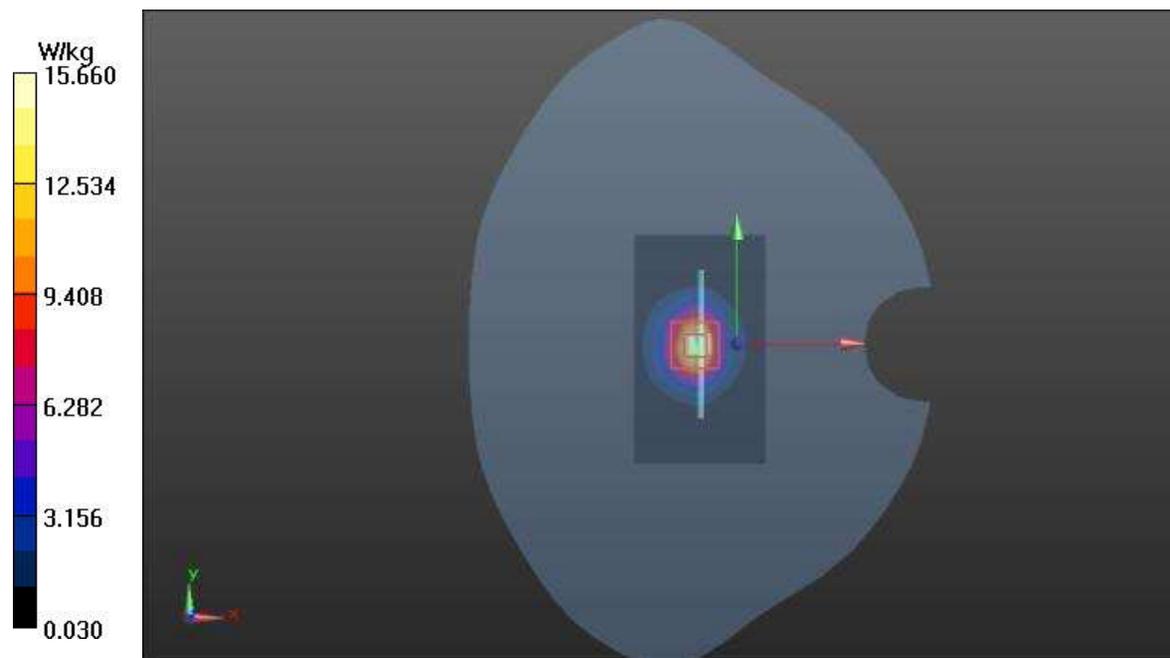
Peak SAR (extrapolated) = 29.65 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.09 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 43.5%

Maximum value of SAR (measured) = 15.66 W/kg



Plot 15 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2

Date: 2024/2/19

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.99$ S/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 14.20 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.465 V/m; Power Drift = 0.146 dB

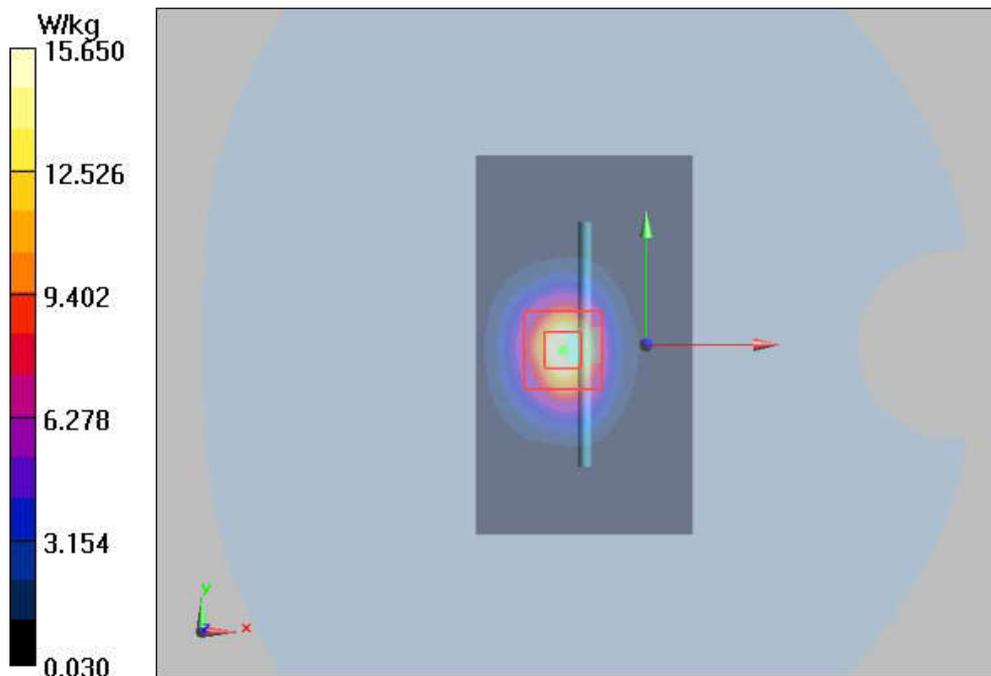
Peak SAR (extrapolated) = 31.85 W/kg

SAR(1 g) = 13.94 W/kg; SAR(10 g) = 6.11 W/kg

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 47.1%

Maximum value of SAR (measured) = 15.650 W/kg



Plot 16 System Performance Check at 3500 MHz TSL

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: D3500V2

Date: 2024/1/25

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 3500$ MHz; $\sigma = 2.83$ S/m; $\epsilon_r = 37.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.87, 7.33, 6.99); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/ Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 10.72 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 48.623 V/m; Power Drift = -0.10 dB

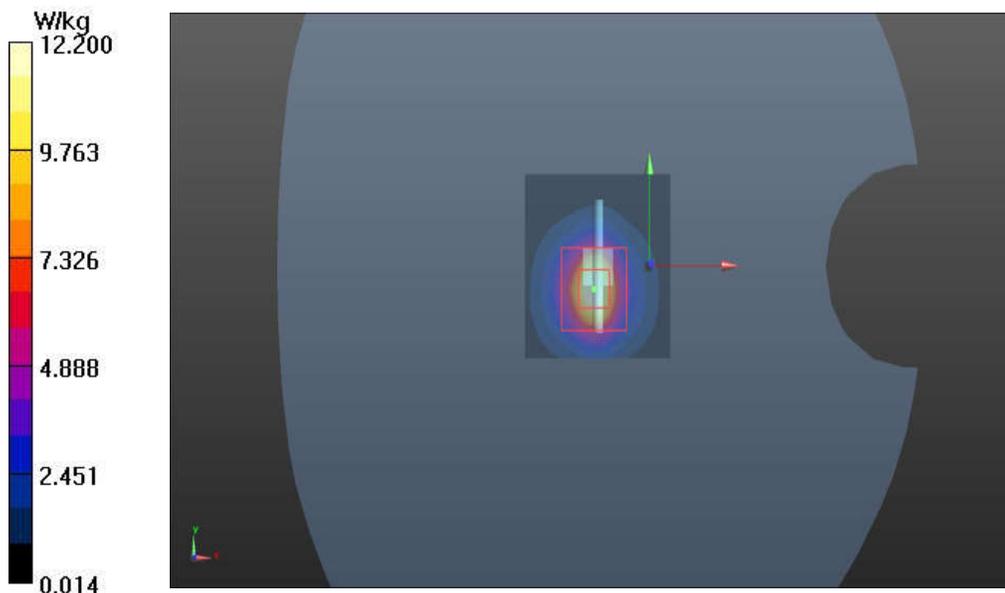
Peak SAR (extrapolated) = 17.50 W/kg

SAR(1 g) = 6.57W/kg; SAR(10 g) = 2.52 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1= 50.4%

Maximum value of SAR (measured) = 12.200 W/kg



Plot 17 System Performance Check at 3700 MHz TSL

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2

Date: 2024/1/29

Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 3700$ MHz; $\sigma = 3.01$ S/m; $\epsilon_r = 38.0$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW /Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 10.03 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 49.517 V/m; Power Drift = 0.010 dB

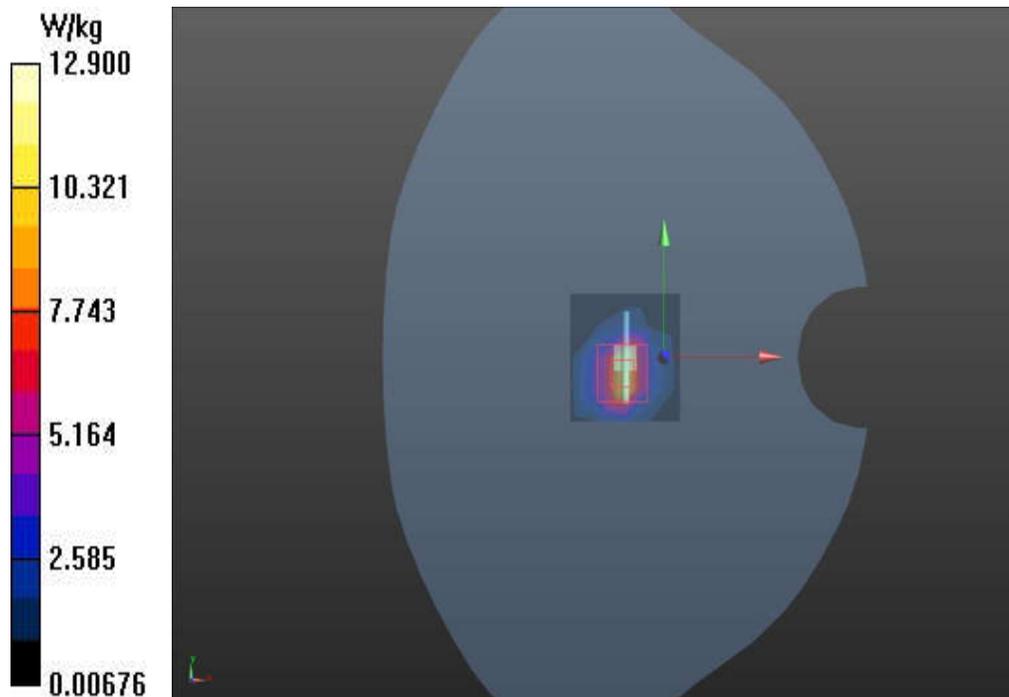
Peak SAR (extrapolated) = 17.68 W/kg

SAR(1 g) = 6.83 W/kg; SAR(10 g) = 2.54 W/kg

Smallest distance from peaks to all points 3 dB below = 8.7 mm

Ratio of SAR at M2 to SAR at M1= 53.2%

Maximum value of SAR (measured) = 12.90 W/kg



Plot 18 System Performance Check at 3700 MHz TSL

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2

Date: 2024/1/30

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 3700$ MHz; $\sigma = 3.03$ S/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW /Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 10.82 W/kg

d=10mm, Pin=100mW /Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 44.368 V/m; Power Drift = 0.036 dB

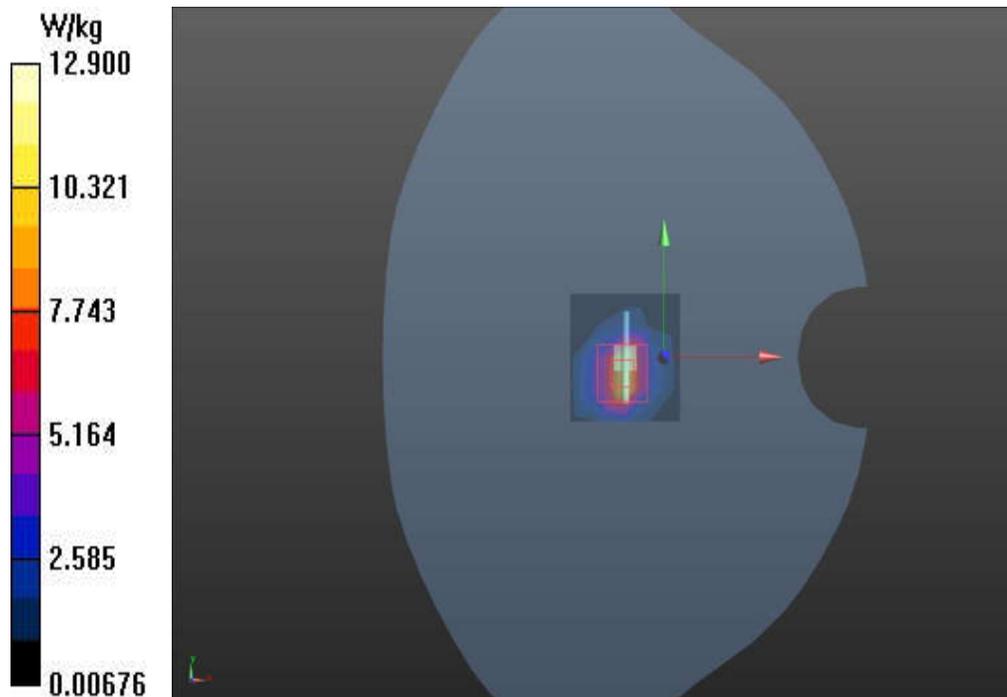
Peak SAR (extrapolated) = 17.15 W/kg

SAR(1 g) = 6.61 W/kg; SAR(10 g) = 2.54 W/kg

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1= 56.3%

Maximum value of SAR (measured) = 12.900 W/kg



Plot 19 System Performance Check at 3700 MHz TSL

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2

Date: 2024/1/31

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 3700$ MHz; $\sigma = 3.01$ S/m; $\epsilon_r = 38.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW /Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 10.03 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 49.517 V/m; Power Drift = 0.010 dB

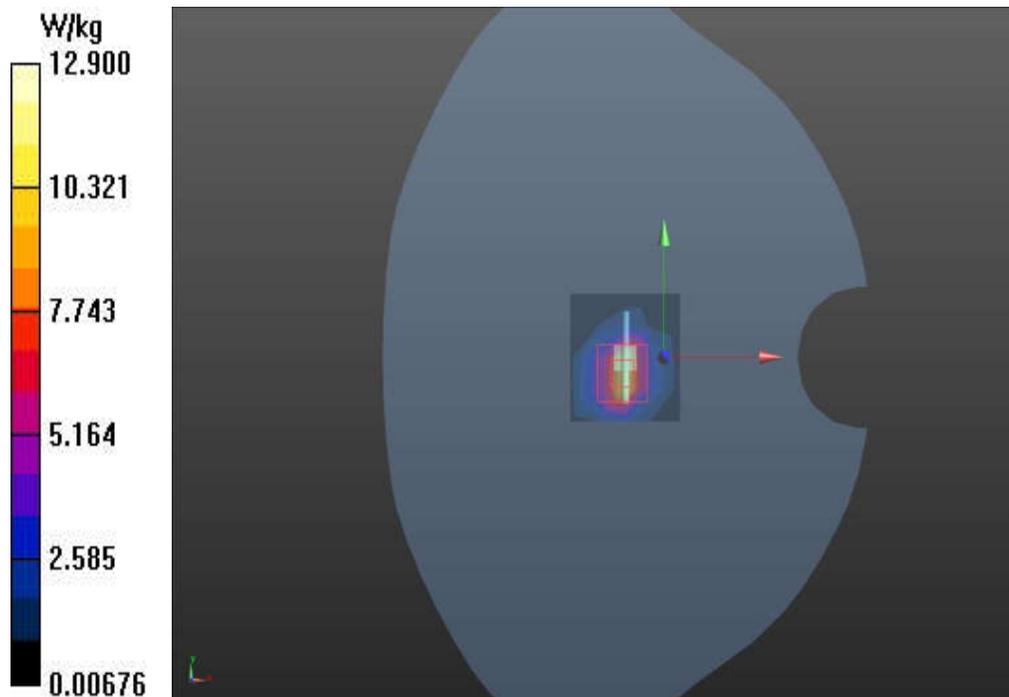
Peak SAR (extrapolated) = 17.68 W/kg

SAR(1 g) = 6.83 W/kg; SAR(10 g) = 2.54 W/kg

Smallest distance from peaks to all points 3 dB below = 8.7 mm

Ratio of SAR at M2 to SAR at M1= 53.2%

Maximum value of SAR (measured) = 12.90 W/kg



Plot 20 System Performance Check at 3700 MHz TSL

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2

Date: 2024/2/5

Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 3700$ MHz; $\sigma = 3.03$ S/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW /Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 10.82 W/kg

d=10mm, Pin=100mW /Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 44.368 V/m; Power Drift = 0.036 dB

