



SAR TEST REPORT

No. I22Z60785-SEM01

For

Wingtech Group (Hong Kong) Limited

5G Mobile Phone

Model Name: CELERO5G

with

Hardware Version: V2.0

Software Version: Celero5G_0.01.01

FCC ID: 2APXW-CELERO5G

Issued Date: 2022-7-22

Note:

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**REPORT HISTORY**

Report Number	Revision	Issue Date	Description
I22Z60785-SEM01	Rev.0	2022-6-28	Initial creation of test report
I22Z60785-SEM01	Rev.1	2022-7-22	The application scenario information is updated.

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1 Test Laboratory

1.1 Testing Location

Company Name:	CTTL(Shouxiang)
Address:	No. 51, Xueyuan Road, Haidian District, Beijing, P. R. China 100191.

1.2 Testing Environment

Temperature:	18°C~25°C,
Relative humidity:	30%~ 70%
Ground system resistance:	< 0.5 Ω
Ambient noise & Reflection:	< 0.012 W/kg

1.3 Project Data

Project Leader:	Qi Dianyuan
Test Engineer:	Yao Juming
Testing Start Date:	June 1, 2022
Testing End Date:	June 16, 2022

1.4 Signature

姚聚明

Yao Juming
(Prepared this test report)



Qi Dianyuan
(Reviewed this test report)

陆冰松

Lu Bingsong
Deputy Director of the laboratory
(Approved this test report)

2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Wingtech Group (Hong Kong) Limited. 5G Mobile Phone CELERO5G is as follows:

Table 2.1: Highest Reported SAR (1g)

Technology Band	Head	Hotspot	Body-Worn	Phablet-10g	Equipment Class
GSM850	0.39	0.79	0.79	/	PCE
GSM1900	0.12	0.72	0.72	/	
WCDMA1900	0.49	0.53	0.73	/	
WCDMA1700	0.35	0.49	0.70	/	
WCDMA 850	0.47	0.55	0.55	/	
LTE Band2-ANT1	0.28	0.26	0.30	/	
LTE Band2-ANT3	0.32	0.32	0.36	/	
LTE Band7	0.56	0.90	0.59	/	
LTE Band12	0.42	0.65	0.65	/	
LTE Band13	0.19	0.27	0.27	/	
LTE Band25	0.38	0.68	0.67	/	
LTE Band26	0.50	0.65	0.65	/	
LTE Band41-PC3	0.56	0.12	0.24	/	
LTE Band41-PC2	0.68	0.79	0.34	/	
LTE Band66-ANT1	0.20	0.24	0.27	/	
LTE Band66-ANT3	0.46	0.32	0.23	/	
LTE Band71	0.34	0.65	0.65	/	
5G NR n2 ANT1	0.25	0.41	0.31	/	
5G NR n2 ANT3	0.36	0.79	0.29	/	
5G NR n25 ANT1	0.23	0.41	0.31	/	
5G NR n25 ANT3	0.41	0.89	0.34	/	
5G NR n66 ANT1	0.21	0.34	0.32	/	
5G NR n66 ANT3	0.46	0.37	0.22	/	
5G NR n5	0.24	0.32	0.32	/	
5G NR n71	0.18	0.38	0.38	/	
5G NR n41PC2	0.67	0.46	0.41	/	
5G NR n70	0.22	0.39	0.37	/	
WLAN 2.4GHz	1.30	0.34	0.17	/	DTS
WLAN 5GHz	1.33	0.90	0.69	/	NII
BT	<0.01	<0.01	<0.01	/	DSS

The SAR values found for the Mobile Phone are below the maximum recommended levels of 1.6 W/kg as averaged over any 1g tissue according to the ANSI C95.1-1992.

For body operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and which provides a minimum separation distance of 15/10 mm between this device and the body of the user. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output.

The measurement together with the test system set-up is described in annex C of this test report. A detailed description of the equipment under test can be found in chapter 4 of this test report. The highest reported SAR value is obtained at the case of **(Table 2.1)**, and the values are: **1.33 W/kg(1g)**.

Remark:

This device supports both LTE B2/B4/B5 and LTE B25/B66/B26. Since the supported frequency span for LTE BB2/4/B5 falls completely within the support frequency span for LTE B25/B66/B26, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25/B66/B26.

Table 2.2: The sum of SAR values for Main antenna + Wifi2.4G +BT

	Position	Main antenna	WiFi-2.4G	BT	Sum
Highest SAR value for Head	Left head, Cheek (ENDC 66A-n41A)	1.13	0.26	<0.01	1.39
Highest SAR value for Body	Rear 10mm (ENDC 12A-n25A)	1.09	0.17	<0.01	1.26

Table 2.3: The sum of SAR values for Main antenna + Wifi5G +BT

	Position	Main antenna	WiFi-5G	BT	Sum
Highest SAR value for Head	Left head, Tilt (ENDC 66A-n25A)	0.65	0.85	<0.01	1.50
Highest SAR value for Body	Top 10mm (ENDC 66A-n25A)	1.21	0.38	<0.01	1.59
Highest SAR value for Body	Rear 15mm (WCDMA1900)	0.90	0.69	<0.01	1.59

Table 2.4: The SAR values for ENDC

ENDC	Left Cheek 1g (W/kg)	Left Tilt 1g (W/kg)	Right Cheek 1g (W/kg)	Right Tilt 1g (W/kg)	Front 10mm 1g (W/kg)	Rear 10mm 1g (W/kg)	Left Edge 10mm 1g (W/kg)	Right Edge 10mm 1g (W/kg)	Bottom Edge 10mm 1g (W/kg)	Top Edge 10mm 1g (W/kg)	Front 15mm 1g (W/kg)	Rear 15mm 1g (W/kg)
DC 66A (ANT1) N71A	0.37	0.22	0.34	0.26	0.39	0.56	0.36	0.38	0.37	\	0.43	0.60
DC 66A (ANT3) N71A	0.45	0.47	0.50	0.57	0.44	0.53	0.29	0.38	0.19	0.32	0.46	0.55
DC 2A(ANT1) N71A	0.46	0.31	0.39	0.32	0.39	0.59	0.37	0.38	0.40	\	0.45	0.63
DC 2A(ANT3) N71A	0.35	0.34	0.39	0.43	0.40	0.49	0.28	0.38	0.19	0.32	0.54	0.69
DC 2A(ANT1) n66A (ANT1)	0.49	0.34	0.39	0.38	0.38	0.60	0.30	\	0.48	\	0.44	0.62
DC 2A(ANT3) n66A (ANT1)	0.38	0.36	0.40	0.49	0.39	0.50	0.21	\	0.27	0.32	0.53	0.67
DC 12A N66A (ANT1)	0.54	0.31	0.59	0.44	0.67	0.94	0.58	0.65	0.63	\	0.22	0.32
DC 2A(ANT1) n66A (ANT3)	0.56	0.57	0.56	0.67	0.42	0.50	0.19	\	0.21	0.37	0.44	0.52
DC 2A(ANT3) n66A (ANT3)	0.46	0.60	0.57	0.78	0.43	0.40	0.10	\	\	0.69	0.53	0.58
DC 12A N66A (ANT3)	0.62	0.55	0.77	0.73	0.71	0.84	0.47	0.65	0.37	0.37	0.22	0.22
DC 2A(ANT1) n41A	0.46	0.43	0.82	0.87	0.49	0.56	0.43	\	0.21	0.46	0.63	0.59
DC 2A(ANT3) n41A	0.36	0.46	0.83	0.98	0.50	0.46	0.34	\	\	0.78	0.71	0.65
DC 12A N25A(ANT1)	0.56	0.33	0.59	0.43	0.69	1.01	0.62	0.65	0.68	\	0.23	0.31
DC 66A(ANT1) n25A(ANT1)	0.43	0.27	0.34	0.31	0.40	0.65	0.33	\	0.49	\	0.43	0.58
DC 66A(ANT3) n25A(ANT1)	0.50	0.52	0.50	0.62	0.45	0.61	0.26	\	0.31	0.32	0.46	0.53
DC 12A N25A ANT3	0.55	0.47	0.72	0.68	0.96	1.09	0.53	0.65	0.37	0.89	0.31	0.34
DC 66A(ANT1) n25A (ANT3)	0.42	0.40	0.47	0.56	0.67	0.73	0.25	\	0.18	0.89	0.50	0.61
DC 66A(ANT3) n25A (ANT3)	0.50	0.65	0.63	0.87	0.72	0.69	0.18	\	\	1.21	0.54	0.56
DC 66A(ANT1) n41A	0.38	0.34	0.78	0.82	0.49	0.53	0.42	\	0.18	0.46	0.60	0.56
DC 66A(ANT3) n41A	0.46	0.59	0.93	1.13	0.54	0.50	0.35	\	\	0.78	0.64	0.51
DC 66A(ANT1) n41C	0.38	0.34	0.78	0.82	0.49	0.53	0.42	\	0.18	0.46	0.60	0.56
DC 66A(ANT3) n41C	0.46	0.59	0.93	1.13	0.54	0.50	0.35	\	\	0.78	0.64	0.51
DC 2A(ANT1) n5A	0.51	0.34	0.45	0.35	0.38	0.58	0.24	0.19	0.44	\	0.44	0.62
DC 2A(ANT3) n5A	0.40	0.36	0.46	0.47	0.39	0.48	0.16	0.19	0.23	0.32	0.53	0.68
DC 66A(ANT1) n5A	0.42	0.25	0.41	0.30	0.38	0.55	0.23	0.19	0.42	\	0.41	0.59
DC 66A(ANT3) n5A	0.50	0.50	0.56	0.61	0.43	0.52	0.17	0.19	0.23	0.32	0.45	0.54
DC 5A n2A (ANT1)	0.68	0.38	0.67	0.41	0.67	1.01	0.42	\	0.63	\	0.24	0.41
DC 12A n2A (ANT1)	0.58	0.34	0.59	0.42	0.67	0.96	0.60	0.65	0.52	\	0.24	0.41
DC 66A(ANT1) n2A (ANT1)	0.45	0.27	0.34	0.31	0.37	0.60	0.31	\	0.34	\	0.43	0.68
DC 66A(ANT3) n2A (ANT1)	0.53	0.52	0.49	0.62	0.43	0.56	0.24	\	0.16	0.32	0.47	0.63
DC 2A(ANT1) n2A (ANT1)	0.53	0.36	0.38	0.36	0.38	0.63	0.32	\	0.37	\	0.46	0.71
DC 2A(ANT3) n2A (ANT1)	0.43	0.39	0.39	0.47	0.39	0.53	0.23	\	0.16	0.32	0.55	0.77
DC 5A n2A (ANT3)	0.60	0.45	0.76	0.62	0.87	1.07	0.33	\	0.48	0.79	0.26	0.29
DC 12A n2A (ANT3)	0.51	0.41	0.67	0.63	0.87	1.02	0.51	0.65	0.37	0.79	0.26	0.29
DC 66A(ANT1) n2A (ANT3)	0.37	0.34	0.43	0.51	0.57	0.66	0.23	\	0.18	0.79	0.45	0.55
DC 66A(ANT3) n2A (ANT3)	0.45	0.59	0.58	0.82	0.63	0.62	0.16	\	\	1.11	0.49	0.51
DC 2A(ANT1) n2A (ANT3)	0.45	0.43	0.47	0.56	0.58	0.69	0.24	\	0.21	0.79	0.48	0.58
DC 2A(ANT3) n2A (ANT3)	0.35	0.46	0.48	0.68	0.59	0.58	0.15	\	\	1.11	0.56	0.64

Conclusion:

According to the above tables, the sum of reported SAR values is <1.6W/kg. So the simultaneous transmission SAR with volume scans is not required.

According to the above tables, the highest sum of reported SAR values is **1.59 W/kg (1g)**. The detail for simultaneous transmission consideration is described in chapter 13.

3.1 Applicant Information

Company Name:	Wingtech Group (Hong Kong) Limited
Address/Post:	Flat/RM 1802 18/F, Podium Plaza, 5 Hanoi Road, Tsim Sha Tsui, KL, HK
Contact Person:	sharui
Contact Email:	sharui@wingtech.com
Telephone:	+86-21-53529900

3.2 Manufacturer Information

Company Name:	Wingtech Group (Hong Kong) Limited
Address/Post:	Flat/RM 1802 18/F, Podium Plaza, 5 Hanoi Road, Tsim Sha Tsui, KL, HK
Contact Person:	sharui
Contact Email:	sharui@wingtech.com
Telephone:	+86-21-53529900

4 Equipment Under Test (EUT) and Ancillary Equipment (AE)

4.1 About EUT

Description:	5G Mobile Phone
Model name:	CELERO5G
Operating mode(s):	GSM850/1900, WCDMA B2/B4/B5 LTE Band2/7/12/13/25/26/41/66/71 BT, Wi-Fi(2.4G/5G) 5G NR n2/n5/n25/n41/n66/n70/n71
Tested Tx Frequency:	824 – 849 MHz (GSM 850)
	1850 – 1910 MHz (GSM 1900)
	824 – 849 MHz (WCDMA 850 Band V)
	1850 – 1910 MHz (WCDMA1900 Band IV)
	1710-1755 MHz (WCDMA1700 Band II)
	1850.7 – 1909.3 MHz (LTE Band 2)
	2502.5 – 2567.5 MHz (LTE Band 7)
	699.7 – 715.3 MHz (LTE Band 12)
	1850.7–1914.3 MHz (LTE Band 25)
	814.7–848.3 MHz (LTE Band 26)
	2498.5 – 2687.5 MHz (LTE Band41)
	1710.7 –1779.3 MHz (LTE Band 66)
	665.5 –695.5 MHz (LTE Band 71)
	2412 – 2462 MHz (Wi-Fi 2.4G)
	5180 – 5240 MHz (Wi-Fi 5.2G)
	5260 – 5320 MHz (Wi-Fi 5.3G)
	5500 – 5720 MHz (Wi-Fi 5.5G)
	5745 – 5825 MHz (Wi-Fi 5.8G)
	2400 – 2483.5 MHz (Bluetooth)
	1852.5 – 1912.5 MHz (n2)
824 – 849 MHz (n5)	
1850 – 1915 MHz(n25)	
2496 – 2690 MHz(n41)	
1710 – 1780 MHz(n66)	
1695– 1710 (n70)	
665.5 – 695.5 MHz (n71)	
GPRS/EGPRS Multislot Class:	12
Test device production information:	Production unit
Device type:	Portable device
Antenna type:	Integrated antenna
Hotspot mode:	Support

4.2 Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
EUT1	863401060003585	V2.0	CELERO5G
EUT2	863401060002694	V2.0	CELERO5G
EUT3	863401060009426	V2.0	CELERO5G
EUT4	863401060008196	V2.0	CELERO5G
EUT5	863401060008212	V2.0	CELERO5G
EUT6	863401060009020	V2.0	CELERO5G
EUT7	863401060008311	V2.0	CELERO5G
EUT8	863401060002702	V2.0	CELERO5G
EUT9	863401060002710	V2.0	CELERO5G
EUT10	863401060009343	V2.0	CELERO5G

*EUT ID: is used to identify the test sample in the lab internally.

Note: It is performed to test SAR with the EUT1~7 and conducted power with the EUT8~10.

4.3 Internal Identification of AE used during the test

AE ID*	Description	Model	SN	Manufacturer
AE1	Battery	RE001	/	SUNWODA ELECTRONIC CO ., LTD

*AE ID: is used to identify the test sample in the lab internally.

5 TEST METHODOLOGY

5.1 Applicable Limit Regulations

ANSI C95.1–1992:IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.6 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

5.2 Applicable Measurement Standards

IEEE 1528–2013: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.

KDB447498 D01: General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

KDB648474 D04 Handset SAR v01r03: SAR Evaluation Considerations for Wireless Handsets.

KDB941225 D01 SAR test for 3G devices v03r01: SAR Measurement Procedures for 3G Devices

KDB941225 D05 SAR for LTE Devices v02r05: SAR Evaluation Considerations for LTE Devices

KDB941225 D06 Hotspot Mode SAR v02r01: SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities

KDB248227 D01 802.11 Wi-Fi SAR v02r02: SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04: SAR Measurement Requirements for 100 MHz to 6 GHz.

KDB865664 D02 RF Exposure Reporting v01r02: RF Exposure Compliance Reporting and Documentation Considerations

TCB Workshop Nov 2017:RF Exposure Procedures (Carrier Aggregation SAR)

TCB Workshop Nov 2019:RF Exposure Policy Updates (5G NR NSA Sub 6G SAR)

6 Specific Absorption Rate (SAR)

6.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

6.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dv} \right)$$

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = c \left(\frac{\delta T}{\delta t} \right)$$

Where: C is the specific heat capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

$$SAR = \frac{\sigma |E|^2}{\rho}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of tissue and E is the RMS electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

7 Tissue Simulating Liquids

7.1 Targets for tissue simulating liquid

Table 7.1: Targets for tissue simulating liquid

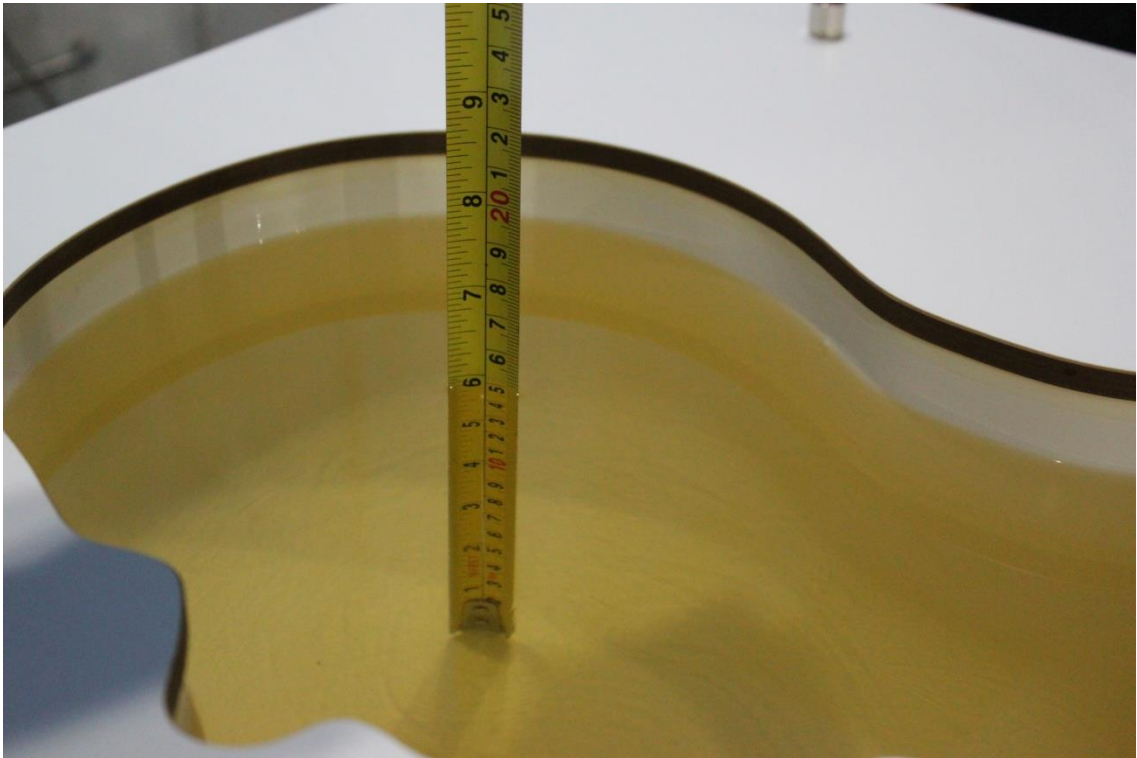
Frequency(MHz)	Liquid Type	Conductivity(σ)	$\pm 10\%$ Range	Permittivity(ϵ)	$\pm 10\%$ Range
750	Head	0.89	0.80~0.98	41.94	37.75~46.13
835	Head	0.90	0.81~0.99	41.5	37.35~45.65
1750	Head	1.40	1.26~1.54	40.0	36~44
1900	Head	1.40	1.26~1.54	40.0	36~44
2450	Head	1.80	1.62~1.98	39.2	35.28~43.12
2600	Head	1.96	1.76~2.16	39.01	35.11~42.91
5250	Head	4.71	4.47~4.95	35.93	34.13~37.73
5600	Head	5.07	4.82~5.32	35.53	33.8~37.3
5750	Head	5.22	4.96~5.48	35.36	33.59~37.13

7.2 Dielectric Performance

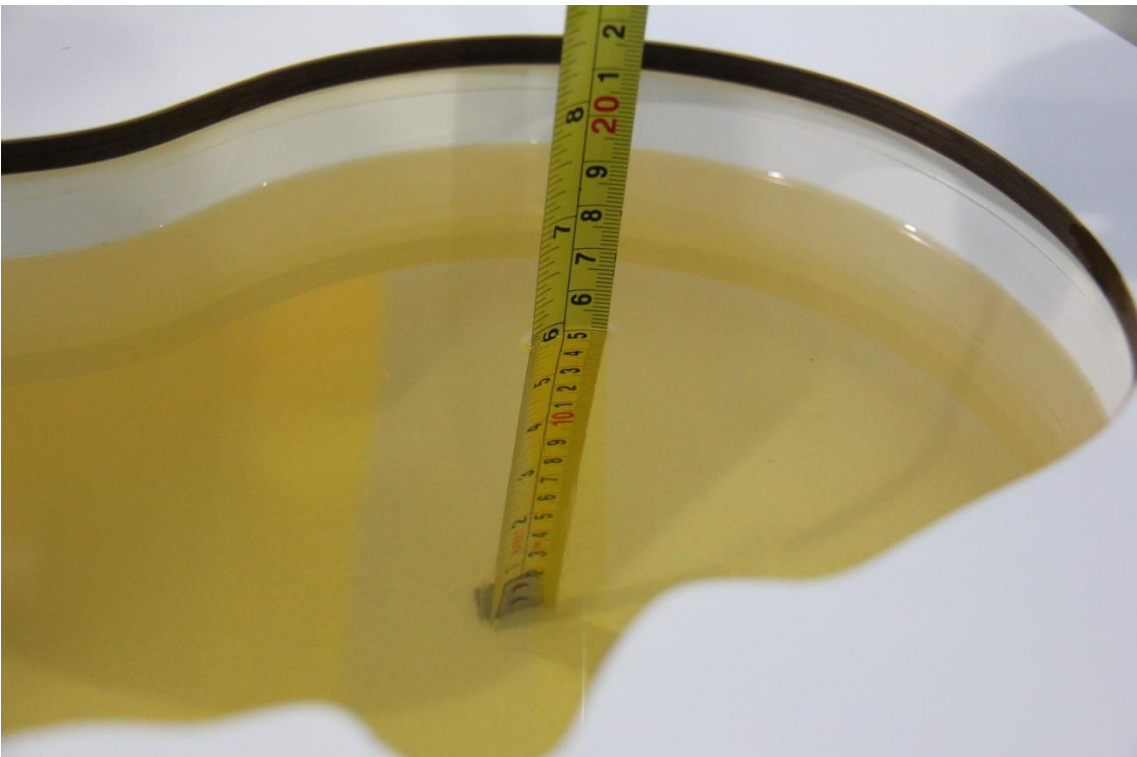
Table 7.3: Dielectric Performance of Tissue Simulating Liquid

Measurement Date (yyyy-mm-dd)	Type	Frequency	Permittivity ϵ	Drift (%)	Conductivity σ (S/m)	Drift (%)
2022/6/4	Head	750 MHz	42.07	0.31	0.897	0.79
2022/6/5	Head	750 MHz	41.89	-0.12	0.874	-1.80
2022/6/6	Head	835 MHz	40.84	-1.59	0.903	0.33
2022/6/7	Head	835 MHz	40.8	-1.69	0.889	-1.22
2022/6/8	Head	1750 MHz	40.1	0.05	1.38	0.73
2022/6/9	Head	1750 MHz	39.45	-1.57	1.37	0.00
2022/6/10	Head	1900 MHz	39.44	-1.40	1.397	-0.21
2022/6/11	Head	1900 MHz	39.61	-0.98	1.387	-0.93
2022/6/12	Head	2600 MHz	39.73	1.85	1.971	0.56
2022/6/13	Head	2600 MHz	39	-0.03	1.999	1.99
2022/6/1	Head	750 MHz	42.07	0.31	0.897	0.79
2022/6/2	Head	835 MHz	41.45	-0.12	0.884	-1.78
2022/6/3	Head	1750 MHz	39.44	-1.60	1.374	0.29
2022/6/4	Head	1900 MHz	39.33	-1.68	1.382	-1.29
2022/6/5	Head	2600 MHz	39.03	0.05	1.974	0.71
2022/6/13	Head	2450 MHz	35.55	0.54%	5.231	0.21%
2022/6/14	Head	5250 MHz	39.32	0.31	1.815	0.83
2022/6/15	Head	5600 MHz	35.89	-0.11	4.626	-1.78
2022/6/16	Head	5750 MHz	34.97	-1.58	5.085	0.30

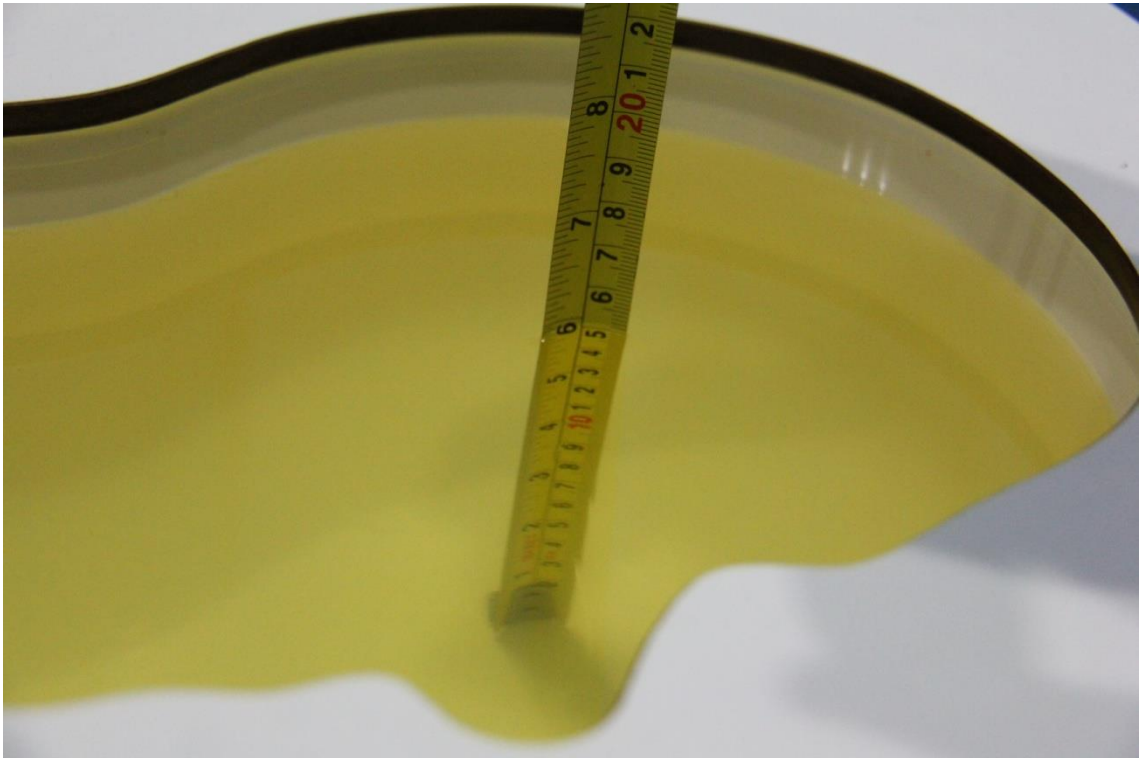
Note: The liquid temperature is 22.0°C



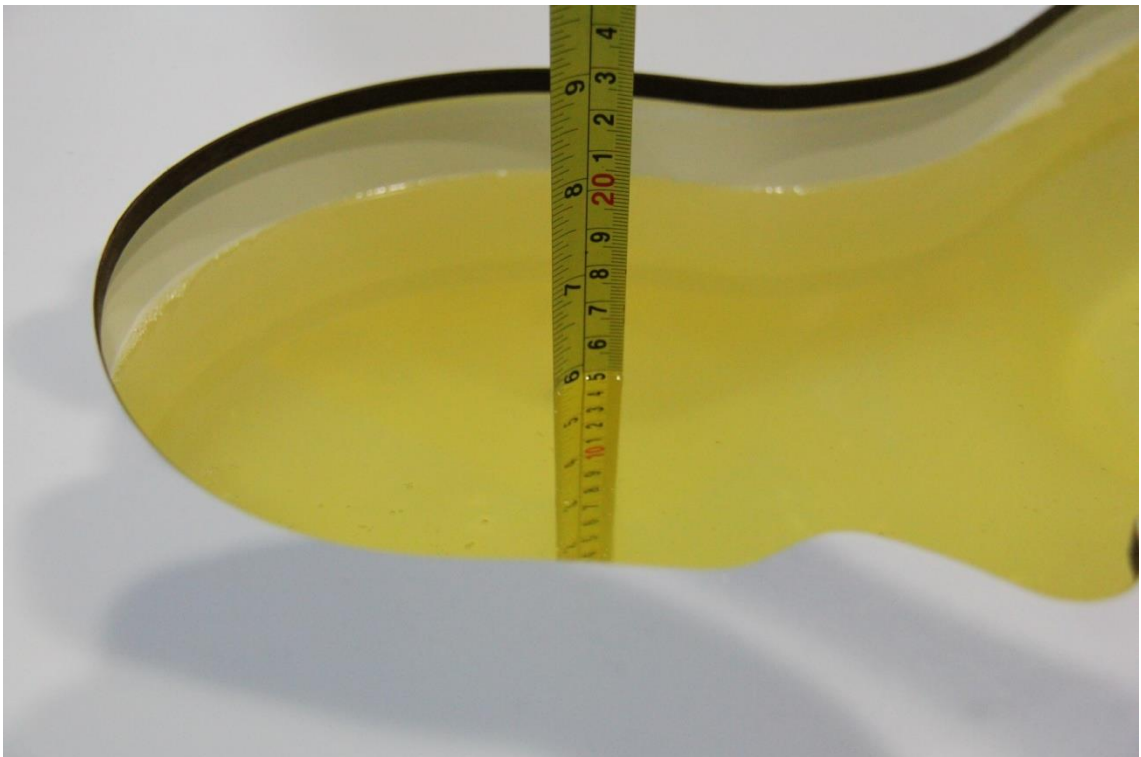
Picture 7-1 Liquid depth in the Head Phantom (750MHz)



Picture 7-2 Liquid depth in the Head Phantom (835 MHz)



Picture 7-3 Liquid depth in the Head Phantom (1900 MHz)



Picture 7-4 Liquid depth in the Head Phantom (2450MHz)



Picture 7-5 Liquid depth in the Head Phantom (2600 MHz)

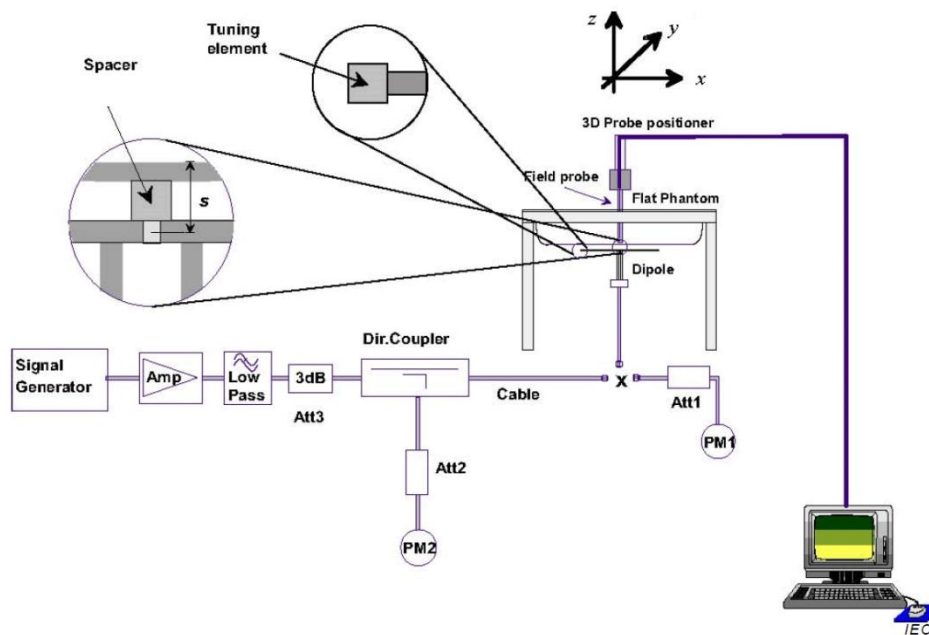


Picture 7-6 Liquid depth in the Head Phantom (5GHz)

8 System verification

8.1 System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



Picture 8.1 System Setup for System Evaluation



Picture 8.2 Photo of Dipole Setup

8.2 System Verification

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device.

The system verification results are required that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR. The details are presented in annex B.

Table 8.1: System Verification of Head

Measurement Date (yyyy-mm-dd)	Frequency	Target value (W/kg)		Measured value(W/kg)		Deviation	
		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
2022/6/4	750 MHz	5.53	8.47	5.6	8.44	1.27%	-0.35%
2022/6/5	750 MHz	5.53	8.47	5.48	8.52	-0.90%	0.59%
2022/6/6	835 MHz	6.25	9.60	6.24	9.48	-0.16%	-1.25%
2022/6/7	835 MHz	6.25	9.60	6.36	9.64	1.76%	0.42%
2022/6/8	1750 MHz	19.1	36.5	18.92	36	-0.94%	-1.37%
2022/6/9	1750 MHz	19.1	36.5	19.2	35.76	0.52%	-2.03%
2022/6/10	1900 MHz	20.6	39.6	20.96	39.76	1.75%	0.40%
2022/6/11	1900 MHz	20.6	39.6	20.68	39.12	0.39%	-1.21%
2022/6/12	2600 MHz	25.3	57.0	25.32	57.12	0.08%	0.21%
2022/6/13	2600 MHz	25.3	57.0	25.68	56.96	1.50%	-0.07%
2022/6/1	750 MHz	5.53	8.47	5.6	8.44	1.27%	-0.35%
2022/6/2	835 MHz	6.25	9.60	6.2	9.68	-0.80%	0.83%
2022/6/3	1750 MHz	19.1	36.5	19.04	36	-0.31%	-1.37%
2022/6/4	1900 MHz	20.6	39.6	20.96	39.68	1.75%	0.20%
2022/6/5	2600 MHz	25.3	57.0	25.04	56.2	-1.03%	-1.40%
2022/6/13	2450 MHz	24.5	52.5	24.88	52.24	1.55%	-0.50%
2022/6/14	5250 MHz	22.9	80.5	22.7	81.1	-0.96%	0.77%
2022/6/15	5600 MHz	23.6	83.3	23.5	82.2	-0.34%	-1.37%
2022/6/16	5750 MHz	22.7	80.4	23.1	80.6	1.67%	0.25%

9 Measurement Procedures

9.1 Tests to be performed

In order to determine the highest value of the peak spatial-average SAR of a handset, all device positions, configurations and operational modes shall be tested for each frequency band according to steps 1 to 3 below. A flowchart of the test process is shown in picture 9.1.