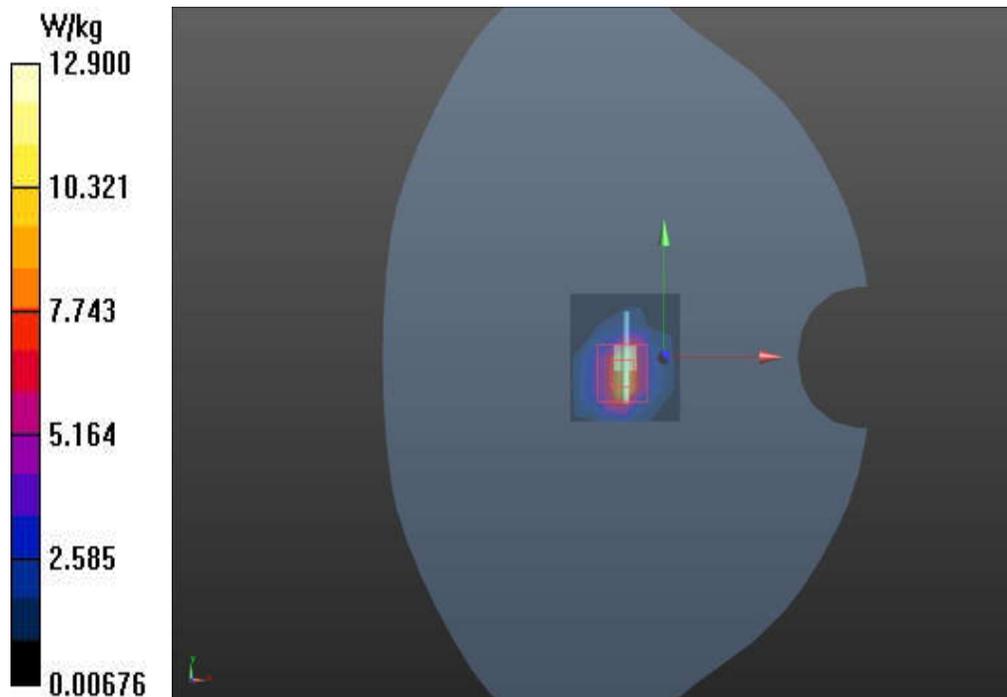
Peak SAR (extrapolated) = 17.15 W/kg

SAR(1 g) = 6.61 W/kg; SAR(10 g) = 2.54 W/kg

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1= 56.3%

Maximum value of SAR (measured) = 12.900 W/kg



Plot 21 System Performance Check at 3900 MHz TSL

DUT: Dipole 3900 MHz; Type: D3900V2; Serial: D3900V2

Date: 2024/2/6

Communication System: UID 0, CW (0); Frequency: 3900 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 3900$ MHz; $\sigma = 3.42$ S/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.85, 7.30, 6.98); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW /Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 8.94 W/kg

d=10mm, Pin=100mW /Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 47.545 V/m; Power Drift = 0.17 dB

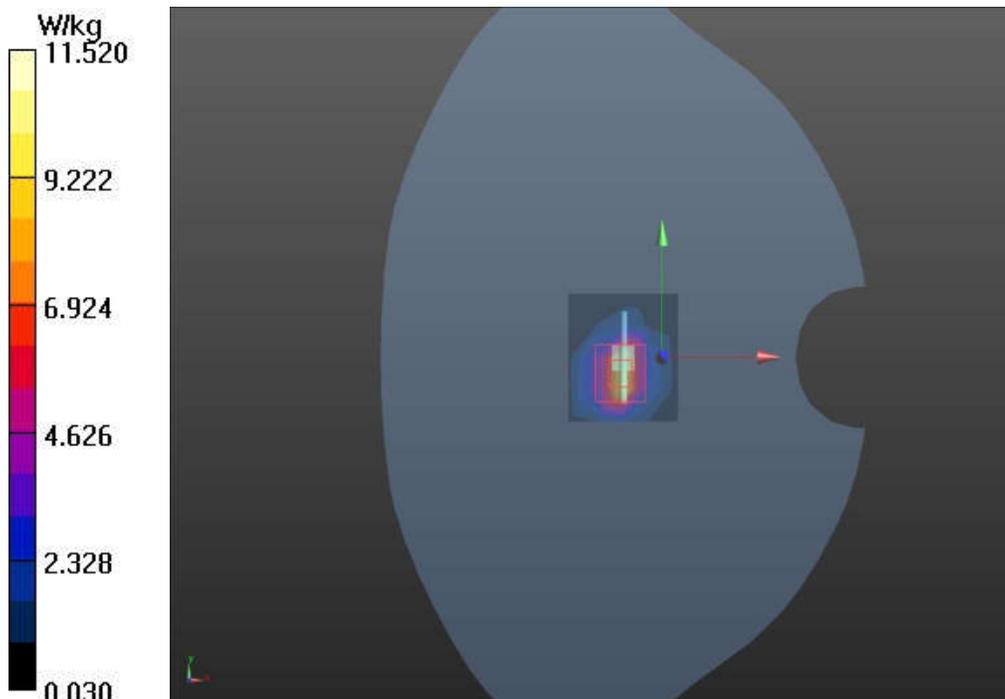
Peak SAR (extrapolated) = 18.22 W/kg

SAR(1 g) = 6.83 W/kg; SAR(10 g) = 2.47 W/kg

Smallest distance from peaks to all points 3 dB below = 9.3 mm

Ratio of SAR at M2 to SAR at M1= 57.1%

Maximum value of SAR (measured) = 11.52 W/kg



Plot 22 System Performance Check at 5250 MHz TSL

DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2

Date: 2024/1/25

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.80$ S/m; $\epsilon_r = 35.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.65, 5.99, 5.81); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 9.14 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 33.654 V/m; Power Drift = -0.095 dB

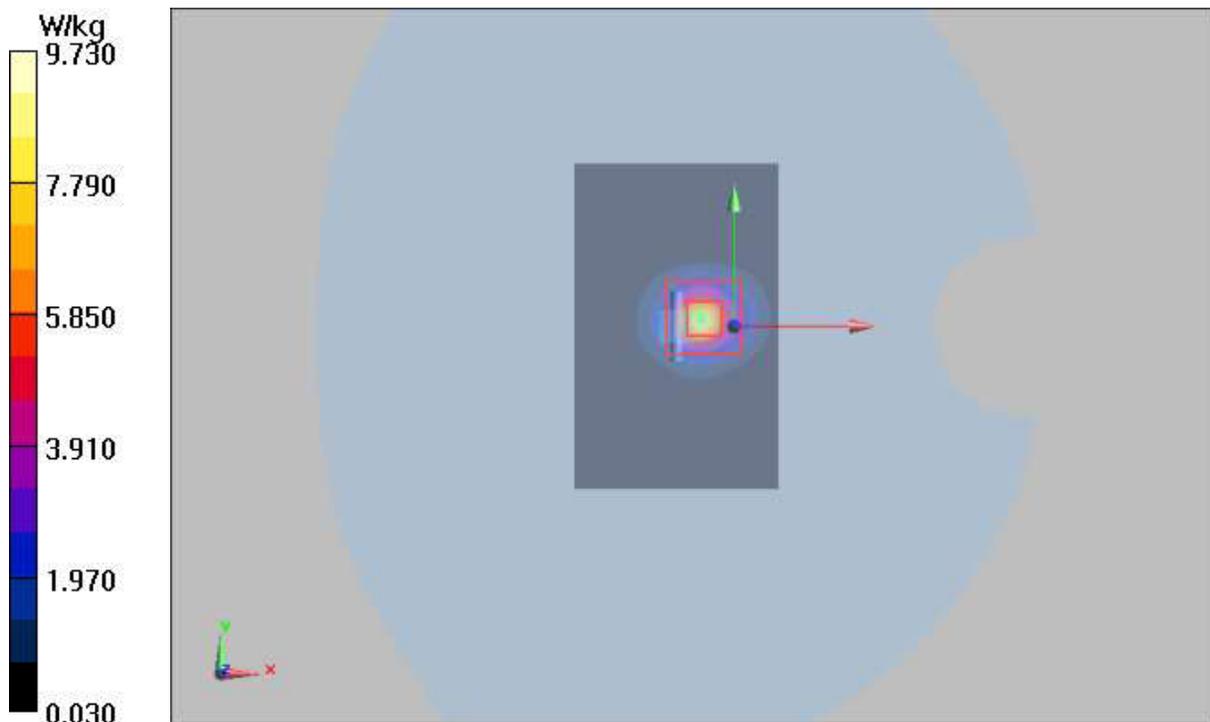
Peak SAR (extrapolated) = 52.20 W/kg

SAR(1 g) = 7.87 W/kg; SAR(10 g) = 2.25 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 63%

Maximum value of SAR (measured) = 9.73 W/kg



Plot 23 System Performance Check at 5250 MHz TSL

DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2

Date: 2024/2/7

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.74$ S/m; $\epsilon_r = 35.7$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.65, 5.99, 5.81); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 9.14 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 36.428 V/m; Power Drift = -0.15 dB

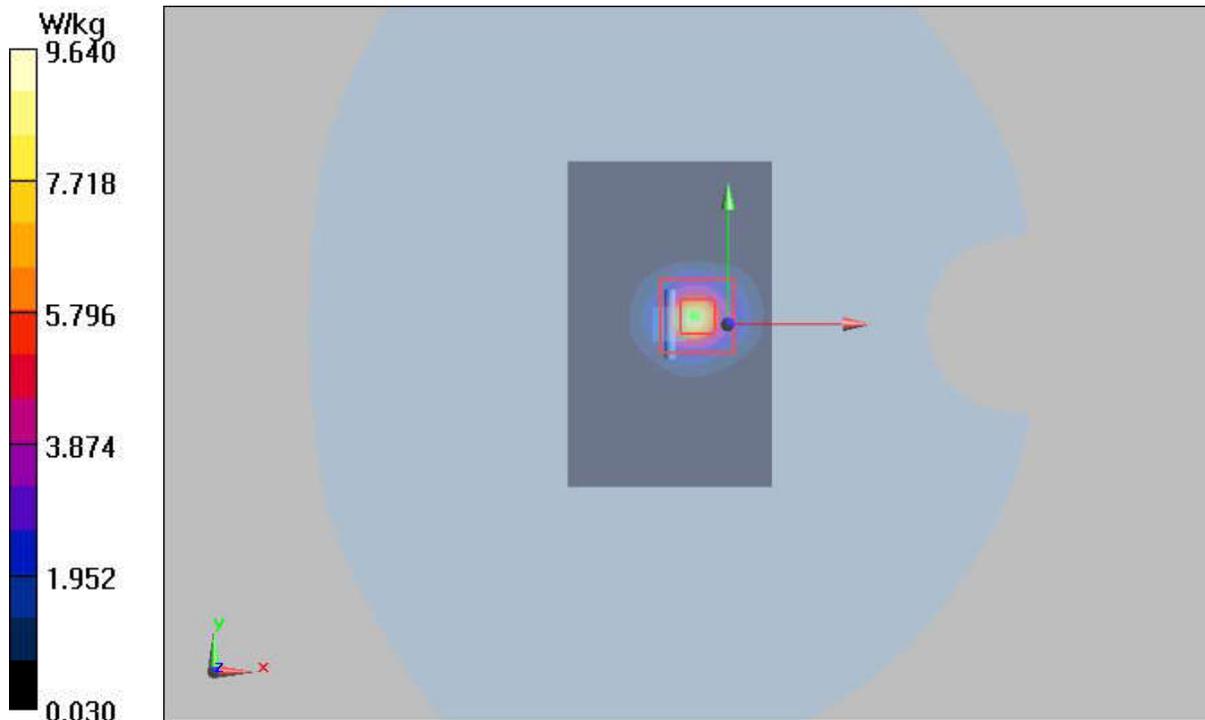
Peak SAR (extrapolated) = 50.15 W/kg

SAR(1 g) = 7.54 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 7 mm

Ratio of SAR at M2 to SAR at M1 = 65.3%

Maximum value of SAR (measured) = 9.64 W/kg



Plot 24 System Performance Check at 5600 MHz TSL

DUT: Dipole 5600 MHz; Type: D5GHzV2; Serial: D5GHzV2

Date: 2024/1/23

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.21$ S/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.92, 5.23, 5.04); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 8.25 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 23.142 V/m; Power Drift = -0.028 dB

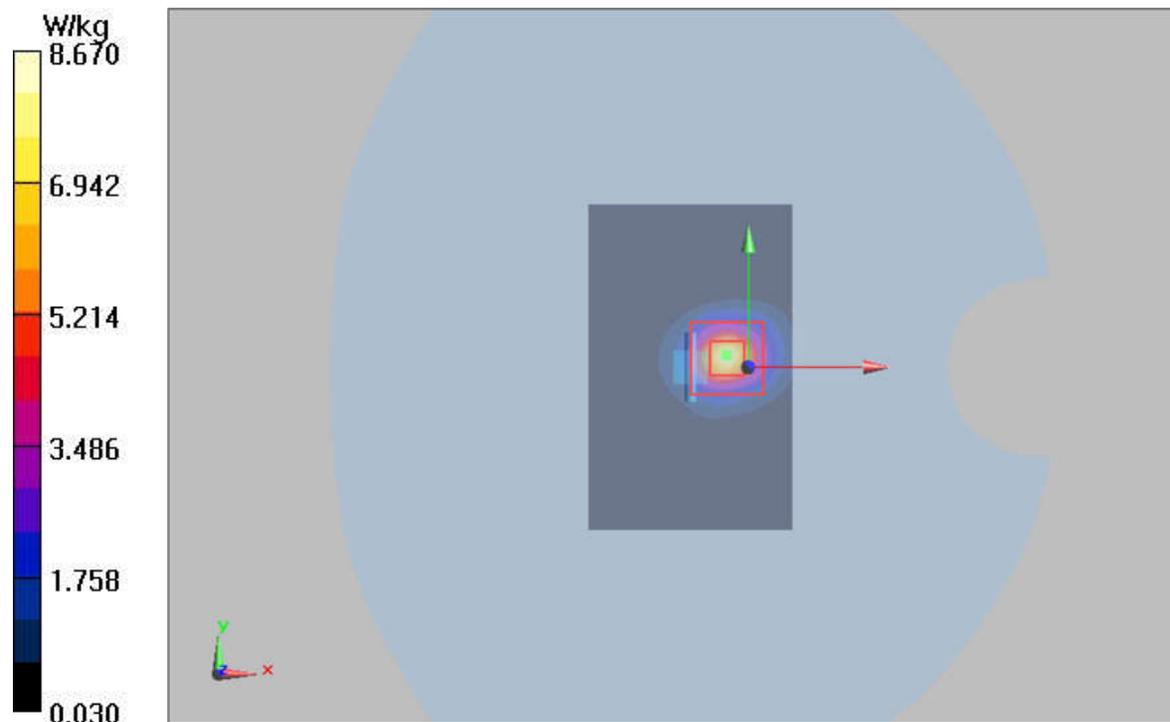
Peak SAR (extrapolated) = 22.9 W/kg

SAR(1 g) = 7.67 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 61.9%

Maximum value of SAR (measured) = 8.67 W/kg



Plot 25 System Performance Check at 5750 MHz TSL

DUT: Dipole 5750 MHz; Type: D5GHzV2; Serial: D5GHzV2

Date: 2024/2/1

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.21$ S/m; $\epsilon_r = 34.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.14, 5.41, 5.20); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 8.31 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 25.26 V/m; Power Drift = 0.044 dB

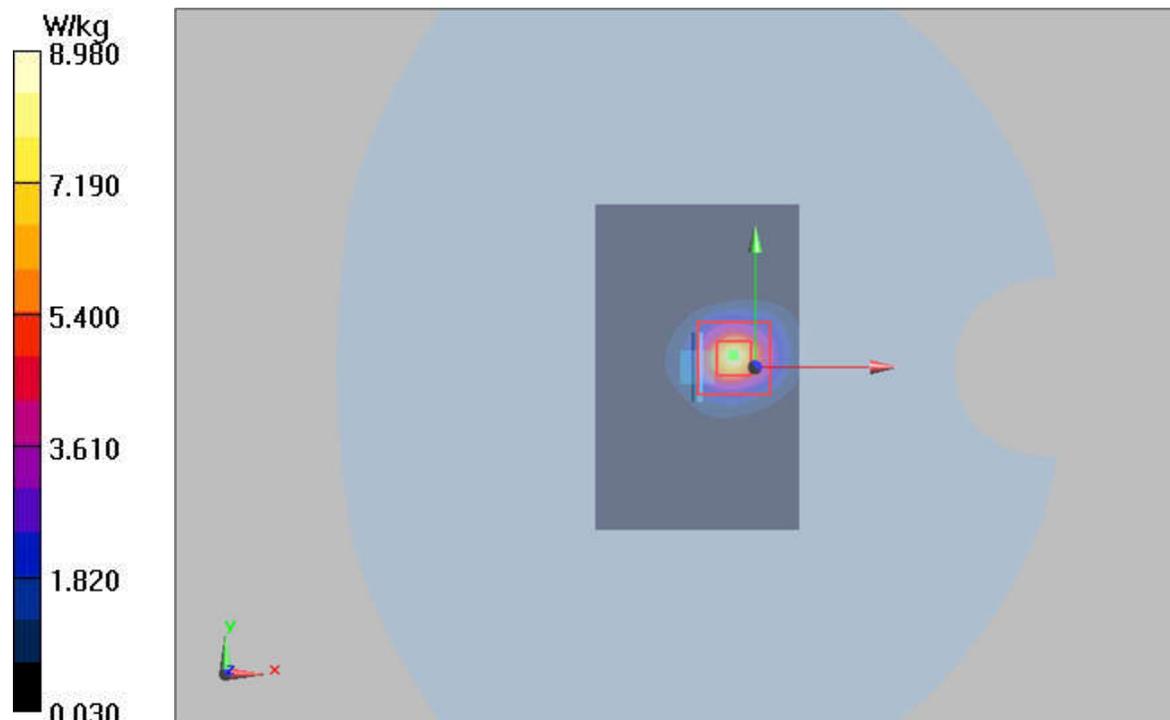
Peak SAR (extrapolated) = 23.4 W/kg

SAR(1 g) = 7.66 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 7.8 mm

Ratio of SAR at M2 to SAR at M1 = 59.4%

Maximum value of SAR (measured) = 8.98 W/kg



ANNEX C: Highest Graph Results

Plot 26 GSM 850 Right Tilt Low

Date: 2024/1/22

Communication System: UID 0, GSM (0); Frequency: 824.2 MHz; Duty Cycle: 1:8.30

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.934$ S/m; $\epsilon_r = 41.897$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Tilt Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.895 W/kg