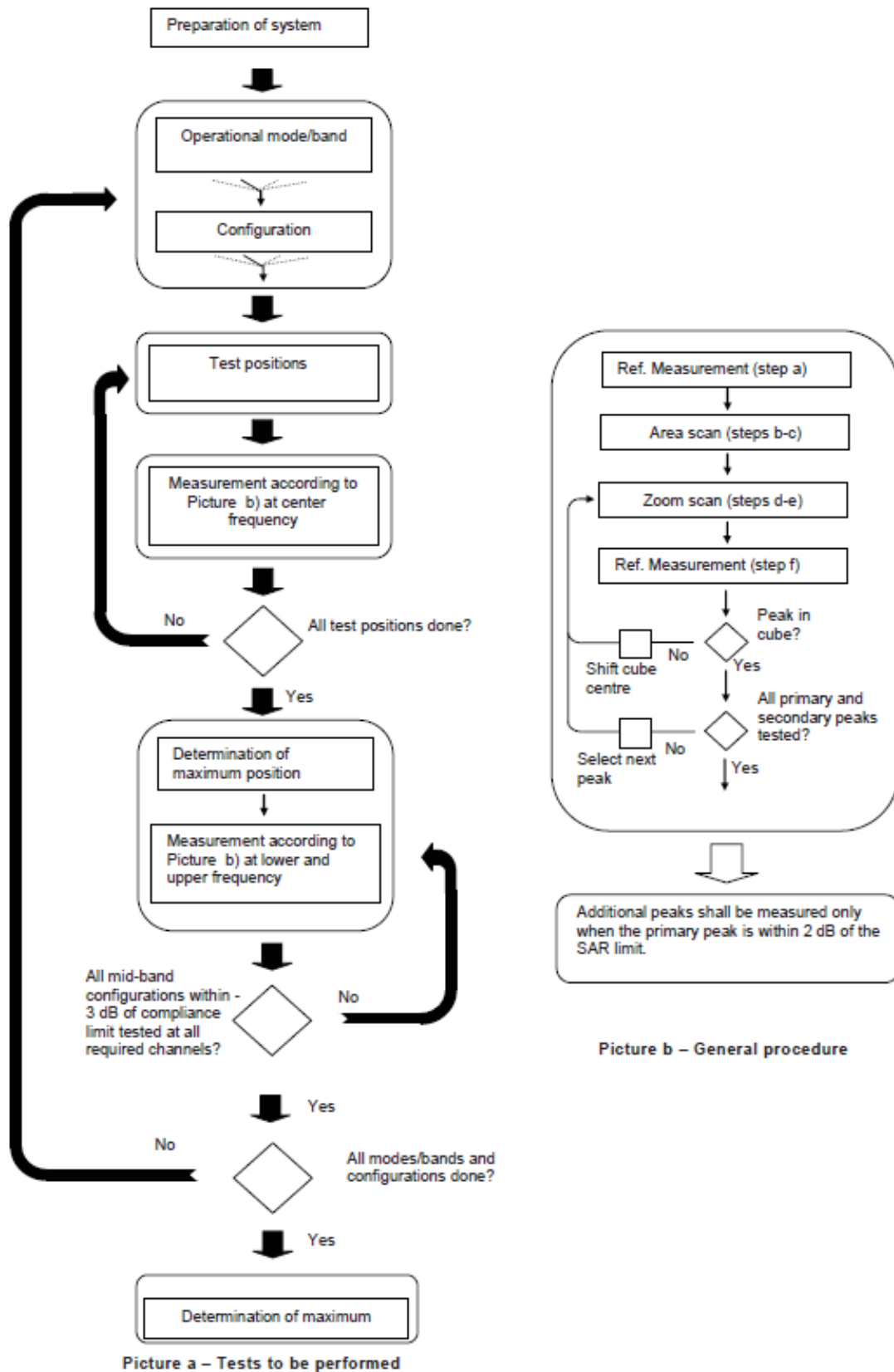
Step 1: The tests described in 9.2 shall be performed at the channel that is closest to the centre of the transmit frequency band (f_c) for:

- a) all device positions (cheek and tilt, for both left and right sides of the SAM phantom, as described in annex D),
- b) all configurations for each device position in a), e.g., antenna extended and retracted, and
- c) all operational modes, e.g., analogue and digital, for each device position in a) and configuration in b) in each frequency band.

If more than three frequencies need to be tested according to 11.1 (i.e., $N_c > 3$), then all frequencies, configurations and modes shall be tested for all of the above test conditions.

Step 2: For the condition providing highest peak spatial-average SAR determined in Step 1, perform all tests described in 9.2 at all other test frequencies, i.e., lowest and highest frequencies. In addition, for all other conditions (device position, configuration and operational mode) where the peak spatial-average SAR value determined in Step 1 is within 3 dB of the applicable SAR limit, it is recommended that all other test frequencies shall be tested as well.

Step 3: Examine all data to determine the highest value of the peak spatial-average SAR found in Steps 1 to 2.



Picture 9.1 Block diagram of the tests to be performed

9.2 General Measurement Procedure

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2003. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

		≤ 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		$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{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 \leq the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
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 <i>reported</i> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.			

9.3 WCDMA Measurement Procedures for SAR

The following procedures are applicable to WCDMA handsets operating under 3GPP Release99, Release 5 and Release 6. The default test configuration is to measure SAR with an established radio link between the DUT and a communication test set using a 12.2kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations (DPCCH & DPDCH_n), HSDPA and HSPA (HSUPA/HSDPA) modes according to output power, exposure conditions and device operating capabilities. Both uplink and downlink should be configured with the same RMC or AMR, when required. SAR for Release 5 HSDPA and Release 6 HSPA are measured using the applicable FRC (fixed reference channel) and E-DCH reference channel configurations. Maximum output power is verified according to applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. When Maximum Power Reduction (MPR) is not implemented according to Cubic Metric (CM) requirements for Release 6 HSPA, the following procedures do not apply.

For Release 5 HSDPA Data Devices:

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{hs}	CM/dB
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15	15/15	64	12/15	24/25	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

For Release 6 HSPA Data Devices

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{hs}	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM (dB)	MPR (dB)	AG Index	E-TFCI
1	11/15	15/15	64	11/15	22/15	209/225	1039/225	4	1	1.5	1.5	20	75
2	6/15	15/15	64	6/15	12/15	12/15	12/15	4	1	1.5	1.5	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	4	2	1.5	1.5	15	92
4	2/15	15/15	64	2/15	4/15	4/15	56/75	4	1	1.5	1.5	17	71
5	15/15	15/15	64	15/15	24/15	30/15	134/15	4	1	1.5	1.5	21	81

Rel.8 DC-HSDPA (Cat 24)

SAR test exclusion for Rel.8 DC-HSDPA must satisfy the SAR test exclusion requirements of Rel.5 HSDPA. SAR test exclusion for DC-HSDPA devices is determined by power measurements according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to qualify for SAR test exclusion.

9.4 SAR Measurement for LTE

SAR tests for LTE are performed with a base station simulator, Rohde & Schwarz CMW500. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. All powers were measured with the CMW 500.

It is performed for conducted power and SAR based on the KDB941225 D05.

SAR is evaluated separately according to the following procedures for the different test positions in each exposure condition – head, body, body-worn accessories and other use conditions. The procedures in the following subsections are applied separately to test each LTE frequency band.

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 among 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.

TDD test:

TDD testing is performed using guidance from FCC KDB 941225 D05 and the SAR test guidance provided in April 2013 TCB works hop notes. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211.

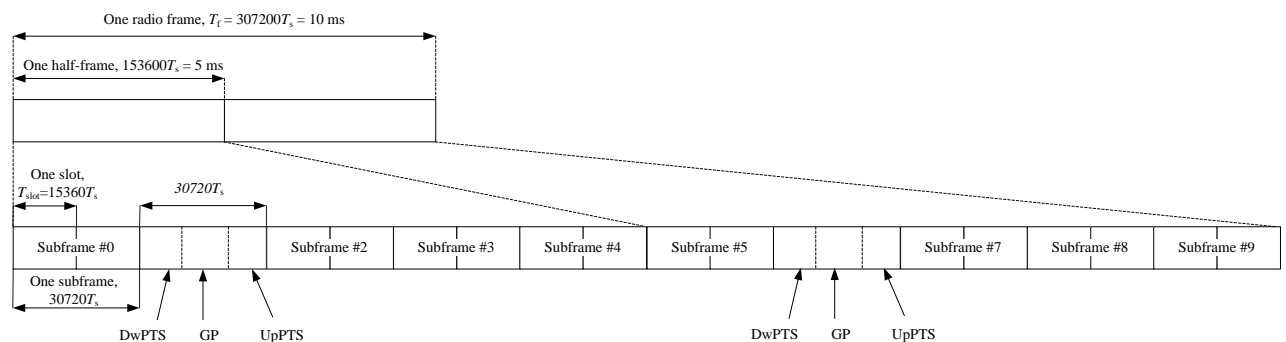


Figure 9.2: Frame structure type 2 (for 5 ms switch-point periodicity)

Table 9.1: 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 9.2: 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

Duty factor is calculated by:

Duty factor = uplink frame*6+UpPTS*2/one frame length

$$= (30720 \cdot T_s * 6 + 5120 \cdot T_s * 2) / 307200 \cdot T_s$$

$$= 0.633$$

9.5 Bluetooth & Wi-Fi Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable.

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

9.6 Power Drift

To control the output power stability during the SAR test, DASY5 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in section 14 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

10 Area Scan Based 1-g SAR

10.1 Requirement of KDB

According to the KDB447498 D01, when the implementation is based the specific polynomial fit algorithm as presented at the 29th Bioelectromagnetics Society meeting (2007) and the estimated 1-gSAR is ≤ 1.2 W/kg, a zoom scan measurement is not required provided it is also not needed for any other purpose; for example, if the peak SAR location required for simultaneous transmission SAR test exclusion can be determined accurately by the SAR system or manually to discriminate between distinctive peaks and scattered noisy SAR distributions from area scans.

There must not be any warning or alert messages due to various measurement concerns identified by the SAR system; for example, noise in measurements, peaks too close to scan boundary, peaks are too sharp, spatial resolution and uncertainty issues etc. The SAR system verification must also demonstrate that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR (See Annex B). When all the SAR results for each exposure condition in a frequency band and wireless mode are based on estimated 1-g SAR, the 1-g SAR for the highest SAR configuration must be determined by a zoom scan.

10.2 Fast SAR Algorithms

The approach is based on the area scan measurement applying a frequency dependent attenuation parameter. This attenuation parameter was empirically determined by analyzing a large number of phones. The MOTOROLA FAST SAR was developed and validated by the MOTOROLA Research Group in Ft. Lauderdale.

In the initial study, an approximation algorithm based on Linear fit was developed. The accuracy of the algorithm has been demonstrated across a broad frequency range (136-2450 MHz) and for both 1- and 10-g averaged SAR using a sample of 264 SAR measurements from 55 wireless handsets. For the sample size studied, the root-mean-squared errors of the algorithm are 1.2% and 5.8% for 1- and 10-g averaged SAR, respectively. The paper describing the algorithm in detail is expected to be published in August 2004 within the Special Issue of Transactions on MTT.

In the second step, the same research group optimized the fitting algorithm to an Polynomial fit whereby the frequency validity was extended to cover the range 30-6000MHz. Details of this study can be found in the BEMS 2007 Proceedings.

Both algorithms are implemented in DASY software.

11 Conducted Output Power

Table11.1: Summary of Receiver detection mechanism

Antenna	Receiver off+ Sensor off (DSI0)	Receiver off+ Hotspot on (DSI1)	Receiver on+ WLAN off (DSI2)	Receiver on+ WLAN on (DSI3)	Receiver off+ Sensor on+ WLAN off (DSI4)	Receiver off+ Sensor on+ WLAN on (DSI5)
Main Antenna	Power Level A1	Power Level B1	Power Level C1	Power Level D1	Power Level E1	Power Level F1

11.1 GSM Measurement result

During the process of testing, the EUT was controlled via Agilent Digital Radio Communication tester (E5515C) to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured peak output power should be greater and within 5% than EMI measurement.

**Table 11.1-1: The conducted power measurement results –GSM850
-Power Level A1/B1/C1/D1/E1/F1**

GSM 850 Speech (GMSK)	Measured timeslot-averaged output power (dBm)			Tune up	calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	32.04	32.01	31.93	33.50	/	/	/	/
GSM 850 GPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	32.07	31.99	31.90	33.50	-9.03	23.04	22.96	22.87
2 Txslots	31.46	31.40	31.32	32.50	-6.02	25.44	25.38	25.30
3 Txslots	29.88	29.84	29.78	30.50	-4.26	25.62	25.58	25.52
4 Txslots	28.82	28.79	28.70	29.50	-3.01	25.81	25.78	25.69
GSM 850 EGPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	31.99	31.94	31.87	33.50	-9.03	22.96	22.91	22.84
2 Txslots	31.40	31.36	31.30	32.50	-6.02	25.38	25.34	25.28
3 Txslots	29.84	29.80	29.76	30.50	-4.26	25.58	25.54	25.50
4 Txslots	28.79	28.75	28.69	29.50	-3.01	25.78	25.74	25.68
GSM 850 EGPRS (8PSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	26.74	27.28	26.80	27.50	-9.03	17.71	18.25	17.77
2 Txslots	25.17	25.49	25.47	26.50	-6.02	19.15	19.47	19.45
3Txslots	23.35	23.07	23.60	24.50	-4.26	19.09	18.81	19.34

4 Txslots	21.84	21.90	21.99	23.50	-3.01	18.83	18.89	18.98
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NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 4Txslots for GSM850.

**Table 11.1-2: The conducted power measurement results-GSM1900
-Power Level A1/B1/C1/D1/E1/F1**

PCS1900 Speech (GMSK)	Measured timeslot-averaged output power (dBm)			Tune up	calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	29.04	29.18	29.46	30.50	/	/	/	/
PCS1900 GPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	28.85	28.94	29.18	30.50	-9.03	19.82	19.91	20.15
2 Txslots	28.09	28.17	28.35	29.50	-6.02	22.07	22.15	22.33
3 Txslots	26.34	26.37	26.55	27.50	-4.26	22.08	22.11	22.29
4 Txslots	25.14	25.25	25.37	26.50	-3.01	22.13	22.24	22.36
PCS1900 EGPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	28.89	29.04	29.30	30.50	-9.03	19.86	20.01	20.27
2 Txslots	28.17	28.30	28.50	29.50	-6.02	22.15	22.28	22.48
3 Txslots	26.46	26.58	26.77	27.50	-4.26	22.20	22.32	22.51
4 Txslots	25.42	25.51	25.66	26.50	-3.01	22.41	22.50	22.65
PCS1900 EGPRS (8PSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	26.00	25.94	25.68	26.50	-9.03	16.97	16.91	16.65
2 Txslots	24.73	24.85	24.55	25.50	-6.02	18.71	18.83	18.53
3Txslots	22.43	22.72	22.33	23.50	-4.26	18.17	18.46	18.07
4 Txslots	21.31	21.33	21.04	22.50	-3.01	18.30	18.32	18.03

NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 4Txslots for GSM1900.

11.2 WCDMA Measurement result

Table 11.2-1: The conducted Power for WCDMA B2/B4 -Power Level A1/C1/D1

WCDMA1900	FDDII result (dBm)			Tune up
	9538/9938	9400/9800	9262/9662	
	(1907.6MHz)	(1880MHz)	(1852.4MHz)	
	22.90	23.09	23.14	24.00
HSUPA	20.52	20.69	20.83	21.50
	20.08	20.16	20.33	21.50
	20.05	20.18	20.34	21.50
	19.53	19.63	19.8	20.50
	20.95	21.12	21.27	22.00
DC-HSDPA	22.14	22.2	22.29	23.00
	21.23	21.42	21.54	23.00
	21.6	21.7	21.85	22.50
	21.58	21.66	21.78	22.50

WCDMA1700	FDDIV result (dBm)			Tune up
	1513/1738	1412/1637	1312/1537	
	(1752.6MHz)	(1732.4MHz)	(1712.4MHz)	
	22.62	22.61	22.66	24.00
HSUPA	20.15	20.11	19.63	21.50
	20.75	20.69	20.61	21.50
	20.72	20.64	20.62	21.50
	20.22	20.18	20.15	21.00
	21.68	21.62	21.56	22.50
DC-HSDPA	21.63	21.6	21.63	23.00
	21.8	21.81	21.72	23.00
	21.16	21.12	21.17	22.50
	21.09	21.07	20.93	22.50

Table 11.2-2: The conducted Power for WCDMA B2/B4 -Power Level B1/E1/F1

WCDMA1900	FDDII result (dBm)			Tune up
	9538/9938	9400/9800	9262/9662	
	(1907.6MHz)	(1880MHz)	(1852.4MHz)	
	20.88	20.98	20.91	22.00
HSUPA	18.39	18.41	18.36	19.00
	17.88	17.91	17.87	19.00
	17.91	17.95	17.92	19.00
	17.43	17.47	17.63	19.00
	18.93	18.99	18.95	19.00
DC-HSDPA	19.87	19.77	19.72	21.00
	19.72	19.7	19.69	21.00
	19.37	19.35	19.25	21.00
	19.34	19.3	19.19	21.00

WCDMA1700	FDDIV result (dBm)			Tune up
	1513/1738	1412/1637	1312/1537	
	(1752.6MHz)	(1732.4MHz)	(1712.4MHz)	
	20.66	20.62	20.69	22.00
HSUPA	18.41	18.42	18.49	19.00
	17.93	17.96	17.92	19.00
	17.93	17.96	17.96	19.00
	17.43	17.46	17.5	19.00
	18.88	18.94	18.93	19.00
DC-HSDPA	19.72	19.8	19.84	20.00
	19.71	19.78	19.83	20.00
	19.42	19.52	19.53	20.00
	19.43	19.47	19.5	20.00