Right/Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.00 V/m; Power Drift = 0.020 dB

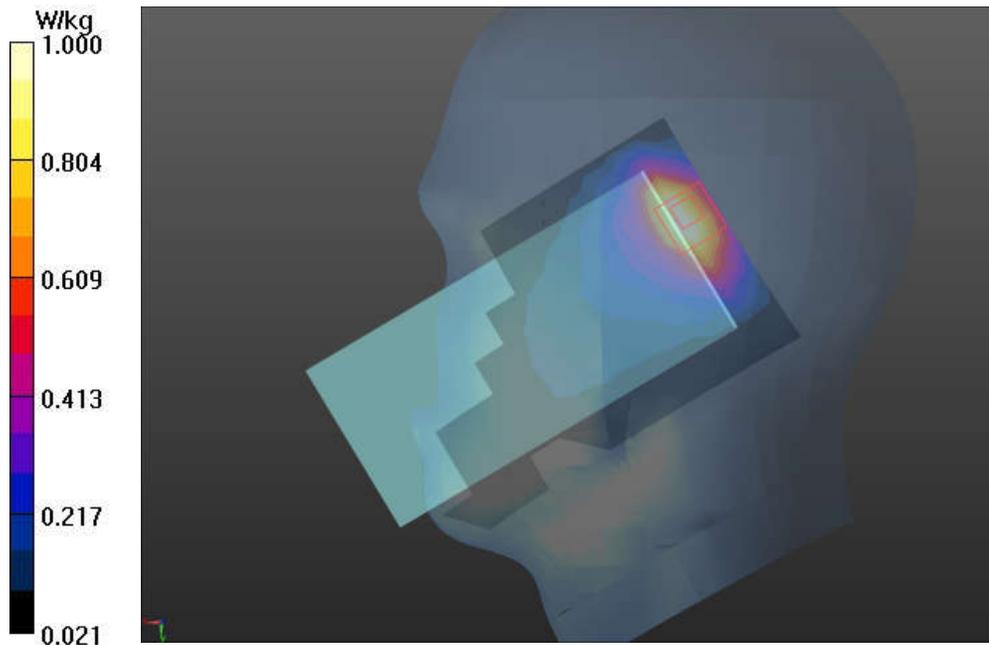
Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.737 W/kg; SAR(10 g) = 0.374 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 37.5%

Maximum value of SAR (measured) = 1 W/kg



Plot 27 GSM 1900 Right Cheek Middle

Date: 2024/2/2

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 37.208$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.122 W/kg

Right/Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.917 V/m; Power Drift = 0.046 dB

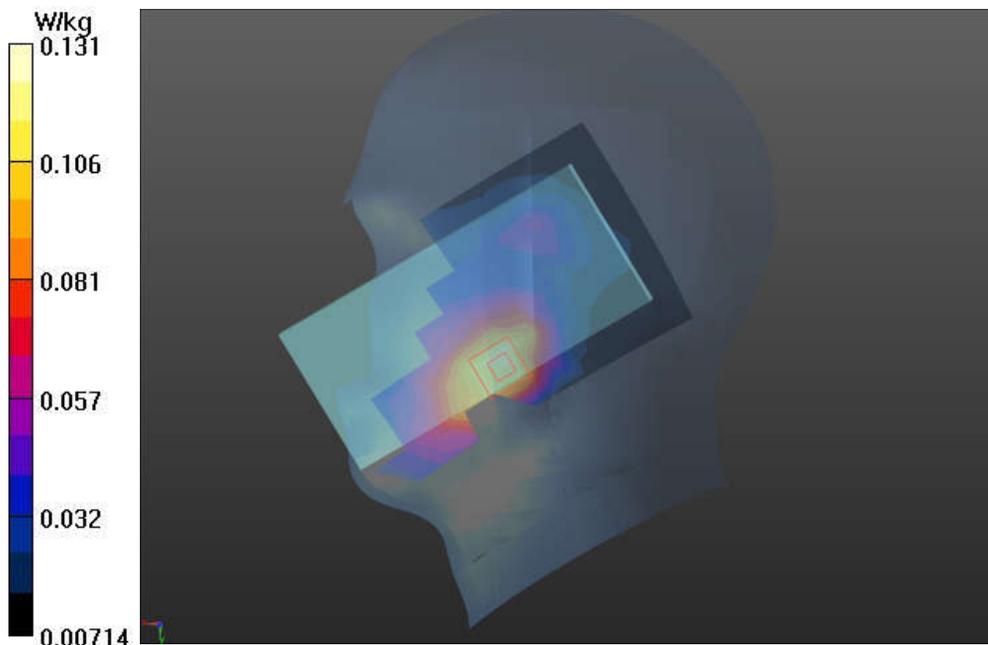
Peak SAR (extrapolated) = 0.151 W/kg

SAR(1 g) = 0.098 W/kg; SAR(10 g) = 0.064 W/kg

Smallest distance from peaks to all points 3 dB below = 15.5 mm

Ratio of SAR at M2 to SAR at M1 = 65.3%

Maximum value of SAR (measured) = 0.131 W/kg



Plot 28 WCDMA Band 2 Left Cheek Middle

Date: 2024/2/2

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 37.208$; $\rho = 1000$ kg/m³
 Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.174 W/kg

Left/Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.613 V/m; Power Drift = -0.190 dB

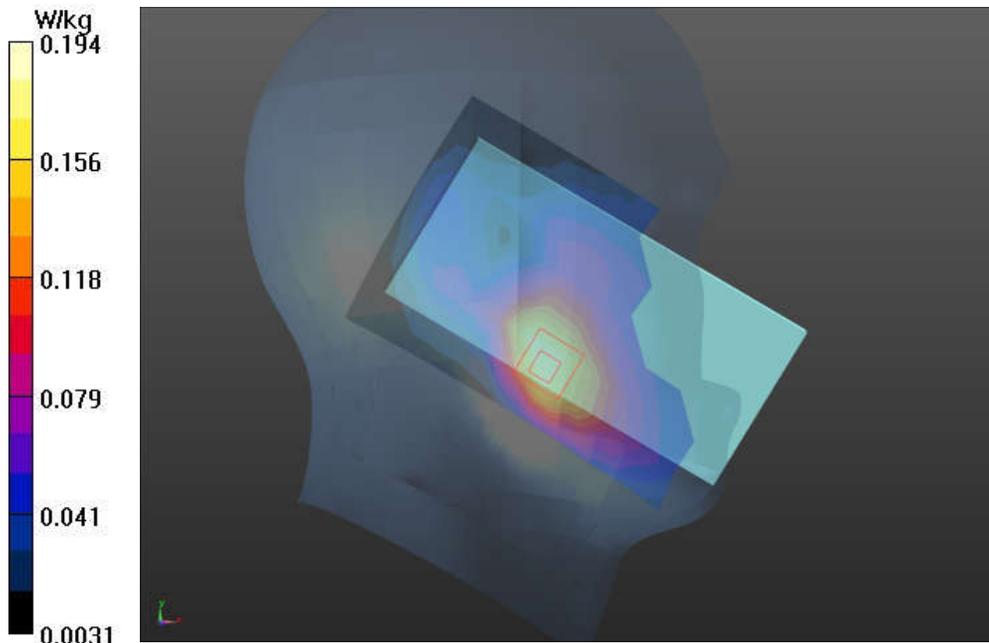
Peak SAR (extrapolated) = 0.228 W/kg

SAR(1 g) = 0.147 W/kg; SAR(10 g) = 0.093 W/kg

Smallest distance from peaks to all points 3 dB below = 12 mm

Ratio of SAR at M2 to SAR at M1 = 63.7%

Maximum value of SAR (measured) = 0.194 W/kg



Plot 29 WCDMA Band 4 Left Cheek Middle

Date: 2024/1/19

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1732.6$ MHz; $\sigma = 1.329$ S/m; $\epsilon_r = 37.759$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.162 W/kg

Left/Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.423 V/m; Power Drift = 0.022 dB

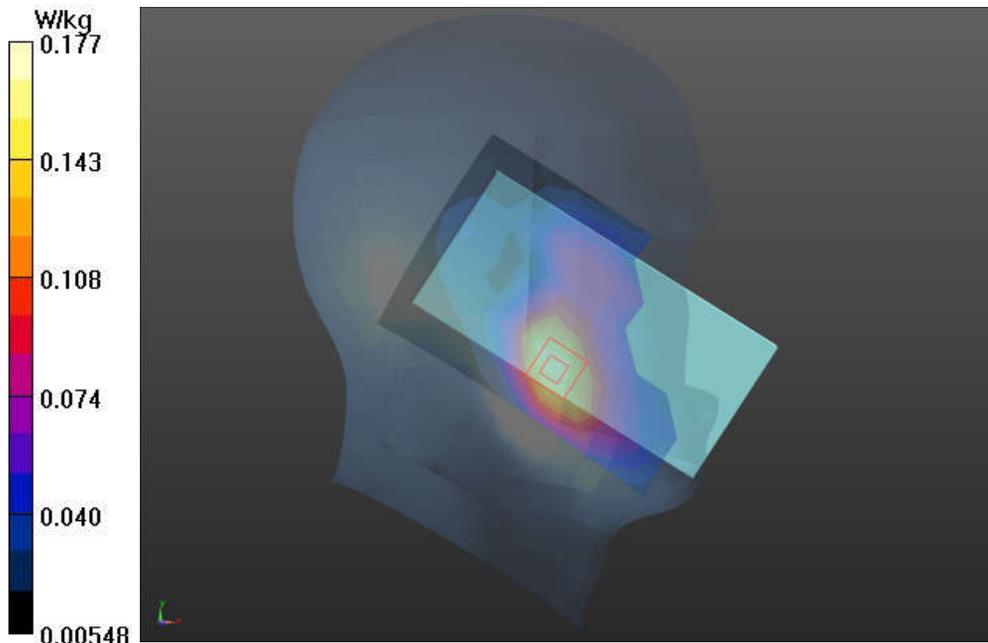
Peak SAR (extrapolated) = 0.200 W/kg

SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.089 W/kg

Smallest distance from peaks to all points 3 dB below = 15 mm

Ratio of SAR at M2 to SAR at M1 = 68.4%

Maximum value of SAR (measured) = 0.177 W/kg



Plot 30 WCDMA Band 5 Right Cheek Middle

Date: 2024/1/23

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 41.856$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Cheek Middle/Area Scan (8x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.712 W/kg

Right/Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.03 V/m; Power Drift = -0.034 dB

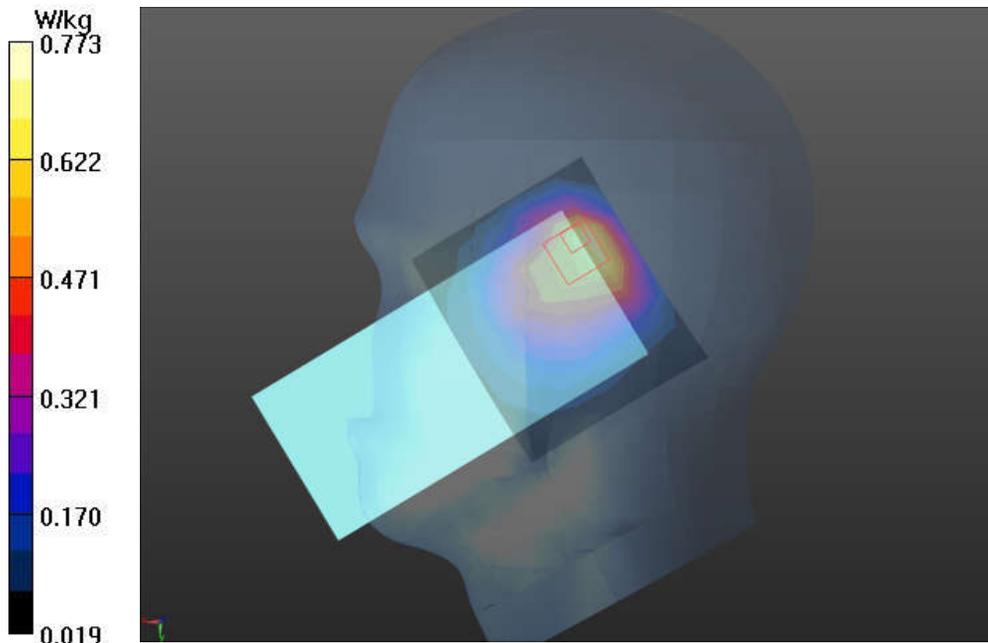
Peak SAR (extrapolated) = 0.955 W/kg

SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.312 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 47.3%

Maximum value of SAR (measured) = 0.773 W/kg



Plot 31 LTE Band 7 50%RB Right Cheek Low

Date: 2024/1/24

Communication System: UID 0, LTE (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 37.398$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Cheek Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.030 W/kg

Right/Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.53 V/m; Power Drift = 0.010 dB

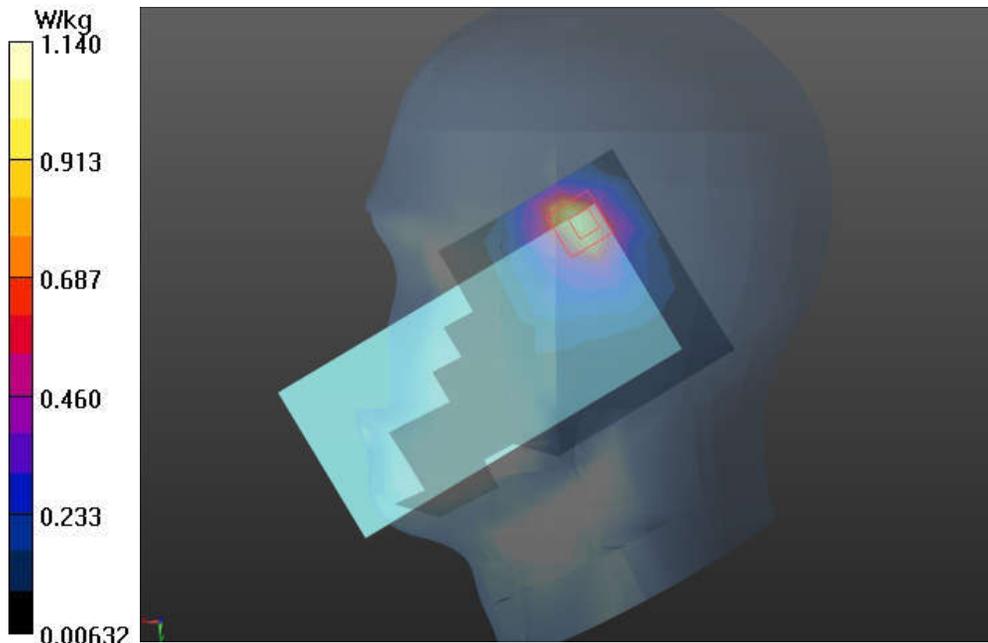
Peak SAR (extrapolated) = 2.020 W/kg

SAR(1 g) = 0.995 W/kg; SAR(10 g) = 0.482 W/kg

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 48.7%

Maximum value of SAR (measured) = 1.140 W/kg



Plot 32 LTE Band 12 1RB Right Tilt Low

Date: 2024/1/20

Communication System: UID 0, LTE (0); Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 704 \text{ MHz}$; $\sigma = 0.894 \text{ S/m}$; $\epsilon_r = 42.223$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.03, 9.80, 9.03); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Tilt Low/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.150 W/kg

Right/Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.22 V/m ; Power Drift = 0.090 dB