Table 11.2-3: The conducted Power for WCDMA B5 -Power Level A1/B1/C1/D1/E1/F1

WCDMA850	FDDV result (dBm)			Tune up
	4233/4458	4183/4408	4132/4357	
	(846.6MHz)	(836.6MHz)	(826.4MHz)	
	22.89	22.87	22.85	24.00
HSUPA	19.78	20.36	20.37	21.00
	19.78	19.81	19.81	21.00
	19.78	19.81	19.78	21.00
	19.27	19.29	19.31	20.50
	20.72	20.8	20.82	22.00
DC-HSDPA	21.81	21.82	21.9	22.50
	21.64	21.71	21.73	22.50
	21.32	21.28	21.28	22.00
	21.23	21.27	21.29	22.00

11.3 LTE Measurement result

Maximum Target Power for Production Unit

Tune up (dBm)							
BAND	ANT	Power Level A1	Power Level B1	Power Level C1	Power Level D1	Power Level E1	Power Level F1
LTE B2	1	24.5	20	24.5	24.5	22	22
LTE B2	3	24.5	20	15	15	22	22
LTE B7	0	24.5	19	24.5	24.5	19	19
LTE B12	0	24.5	24.5	24.5	24.5	24.5	24.5
LTE B13	0	24.5	24.5	24.5	24.5	24.5	24.5
LTE B25	1	24.5	22	24.5	24.5	22	22
LTE B26	0	24.5	24.5	24.5	24.5	24.5	24.5
LTE B66	1	24.5	20	24.5	24.5	22	22
LTE B66	3	24.5	22	18	16	24.5	24.5
LTE B41 (PC3)	3	24.5	19	16	16	22	22
LTE B41 (PC2)	3	27.5	22.5	19.5	19.5	25.5	25.5
LTE B71	0	24.5	24.5	24.5	24.5	24.5	24.5

LTE B2 ANT3 A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	22.56	21.55	20.84
		1880 (18900)	22.51	21.54	20.78
		1850.7 (18607)	22.54	21.58	20.73
	1RB-Middle (3)	1909.3 (19193)	22.71	21.61	20.96
		1880 (18900)	22.64	21.59	20.94
		1850.7 (18607)	22.58	21.69	21.05
	1RB-Low (0)	1909.3 (19193)	22.55	21.53	20.62
		1880 (18900)	22.50	21.59	20.74
		1850.7 (18607)	22.54	21.63	20.94
	3RB-High (3)	1909.3 (19193)	21.55	20.53	19.88
		1880 (18900)	21.62	20.54	19.90
		1850.7 (18607)	21.49	20.49	19.71
	3RB-Middle (1)	1909.3 (19193)	21.62	20.59	19.76
		1880 (18900)	21.59	20.53	19.76
		1850.7 (18607)	21.56	20.62	19.94
	3RB-Low (0)	1909.3 (19193)	21.64	20.59	19.80
		1880 (18900)	21.49	20.44	19.65
		1850.7 (18607)	21.59	20.58	19.94
	6RB (0)	1909.3 (19193)	21.61	20.56	19.82
		1880 (18900)	21.50	20.58	19.72
		1850.7 (18607)	21.50	20.53	19.88
3MHz	1RB-High (14)	1908.5 (19185)	22.58	21.56	20.85
		1880 (18900)	22.52	21.55	20.85
		1851.5 (18615)	22.55	21.56	20.77
	1RB-Middle (7)	1908.5 (19185)	22.70	21.62	20.77
		1880 (18900)	22.64	21.56	20.95
		1851.5 (18615)	22.60	21.67	21.08
	1RB-Low (0)	1908.5 (19185)	22.55	21.55	20.77
		1880 (18900)	22.57	21.52	20.65
		1851.5 (18615)	22.53	21.63	20.83
	8RB-High (7)	1908.5 (19185)	21.59	20.57	19.88
		1880 (18900)	21.60	20.54	19.83
		1851.5 (18615)	21.52	20.57	19.82
	8RB-Middle (4)	1908.5 (19185)	21.59	20.56	19.97
		1880 (18900)	21.63	20.52	19.91
		1851.5 (18615)	21.54	20.59	19.96
	8RB-Low (0)	1908.5 (19185)	21.62	20.59	19.74
		1880 (18900)	21.52	20.52	19.72
		1851.5 (18615)	21.59	20.59	19.76
15RB (0)	1908.5 (19185)	21.61	20.57	19.98	
	1880 (18900)	21.51	20.59	19.77	
	1851.5 (18615)	21.52	20.56	19.86	
5MHz	1RB-High (24)	1907.5 (19175)	22.59	21.54	20.70
		1880 (18900)	22.59	21.57	20.63
		1852.5 (18625)	22.54	21.56	20.87
	1RB-Middle (12)	1907.5 (19175)	22.71	21.61	20.98
		1880 (18900)	22.66	21.58	20.83
		1852.5 (18625)	22.62	21.67	20.97
	1RB-Low (0)	1907.5 (19175)	22.55	21.55	20.64
		1880 (18900)	22.57	21.51	20.76
		1852.5 (18625)	22.51	21.62	21.00
	12RB-High (13)	1907.5 (19175)	21.56	20.55	19.79
		1880 (18900)	21.62	20.53	19.70
		1852.5 (18625)	21.52	20.57	19.75
	12RB-Middle (6)	1907.5 (19175)	21.63	20.58	19.77
		1880 (18900)	21.63	20.55	19.70
		1852.5 (18625)	21.54	20.62	19.98
	12RB-Low (0)	1907.5 (19175)	21.62	20.59	19.98
		1880 (18900)	21.53	20.52	19.59
		1852.5 (18625)	21.57	20.59	19.80
25RB (0)	1907.5 (19175)	21.62	20.58	19.76	
	1880 (18900)	21.54	20.47	19.63	
	1852.5 (18625)	21.54	20.53	19.85	

10MHz	1RB-High (49)	1905 (19150)	22.58	21.46	20.69
		1880 (18900)	22.53	21.46	20.74
		1855 (18650)	22.55	21.55	20.74
	1RB-Middle (24)	1905 (19150)	22.70	21.63	20.93
		1880 (18900)	22.65	21.57	20.86
		1855 (18650)	22.59	21.68	20.96
	1RB-Low (0)	1905 (19150)	22.55	21.54	20.82
		1880 (18900)	22.57	21.51	20.78
		1855 (18650)	22.53	21.61	20.81
	25RB-High (25)	1905 (19150)	21.59	20.54	19.94
		1880 (18900)	21.63	20.55	19.91
		1855 (18650)	21.50	20.50	19.70
	25RB-Middle (12)	1905 (19150)	21.59	20.56	19.74
		1880 (18900)	21.61	20.56	19.78
		1855 (18650)	21.57	20.59	19.77
	25RB-Low (0)	1905 (19150)	21.64	20.62	19.97
		1880 (18900)	21.50	20.42	19.86
		1855 (18650)	21.57	20.59	19.90
	50RB (0)	1905 (19150)	21.61	20.57	19.89
		1880 (18900)	21.54	20.47	19.74
		1855 (18650)	21.53	20.54	19.71
15MHz	1RB-High (74)	1902.5 (19125)	22.57	21.46	20.85
		1880 (18900)	22.52	21.44	20.81
		1857.5 (18675)	22.51	21.57	20.73
	1RB-Middle (37)	1902.5 (19125)	22.68	21.61	21.00
		1880 (18900)	22.66	21.57	20.87
		1857.5 (18675)	22.59	21.67	20.92
	1RB-Low (0)	1902.5 (19125)	22.58	21.41	20.66
		1880 (18900)	22.50	21.42	20.80
		1857.5 (18675)	22.53	21.61	20.86
	36RB-High (38)	1902.5 (19125)	21.58	20.54	19.81
		1880 (18900)	21.59	20.56	19.67
		1857.5 (18675)	21.50	20.51	19.74
	36RB-Middle (19)	1902.5 (19125)	21.62	20.58	19.87
		1880 (18900)	21.59	20.54	19.96
		1857.5 (18675)	21.55	20.59	19.83
	36RB-Low (0)	1902.5 (19125)	21.63	20.59	19.98
		1880 (18900)	21.53	20.42	19.71
		1857.5 (18675)	21.59	20.61	19.97
	75RB (0)	1902.5 (19125)	21.63	20.57	19.76
		1880 (18900)	21.51	20.46	19.79
		1857.5 (18675)	21.54	20.55	19.95
20MHz	1RB-High (99)	1900 (19100)	22.71	21.59	20.99
		1880 (18900)	22.64	21.59	20.86
		1860 (18700)	22.66	21.70	21.05
	1RB-Middle (50)	1900 (19100)	22.83	21.74	20.97
		1880 (18900)	22.78	21.70	21.04
		1860 (18700)	22.73	21.82	20.98
	1RB-Low (0)	1900 (19100)	22.70	21.56	20.94
		1880 (18900)	22.61	21.54	20.90
		1860 (18700)	22.66	21.74	21.10
	50RB-High (50)	1900 (19100)	21.70	20.68	19.99
		1880 (18900)	21.74	20.67	19.90
		1860 (18700)	21.64	20.62	19.87
	50RB-Middle (25)	1900 (19100)	21.74	20.70	19.98
		1880 (18900)	21.74	20.67	19.88
		1860 (18700)	21.69	20.73	19.95
	50RB-Low (0)	1900 (19100)	21.76	20.73	20.01
		1880 (18900)	21.64	20.57	19.90
		1860 (18700)	21.72	20.72	20.10
	100RB (0)	1900 (19100)	21.75	20.71	20.01
		1880 (18900)	21.65	20.61	19.92
		1860 (18700)	21.65	20.67	19.96

LTE B2 ANT3 C1/D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1909.3 (19193)	14.35	13.38	14.20
		1880 (18900)	14.38	13.42	14.22
		1850.7 (18607)	14.44	13.49	14.28
	1RB-Middle (3)	1909.3 (19193)	14.50	13.54	14.32
		1880 (18900)	14.57	13.60	14.41
		1850.7 (18607)	14.61	13.63	14.42
	1RB-Low (0)	1909.3 (19193)	14.40	13.41	14.22
		1880 (18900)	14.44	13.52	14.25
		1850.7 (18607)	14.54	13.49	14.37
	3RB-High (3)	1909.3 (19193)	13.39	12.38	13.24
		1880 (18900)	13.45	12.47	13.28
		1850.7 (18607)	13.60	12.61	13.44
	3RB-Middle (1)	1909.3 (19193)	13.45	12.43	13.27
		1880 (18900)	13.48	12.50	13.29
		1850.7 (18607)	13.57	12.56	13.41
	3RB-Low (0)	1909.3 (19193)	13.43	12.41	13.26
		1880 (18900)	13.54	12.52	13.39
		1850.7 (18607)	13.63	12.67	13.44
6RB (0)	1909.3 (19193)	13.38	12.36	13.20	
	1880 (18900)	13.47	12.52	13.27	
	1850.7 (18607)	13.66	12.64	13.46	
3MHz	1RB-High (14)	1908.5 (19185)	14.35	13.38	14.15
		1880 (18900)	14.38	13.42	14.22
		1851.5 (18615)	14.44	13.49	14.26
	1RB-Middle (7)	1908.5 (19185)	14.50	13.54	14.33
		1880 (18900)	14.57	13.60	14.37
		1851.5 (18615)	14.61	13.63	14.45
	1RB-Low (0)	1908.5 (19185)	14.40	13.41	14.23
		1880 (18900)	14.44	13.52	14.24
		1851.5 (18615)	14.54	13.49	14.37
	8RB-High (7)	1908.5 (19185)	13.39	12.38	13.22
		1880 (18900)	13.45	12.47	13.26
		1851.5 (18615)	13.60	12.61	13.42
	8RB-Middle (4)	1908.5 (19185)	13.45	12.43	13.26
		1880 (18900)	13.48	12.50	13.29
		1851.5 (18615)	13.57	12.56	13.42
	8RB-Low (0)	1908.5 (19185)	13.43	12.41	13.24
		1880 (18900)	13.54	12.52	13.35
		1851.5 (18615)	13.63	12.67	13.47
15RB (0)	1908.5 (19185)	13.38	12.36	13.19	
	1880 (18900)	13.47	12.52	13.31	
	1851.5 (18615)	13.66	12.64	13.48	
5MHz	1RB-High (24)	1907.5 (19175)	14.35	13.38	14.17
		1880 (18900)	14.38	13.42	14.23
		1852.5 (18625)	14.44	13.49	14.25
	1RB-Middle (12)	1907.5 (19175)	14.50	13.54	14.30
		1880 (18900)	14.57	13.60	14.40
		1852.5 (18625)	14.61	13.63	14.42
	1RB-Low (0)	1907.5 (19175)	14.40	13.41	14.21
		1880 (18900)	14.44	13.52	14.26
		1852.5 (18625)	14.54	13.49	14.35
	12RB-High (13)	1907.5 (19175)	13.39	12.38	13.20
		1880 (18900)	13.45	12.47	13.28
		1852.5 (18625)	13.60	12.61	13.42
	12RB-Middle (6)	1907.5 (19175)	13.45	12.43	13.29
		1880 (18900)	13.48	12.50	13.28
		1852.5 (18625)	13.57	12.56	13.41
	12RB-Low (0)	1907.5 (19175)	13.43	12.41	13.26
		1880 (18900)	13.54	12.52	13.37
		1852.5 (18625)	13.63	12.67	13.47
25RB (0)	1907.5 (19175)	13.38	12.36	13.20	
	1880 (18900)	13.47	12.52	13.28	
	1852.5 (18625)	13.66	12.64	13.49	

10MHz	1RB-High (49)	1905 (19150)	14.35	13.38	14.17
		1880 (18900)	14.38	13.42	14.22
		1855 (18650)	14.44	13.49	14.27
	1RB-Middle (24)	1905 (19150)	14.50	13.54	14.33
		1880 (18900)	14.57	13.60	14.37
		1855 (18650)	14.61	13.63	14.44
	1RB-Low (0)	1905 (19150)	14.40	13.41	14.25
		1880 (18900)	14.44	13.52	14.26
		1855 (18650)	14.54	13.49	14.36
	25RB-High (25)	1905 (19150)	13.39	12.38	13.19
		1880 (18900)	13.45	12.47	13.30
		1855 (18650)	13.60	12.61	13.42
	25RB-Middle (12)	1905 (19150)	13.45	12.43	13.25
		1880 (18900)	13.48	12.50	13.30
		1855 (18650)	13.57	12.56	13.38
	25RB-Low (0)	1905 (19150)	13.43	12.41	13.24
		1880 (18900)	13.54	12.52	13.34
		1855 (18650)	13.63	12.67	13.46
50RB (0)	1905 (19150)	13.38	12.36	13.22	
	1880 (18900)	13.47	12.52	13.28	
	1855 (18650)	13.66	12.64	13.48	
15MHz	1RB-High (74)	1902.5 (19125)	14.35	13.38	14.18
		1880 (18900)	14.38	13.42	14.18
		1857.5 (18675)	14.44	13.49	14.24
	1RB-Middle (37)	1902.5 (19125)	14.50	13.54	14.33
		1880 (18900)	14.57	13.60	14.37
		1857.5 (18675)	14.61	13.63	14.42
	1RB-Low (0)	1902.5 (19125)	14.40	13.41	14.22
		1880 (18900)	14.44	13.52	14.27
		1857.5 (18675)	14.54	13.49	14.38
	36RB-High (38)	1902.5 (19125)	13.39	12.38	13.19
		1880 (18900)	13.45	12.47	13.25
		1857.5 (18675)	13.60	12.61	13.40
	36RB-Middle (19)	1902.5 (19125)	13.45	12.43	13.25
		1880 (18900)	13.48	12.50	13.32
		1857.5 (18675)	13.57	12.56	13.41
	36RB-Low (0)	1902.5 (19125)	13.43	12.41	13.25
		1880 (18900)	13.54	12.52	13.34
		1857.5 (18675)	13.63	12.67	13.45
75RB (0)	1902.5 (19125)	13.38	12.36	13.19	
	1880 (18900)	13.47	12.52	13.28	
	1857.5 (18675)	13.66	12.64	13.51	
20MHz	1RB-High (99)	1900 (19100)	14.35	13.38	14.35
		1880 (18900)	14.38	13.42	14.38
		1860 (18700)	14.44	13.49	14.44
	1RB-Middle (50)	1900 (19100)	14.50	13.54	14.50
		1880 (18900)	14.57	13.60	14.57
		1860 (18700)	14.61	13.63	14.61
	1RB-Low (0)	1900 (19100)	14.40	13.41	14.40
		1880 (18900)	14.44	13.52	14.44
		1860 (18700)	14.54	13.49	14.54
	50RB-High (50)	1900 (19100)	13.39	12.38	13.39
		1880 (18900)	13.45	12.47	13.45
		1860 (18700)	13.60	12.61	13.60
	50RB-Middle (25)	1900 (19100)	13.45	12.43	13.45
		1880 (18900)	13.48	12.50	13.48
		1860 (18700)	13.57	12.56	13.57
	50RB-Low (0)	1900 (19100)	13.43	12.41	13.43
		1880 (18900)	13.54	12.52	13.54
		1860 (18700)	13.63	12.67	13.63
100RB (0)	1900 (19100)	13.38	12.36	13.38	
	1880 (18900)	13.47	12.52	13.47	
	1860 (18700)	13.66	12.64	13.66	

1.4MHz	1RB-High (5)	1909.3 (19193)	19.20	18.33	17.61
		1880 (18900)	19.20	18.23	17.63
		1850.7 (18607)	19.25	18.31	17.64
	1RB-Middle (3)	1909.3 (19193)	19.33	18.31	17.62
		1880 (18900)	19.39	18.44	17.70
		1850.7 (18607)	19.43	18.44	17.74
	1RB-Low (0)	1909.3 (19193)	19.22	18.35	17.62
		1880 (18900)	19.35	18.32	17.60
		1850.7 (18607)	19.35	18.33	17.70
	3RB-High (3)	1909.3 (19193)	18.23	17.24	16.45
		1880 (18900)	18.32	17.33	16.61
		1850.7 (18607)	18.43	17.44	16.63
	3RB-Middle (1)	1909.3 (19193)	18.33	17.34	16.54
		1880 (18900)	18.31	17.33	16.73
		1850.7 (18607)	18.43	17.44	16.60
3RB-Low (0)	1909.3 (19193)	18.34	17.20	16.51	
	1880 (18900)	18.33	17.30	16.51	
	1850.7 (18607)	18.50	17.41	16.82	
6RB (0)	1909.3 (19193)	18.20	17.25	16.52	
	1880 (18900)	18.31	17.34	16.64	
	1850.7 (18607)	18.54	17.45	16.72	
3MHz	1RB-High (14)	1908.5 (19185)	19.22	18.33	17.63
		1880 (18900)	19.24	18.23	17.60
		1851.5 (18615)	19.23	18.35	17.60
	1RB-Middle (7)	1908.5 (19185)	19.34	18.34	17.65
		1880 (18900)	19.38	18.40	17.72
		1851.5 (18615)	19.41	18.45	17.73
	1RB-Low (0)	1908.5 (19185)	19.22	18.33	17.65
		1880 (18900)	19.30	18.33	17.65
		1851.5 (18615)	19.33	18.31	17.72
	8RB-High (7)	1908.5 (19185)	18.22	17.20	16.42
		1880 (18900)	18.31	17.31	16.63
		1851.5 (18615)	18.42	17.40	16.63
	8RB-Middle (4)	1908.5 (19185)	18.31	17.35	16.53
		1880 (18900)	18.35	17.35	16.71
		1851.5 (18615)	18.42	17.42	16.60
8RB-Low (0)	1908.5 (19185)	18.30	17.22	16.50	
	1880 (18900)	18.32	17.30	16.53	
	1851.5 (18615)	18.53	17.40	16.84	
15RB (0)	1908.5 (19185)	18.21	17.21	16.53	
	1880 (18900)	18.31	17.30	16.62	
	1851.5 (18615)	18.52	17.45	16.72	
5MHz	1RB-High (24)	1907.5 (19175)	19.21	18.33	17.62
		1880 (18900)	19.22	18.22	17.63
		1852.5 (18625)	19.24	18.31	17.63
	1RB-Middle (12)	1907.5 (19175)	19.34	18.30	17.65
		1880 (18900)	19.39	18.42	17.73
		1852.5 (18625)	19.41	18.41	17.74
	1RB-Low (0)	1907.5 (19175)	19.24	18.35	17.62
		1880 (18900)	19.30	18.32	17.64
		1852.5 (18625)	19.35	18.35	17.72
	12RB-High (13)	1907.5 (19175)	18.22	17.24	16.41
		1880 (18900)	18.31	17.31	16.63
		1852.5 (18625)	18.41	17.42	16.61
	12RB-Middle (6)	1907.5 (19175)	18.33	17.30	16.53
		1880 (18900)	18.34	17.33	16.73
		1852.5 (18625)	18.45	17.41	16.60
12RB-Low (0)	1907.5 (19175)	18.35	17.21	16.53	
	1880 (18900)	18.32	17.32	16.50	
	1852.5 (18625)	18.54	17.44	16.80	
25RB (0)	1907.5 (19175)	18.22	17.21	16.50	
	1880 (18900)	18.34	17.35	16.60	
	1852.5 (18625)	18.54	17.40	16.72	

10MHz	1RB-High (49)	1905 (19150)	19.24	18.30	17.64
		1880 (18900)	19.24	18.21	17.63
		1855 (18650)	19.25	18.34	17.63
	1RB-Middle (24)	1905 (19150)	19.32	18.32	17.64
		1880 (18900)	19.40	18.40	17.73
		1855 (18650)	19.40	18.45	17.75
	1RB-Low (0)	1905 (19150)	19.21	18.31	17.64
		1880 (18900)	19.35	18.35	17.65
		1855 (18650)	19.35	18.34	17.74
	25RB-High (25)	1905 (19150)	18.25	17.24	16.42
		1880 (18900)	18.33	17.33	16.65
		1855 (18650)	18.42	17.40	16.60
	25RB-Middle (12)	1905 (19150)	18.34	17.32	16.50
		1880 (18900)	18.33	17.35	16.75
		1855 (18650)	18.43	17.44	16.65
	25RB-Low (0)	1905 (19150)	18.35	17.21	16.53
		1880 (18900)	18.30	17.35	16.50
		1855 (18650)	18.51	17.43	16.80
50RB (0)	1905 (19150)	18.25	17.23	16.51	
	1880 (18900)	18.33	17.34	16.62	
	1855 (18650)	18.55	17.40	16.74	
15MHz	1RB-High (74)	1902.5 (19125)	19.20	18.32	17.61
		1880 (18900)	19.21	18.24	17.65
		1857.5 (18675)	19.21	18.35	17.61
	1RB-Middle (37)	1902.5 (19125)	19.32	18.35	17.62
		1880 (18900)	19.40	18.42	17.72
		1857.5 (18675)	19.42	18.41	17.75
	1RB-Low (0)	1902.5 (19125)	19.23	18.35	17.63
		1880 (18900)	19.30	18.31	17.64
		1857.5 (18675)	19.33	18.33	17.75
	36RB-High (38)	1902.5 (19125)	18.24	17.22	16.40
		1880 (18900)	18.35	17.33	16.63
		1857.5 (18675)	18.45	17.41	16.60
	36RB-Middle (19)	1902.5 (19125)	18.31	17.33	16.50
		1880 (18900)	18.31	17.33	16.70
		1857.5 (18675)	18.42	17.43	16.65
	36RB-Low (0)	1902.5 (19125)	18.33	17.21	16.51
		1880 (18900)	18.34	17.31	16.53
		1857.5 (18675)	18.55	17.40	16.81
75RB (0)	1902.5 (19125)	18.23	17.22	16.55	
	1880 (18900)	18.33	17.31	16.61	
	1857.5 (18675)	18.54	17.42	16.75	
20MHz	1RB-High (99)	1900 (19100)	19.40	18.50	17.80
		1880 (18900)	19.40	18.40	17.80
		1860 (18700)	19.40	18.50	17.80
	1RB-Middle (50)	1900 (19100)	19.50	18.50	17.80
		1880 (18900)	19.57	18.60	17.90
		1860 (18700)	19.60	18.60	17.90
	1RB-Low (0)	1900 (19100)	19.40	18.50	17.80
		1880 (18900)	19.50	18.50	17.80
		1860 (18700)	19.50	18.50	17.90
	50RB-High (50)	1900 (19100)	18.40	17.40	16.60
		1880 (18900)	18.50	17.50	16.80
		1860 (18700)	18.60	17.60	16.80
	50RB-Middle (25)	1900 (19100)	18.50	17.50	16.70
		1880 (18900)	18.50	17.50	16.90
		1860 (18700)	18.60	17.60	16.80
	50RB-Low (0)	1900 (19100)	18.50	17.40	16.70
		1880 (18900)	18.50	17.50	16.70
		1860 (18700)	18.70	17.60	17.00
100RB (0)	1900 (19100)	18.40	17.40	16.70	
	1880 (18900)	18.50	17.50	16.80	
	1860 (18700)	18.70	17.60	16.90	

LTE B2 ANT3 E1/F1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	256QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	21.29	20.34	19.61
		1880 (18900)	21.22	20.31	19.70
		1850.7 (18607)	21.29	20.34	19.70
	1RB-Middle (3)	1909.3 (19193)	21.39	20.42	19.74
		1880 (18900)	21.40	20.46	19.82
		1850.7 (18607)	21.40	20.50	19.85
	1RB-Low (0)	1909.3 (19193)	21.24	20.31	19.61
		1880 (18900)	21.29	20.37	19.66
		1850.7 (18607)	21.36	20.36	19.63
	3RB-High (3)	1909.3 (19193)	20.30	19.25	18.67
		1880 (18900)	20.34	19.32	18.54
		1850.7 (18607)	20.47	19.45	18.69
	3RB-Middle (1)	1909.3 (19193)	20.36	19.34	18.60
		1880 (18900)	20.35	19.41	18.60
		1850.7 (18607)	20.46	19.46	18.83
	3RB-Low (0)	1909.3 (19193)	20.33	19.33	18.49
		1880 (18900)	20.39	19.33	18.70
		1850.7 (18607)	20.55	19.56	18.91
	6RB (0)	1909.3 (19193)	20.31	19.31	18.55
		1880 (18900)	20.30	19.31	18.73
		1850.7 (18607)	20.44	19.52	18.87
3MHz	1RB-High (14)	1908.5 (19185)	21.27	20.34	19.59
		1880 (18900)	21.24	20.31	19.68
		1851.5 (18615)	21.30	20.33	19.68
	1RB-Middle (7)	1908.5 (19185)	21.39	20.42	19.75
		1880 (18900)	21.42	20.47	19.79
		1851.5 (18615)	21.43	20.47	19.86
	1RB-Low (0)	1908.5 (19185)	21.26	20.31	19.62
		1880 (18900)	21.29	20.36	19.66
		1851.5 (18615)	21.31	20.41	19.64
	8RB-High (7)	1908.5 (19185)	20.32	19.28	18.64
		1880 (18900)	20.33	19.30	18.54
		1851.5 (18615)	20.49	19.43	18.66
	8RB-Middle (4)	1908.5 (19185)	20.37	19.35	18.61
		1880 (18900)	20.37	19.39	18.63
		1851.5 (18615)	20.46	19.46	18.81
	8RB-Low (0)	1908.5 (19185)	20.33	19.31	18.52
		1880 (18900)	20.38	19.31	18.66
		1851.5 (18615)	20.52	19.52	18.93
	15RB (0)	1908.5 (19185)	20.29	19.31	18.55
		1880 (18900)	20.35	19.32	18.73
		1851.5 (18615)	20.45	19.49	18.86
5MHz	1RB-High (24)	1907.5 (19175)	21.29	20.34	19.64
		1880 (18900)	21.23	20.27	19.67
		1852.5 (18625)	21.28	20.33	19.72
	1RB-Middle (12)	1907.5 (19175)	21.40	20.45	19.77
		1880 (18900)	21.44	20.47	19.78
		1852.5 (18625)	21.41	20.46	19.86
	1RB-Low (0)	1907.5 (19175)	21.24	20.32	19.66
		1880 (18900)	21.28	20.34	19.69
		1852.5 (18625)	21.34	20.37	19.60
	12RB-High (13)	1907.5 (19175)	20.30	19.25	18.63
		1880 (18900)	20.36	19.28	18.55
		1852.5 (18625)	20.46	19.42	18.66
	12RB-Middle (6)	1907.5 (19175)	20.36	19.31	18.61
		1880 (18900)	20.35	19.38	18.64
		1852.5 (18625)	20.47	19.43	18.82
	12RB-Low (0)	1907.5 (19175)	20.36	19.28	18.51
		1880 (18900)	20.35	19.31	18.65
		1852.5 (18625)	20.50	19.53	18.90
	25RB (0)	1907.5 (19175)	20.28	19.29	18.56
		1880 (18900)	20.35	19.33	18.71
		1852.5 (18625)	20.45	19.48	18.86

10MHz	1RB-High (49)	1905 (19150)	21.27	20.31	19.62
		1880 (18900)	21.23	20.29	19.69
		1855 (18650)	21.28	20.37	19.71
	1RB-Middle (24)	1905 (19150)	21.36	20.46	19.74
		1880 (18900)	21.41	20.45	19.81
		1855 (18650)	21.40	20.46	19.85
	1RB-Low (0)	1905 (19150)	21.24	20.34	19.64
		1880 (18900)	21.28	20.35	19.69
		1855 (18650)	21.31	20.38	19.61
	25RB-High (25)	1905 (19150)	20.32	19.25	18.62
		1880 (18900)	20.34	19.29	18.55
		1855 (18650)	20.44	19.43	18.64
	25RB-Middle (12)	1905 (19150)	20.34	19.32	18.58
		1880 (18900)	20.38	19.37	18.62
		1855 (18650)	20.42	19.45	18.79
	25RB-Low (0)	1905 (19150)	20.34	19.30	18.49
		1880 (18900)	20.36	19.32	18.65
		1855 (18650)	20.50	19.56	18.92
50RB (0)	1905 (19150)	20.27	19.31	18.51	
	1880 (18900)	20.33	19.34	18.68	
	1855 (18650)	20.47	19.51	18.86	
15MHz	1RB-High (74)	1902.5 (19125)	21.25	20.30	19.64
		1880 (18900)	21.23	20.27	19.71
		1857.5 (18675)	21.32	20.33	19.68
	1RB-Middle (37)	1902.5 (19125)	21.35	20.41	19.76
		1880 (18900)	21.40	20.44	19.82
		1857.5 (18675)	21.43	20.49	19.86
	1RB-Low (0)	1902.5 (19125)	21.26	20.30	19.63
		1880 (18900)	21.30	20.38	19.70
		1857.5 (18675)	21.34	20.36	19.63
	36RB-High (38)	1902.5 (19125)	20.31	19.24	18.63
		1880 (18900)	20.32	19.29	18.59
		1857.5 (18675)	20.44	19.44	18.65
	36RB-Middle (19)	1902.5 (19125)	20.34	19.30	18.62
		1880 (18900)	20.37	19.41	18.63
		1857.5 (18675)	20.46	19.42	18.83
	36RB-Low (0)	1902.5 (19125)	20.37	19.30	18.49
		1880 (18900)	20.35	19.34	18.66
		1857.5 (18675)	20.54	19.51	18.89
75RB (0)	1902.5 (19125)	20.27	19.29	18.51	
	1880 (18900)	20.34	19.31	18.71	
	1857.5 (18675)	20.48	19.53	18.87	
20MHz	1RB-High (99)	1900 (19100)	21.44	20.49	19.79
		1880 (18900)	21.42	20.47	19.86
		1860 (18700)	21.48	20.53	19.87
	1RB-Middle (50)	1900 (19100)	21.55	20.61	19.94
		1880 (18900)	21.59	20.64	19.98
		1860 (18700)	21.60	20.66	20.05
	1RB-Low (0)	1900 (19100)	21.42	20.50	19.81
		1880 (18900)	21.45	20.53	19.86
		1860 (18700)	21.51	20.56	19.80
	50RB-High (50)	1900 (19100)	20.50	19.44	18.82
		1880 (18900)	20.52	19.48	18.74
		1860 (18700)	20.64	19.61	18.84
	50RB-Middle (25)	1900 (19100)	20.53	19.50	18.78
		1880 (18900)	20.54	19.57	18.79
		1860 (18700)	20.62	19.61	18.99
	50RB-Low (0)	1900 (19100)	20.52	19.48	18.69
		1880 (18900)	20.54	19.51	18.85
		1860 (18700)	20.70	19.71	19.08
100RB (0)	1900 (19100)	20.47	19.46	18.71	
	1880 (18900)	20.50	19.51	18.88	
	1860 (18700)	20.64	19.68	19.04	

LTE B2 ANT1 B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1909.3 (19193)	19.32	18.37	17.55
		1880 (18900)	19.26	18.35	17.62
		1850.7 (18607)	19.32	18.44	17.69
	1RB-Middle (3)	1909.3 (19193)	19.33	18.46	17.65
		1880 (18900)	19.42	18.50	17.70
		1850.7 (18607)	19.48	18.57	17.82
	1RB-Low (0)	1909.3 (19193)	19.25	18.37	17.58
		1880 (18900)	19.35	18.45	17.64
		1850.7 (18607)	19.48	18.54	17.85
	3RB-High (3)	1909.3 (19193)	18.29	17.28	16.51
		1880 (18900)	18.34	17.36	16.68
		1850.7 (18607)	18.43	17.48	16.82
	3RB-Middle (1)	1909.3 (19193)	18.37	17.40	16.67
		1880 (18900)	18.43	17.41	16.64
		1850.7 (18607)	18.50	17.51	16.76
	3RB-Low (0)	1909.3 (19193)	18.39	17.36	16.73
		1880 (18900)	18.39	17.41	16.72
		1850.7 (18607)	18.57	17.56	16.87
	6RB (0)	1909.3 (19193)	18.31	17.34	16.66
		1880 (18900)	18.36	17.37	16.67
		1850.7 (18607)	18.51	17.50	16.75
3MHz	1RB-High (14)	1908.5 (19185)	19.31	18.37	17.54
		1880 (18900)	19.28	18.33	17.67
		1851.5 (18615)	19.33	18.39	17.69
	1RB-Middle (7)	1908.5 (19185)	19.35	18.46	17.65
		1880 (18900)	19.45	18.49	17.72
		1851.5 (18615)	19.49	18.53	17.81
	1RB-Low (0)	1908.5 (19185)	19.24	18.34	17.58
		1880 (18900)	19.35	18.44	17.67
		1851.5 (18615)	19.51	18.51	17.88
	8RB-High (7)	1908.5 (19185)	18.24	17.28	16.49
		1880 (18900)	18.35	17.41	16.70
		1851.5 (18615)	18.46	17.49	16.77
	8RB-Middle (4)	1908.5 (19185)	18.37	17.37	16.67
		1880 (18900)	18.41	17.42	16.65
		1851.5 (18615)	18.49	17.53	16.76
	8RB-Low (0)	1908.5 (19185)	18.36	17.37	16.71
		1880 (18900)	18.41	17.39	16.72
		1851.5 (18615)	18.59	17.60	16.89
	15RB (0)	1908.5 (19185)	18.31	17.35	16.68
		1880 (18900)	18.33	17.36	16.69
		1851.5 (18615)	18.51	17.51	16.76
5MHz	1RB-High (24)	1907.5 (19175)	19.32	18.33	17.54
		1880 (18900)	19.26	18.34	17.66
		1852.5 (18625)	19.36	18.41	17.70
	1RB-Middle (12)	1907.5 (19175)	19.35	18.41	17.61
		1880 (18900)	19.41	18.49	17.72
		1852.5 (18625)	19.51	18.54	17.78
	1RB-Low (0)	1907.5 (19175)	19.25	18.35	17.59
		1880 (18900)	19.40	18.40	17.66
		1852.5 (18625)	19.47	18.55	17.86
	12RB-High (13)	1907.5 (19175)	18.24	17.30	16.49
		1880 (18900)	18.36	17.36	16.67
		1852.5 (18625)	18.44	17.50	16.80
	12RB-Middle (6)	1907.5 (19175)	18.37	17.35	16.64
		1880 (18900)	18.43	17.42	16.63
		1852.5 (18625)	18.48	17.50	16.78
	12RB-Low (0)	1907.5 (19175)	18.36	17.38	16.70
		1880 (18900)	18.41	17.40	16.73
		1852.5 (18625)	18.57	17.56	16.89
	25RB (0)	1907.5 (19175)	18.29	17.34	16.63
		1880 (18900)	18.35	17.36	16.64
		1852.5 (18625)	18.47	17.52	16.76