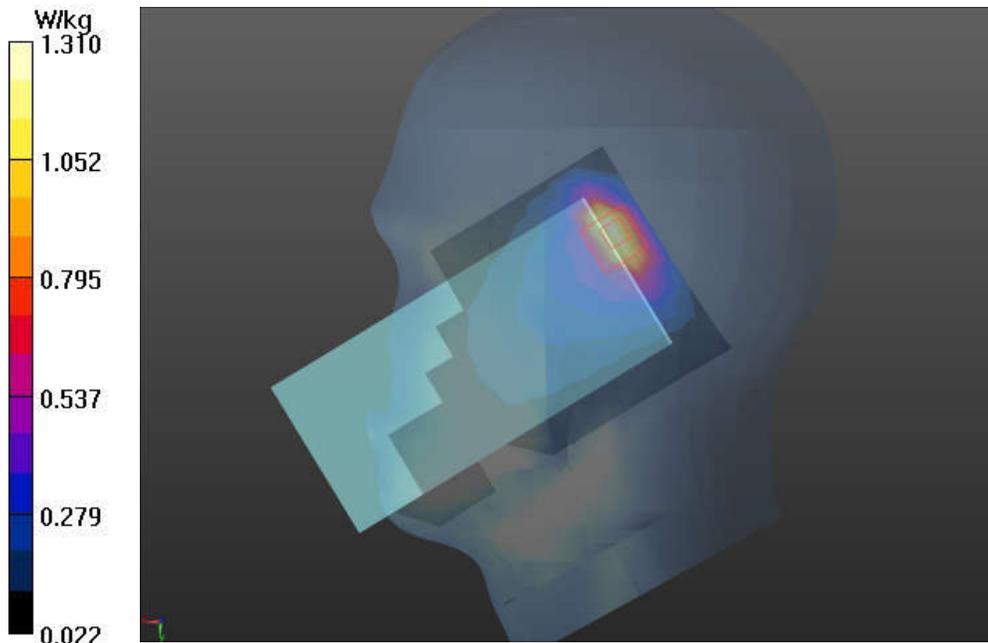
Peak SAR (extrapolated) = 1.780 W/kg

SAR(1 g) = 0.712 W/kg ; SAR(10 g) = 0.367 W/kg

Smallest distance from peaks to all points 3 dB below = 10.8 mm

Ratio of SAR at M2 to SAR at M1 = 38%

Maximum value of SAR (measured) = 1.310 W/kg



Plot 33 LTE Band 13 1RB Right Tilt Middle

Date: 2024/1/20

Communication System: UID 0, LTE (0); Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.921 \text{ S/m}$; $\epsilon_r = 41.805$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.03, 9.80, 9.03); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Tilt Middle/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.210 W/kg

Right/Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.68 V/m ; Power Drift = 0.040 dB

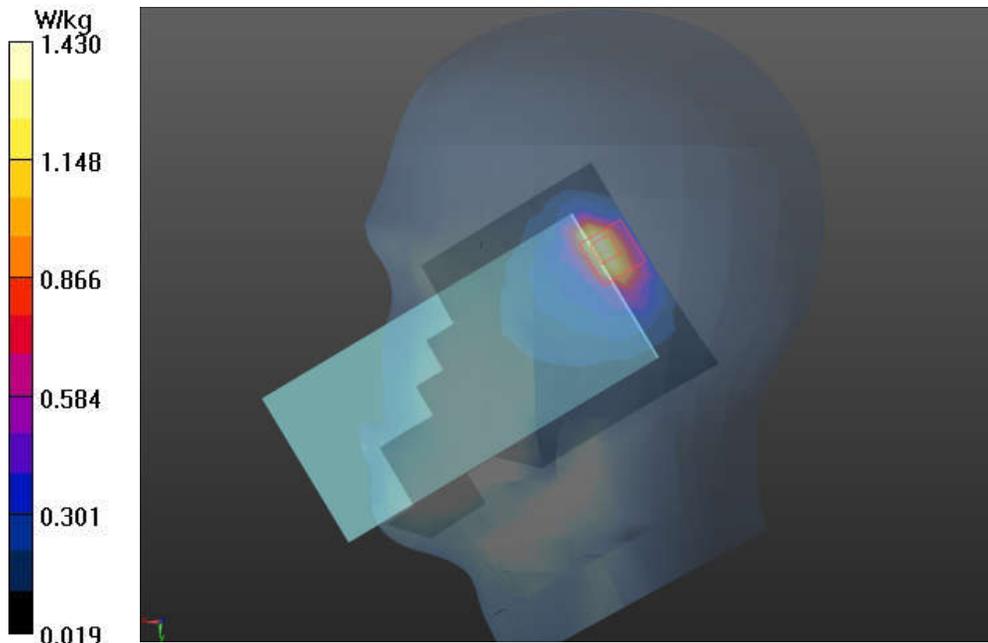
Peak SAR (extrapolated) = 2.000 W/kg

SAR(1 g) = 0.741 W/kg ; SAR(10 g) = 0.365 W/kg

Smallest distance from peaks to all points 3 dB below = 9.8 mm

Ratio of SAR at M2 to SAR at M1 = 38.5%

Maximum value of SAR (measured) = 1.430 W/kg



Plot 34 LTE Band 25 1RB Left Cheek Low

Date: 2024/2/3

Communication System: UID 0, LTE (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1860$ MHz; $\sigma = 1.39$ S/m; $\epsilon_r = 39.098$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Low/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.281 W/kg

Left/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.640 V/m; Power Drift = 0.160 dB

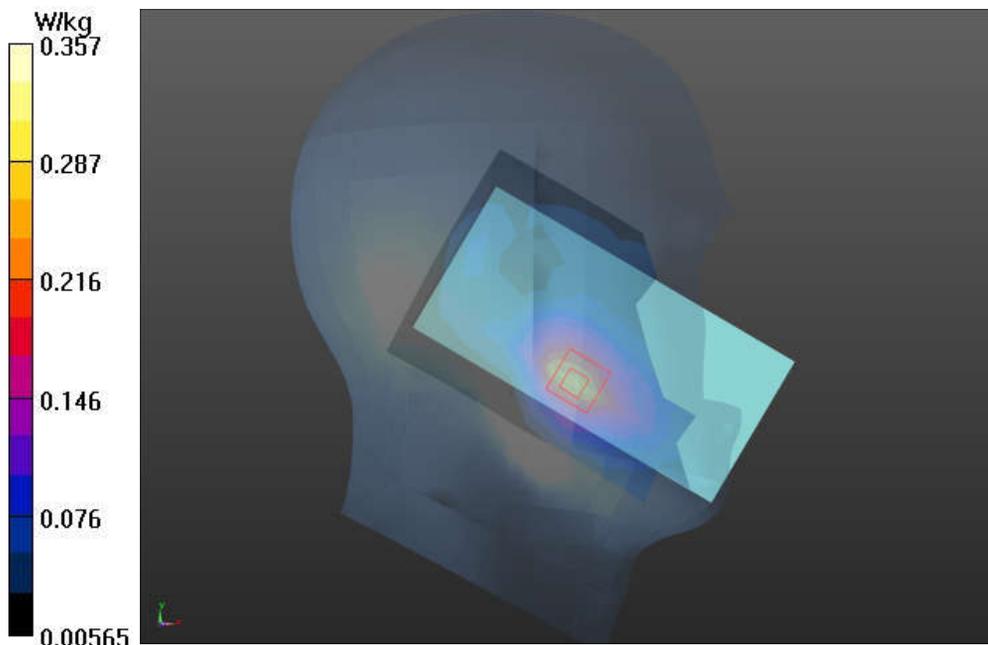
Peak SAR (extrapolated) = 0.403 W/kg

SAR(1 g) = 0.204 W/kg; SAR(10 g) = 0.128 W/kg

Smallest distance from peaks to all points 3 dB below = 12.4 mm

Ratio of SAR at M2 to SAR at M1 = 71.8%

Maximum value of SAR (measured) = 0.357 W/kg



Plot 35 LTE Band 26 1RB Left Cheek Low

Date: 2024/1/22

Communication System: UID 0, LTE (0); Frequency: 821.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 821.5$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 41.904$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.898W/kg

Left/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.11 V/m; Power Drift = 0.040 dB

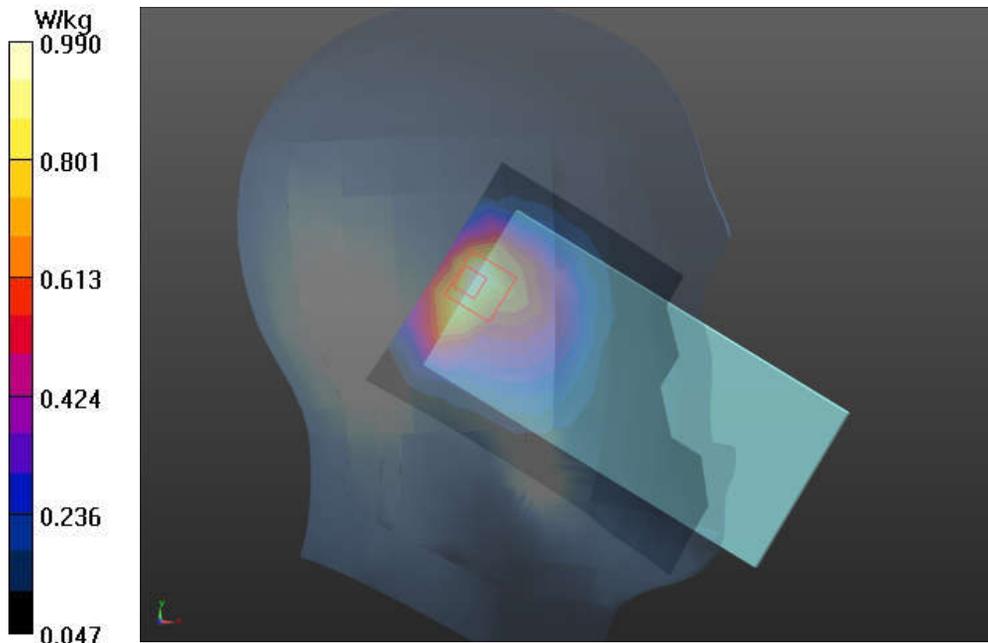
Peak SAR (extrapolated) = 1.200 W/kg

SAR(1 g) = 0.738 W/kg; SAR(10 g) = 0.466 W/kg

Smallest distance from peaks to all points 3 dB below = 12.3 mm

Ratio of SAR at M2 to SAR at M1 = 65.4%

Maximum value of SAR (measured) = 0.990 W/kg



Plot 36 LTE Band 41 50%RB Right Cheek Middle

Date: 2024/1/26

Communication System: UID 0, LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1.58

Medium parameters used: $f = 2680$ MHz; $\sigma = 2.106$ S/m; $\epsilon_r = 36.793$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Cheek High/Area Scan (10x118x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.546 W/kg

Right/Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.268 V/m; Power Drift = 0.080 dB

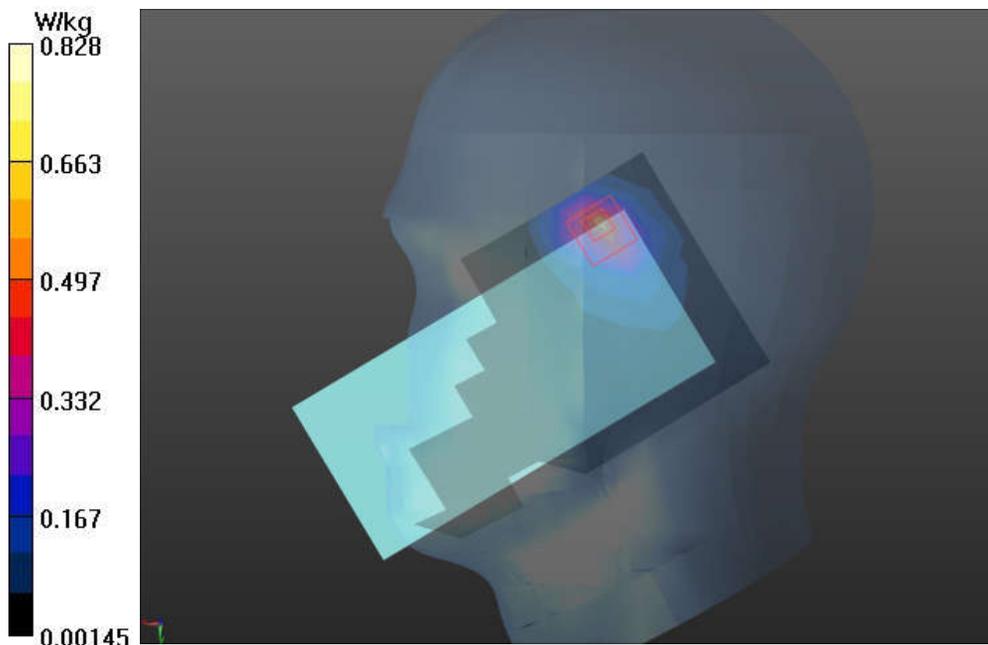
Peak SAR (extrapolated) = 1.130 W/kg

SAR(1 g) = 0.485 W/kg; SAR(10 g) = 0.226 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 44.4%

Maximum value of SAR (measured) = 0.828 W/kg



Plot 37 LTE Band 48 100%RB Left Cheek Low

Date: 2024/1/29

Communication System: UID 0, LTE (0); Frequency: 3660 MHz;Duty Cycle: 1:1.58

Medium parameters used: $f = 3660$ MHz; $\sigma = 1.831$ S/m; $\epsilon_r = 37.663$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Low/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.813 W/kg

Left/Cheek Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 10.260 V/m; Power Drift = -0.027 dB

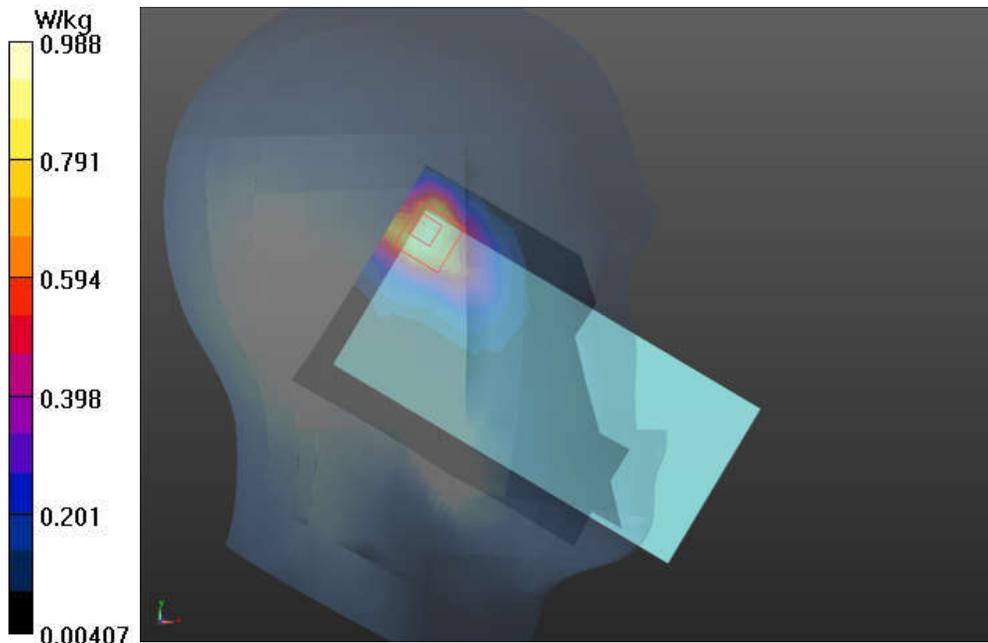
Peak SAR (extrapolated) = 1.850 W/kg

SAR(1 g) = 0.708 W/kg; SAR(10 g) = 0.298 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.5%

Maximum value of SAR (measured) = 0.988 W/kg



Plot 38 LTE Band 66 1RB Left Cheek Low

Date: 2024/1/19

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.556$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Low/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.152 W/kg

Left/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.063 V/m; Power Drift = 0.080 dB

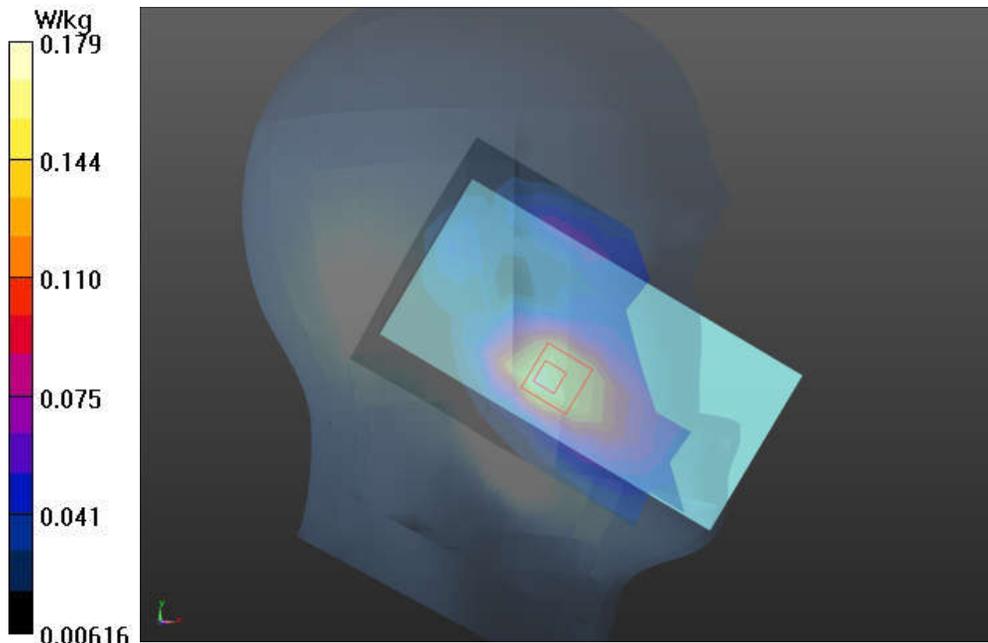
Peak SAR (extrapolated) = 0.204 W/kg

SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.087 W/kg

Smallest distance from peaks to all points 3 dB below = 13 mm

Ratio of SAR at M2 to SAR at M1 = 69.6%

Maximum value of SAR (measured) = 0.179 W/kg



Plot 39 NR n2 1RB Left Cheek High

Date: 2024/2/4

Communication System: UID 0, 5G NR (0); Frequency: 1890 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.422$ S/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³
 Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek High/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.135 W/kg