10MHz	1RB-High (49)	1905 (19150)	19.29	18.34	17.58
		1880 (18900)	19.28	18.35	17.62
		1855 (18650)	19.33	18.44	17.69
	1RB-Middle (24)	1905 (19150)	19.35	18.44	17.61
		1880 (18900)	19.43	18.50	17.68
		1855 (18650)	19.49	18.55	17.79
	1RB-Low (0)	1905 (19150)	19.25	18.36	17.60
		1880 (18900)	19.40	18.41	17.65
		1855 (18650)	19.50	18.51	17.88
	25RB-High (25)	1905 (19150)	18.27	17.30	16.53
		1880 (18900)	18.38	17.37	16.66
		1855 (18650)	18.43	17.48	16.81
	25RB-Middle (12)	1905 (19150)	18.34	17.35	16.66
		1880 (18900)	18.41	17.41	16.64
		1855 (18650)	18.47	17.48	16.76
	25RB-Low (0)	1905 (19150)	18.39	17.41	16.73
		1880 (18900)	18.42	17.43	16.75
		1855 (18650)	18.55	17.60	16.86
50RB (0)	1905 (19150)	18.31	17.34	16.64	
	1880 (18900)	18.33	17.34	16.65	
	1855 (18650)	18.50	17.48	16.77	
15MHz	1RB-High (74)	1902.5 (19125)	19.29	18.37	17.55
		1880 (18900)	19.25	18.32	17.64
		1857.5 (18675)	19.35	18.41	17.71
	1RB-Middle (37)	1902.5 (19125)	19.37	18.41	17.64
		1880 (18900)	19.40	18.50	17.71
		1857.5 (18675)	19.51	18.55	17.80
	1RB-Low (0)	1902.5 (19125)	19.24	18.34	17.59
		1880 (18900)	19.40	18.40	17.65
		1857.5 (18675)	19.51	18.55	17.89
	36RB-High (38)	1902.5 (19125)	18.25	17.28	16.52
		1880 (18900)	18.37	17.38	16.69
		1857.5 (18675)	18.43	17.47	16.81
	36RB-Middle (19)	1902.5 (19125)	18.33	17.37	16.63
		1880 (18900)	18.43	17.46	16.67
		1857.5 (18675)	18.48	17.51	16.79
	36RB-Low (0)	1902.5 (19125)	18.38	17.36	16.71
		1880 (18900)	18.38	17.40	16.75
		1857.5 (18675)	18.56	17.56	16.90
75RB (0)	1902.5 (19125)	18.30	17.34	16.63	
	1880 (18900)	18.35	17.35	16.64	
	1857.5 (18675)	18.48	17.53	16.76	
20MHz	1RB-High (99)	1900 (19100)	19.48	18.53	17.73
		1880 (18900)	19.44	18.50	17.82
		1860 (18700)	19.52	18.59	17.89
	1RB-Middle (50)	1900 (19100)	19.53	18.61	17.81
		1880 (18900)	19.60	18.67	17.88
		1860 (18700)	19.68	18.73	17.97
	1RB-Low (0)	1900 (19100)	19.44	18.54	17.75
		1880 (18900)	19.55	18.60	17.82
		1860 (18700)	19.67	18.71	18.04
	50RB-High (50)	1900 (19100)	18.44	17.45	16.68
		1880 (18900)	18.53	17.56	16.85
		1860 (18700)	18.63	17.65	16.97
	50RB-Middle (25)	1900 (19100)	18.52	17.55	16.82
		1880 (18900)	18.60	17.61	16.82
		1860 (18700)	18.65	17.68	16.94
	50RB-Low (0)	1900 (19100)	18.54	17.56	16.90
		1880 (18900)	18.57	17.58	16.90
		1860 (18700)	18.75	17.76	17.05
100RB (0)	1900 (19100)	18.48	17.52	16.83	
	1880 (18900)	18.51	17.53	16.84	
	1860 (18700)	18.67	17.68	16.94	

LTEB2 ANT1 E1/F1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	256QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	21.19	20.29	19.56
		1880 (18900)	21.19	20.24	19.60
		1850.7 (18607)	21.30	20.31	19.63
	1RB-Middle (3)	1909.3 (19193)	21.27	20.36	19.69
		1880 (18900)	21.36	20.40	19.81
		1850.7 (18607)	21.40	20.44	19.83
	1RB-Low (0)	1909.3 (19193)	21.16	20.22	19.56
		1880 (18900)	21.29	20.34	19.56
		1850.7 (18607)	21.37	20.43	19.84
	3RB-High (3)	1909.3 (19193)	20.20	19.18	18.50
		1880 (18900)	20.29	19.24	18.47
		1850.7 (18607)	20.39	19.36	18.72
	3RB-Middle (1)	1909.3 (19193)	20.26	19.31	18.62
		1880 (18900)	20.34	19.33	18.53
		1850.7 (18607)	20.43	19.38	18.66
	3RB-Low (0)	1909.3 (19193)	20.30	19.26	18.68
		1880 (18900)	20.35	19.28	18.54
		1850.7 (18607)	20.52	19.50	18.69
	6RB (0)	1909.3 (19193)	20.21	19.21	18.53
		1880 (18900)	20.33	19.28	18.56
		1850.7 (18607)	20.35	19.40	18.80
3MHz	1RB-High (14)	1908.5 (19185)	21.22	20.29	19.54
		1880 (18900)	21.16	20.25	19.64
		1851.5 (18615)	21.31	20.32	19.60
	1RB-Middle (7)	1908.5 (19185)	21.26	20.32	19.70
		1880 (18900)	21.37	20.40	19.82
		1851.5 (18615)	21.44	20.47	19.82
	1RB-Low (0)	1908.5 (19185)	21.20	20.26	19.58
		1880 (18900)	21.29	20.32	19.54
		1851.5 (18615)	21.39	20.46	19.83
	8RB-High (7)	1908.5 (19185)	20.20	19.17	18.48
		1880 (18900)	20.30	19.24	18.46
		1851.5 (18615)	20.37	19.38	18.69
	8RB-Middle (4)	1908.5 (19185)	20.29	19.29	18.61
		1880 (18900)	20.31	19.32	18.56
		1851.5 (18615)	20.43	19.42	18.64
	8RB-Low (0)	1908.5 (19185)	20.30	19.25	18.66
		1880 (18900)	20.30	19.31	18.52
		1851.5 (18615)	20.51	19.46	18.67
	15RB (0)	1908.5 (19185)	20.20	19.21	18.48
		1880 (18900)	20.30	19.23	18.58
		1851.5 (18615)	20.35	19.39	18.81
5MHz	1RB-High (24)	1907.5 (19175)	21.19	20.28	19.56
		1880 (18900)	21.20	20.23	19.64
		1852.5 (18625)	21.30	20.31	19.58
	1RB-Middle (12)	1907.5 (19175)	21.26	20.32	19.67
		1880 (18900)	21.38	20.40	19.80
		1852.5 (18625)	21.44	20.45	19.79
	1RB-Low (0)	1907.5 (19175)	21.18	20.25	19.60
		1880 (18900)	21.27	20.32	19.59
		1852.5 (18625)	21.36	20.44	19.80
	12RB-High (13)	1907.5 (19175)	20.16	19.17	18.47
		1880 (18900)	20.27	19.22	18.45
		1852.5 (18625)	20.38	19.35	18.70
	12RB-Middle (6)	1907.5 (19175)	20.28	19.31	18.65
		1880 (18900)	20.31	19.31	18.58
		1852.5 (18625)	20.41	19.37	18.66
	12RB-Low (0)	1907.5 (19175)	20.30	19.29	18.70
		1880 (18900)	20.35	19.33	18.55
		1852.5 (18625)	20.53	19.49	18.67
	25RB (0)	1907.5 (19175)	20.17	19.21	18.50
		1880 (18900)	20.32	19.24	18.54
		1852.5 (18625)	20.36	19.39	18.78

LTE B2 ANT1 A1/C1/D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1909.3 (19193)	22.68	21.44	20.96
		1880 (18900)	22.47	21.40	20.82
		1850.7 (18607)	22.49	21.71	21.00
	1RB-Middle (3)	1909.3 (19193)	22.67	21.56	21.10
		1880 (18900)	22.75	21.68	20.88
		1850.7 (18607)	22.64	21.84	21.03
	1RB-Low (0)	1909.3 (19193)	22.59	21.57	20.80
		1880 (18900)	22.54	21.56	21.01
		1850.7 (18607)	22.72	21.75	20.95
	3RB-High (3)	1909.3 (19193)	21.34	20.25	19.77
		1880 (18900)	21.68	20.48	19.67
		1850.7 (18607)	21.58	20.66	19.99
	3RB-Middle (1)	1909.3 (19193)	21.49	20.57	19.82
		1880 (18900)	21.56	20.66	19.98
		1850.7 (18607)	21.74	20.64	20.08
	3RB-Low (0)	1909.3 (19193)	21.56	20.40	20.00
		1880 (18900)	21.46	20.43	19.76
		1850.7 (18607)	21.82	20.89	20.04
	6RB (0)	1909.3 (19193)	21.47	20.38	19.71
		1880 (18900)	21.52	20.42	19.99
		1850.7 (18607)	21.78	20.57	20.12
3MHz	1RB-High (14)	1908.5 (19185)	22.60	21.45	20.82
		1880 (18900)	22.41	21.49	20.83
		1851.5 (18615)	22.64	21.62	20.97
	1RB-Middle (7)	1908.5 (19185)	22.53	21.56	21.00
		1880 (18900)	22.76	21.60	20.93
		1851.5 (18615)	22.72	21.79	21.18
	1RB-Low (0)	1908.5 (19185)	22.50	21.48	20.84
		1880 (18900)	22.60	21.49	21.15
		1851.5 (18615)	22.70	21.61	21.05
	8RB-High (7)	1908.5 (19185)	21.51	20.33	19.77
		1880 (18900)	21.62	20.68	19.81
		1851.5 (18615)	21.68	20.49	19.88
	8RB-Middle (4)	1908.5 (19185)	21.45	20.50	19.65
		1880 (18900)	21.64	20.44	19.94
		1851.5 (18615)	21.69	20.64	19.98
	8RB-Low (0)	1908.5 (19185)	21.62	20.41	20.09
		1880 (18900)	21.48	20.44	19.77
		1851.5 (18615)	21.64	20.78	20.01
	15RB (0)	1908.5 (19185)	21.62	20.52	19.86
		1880 (18900)	21.59	20.44	19.77
		1851.5 (18615)	21.60	20.63	19.88
5MHz	1RB-High (24)	1907.5 (19175)	22.62	21.66	21.00
		1880 (18900)	22.56	21.54	20.87
		1852.5 (18625)	22.49	21.50	20.82
	1RB-Middle (12)	1907.5 (19175)	22.71	21.56	21.17
		1880 (18900)	22.53	21.61	20.88
		1852.5 (18625)	22.68	21.70	21.20
	1RB-Low (0)	1907.5 (19175)	22.38	21.42	20.85
		1880 (18900)	22.60	21.59	21.08
		1852.5 (18625)	22.56	21.79	20.96
	12RB-High (13)	1907.5 (19175)	21.45	20.43	19.85
		1880 (18900)	21.49	20.52	19.78
		1852.5 (18625)	21.71	20.72	19.98
	12RB-Middle (6)	1907.5 (19175)	21.57	20.56	19.65
		1880 (18900)	21.62	20.53	20.01
		1852.5 (18625)	21.65	20.69	20.10
	12RB-Low (0)	1907.5 (19175)	21.66	20.56	19.85
		1880 (18900)	21.54	20.65	20.00
		1852.5 (18625)	21.72	20.72	20.11
	25RB (0)	1907.5 (19175)	21.36	20.35	19.82
		1880 (18900)	21.64	20.49	19.82
		1852.5 (18625)	21.70	20.80	19.91

10MHz	1RB-High (49)	1905 (19150)	22.48	21.47	21.03
		1880 (18900)	22.29	21.55	20.76
		1855 (18650)	22.58	21.55	20.89
	1RB-Middle (24)	1905 (19150)	22.49	21.66	21.14
		1880 (18900)	22.73	21.57	20.80
		1855 (18650)	22.77	21.87	21.18
	1RB-Low (0)	1905 (19150)	22.40	21.66	20.83
		1880 (18900)	22.67	21.48	21.08
		1855 (18650)	22.69	21.68	21.10
	25RB-High (25)	1905 (19150)	21.39	20.48	19.59
		1880 (18900)	21.59	20.64	19.60
		1855 (18650)	21.69	20.60	19.85
	25RB-Middle (12)	1905 (19150)	21.65	20.67	19.76
		1880 (18900)	21.72	20.55	19.98
		1855 (18650)	21.73	20.65	20.09
	25RB-Low (0)	1905 (19150)	21.46	20.60	20.06
		1880 (18900)	21.57	20.61	19.89
		1855 (18650)	21.85	20.80	20.04
50RB (0)	1905 (19150)	21.37	20.61	19.87	
	1880 (18900)	21.63	20.47	19.98	
	1855 (18650)	21.81	20.80	19.87	
15MHz	1RB-High (74)	1902.5 (19125)	22.42	21.57	20.99
		1880 (18900)	22.29	21.67	20.87
		1857.5 (18675)	22.44	21.58	20.98
	1RB-Middle (37)	1902.5 (19125)	22.46	21.55	20.98
		1880 (18900)	22.60	21.75	20.81
		1857.5 (18675)	22.75	21.74	21.06
	1RB-Low (0)	1902.5 (19125)	22.52	21.57	20.89
		1880 (18900)	22.68	21.54	21.12
		1857.5 (18675)	22.77	21.78	21.11
	36RB-High (38)	1902.5 (19125)	21.35	20.47	19.69
		1880 (18900)	21.52	20.49	19.74
		1857.5 (18675)	21.56	20.56	19.90
	36RB-Middle (19)	1902.5 (19125)	21.68	20.51	19.72
		1880 (18900)	21.55	20.57	20.13
		1857.5 (18675)	21.63	20.66	20.06
	36RB-Low (0)	1902.5 (19125)	21.63	20.45	19.88
		1880 (18900)	21.57	20.60	19.84
		1857.5 (18675)	21.84	20.81	19.90
75RB (0)	1902.5 (19125)	21.51	20.48	19.81	
	1880 (18900)	21.61	20.40	19.87	
	1857.5 (18675)	21.77	20.70	20.05	
20MHz	1RB-High (99)	1900 (19100)	23.43	22.48	21.89
		1880 (18900)	23.35	22.45	21.74
		1860 (18700)	23.49	22.53	21.79
	1RB-Middle (50)	1900 (19100)	23.50	22.56	21.98
		1880 (18900)	23.55	22.60	21.83
		1860 (18700)	23.62	22.68	22.06
	1RB-Low (0)	1900 (19100)	23.40	22.45	21.79
		1880 (18900)	23.48	22.52	21.97
		1860 (18700)	23.58	22.63	21.96
	50RB-High (50)	1900 (19100)	22.37	21.30	20.67
		1880 (18900)	22.48	21.45	20.66
		1860 (18700)	22.57	21.53	20.82
	50RB-Middle (25)	1900 (19100)	22.49	21.46	20.68
		1880 (18900)	22.54	21.51	20.93
		1860 (18700)	22.60	21.57	20.90
	50RB-Low (0)	1900 (19100)	22.46	21.45	20.88
		1880 (18900)	22.48	21.44	20.79
		1860 (18700)	22.67	21.65	20.89
100RB (0)	1900 (19100)	22.41	21.42	20.73	
	1880 (18900)	22.45	21.45	20.80	
	1860 (18700)	22.61	21.60	20.92	

LTE B7 A1/C1/D1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM	
5MHz	1RB-High (24)	2567.5 (21425)	22.58	21.99	21.37	
		2535 (21100)	22.60	22.13	21.58	
		2502.5 (20775)	22.50	22.14	21.74	
	1RB-Middle (12)	2567.5 (21425)	22.61	22.13	21.64	
		2535 (21100)	22.67	22.03	21.66	
		2502.5 (20775)	22.46	22.11	21.55	
	1RB-Low (0)	2567.5 (21425)	22.47	21.93	21.42	
		2535 (21100)	22.48	21.91	21.45	
		2502.5 (20775)	22.49	21.97	21.63	
	12RB-High (13)	2567.5 (21425)	21.72	20.79	20.18	
		2535 (21100)	21.62	20.70	20.21	
		2502.5 (20775)	21.56	20.55	20.24	
	12RB-Middle (6)	2567.5 (21425)	21.77	20.71	20.19	
		2535 (21100)	21.67	20.63	20.20	
		2502.5 (20775)	21.56	20.62	20.14	
	12RB-Low (0)	2567.5 (21425)	21.72	20.77	20.23	
		2535 (21100)	21.61	20.55	20.23	
		2502.5 (20775)	21.57	20.53	19.96	
	25RB (0)	2567.5 (21425)	21.68	20.75	20.30	
		2535 (21100)	21.57	20.61	20.22	
		2502.5 (20775)	21.56	20.58	20.19	
	10MHz	1RB-High (49)	2565 (21400)	22.56	21.95	21.40
			2535 (21100)	22.54	22.05	21.61
			2505 (20800)	22.45	22.15	21.78
1RB-Middle (24)		2565 (21400)	22.62	22.06	21.68	
		2535 (21100)	22.65	21.99	21.63	
		2505 (20800)	22.39	22.07	21.57	
1RB-Low (0)		2565 (21400)	22.53	21.95	21.37	
		2535 (21100)	22.49	21.95	21.39	
		2505 (20800)	22.48	22.01	21.68	
25RB-High (25)		2565 (21400)	21.76	20.74	20.17	
		2535 (21100)	21.61	20.70	20.19	
		2505 (20800)	21.60	20.58	20.25	
25RB-Middle (12)		2565 (21400)	21.74	20.71	20.20	
		2535 (21100)	21.68	20.60	20.20	
		2505 (20800)	21.55	20.61	20.12	
25RB-Low (0)		2565 (21400)	21.75	20.78	20.23	
		2535 (21100)	21.58	20.54	20.20	
		2505 (20800)	21.60	20.52	19.95	
50RB (0)		2565 (21400)	21.66	20.70	20.30	
		2535 (21100)	21.64	20.57	20.24	
		2505 (20800)	21.51	20.55	20.15	
15MHz		1RB-High (74)	2562.5 (21375)	22.59	21.99	21.41
			2535 (21100)	22.55	22.05	21.59
			2507.5 (20825)	22.46	22.19	21.78
	1RB-Middle (37)	2562.5 (21375)	22.66	22.10	21.67	
		2535 (21100)	22.66	21.96	21.62	
		2507.5 (20825)	22.39	22.08	21.59	
	1RB-Low (0)	2562.5 (21375)	22.45	21.95	21.40	
		2535 (21100)	22.48	21.97	21.37	
		2507.5 (20825)	22.48	22.00	21.70	
	36RB-High (38)	2562.5 (21375)	21.74	20.81	20.15	
		2535 (21100)	21.65	20.66	20.14	
		2507.5 (20825)	21.53	20.52	20.25	
	36RB-Middle (19)	2562.5 (21375)	21.81	20.79	20.24	
		2535 (21100)	21.71	20.61	20.25	
		2507.5 (20825)	21.59	20.57	20.17	
	36RB-Low (0)	2562.5 (21375)	21.72	20.74	20.25	
		2535 (21100)	21.58	20.57	20.22	
		2507.5 (20825)	21.59	20.53	19.98	
	75RB (0)	2562.5 (21375)	21.74	20.73	20.30	
		2535 (21100)	21.62	20.58	20.21	
		2507.5 (20825)	21.55	20.61	20.17	
	20MHz	1RB-High (99)	2560 (21350)	22.73	22.12	21.52
			2535 (21100)	22.73	22.24	21.76
			2510 (20850)	22.63	22.31	21.91
1RB-Middle (50)		2560 (21350)	22.79	22.25	21.83	
		2535 (21100)	22.78	22.15	21.79	
		2510 (20850)	22.58	22.26	21.74	
1RB-Low (0)		2560 (21350)	22.64	22.10	21.54	
		2535 (21100)	22.65	22.09	21.56	
		2510 (20850)	22.61	22.13	21.82	
50RB-High (50)		2560 (21350)	21.91	20.93	20.33	
		2535 (21100)	21.80	20.82	20.32	
		2510 (20850)	21.71	20.69	20.37	
50RB-Middle (25)		2560 (21350)	21.92	20.90	20.35	
		2535 (21100)	21.85	20.78	20.39	
		2510 (20850)	21.72	20.73	20.29	
50RB-Low (0)		2560 (21350)	21.86	20.89	20.42	
		2535 (21100)	21.76	20.68	20.36	
		2510 (20850)	21.71	20.70	20.11	
100RB (0)		2560 (21350)	21.85	20.86	20.45	
		2535 (21100)	21.76	20.74	20.39	
		2510 (20850)	21.70	20.74	20.33	

LTE B7 B1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM	
5MHz	1RB-High (24)	2567.5 (21425)	18.33	17.79	17.00	
		2535 (21100)	18.07	17.64	16.82	
		2502.5 (20775)	17.92	17.57	16.81	
	1RB-Middle (12)	2567.5 (21425)	18.34	17.79	17.12	
		2535 (21100)	18.09	17.64	16.83	
		2502.5 (20775)	17.85	17.50	16.71	
	1RB-Low (0)	2567.5 (21425)	18.15	17.79	17.00	
		2535 (21100)	17.94	17.54	16.74	
		2502.5 (20775)	17.62	17.28	16.61	
	12RB-High (13)	2567.5 (21425)	17.43	16.49	15.93	
		2535 (21100)	17.27	16.20	15.45	
		2502.5 (20775)	17.14	16.14	15.50	
	12RB-Middle (6)	2567.5 (21425)	17.31	16.46	15.73	
		2535 (21100)	17.29	16.26	15.44	
		2502.5 (20775)	17.06	16.03	15.12	
	12RB-Low (0)	2567.5 (21425)	17.26	16.41	15.73	
		2535 (21100)	17.19	16.15	15.50	
		2502.5 (20775)	16.98	15.91	15.22	
	25RB (0)	2567.5 (21425)	17.32	16.40	15.75	
		2535 (21100)	17.24	16.18	15.41	
		2502.5 (20775)	17.06	16.02	15.40	
	10MHz	1RB-High (49)	2565 (21400)	18.33	17.77	17.05
			2535 (21100)	18.12	17.65	16.83
			2505 (20800)	17.93	17.56	16.80
1RB-Middle (24)		2565 (21400)	18.34	17.82	17.10	
		2535 (21100)	18.08	17.67	16.82	
		2505 (20800)	17.84	17.55	16.70	
1RB-Low (0)		2565 (21400)	18.11	17.75	17.05	
		2535 (21100)	17.95	17.54	16.72	
		2505 (20800)	17.62	17.30	16.65	
25RB-High (25)		2565 (21400)	17.42	16.53	15.95	
		2535 (21100)	17.26	16.21	15.41	
		2505 (20800)	17.13	16.12	15.53	
25RB-Middle (12)		2565 (21400)	17.28	16.45	15.74	
		2535 (21100)	17.29	16.26	15.41	
		2505 (20800)	17.04	16.04	15.15	
25RB-Low (0)		2565 (21400)	17.25	16.42	15.74	
		2535 (21100)	17.19	16.14	15.50	
		2505 (20800)	16.96	15.92	15.22	
50RB (0)		2565 (21400)	17.33	16.37	15.73	
		2535 (21100)	17.28	16.19	15.40	
		2505 (20800)	17.08	16.01	15.43	
15MHz		1RB-High (74)	2562.5 (21375)	18.32	17.81	17.00
			2535 (21100)	18.08	17.63	16.80
			2507.5 (20825)	17.94	17.60	16.84
	1RB-Middle (37)	2562.5 (21375)	18.38	17.81	17.14	
		2535 (21100)	18.12	17.66	16.82	
		2507.5 (20825)	17.87	17.52	16.70	
	1RB-Low (0)	2562.5 (21375)	18.13	17.79	17.03	
		2535 (21100)	17.91	17.54	16.70	
		2507.5 (20825)	17.61	17.30	16.63	
	36RB-High (38)	2562.5 (21375)	17.41	16.50	15.92	
		2535 (21100)	17.26	16.22	15.43	
		2507.5 (20825)	17.14	16.12	15.55	
	36RB-Middle (19)	2562.5 (21375)	17.27	16.46	15.72	
		2535 (21100)	17.31	16.27	15.45	
		2507.5 (20825)	17.05	16.02	15.10	
	36RB-Low (0)	2562.5 (21375)	17.29	16.41	15.70	
		2535 (21100)	17.22	16.12	15.51	
		2507.5 (20825)	16.99	15.96	15.25	
	75RB (0)	2562.5 (21375)	17.32	16.39	15.74	
		2535 (21100)	17.28	16.18	15.41	
		2507.5 (20825)	17.08	16.01	15.42	
	20MHz	1RB-High (99)	2560 (21350)	18.51	17.96	17.20
			2535 (21100)	18.27	17.83	17.00
			2510 (20850)	18.10	17.75	17.00
1RB-Middle (50)		2560 (21350)	18.54	17.97	17.30	
		2535 (21100)	18.28	17.83	17.00	
		2510 (20850)	18.03	17.70	16.90	
1RB-Low (0)		2560 (21350)	18.30	17.95	17.20	
		2535 (21100)	18.11	17.70	16.90	
		2510 (20850)	17.81	17.46	16.80	
50RB-High (50)		2560 (21350)	17.59	16.68	16.10	
		2535 (21100)	17.44	16.37	15.60	
		2510 (20850)	17.32	16.30	15.70	
50RB-Middle (25)		2560 (21350)	17.46	16.63	15.90	
		2535 (21100)	17.47	16.42	15.60	
		2510 (20850)	17.21	16.19	15.30	
50RB-Low (0)		2560 (21350)	17.44	16.57	15.90	
		2535 (21100)	17.39	16.32	15.70	
		2510 (20850)	17.15	16.11	15.40	
100RB (0)		2560 (21350)	17.48	16.56	15.90	
		2535 (21100)	17.44	16.38	15.60	
		2510 (20850)	17.26	16.21	15.60	

LTEB12 A1/B1/C1/D1/E1/F1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	256QAM	
1.4MHz	1RB-High (5)	715.3	22.52	21.54	20.85	
		707.5	22.37	21.79	21.05	
		699.7	22.36	21.33	20.68	
	1RB-Middle (3)	715.3	22.51	21.53	20.94	
		707.5	22.58	21.52	20.83	
		699.7	22.50	21.43	20.68	
	1RB-Low (0)	715.3	22.48	21.46	20.89	
		707.5	22.56	21.40	20.75	
		699.7	22.36	21.37	20.85	
	3RB-High (3)	715.3	21.40	20.54	20.01	
		707.5	21.59	20.49	19.97	
		699.7	21.57	20.51	19.76	
	3RB-Middle (1)	715.3	21.37	20.49	19.88	
		707.5	21.54	20.48	19.73	
		699.7	21.53	20.69	20.16	
	3RB-Low (0)	715.3	21.45	20.52	19.75	
		707.5	21.59	20.59	20.00	
		699.7	21.49	20.47	19.91	
	6RB (0)	715.3	21.43	20.41	19.70	
		707.5	21.67	20.62	19.96	
		699.7	21.58	20.52	19.71	
	3MHz	1RB-High (14)	714.5	22.55	21.54	20.88
			707.5	22.42	21.81	21.08
			700.5	22.33	21.33	20.65
1RB-Middle (7)		714.5	22.48	21.56	20.96	
		707.5	22.56	21.55	20.87	
		700.5	22.46	21.41	20.69	
1RB-Low (0)		714.5	22.52	21.43	20.92	
		707.5	22.53	21.36	20.72	
		700.5	22.34	21.36	20.85	
8RB-High (7)		714.5	21.36	20.56	20.01	
		707.5	21.63	20.52	19.98	
		700.5	21.59	20.51	19.81	
8RB-Middle (4)		714.5	21.34	20.48	19.86	
		707.5	21.55	20.49	19.72	
		700.5	21.56	20.67	20.18	
8RB-Low (0)		714.5	21.46	20.50	19.76	
		707.5	21.58	20.58	19.97	
		700.5	21.50	20.46	19.91	
15RB (0)		714.5	21.47	20.41	19.66	
		707.5	21.63	20.60	19.94	
		700.5	21.60	20.51	19.68	
5MHz		1RB-High (24)	713.5	22.55	21.56	20.86
			707.5	22.38	21.81	21.04
			701.5	22.34	21.34	20.70
	1RB-Middle (12)	713.5	22.47	21.54	20.92	
		707.5	22.59	21.52	20.84	
		701.5	22.49	21.41	20.64	
	1RB-Low (0)	713.5	22.50	21.42	20.90	
		707.5	22.54	21.36	20.73	
		701.5	22.36	21.37	20.84	
	12RB-High (13)	713.5	21.40	20.54	20.03	
		707.5	21.62	20.50	19.95	
		701.5	21.56	20.54	19.77	
	12RB-Middle (6)	713.5	21.37	20.50	19.89	
		707.5	21.53	20.51	19.72	
		701.5	21.52	20.66	20.16	
	12RB-Low (0)	713.5	21.50	20.50	19.76	
		707.5	21.58	20.59	20.00	
		701.5	21.48	20.47	19.96	
	25RB (0)	713.5	21.44	20.38	19.67	
		707.5	21.65	20.62	19.98	
		701.5	21.56	20.49	19.73	
	10MHz	1RB-High (49)	711	22.70	21.71	21.03
			707.5	22.57	21.97	21.24
			704	22.52	21.50	20.85
1RB-Middle (24)		711	22.67	21.71	21.11	
		707.5	22.75	21.70	21.02	
		704	22.66	21.59	20.84	
1RB-Low (0)		711	22.67	21.62	21.09	
		707.5	22.72	21.56	20.90	
		704	22.54	21.55	21.03	
25RB-High (25)		711	21.56	20.72	20.19	
		707.5	21.78	20.67	20.13	
		704	21.74	20.69	19.96	
25RB-Middle (12)		711	21.52	20.65	20.04	
		707.5	21.73	20.68	19.91	
		704	21.71	20.86	20.33	
25RB-Low (0)		711	21.65	20.70	19.94	
		707.5	21.75	20.74	20.15	
		704	21.66	20.66	20.11	
50RB (0)		711	21.62	20.58	19.86	
		707.5	21.83	20.78	20.14	
		704	21.76	20.68	19.88	

LTEB13 A1/B1/C1/D1/E1/F1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	256QAM
5MHz	1RB-High (24)	784.5 (23255)	22.57	21.63	20.98
		782 (23230)	22.69	21.68	20.99
		779.5 (23205)	22.69	21.75	21.14
	1RB-Middle (12)	784.5 (23255)	22.57	21.63	20.97
		782 (23230)	22.73	21.65	20.99
		779.5 (23205)	22.69	21.72	21.13
	1RB-Low (0)	784.5 (23255)	22.53	21.64	20.95
		782 (23230)	22.69	21.67	21.03
		779.5 (23205)	22.65	21.72	21.11
	12RB-High (13)	784.5 (23255)	21.58	20.54	19.94
		782 (23230)	21.47	20.52	19.75
		779.5 (23205)	21.36	20.57	19.91
	12RB-Middle (6)	784.5 (23255)	21.56	20.55	19.65
		782 (23230)	21.44	20.53	19.93
		779.5 (23205)	21.37	20.59	19.79
	12RB-Low (0)	784.5 (23255)	21.58	20.57	19.88
		782 (23230)	21.44	20.52	19.61
		779.5 (23205)	21.38	20.57	19.89
	25RB (0)	784.5 (23255)	21.55	20.54	19.79
		782 (23230)	21.43	20.52	19.91
		779.5 (23205)	21.36	20.59	19.64
10MHz	1RB-High (49)	782 (23230)	22.72	21.80	21.13
	1RB-Middle (24)	782 (23230)	22.89	21.84	21.19
	1RB-Low (0)	782 (23230)	22.85	21.90	21.29
	25RB-High (25)	782 (23230)	21.75	20.73	20.09
	25RB-Middle (12)	782 (23230)	21.63	20.71	19.95
	25RB-Low (0)	782 (23230)	21.55	20.74	20.07
	50RB (0)	782 (23230)	21.52	20.58	19.81

LTE B25 A1/C1/D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1914.3 (26683)	22.35	21.72	21.03
		1882.5 (26365)	22.43	21.83	21.01
		1850.7 (26047)	22.41	21.97	21.35
	1RB-Middle (3)	1914.3 (26683)	22.45	21.87	21.07
		1882.5 (26365)	22.51	21.89	21.19
		1850.7 (26047)	22.52	22.06	21.35
	1RB-Low (0)	1914.3 (26683)	22.30	21.74	21.14
		1882.5 (26365)	22.42	21.81	21.13
		1850.7 (26047)	22.46	21.94	21.27
	3RB-High (3)	1914.3 (26683)	21.29	20.29	19.57
		1882.5 (26365)	21.44	20.39	19.64
		1850.7 (26047)	21.53	20.50	19.78
	3RB-Middle (1)	1914.3 (26683)	21.42	20.49	19.80
		1882.5 (26365)	21.48	20.47	19.81
		1850.7 (26047)	21.56	20.51	19.75
	3RB-Low (0)	1914.3 (26683)	21.44	20.47	19.82
		1882.5 (26365)	21.45	20.41	19.74
		1850.7 (26047)	21.43	20.58	19.99
	6RB (0)	1914.3 (26683)	21.30	20.36	19.77
		1882.5 (26365)	21.42	20.38	19.62
		1850.7 (26047)	21.36	20.58	19.76
3MHz	1RB-High (14)	1913.5 (26675)	22.37	21.70	21.06
		1882.5 (26365)	22.42	21.82	21.02
		1851.5 (26055)	22.42	21.97	21.32
	1RB-Middle (7)	1913.5 (26675)	22.48	21.84	21.07
		1882.5 (26365)	22.53	21.87	21.17
		1851.5 (26055)	22.51	22.07	21.30
	1RB-Low (0)	1913.5 (26675)	22.29	21.72	21.12
		1882.5 (26365)	22.40	21.82	21.13
		1851.5 (26055)	22.47	21.98	21.22
	8RB-High (7)	1913.5 (26675)	21.29	20.30	19.59
		1882.5 (26365)	21.42	20.34	19.67
		1851.5 (26055)	21.55	20.53	19.80
	8RB-Middle (4)	1913.5 (26675)	21.42	20.49	19.84
		1882.5 (26365)	21.47	20.45	19.82
		1851.5 (26055)	21.53	20.54	19.72
	8RB-Low (0)	1913.5 (26675)	21.41	20.45	19.82
		1882.5 (26365)	21.45	20.42	19.72
		1851.5 (26055)	21.46	20.58	19.96
	15RB (0)	1913.5 (26675)	21.32	20.40	19.76
		1882.5 (26365)	21.45	20.35	19.62
		1851.5 (26055)	21.36	20.58	19.79
5MHz	1RB-High (24)	1912.5 (26665)	22.36	21.70	21.03
		1882.5 (26365)	22.38	21.81	21.00
		1852.5 (26065)	22.43	21.97	21.32
	1RB-Middle (12)	1912.5 (26665)	22.48	21.85	21.05
		1882.5 (26365)	22.50	21.87	21.19
		1852.5 (26065)	22.55	22.07	21.35
	1RB-Low (0)	1912.5 (26665)	22.31	21.72	21.10
		1882.5 (26365)	22.41	21.83	21.16
		1852.5 (26065)	22.48	21.95	21.22
	12RB-High (13)	1912.5 (26665)	21.25	20.32	19.56
		1882.5 (26365)	21.40	20.36	19.64
		1852.5 (26065)	21.54	20.52	19.80
	12RB-Middle (6)	1912.5 (26665)	21.46	20.46	19.83
		1882.5 (26365)	21.47	20.43	19.80
		1852.5 (26065)	21.54	20.51	19.75
	12RB-Low (0)	1912.5 (26665)	21.45	20.45	19.84
		1882.5 (26365)	21.48	20.46	19.72
		1852.5 (26065)	21.45	20.58	19.98
	25RB (0)	1912.5 (26665)	21.34	20.40	19.76
		1882.5 (26365)	21.43	20.40	19.58
		1852.5 (26065)	21.37	20.58	19.80