Left/Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.676 V/m; Power Drift = -0.17 dB

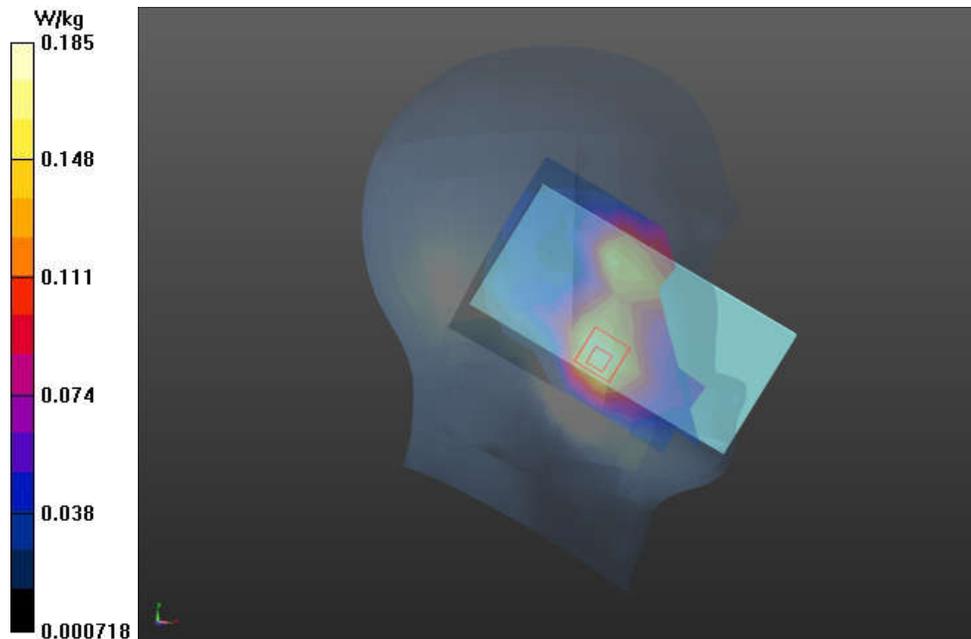
Peak SAR (extrapolated) = 0.397 W/kg

SAR(1 g) = 0.121 W/kg; SAR(10 g) = 0.072 W/kg

Smallest distance from peaks to all points 3 dB below = 8.7 mm

Ratio of SAR at M2 to SAR at M1 = 68.1%

Maximum value of SAR (measured) = 0.185 W/kg



Plot 40 NR n7 100%RB Right Cheek High

Date: 2024/1/27

Communication System: UID 0, 5G NR (0); Frequency: 2560 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2560$ MHz; $\sigma = 1.953$ S/m; $\epsilon_r = 38.015$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Cheek High/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.05 W/kg

Right/Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.516 V/m; Power Drift = 0.08 dB

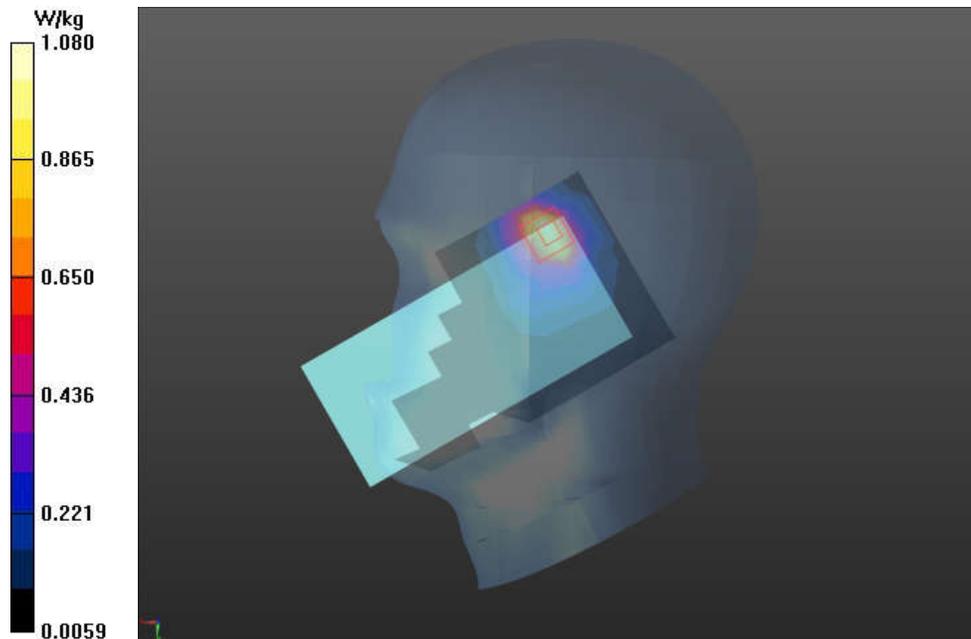
Peak SAR (extrapolated) = 2.13 W/kg

SAR(1 g) = 1 W/kg; SAR(10 g) = 0.490 W/kg

Smallest distance from peaks to all points 3 dB below = 10.8 mm

Ratio of SAR at M2 to SAR at M1 = 47.9%

Maximum value of SAR (measured) = 1.08 W/kg



Plot 41 NR n26 50%RB Left Cheek Low

Date: 2024/1/23

Communication System: UID 0, 5G NR (0); Frequency: 824 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 824 \text{ MHz}$; $\sigma = 0.934 \text{ S/m}$; $\epsilon_r = 41.897$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Low/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.924 W/kg

Left/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.64 V/m ; Power Drift = -0.023 dB

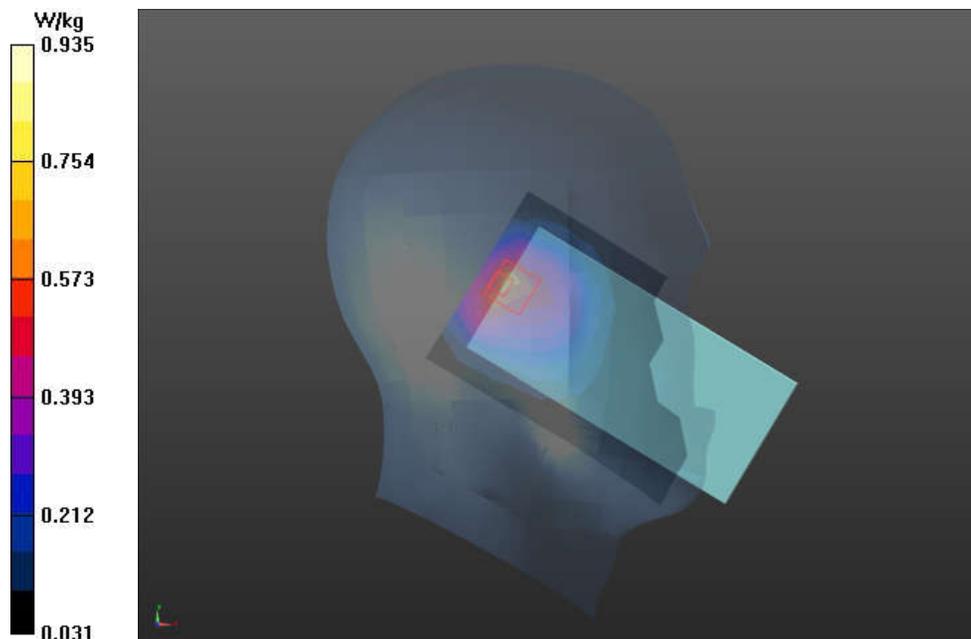
Peak SAR (extrapolated) = 0.997 W/kg

SAR(1 g) = 0.789 W/kg ; SAR(10 g) = 0.529 W/kg

Smallest distance from peaks to all points 3 dB below = 18.9 mm

Ratio of SAR at M2 to SAR at M1 = 58.4%

Maximum value of SAR (measured) = 0.935 W/kg



Plot 42 NR n41 50%RB Right Cheek Low

Date: 2024/1/28

Communication System: UID 0, 5G NR (0); Frequency: 2546.01 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2546.01$ MHz; $\sigma = 1.938$ S/m; $\epsilon_r = 38.012$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Cheek Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.06 W/kg

Right/Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.499 V/m; Power Drift = 0.18 dB

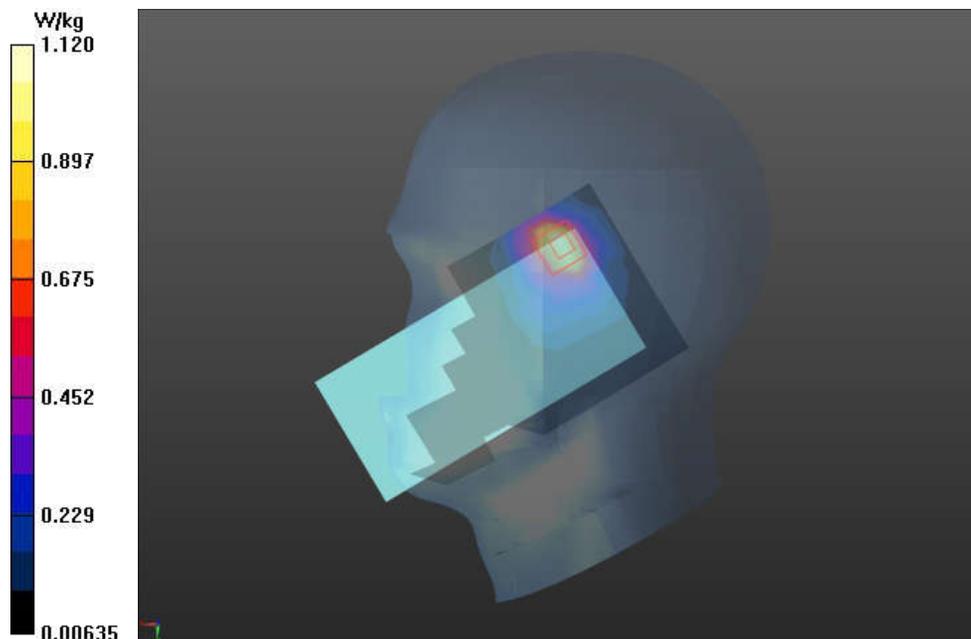
Peak SAR (extrapolated) = 2.24 W/kg

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.509 W/kg

Smallest distance from peaks to all points 3 dB below = 10.8 mm

Ratio of SAR at M2 to SAR at M1 = 48.7%

Maximum value of SAR (measured) = 1.12 W/kg



Plot 43 NR n48 100%RB Left Cheek Low

Date: 2024/1/30

Communication System: UID 0, 5G NR (0); Frequency: 3600 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 3600$ MHz; $\sigma = 1.831$ S/m; $\epsilon_r = 37.663$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Low/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.913 W/kg

Left/Cheek Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 10.26 V/m; Power Drift = 0.02 dB

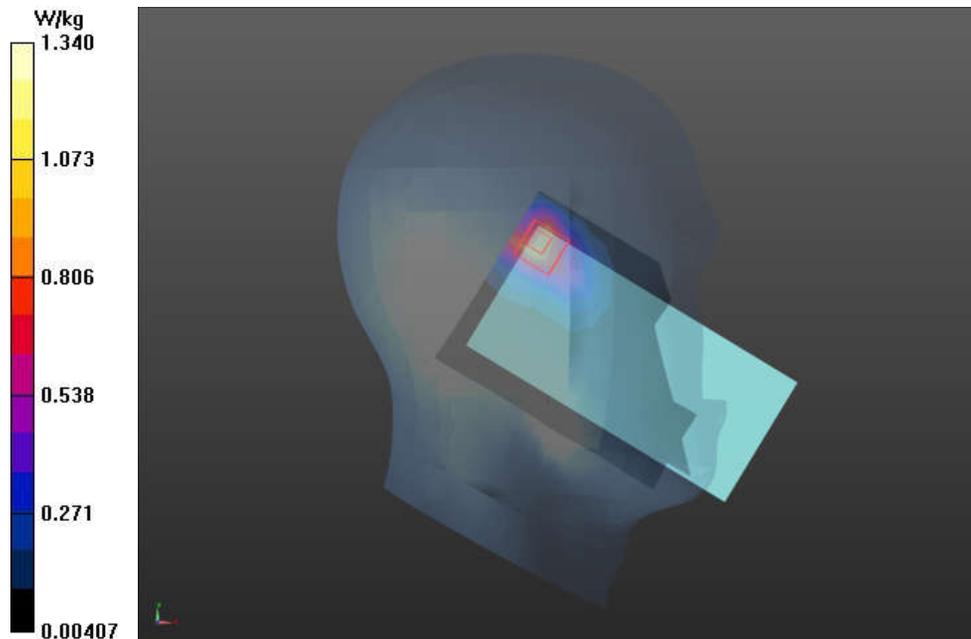
Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.957 W/kg; SAR(10 g) = 0.416 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.5%

Maximum value of SAR (measured) = 1.34 W/kg



Plot 44 NR n66 1RB Right Cheek High

Date: 2024/1/21

Communication System: UID 0, 5G NR (0); Frequency: 1760 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1760$ MHz; $\sigma = 1.322$ S/m; $\epsilon_r = 39.351$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Cheek High/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.0742 W/kg

Right/Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.993 V/m; Power Drift = 0.028 dB

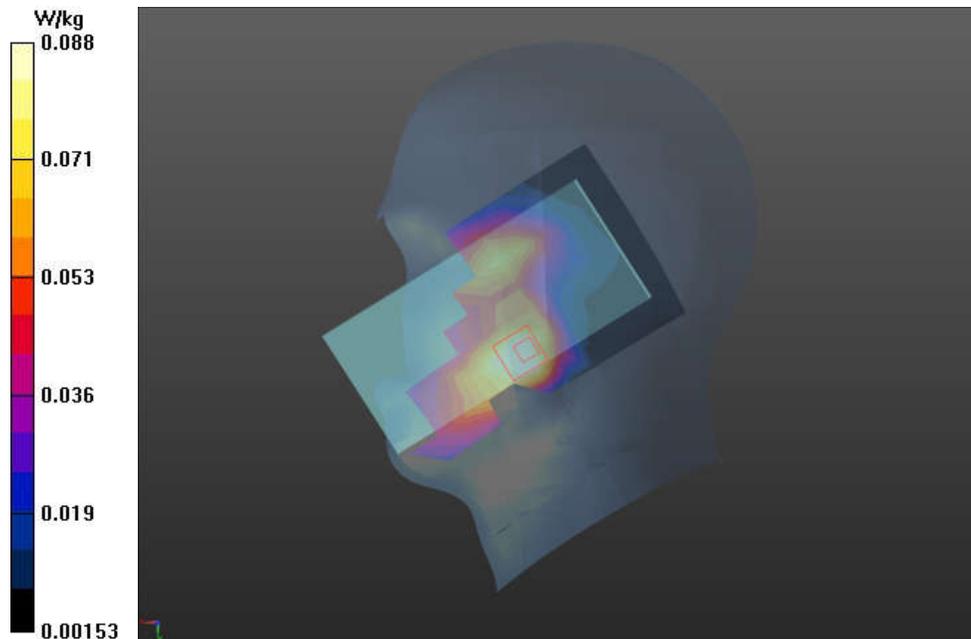
Peak SAR (extrapolated) = 0.0860 W/kg

SAR(1 g) = 0.075 W/kg; SAR(10 g) = 0.043 W/kg

Smallest distance from peaks to all points 3 dB below = 9.9 mm

Ratio of SAR at M2 to SAR at M1 = 70.8%

Maximum value of SAR (measured) = 0.088 W/kg



Plot 45 NR n71 50%RB Right Tilt Middle

Date: 2024/1/20

Communication System: UID 0, 5G NR (0); Frequency: 680.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 680.5$ MHz; $\sigma = 0.886$ S/m; $\epsilon_r = 42.316$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.03, 9.80, 9.03); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right/Tilt Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.462 W/kg

Right/Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.08 V/m; Power Drift = -0.03 dB

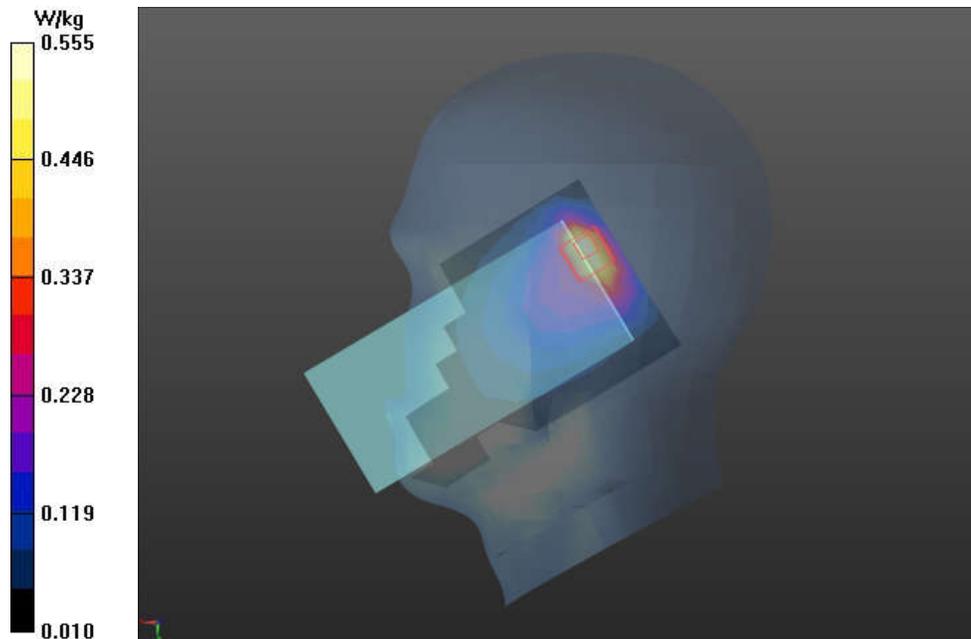
Peak SAR (extrapolated) = 0.989 W/kg

SAR(1 g) = 0.495 W/kg; SAR(10 g) = 0.312 W/kg

Smallest distance from peaks to all points 3 dB below = 10.8 mm

Ratio of SAR at M2 to SAR at M1 = 49.4%

Maximum value of SAR (measured) = 0.555 W/kg



Plot 46 NR n77 1RB Left Cheek Middle

Date: 2024/2/6

Communication System: UID 0, 5G NR (0); Frequency: 3930 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 3930$ MHz; $\sigma = 1.831$ S/m; $\epsilon_r = 37.663$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.85, 7.30, 6.98); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Middle/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.993 W/kg

Left/Cheek Middle/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 10.26 V/m; Power Drift = 0.01 dB

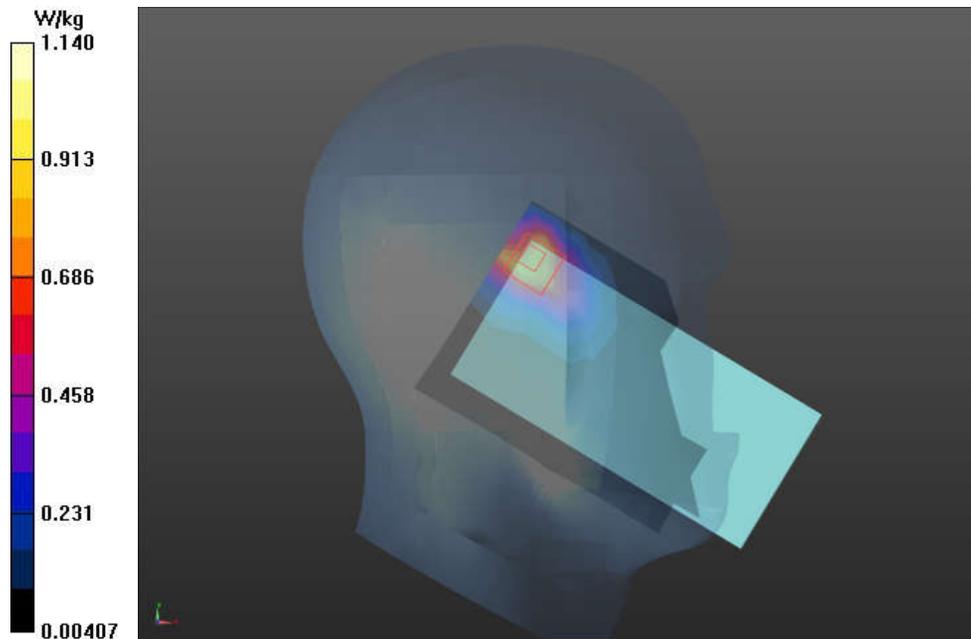
Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.992 W/kg; SAR(10 g) = 0.376 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.5%

Maximum value of SAR (measured) = 1.14 W/kg



Plot 47 802.11b Left cheek Middle

Date: 2024/2/1

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1
 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.831$ S/m; $\epsilon_r = 37.663$; $\rho = 1000$ kg/m³
 Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.18, 7.67, 7.29); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Middle/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.913 W/kg

Left/Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.26 V/m; Power Drift = 0.100 dB

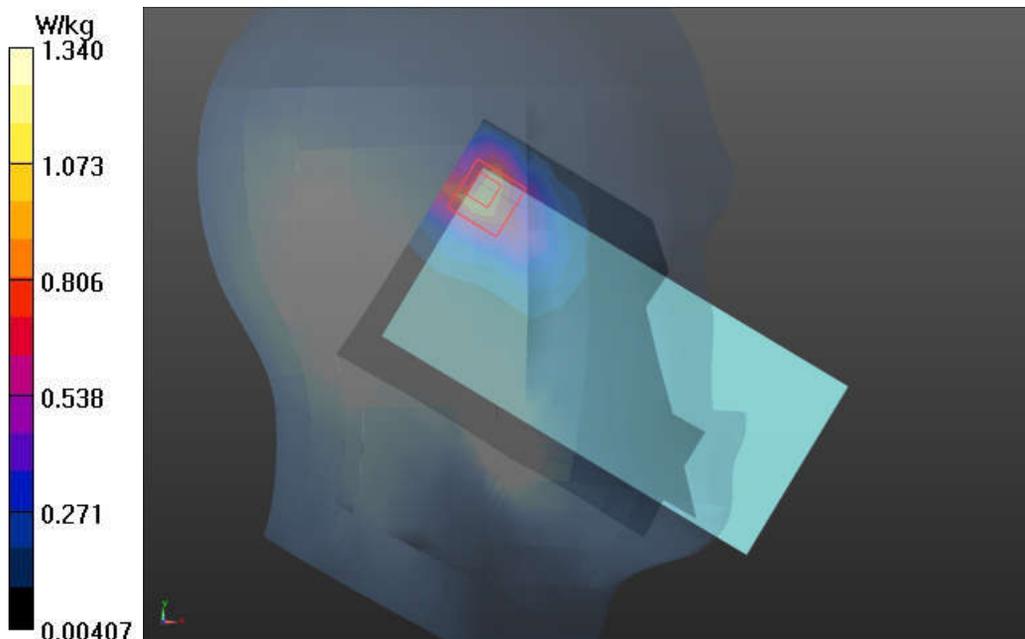
Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.487 W/kg; SAR(10 g) = 0.239 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.5%

Maximum value of SAR (measured) = 1.34 W/kg



Plot 48 802.11a Left cheek Middle

Date: 2024/1/25

Communication System: UID 0, 802.11a (0); Frequency: 5180 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5180$ MHz; $\sigma = 4.75$ S/m; $\epsilon_r = 36.766$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.65, 5.99, 5.81); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Middle/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 2.74 W/kg

Left/Cheek Middle/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 11.44 V/m; Power Drift = -0.07 dB

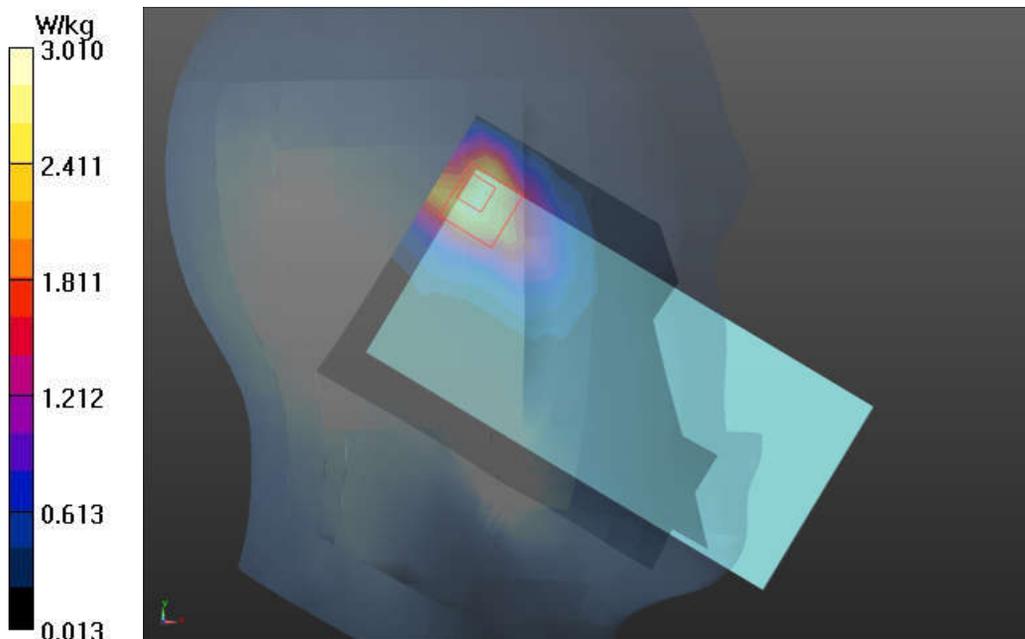
Peak SAR (extrapolated) = 5.30 W/kg

SAR(1 g) = 0.536 W/kg; SAR(10 g) = 0.142 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 55.5%

Maximum value of SAR (measured) = 3.01 W/kg



Plot 49 Bluetooth DH5 Left cheek Middle

Date: 2024/2/1

Communication System: UID 0, BT (0); Frequency: 2441 MHz; Duty Cycle: 1:1.32

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.834$ S/m; $\epsilon_r = 37.585$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.18, 7.67, 7.29); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Middle/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.109 W/kg

Left/Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.001 V/m; Power Drift = 0.03 dB

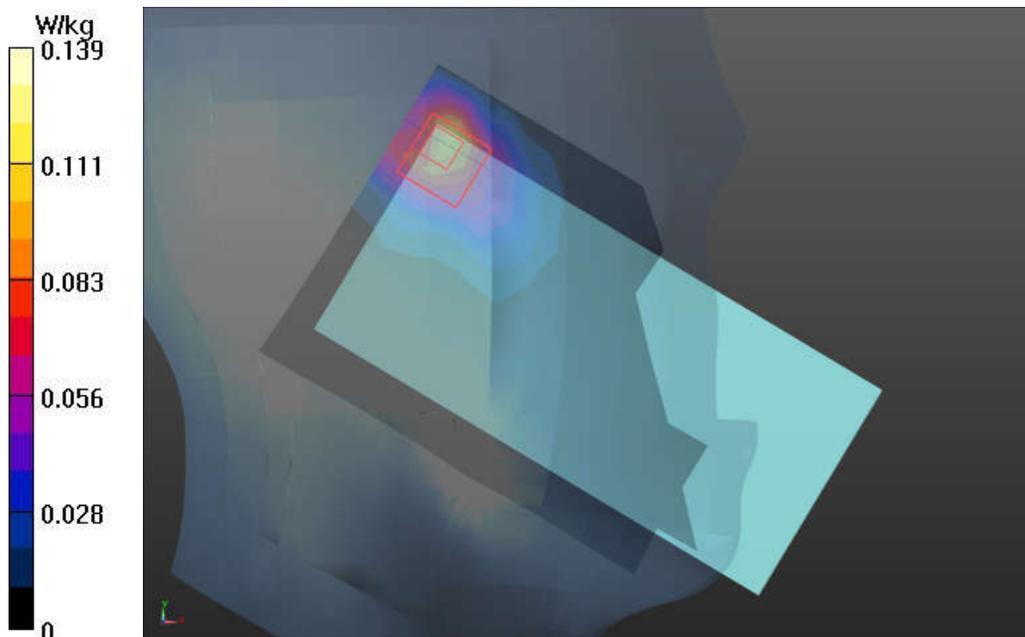
Peak SAR (extrapolated) = 0.196 W/kg

SAR(1 g) = 0.090 W/kg; SAR(10 g) = 0.044 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.6%

Maximum value of SAR (measured) = 0.139 W/kg



Plot 50 LTE Band7 1RB Left Cheek High (EN-DC)

Date: 2024/2/19

Communication System: UID 0, LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2560$ MHz; $\sigma = 1.953$ S/m; $\epsilon_r = 38.015$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek High/Area Scan (9x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.216 W/kg

Left/Cheek High /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.721 V/m; Power Drift = 0.050 dB

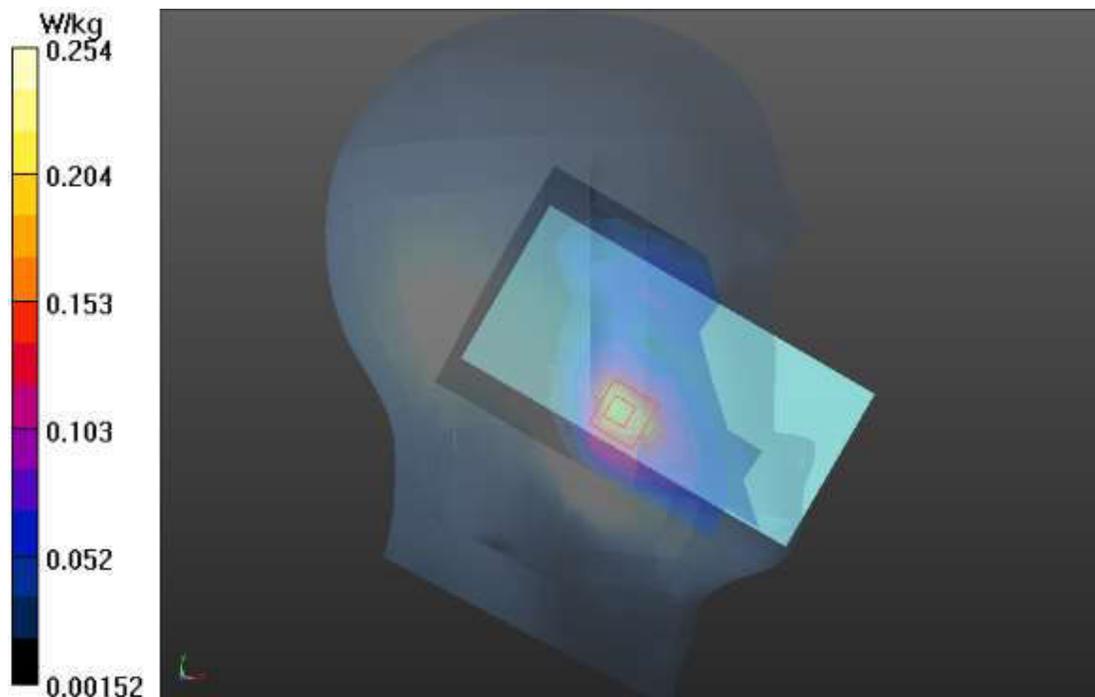
Peak SAR (extrapolated) = 0.359 W/kg

SAR(1 g) = 0.196 W/kg; SAR(10 g) = 0.104 W/kg

Smallest distance from peaks to all points 3 dB below = 15.4 mm

Ratio of SAR at M2 to SAR at M1 = 54.7%

Maximum value of SAR (measured) = 0.254 W/kg



Plot 51 LTE Band26 1RB Left High(EN-DC)

Date: 2024/2/18

Communication System: UID 0, LTE (0); Frequency: 841.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 841.5$ MHz; $\sigma = 0.941$ S/m; $\epsilon_r = 41.844$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.66, 9.52, 8.51); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek High/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.278 W/kg

Left/Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.01 V/m; Power Drift = -0.01 dB

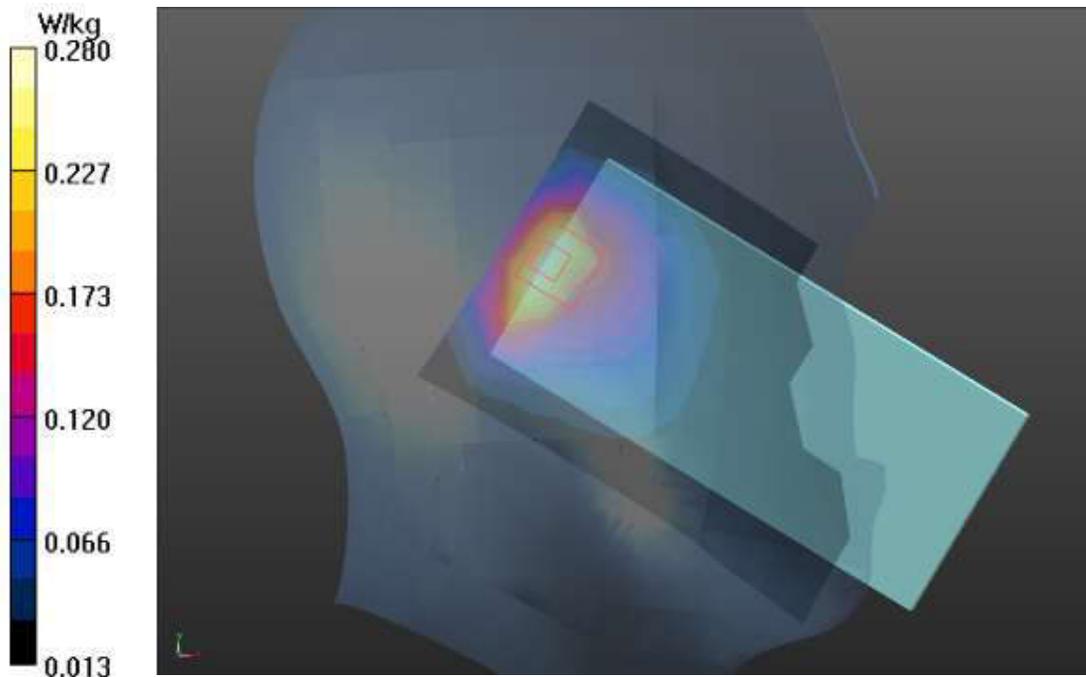
Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.194 W/kg; SAR(10 g) = 0.120 W/kg

Smallest distance from peaks to all points 3 dB below = 14.4 mm

Ratio of SAR at M2 to SAR at M1 = 60.1%

Maximum value of SAR (measured) = 0.280 W/kg



Plot 52 LTE Band41 1RB Left Cheek Middle(EN-DC)

Date: 2024/2/19

Communication System: UID 0, LTE (0); Frequency: 2549.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2549.5$ MHz; $\sigma = 1.942$ S/m; $\epsilon_r = 38.069$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left/Cheek Middle/Area Scan (9x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.553 W/kg

Left/Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.475 V/m; Power Drift = 0.06 dB

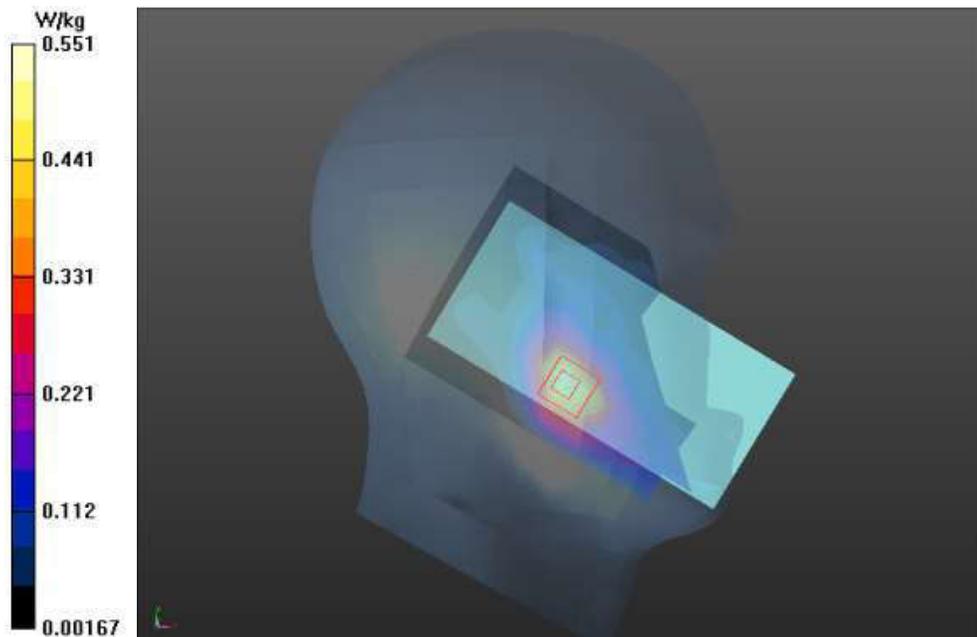
Peak SAR (extrapolated) = 0.926 W/kg

SAR(1 g) = 0.407 W/kg; SAR(10 g) = 0.217 W/kg

Smallest distance from peaks to all points 3 dB below = 14.6 mm

Ratio of SAR at M2 to SAR at M1 = 55.5%

Maximum value of SAR (measured) = 0.551 W/kg



Plot 53 GSM1900 Back Side 15mm Middle

Date: 2024/2/2

Communication System: UID 0, GSM (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.406$ S/m; $\epsilon_r = 39.087$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.333 W/kg

Back Side 15mm/Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.407 V/m; Power Drift = -0.023 dB

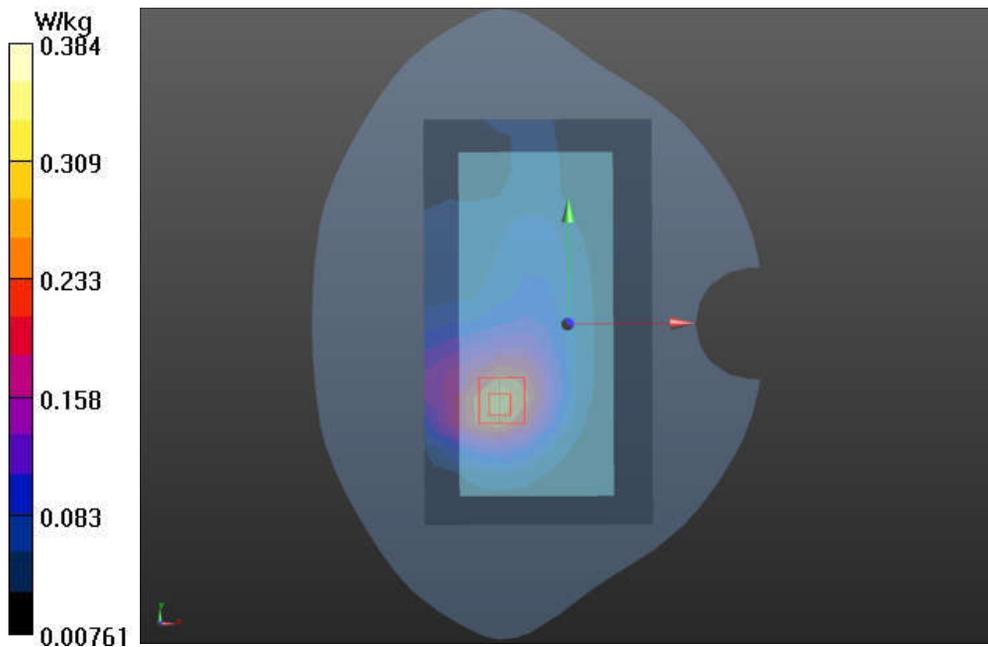
Peak SAR (extrapolated) = 0.416 W/kg

SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.163 W/kg

Smallest distance from peaks to all points 3 dB below = 20.2 mm

Ratio of SAR at M2 to SAR at M1 = 62%

Maximum value of SAR (measured) = 0.384 W/kg



Plot 54 WCDMA Band 2 Back Side 15mm Middle

Date: 2024/2/2

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.406$ S/m; $\epsilon_r = 39.087$; $\rho = 1000$ kg/m³
 Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.392 W/kg

Back Side 15mm/Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.750 V/m; Power Drift = 0.080 dB

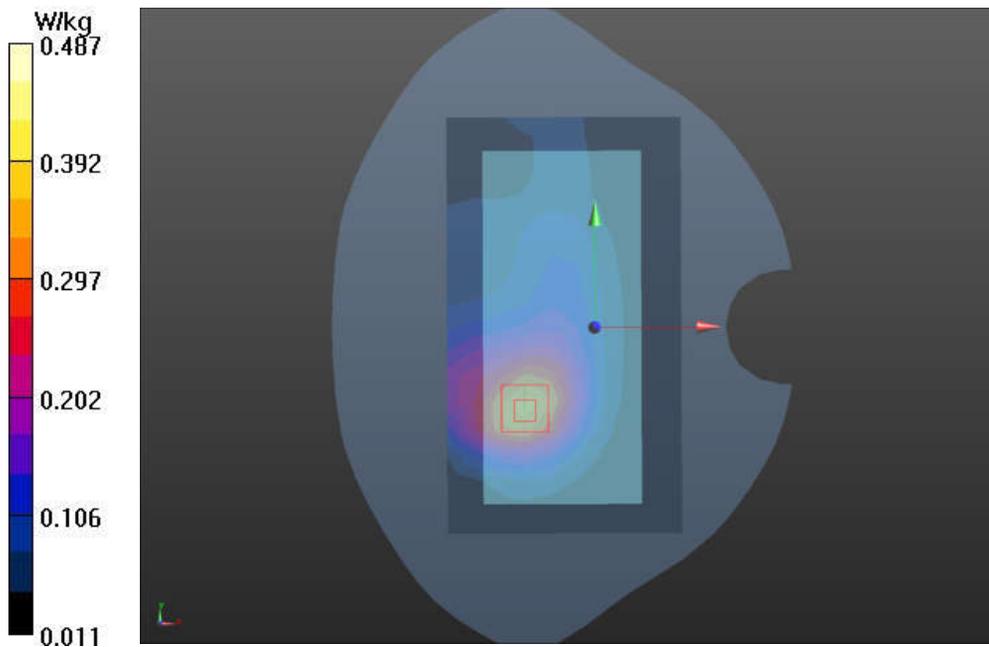
Peak SAR (extrapolated) = 0.561 W/kg

SAR(1 g) = 0.359 W/kg; SAR(10 g) = 0.223 W/kg

Smallest distance from peaks to all points 3 dB below = 18.8 mm

Ratio of SAR at M2 to SAR at M1 = 63.5%

Maximum value of SAR (measured) = 0.487 W/kg



Plot 55 WCDMA Band 4 Back Side 15mm Middle

Date: 2024/1/19

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1732.6$ MHz; $\sigma = 1.301$ S/m; $\epsilon_r = 39.491$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.517 W/kg

Back Side 15mm/Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.980 V/m; Power Drift = 0.180 dB

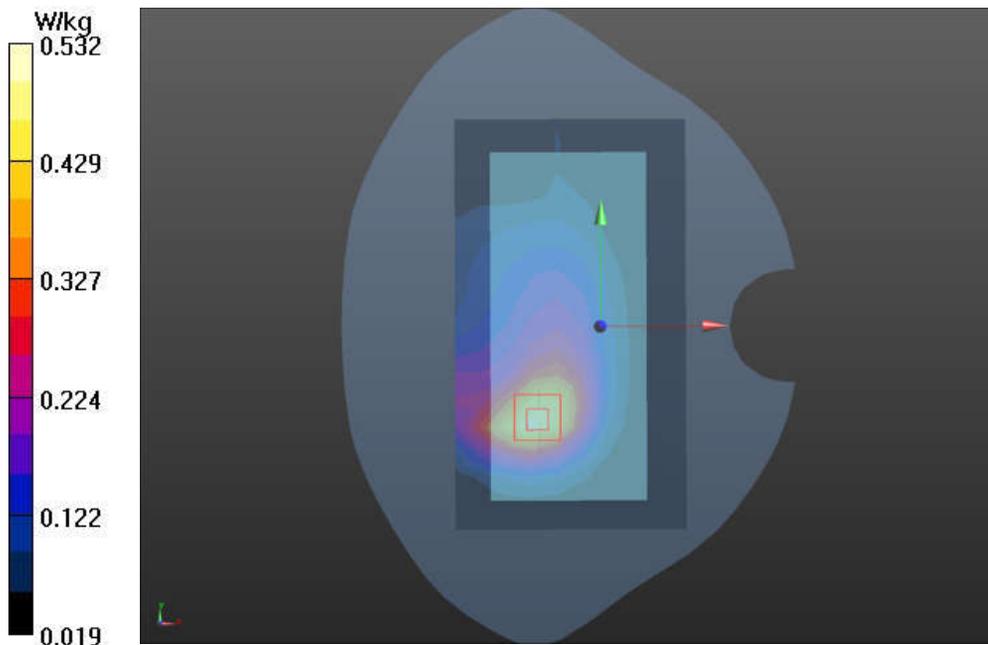
Peak SAR (extrapolated) = 0.746 W/kg

SAR(1 g) = 0.490 W/kg; SAR(10 g) = 0.302 W/kg

Smallest distance from peaks to all points 3 dB below = 17.1 mm

Ratio of SAR at M2 to SAR at M1 = 65%

Maximum value of SAR (measured) = 0.532 W/kg



Plot 56 LTE Band 7 50%RB Back Side 15mm Low

Date: 2024/1/24

Communication System: UID 0, LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 37.398$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Low/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.592 W/kg

Back Side 15mm/Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.626 V/m; Power Drift = -0.030 dB

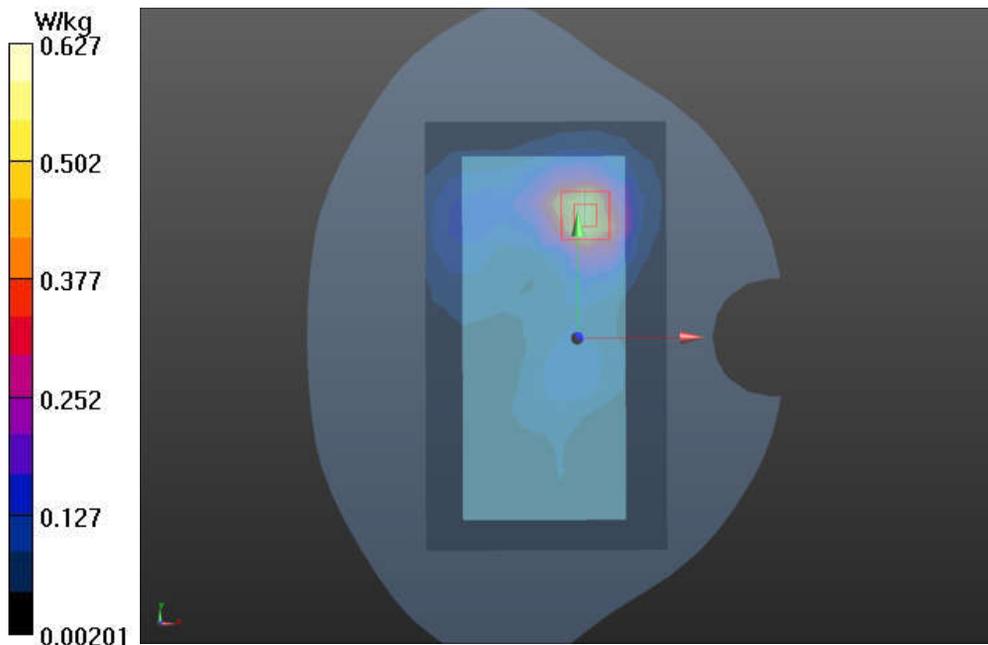
Peak SAR (extrapolated) = 1.090 W/kg

SAR(1 g) = 0.563 W/kg; SAR(10 g) = 0.285 W/kg

Smallest distance from peaks to all points 3 dB below = 13 mm

Ratio of SAR at M2 to SAR at M1 = 51.2%

Maximum value of SAR (measured) = 0.627 W/kg



Plot 57 LTE Band 41 1RB Back Side 15mm High

Date: 2024/1/26

Communication System: UID 0, LTE (0); Frequency: 2680 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2680$ MHz; $\sigma = 2.106$ S/m; $\epsilon_r = 36.793$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/High/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.443 W/kg

Back Side 15mm/High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.172 V/m; Power Drift = 0.080 dB

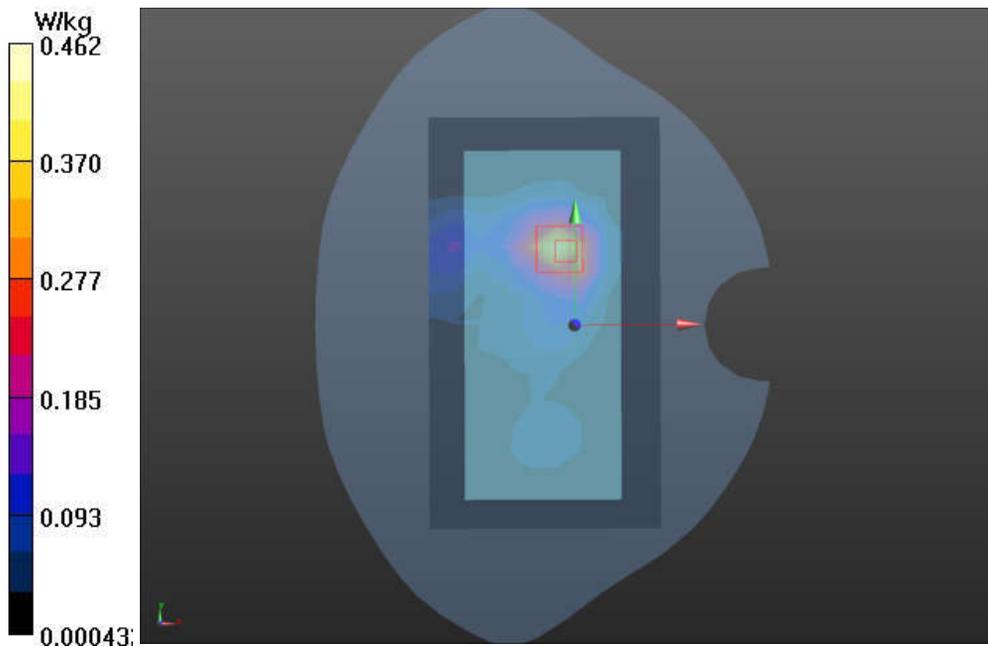
Peak SAR (extrapolated) = 0.896 W/kg

SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.193 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 45.9%

Maximum value of SAR (measured) = 0.462 W/kg



Plot 58 LTE Band 48 1RB Back Side 15mm High

Date: 2024/1/29

Communication System: UID 0, LTE (0); Frequency: 3690 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 3690$ MHz; $\sigma = 1.831$ S/m; $\epsilon_r = 37.663$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/High/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.472 W/kg

Back Side 15mm/High/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.107 V/m; Power Drift = 0.030 dB

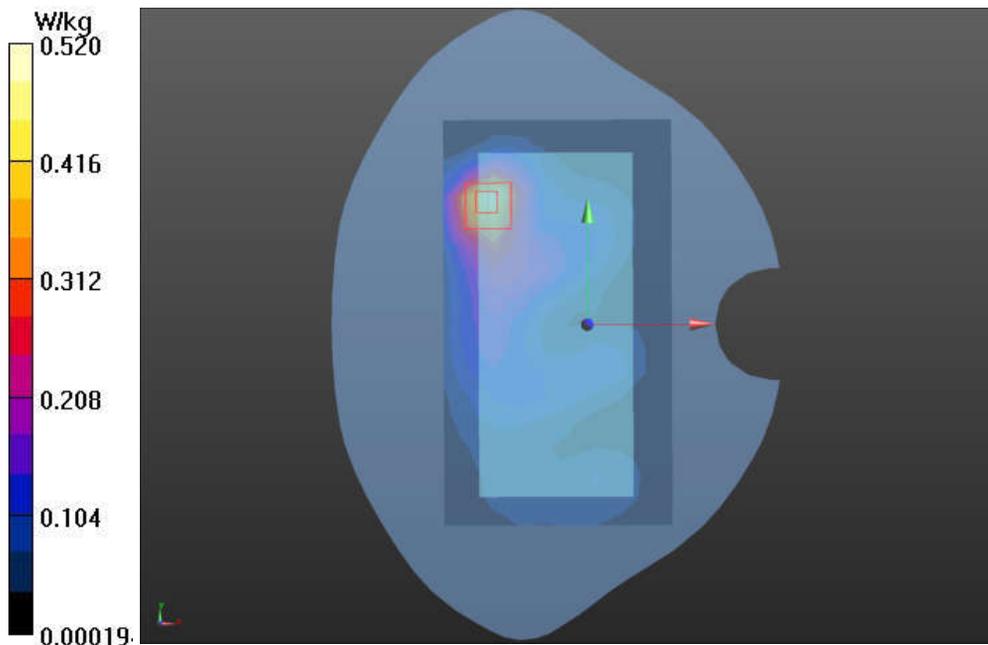
Peak SAR (extrapolated) = 0.332 W/kg

SAR(1 g) = 0.325 W/kg; SAR(10 g) = 0.146 W/kg

Smallest distance from peaks to all points 3 dB below = 12.5 mm

Ratio of SAR at M2 to SAR at M1 = 47.6%

Maximum value of SAR (measured) = 0.520 W/kg



Plot 59 LTE Band 66 50%RB Back Side 15mm Low

Date: 2024/1/19

Communication System: UID 0, LTE (0); Frequency: 1720 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.556$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Low/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.385 W/kg

Back Side 15mm/Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=5mm

Reference Value = 8.761 V/m; Power Drift = 0.160 dB

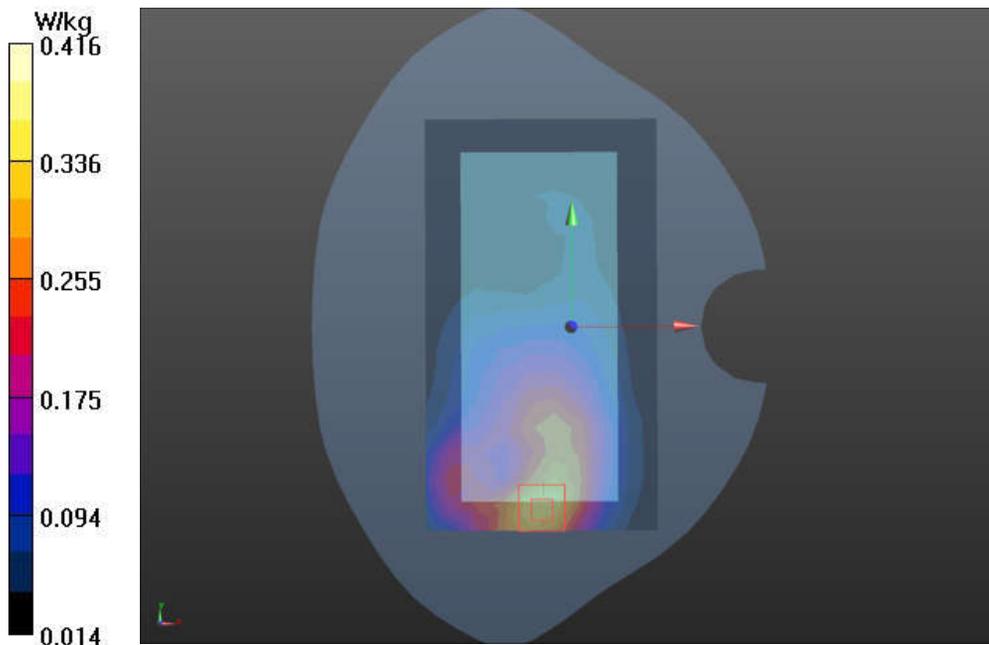
Peak SAR (extrapolated) = 0.556 W/kg

SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.226 W/kg

Smallest distance from peaks to all points 3 dB below = 18.9 mm

Ratio of SAR at M2 to SAR at M1 = 64.6%

Maximum value of SAR (measured) = 0.416 W/kg



Plot 60 NR n2 50%RB Back Side 15mm High

Date: 2024/2/4

Communication System: UID 0, 5G NR (0); Frequency: 1890 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.422$ S/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³
 Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 8.25, 7.79); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/High/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.330 W/kg

Back Side 15mm/High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.151 V/m; Power Drift = -0.14 dB

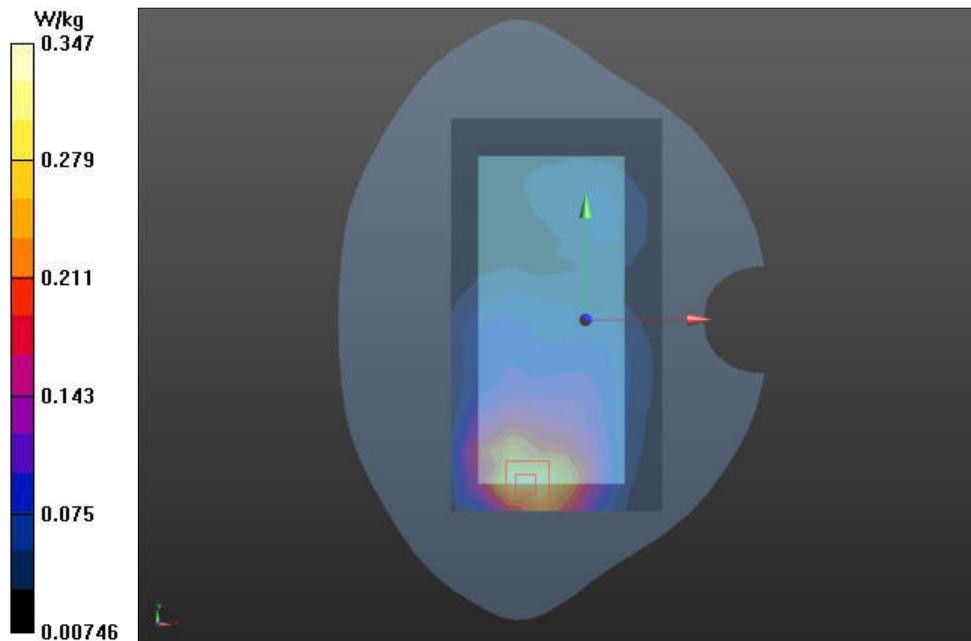
Peak SAR (extrapolated) = 0.538 W/kg

SAR(1 g) = 0.321 W/kg; SAR(10 g) = 0.190 W/kg

Smallest distance from peaks to all points 3 dB below = 15.8 mm

Ratio of SAR at M2 to SAR at M1 = 59.3%

Maximum value of SAR (measured) = 0.347 W/kg



Plot 61 NR n7 50%RB Back Side 15mm Low

Date: 2024/1/27

Communication System: UID 0, 5G NR (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 37.398$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Low/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.468 W/kg

Back Side 15mm/Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.681 V/m; Power Drift = 0.03 dB

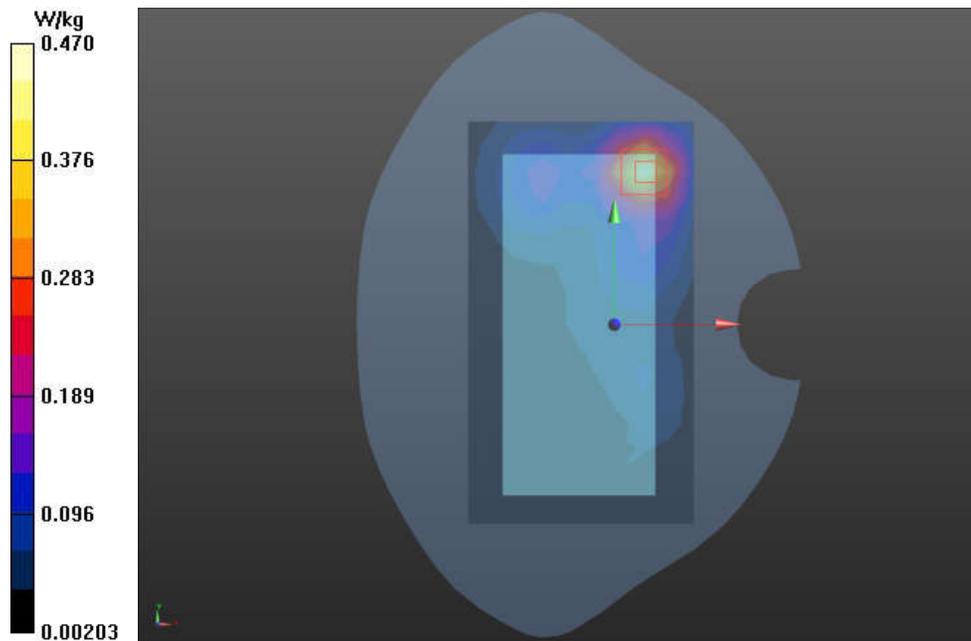
Peak SAR (extrapolated) = 0.832 W/kg

SAR(1 g) = 0.427 W/kg; SAR(10 g) = 0.218 W/kg

Smallest distance from peaks to all points 3 dB below = 14.8 mm

Ratio of SAR at M2 to SAR at M1 = 51.2%

Maximum value of SAR (measured) = 0.470 W/kg



Plot 62 NR n41 50%RB Back Side 15mm Low

Date: 2024/1/28

Communication System: UID 0, 5G NR (0); Frequency: 2546.01 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2546.01$ MHz; $\sigma = 1.953$ S/m; $\epsilon_r = 37.275$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.10, 7.59, 7.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Low/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.563 W/kg

Back Side 15mm/Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.857 V/m; Power Drift = 0.09 dB

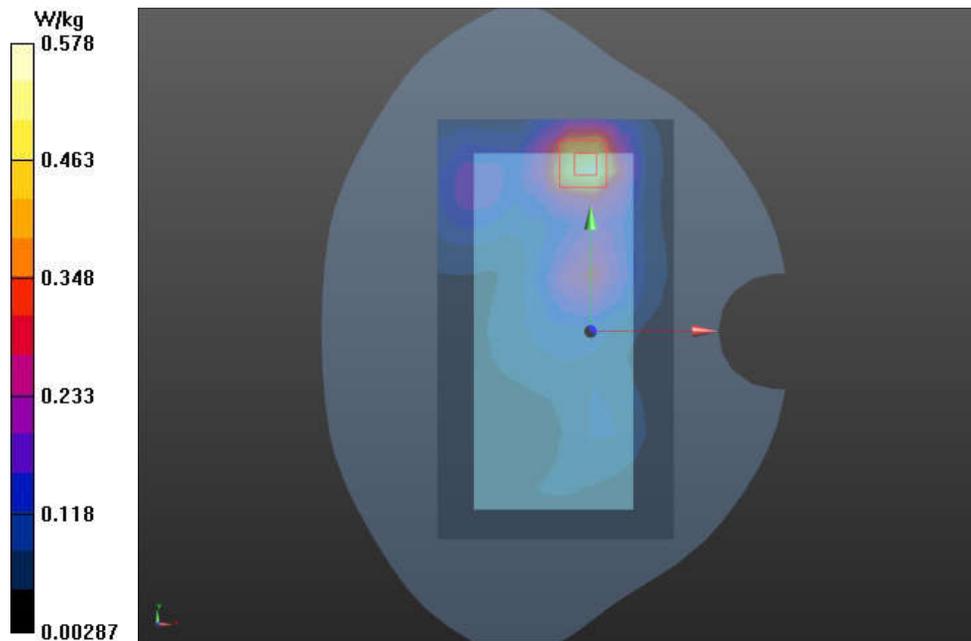
Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.525 W/kg; SAR(10 g) = 0.265 W/kg

Smallest distance from peaks to all points 3 dB below = 14.8 mm

Ratio of SAR at M2 to SAR at M1 = 49.4%

Maximum value of SAR (measured) = 0.578 W/kg



Plot 63 NR n48 50%RB Back Side 15mm Low

Date: 2024/1/30

Communication System: UID 0, 5G NR (0); Frequency: 3600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 3600$ MHz; $\sigma = 1.831$ S/m; $\epsilon_r = 37.663$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.80, 7.27, 6.93); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/Low/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.572 W/kg

Back Side 15mm/Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.107 V/m; Power Drift = -0.19 dB

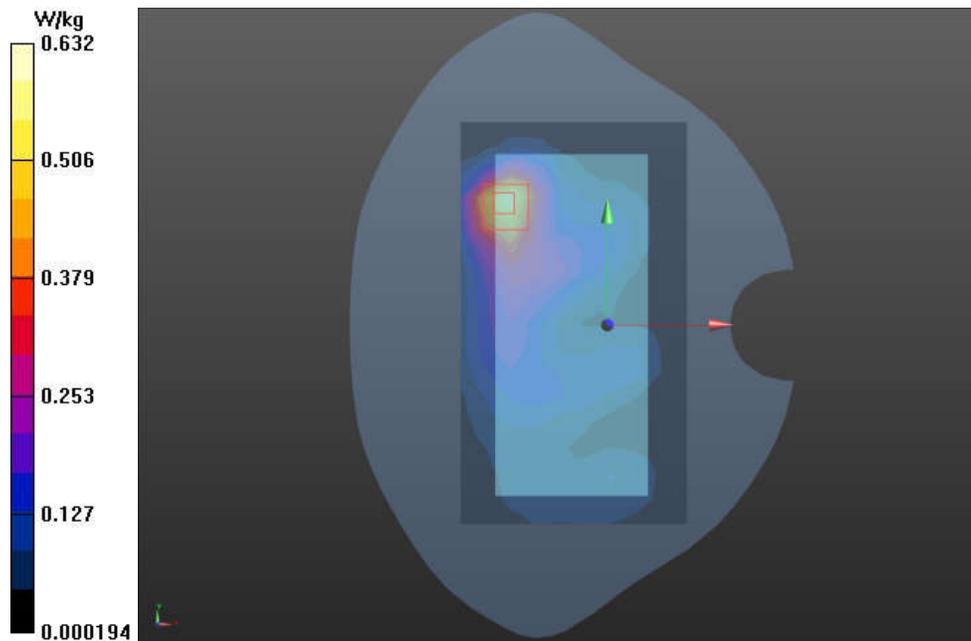
Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.507 W/kg; SAR(10 g) = 0.224 W/kg

Smallest distance from peaks to all points 3 dB below = 12.5 mm

Ratio of SAR at M2 to SAR at M1 = 47.6%

Maximum value of SAR (measured) = 0.632 W/kg



Plot 64 NR n66 1RB Back Side 15mm High

Date: 2024/1/21

Communication System: UID 0, 5G NR (0); Frequency: 1760 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1760$ MHz; $\sigma = 1.322$ S/m; $\epsilon_r = 39.351$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.80, 8.35, 7.88); Calibrated: 2023/7/20

Electronics: DAE4 SN1317; Calibrated: 2023/9/13

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side 15mm/High/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.492 W/kg

Back Side 15mm/High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.954 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.756 W/kg

SAR(1 g) = 0.480 W/kg; SAR(10 g) = 0.293 W/kg

Smallest distance from peaks to all points 3 dB below = 16.7 mm

Ratio of SAR at M2 to SAR at M1 = 63.5%

Maximum value of SAR (measured) = 0.519 W/kg