10MHz	1RB-High (49)	1910 (26640)	22.36	21.70	21.07
		1882.5 (26365)	22.39	21.79	21.03
		1855 (26090)	22.41	21.93	21.31
	1RB-Middle (24)	1910 (26640)	22.46	21.88	21.07
		1882.5 (26365)	22.53	21.88	21.19
		1855 (26090)	22.51	22.05	21.34
	1RB-Low (0)	1910 (26640)	22.31	21.77	21.12
		1882.5 (26365)	22.44	21.79	21.12
		1855 (26090)	22.50	21.94	21.27
	25RB-High (25)	1910 (26640)	21.26	20.29	19.58
		1882.5 (26365)	21.42	20.37	19.65
		1855 (26090)	21.53	20.53	19.76
	25RB-Middle (12)	1910 (26640)	21.47	20.44	19.80
		1882.5 (26365)	21.52	20.46	19.78
		1855 (26090)	21.53	20.53	19.71
	25RB-Low (0)	1910 (26640)	21.44	20.44	19.82
		1882.5 (26365)	21.49	20.45	19.76
		1855 (26090)	21.48	20.58	20.00
50RB (0)	1910 (26640)	21.34	20.36	19.72	
	1882.5 (26365)	21.44	20.40	19.62	
	1855 (26090)	21.40	20.55	19.79	
15MHz	1RB-High (74)	1907.5 (26615)	22.35	21.68	21.06
		1882.5 (26365)	22.38	21.83	21.00
		1857.5 (26115)	22.45	21.94	21.33
	1RB-Middle (37)	1907.5 (26615)	22.45	21.87	21.05
		1882.5 (26365)	22.51	21.87	21.19
		1857.5 (26115)	22.50	22.08	21.32
	1RB-Low (0)	1907.5 (26615)	22.32	21.72	21.10
		1882.5 (26365)	22.42	21.80	21.14
		1857.5 (26115)	22.49	21.94	21.23
	36RB-High (38)	1907.5 (26615)	21.27	20.34	19.60
		1882.5 (26365)	21.40	20.37	19.66
		1857.5 (26115)	21.52	20.52	19.78
	36RB-Middle (19)	1907.5 (26615)	21.45	20.49	19.83
		1882.5 (26365)	21.51	20.45	19.81
		1857.5 (26115)	21.56	20.52	19.70
	36RB-Low (0)	1907.5 (26615)	21.44	20.44	19.80
		1882.5 (26365)	21.49	20.45	19.73
		1857.5 (26115)	21.47	20.61	19.99
75RB (0)	1907.5 (26615)	21.33	20.36	19.75	
	1882.5 (26365)	21.41	20.40	19.61	
	1857.5 (26115)	21.36	20.55	19.77	
20MHz	1RB-High (99)	1905 (26590)	22.54	21.88	21.22
		1882.5 (26365)	22.58	21.98	21.18
		1860 (26140)	22.61	22.12	21.51
	1RB-Middle (50)	1905 (26590)	22.64	22.03	21.25
		1882.5 (26365)	22.68	22.07	21.37
		1860 (26140)	22.70	22.25	21.50
	1RB-Low (0)	1905 (26590)	22.49	21.92	21.30
		1882.5 (26365)	22.59	21.98	21.32
		1860 (26140)	22.65	22.14	21.42
	50RB-High (50)	1905 (26590)	21.45	20.49	19.76
		1882.5 (26365)	21.59	20.54	19.82
		1860 (26140)	21.71	20.70	19.96
	50RB-Middle (25)	1905 (26590)	21.62	20.64	20.00
		1882.5 (26365)	21.67	20.63	19.98
		1860 (26140)	21.73	20.70	19.90
	50RB-Low (0)	1905 (26590)	21.61	20.63	19.99
		1882.5 (26365)	21.65	20.61	19.91
		1860 (26140)	21.63	20.78	20.15
100RB (0)	1905 (26590)	21.50	20.56	19.92	
	1882.5 (26365)	21.60	20.55	19.78	
	1860 (26140)	21.55	20.74	19.96	

LTE B25 B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1914.3 (26683)	20.58	19.80	19.51
		1882.5 (26365)	20.50	19.69	19.03
		1850.7 (26047)	20.41	20.13	19.55
	1RB-Middle (3)	1914.3 (26683)	20.61	20.24	19.55
		1882.5 (26365)	20.71	20.10	19.02
		1850.7 (26047)	20.43	19.89	19.45
	1RB-Low (0)	1914.3 (26683)	20.39	20.07	19.18
		1882.5 (26365)	20.60	19.94	19.34
		1850.7 (26047)	20.47	20.13	19.16
	3RB-High (3)	1914.3 (26683)	19.26	18.46	17.82
		1882.5 (26365)	19.48	18.67	17.69
		1850.7 (26047)	19.73	18.84	18.10
	3RB-Middle (1)	1914.3 (26683)	19.64	18.77	17.95
		1882.5 (26365)	19.74	18.55	18.14
		1850.7 (26047)	19.71	18.56	18.24
	3RB-Low (0)	1914.3 (26683)	19.50	18.62	17.83
		1882.5 (26365)	19.61	18.52	18.16
		1850.7 (26047)	19.57	18.82	17.72
	6RB (0)	1914.3 (26683)	19.31	18.76	17.94
		1882.5 (26365)	19.40	18.79	18.02
		1850.7 (26047)	19.56	18.78	17.78
3MHz	1RB-High (14)	1913.5 (26675)	20.32	20.01	19.29
		1882.5 (26365)	20.33	19.97	19.21
		1851.5 (26055)	20.50	20.17	19.49
	1RB-Middle (7)	1913.5 (26675)	20.59	19.99	19.31
		1882.5 (26365)	20.74	20.14	19.11
		1851.5 (26055)	20.68	20.10	19.38
	1RB-Low (0)	1913.5 (26675)	20.56	20.09	19.05
		1882.5 (26365)	20.39	19.92	19.14
		1851.5 (26055)	20.67	19.88	19.09
	8RB-High (7)	1913.5 (26675)	19.40	18.56	17.93
		1882.5 (26365)	19.60	18.69	17.86
		1851.5 (26055)	19.63	18.65	17.90
	8RB-Middle (4)	1913.5 (26675)	19.49	18.64	17.83
		1882.5 (26365)	19.56	18.74	18.08
		1851.5 (26055)	19.68	18.67	18.16
	8RB-Low (0)	1913.5 (26675)	19.61	18.88	17.82
		1882.5 (26365)	19.49	18.50	17.98
		1851.5 (26055)	19.69	18.76	17.77
	15RB (0)	1913.5 (26675)	19.54	18.53	17.75
		1882.5 (26365)	19.62	18.55	17.85
		1851.5 (26055)	19.48	18.94	17.88
5MHz	1RB-High (24)	1912.5 (26665)	20.29	19.90	19.48
		1882.5 (26365)	20.59	20.01	19.18
		1852.5 (26065)	20.38	20.11	19.41
	1RB-Middle (12)	1912.5 (26665)	20.49	20.14	19.53
		1882.5 (26365)	20.43	19.98	19.17
		1852.5 (26065)	20.41	20.05	19.48
	1RB-Low (0)	1912.5 (26665)	20.41	19.86	19.21
		1882.5 (26365)	20.33	19.65	19.35
		1852.5 (26065)	20.41	19.82	18.95
	12RB-High (13)	1912.5 (26665)	19.41	18.63	18.06
		1882.5 (26365)	19.56	18.63	17.98
		1852.5 (26065)	19.42	18.72	18.12
	12RB-Middle (6)	1912.5 (26665)	19.68	18.82	17.80
		1882.5 (26365)	19.50	18.85	17.97
		1852.5 (26065)	19.75	18.67	18.25
	12RB-Low (0)	1912.5 (26665)	19.52	18.69	17.85
		1882.5 (26365)	19.64	18.68	18.00
		1852.5 (26065)	19.54	18.82	18.02
	25RB (0)	1912.5 (26665)	19.31	18.56	17.74
		1882.5 (26365)	19.60	18.84	17.89
		1852.5 (26065)	19.47	18.62	18.01

10MHz	1RB-High (49)	1910 (26640)	20.53	19.76	19.44
		1882.5 (26365)	20.38	19.76	19.25
		1855 (26090)	20.54	20.15	19.47
	1RB-Middle (24)	1910 (26640)	20.44	19.92	19.29
		1882.5 (26365)	20.57	20.08	19.33
		1855 (26090)	20.39	20.09	19.44
	1RB-Low (0)	1910 (26640)	20.33	19.81	19.08
		1882.5 (26365)	20.27	20.00	19.07
		1855 (26090)	20.46	19.88	18.97
	25RB-High (25)	1910 (26640)	19.49	18.68	17.97
		1882.5 (26365)	19.69	18.53	17.71
		1855 (26090)	19.49	18.77	18.08
	25RB-Middle (12)	1910 (26640)	19.71	18.70	17.79
		1882.5 (26365)	19.73	18.74	18.09
		1855 (26090)	19.50	18.81	18.16
	25RB-Low (0)	1910 (26640)	19.51	18.63	18.02
		1882.5 (26365)	19.67	18.66	18.19
		1855 (26090)	19.58	18.76	17.97
50RB (0)	1910 (26640)	19.61	18.55	17.79	
	1882.5 (26365)	19.39	18.81	17.80	
	1855 (26090)	19.76	18.69	17.90	
15MHz	1RB-High (74)	1907.5 (26615)	20.39	19.91	19.22
		1882.5 (26365)	20.54	19.79	18.96
		1857.5 (26115)	20.70	19.88	19.56
	1RB-Middle (37)	1907.5 (26615)	20.44	19.91	19.56
		1882.5 (26365)	20.48	19.83	19.29
		1857.5 (26115)	20.73	20.16	19.49
	1RB-Low (0)	1907.5 (26615)	20.56	19.80	19.19
		1882.5 (26365)	20.27	19.77	19.06
		1857.5 (26115)	20.55	19.96	19.05
	36RB-High (38)	1907.5 (26615)	19.49	18.55	17.87
		1882.5 (26365)	19.50	18.53	17.67
		1857.5 (26115)	19.59	18.75	18.14
	36RB-Middle (19)	1907.5 (26615)	19.38	18.63	17.89
		1882.5 (26365)	19.74	18.71	18.12
		1857.5 (26115)	19.47	18.81	18.01
	36RB-Low (0)	1907.5 (26615)	19.59	18.53	17.99
		1882.5 (26365)	19.70	18.74	18.13
		1857.5 (26115)	19.59	18.84	17.73
75RB (0)	1907.5 (26615)	19.62	18.48	17.66	
	1882.5 (26365)	19.56	18.52	17.77	
	1857.5 (26115)	19.46	18.73	17.77	
20MHz	1RB-High (99)	1905 (26590)	20.44	19.91	19.36
		1882.5 (26365)	20.48	19.89	19.15
		1860 (26140)	20.57	20.04	19.41
	1RB-Middle (50)	1905 (26590)	20.56	20.09	19.44
		1882.5 (26365)	20.63	20.03	19.19
		1860 (26140)	20.59	20.09	19.43
	1RB-Low (0)	1905 (26590)	20.50	20.00	19.25
		1882.5 (26365)	20.46	19.85	19.20
		1860 (26140)	20.53	20.01	19.13
	50RB-High (50)	1905 (26590)	19.42	18.57	17.99
		1882.5 (26365)	19.55	18.64	17.85
		1860 (26140)	19.58	18.75	18.04
	50RB-Middle (25)	1905 (26590)	19.57	18.71	17.88
		1882.5 (26365)	19.60	18.72	18.03
		1860 (26140)	19.61	18.76	18.12
	50RB-Low (0)	1905 (26590)	19.55	18.73	18.02
		1882.5 (26365)	19.56	18.68	18.11
		1860 (26140)	19.62	18.78	17.91
100RB (0)	1905 (26590)	19.47	18.64	17.83	
	1882.5 (26365)	19.54	18.71	17.95	
	1860 (26140)	19.61	18.79	17.95	

LTEB26 A1/B1/C1/D1/E1/F1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	Tune-up	
1.4MHz	1RB-High (5)	848.3 (27033)	22.54	21.80	21.06	
		831.5 (26865)	22.57	21.89	21.20	
		814.7 (26697)	22.52	21.49	20.79	
	1RB-Middle (3)	848.3 (27033)	22.69	21.97	21.37	
		831.5 (26865)	22.60	21.95	21.16	
		814.7 (26697)	22.50	21.40	20.64	
	1RB-Low (0)	848.3 (27033)	22.63	21.86	21.26	
		831.5 (26865)	22.47	21.86	21.30	
		814.7 (26697)	22.48	21.43	20.63	
	3RB-High (3)	848.3 (27033)	21.50	20.57	19.94	
		831.5 (26865)	21.59	20.47	19.73	
		814.7 (26697)	21.52	20.47	19.76	
	3RB-Middle (1)	848.3 (27033)	21.55	20.62	19.92	
		831.5 (26865)	21.54	20.50	19.81	
		814.7 (26697)	21.47	20.54	19.98	
	3RB-Low (0)	848.3 (27033)	21.44	20.58	19.78	
		831.5 (26865)	21.45	20.51	19.97	
		814.7 (26697)	21.40	20.45	19.86	
	6RB (0)	848.3 (27033)	21.52	20.59	19.85	
		831.5 (26865)	21.52	20.48	19.70	
		814.7 (26697)	21.44	20.48	19.76	
	3MHz	1RB-High (14)	847.5 (27025)	22.58	21.79	21.02
			831.5 (26865)	22.56	21.85	21.16
			815.5 (26705)	22.55	21.47	20.69
1RB-Middle (7)		847.5 (27025)	22.67	21.97	21.40	
		831.5 (26865)	22.62	21.95	21.36	
		815.5 (26705)	22.49	21.41	20.70	
1RB-Low (0)		847.5 (27025)	22.64	21.87	21.30	
		831.5 (26865)	22.48	21.84	21.26	
		815.5 (26705)	22.47	21.41	20.65	
8RB-High (7)		847.5 (27025)	21.50	20.58	19.95	
		831.5 (26865)	21.58	20.49	19.69	
		815.5 (26705)	21.48	20.49	19.85	
8RB-Middle (4)		847.5 (27025)	21.52	20.59	19.81	
		831.5 (26865)	21.56	20.53	19.73	
		815.5 (26705)	21.50	20.54	19.79	
8RB-Low (0)		847.5 (27025)	21.41	20.58	19.97	
		831.5 (26865)	21.44	20.52	19.92	
		815.5 (26705)	21.37	20.47	19.73	
15RB (0)		847.5 (27025)	21.55	20.59	19.98	
		831.5 (26865)	21.56	20.48	19.88	
		815.5 (26705)	21.44	20.49	19.90	
5MHz		1RB-High (24)	846.5 (27015)	22.55	21.78	20.99
			831.5 (26865)	22.57	21.87	21.34
			816.5 (26715)	22.56	21.47	20.75
	1RB-Middle (12)	846.5 (27015)	22.70	21.93	21.30	
		831.5 (26865)	22.63	21.95	21.13	
		816.5 (26715)	22.49	21.40	20.73	
	1RB-Low (0)	846.5 (27015)	22.64	21.86	21.04	
		831.5 (26865)	22.50	21.85	21.18	
		816.5 (26715)	22.44	21.39	20.75	
	12RB-High (13)	846.5 (27015)	21.53	20.56	19.84	
		831.5 (26865)	21.59	20.48	19.84	
		816.5 (26715)	21.51	20.46	19.76	
	12RB-Middle (6)	846.5 (27015)	21.51	20.59	20.04	
		831.5 (26865)	21.56	20.53	19.80	
		816.5 (26715)	21.46	20.50	19.84	
	12RB-Low (0)	846.5 (27015)	21.42	20.56	19.80	
		831.5 (26865)	21.44	20.51	19.95	
		816.5 (26715)	21.38	20.47	19.65	
	25RB (0)	846.5 (27015)	21.53	20.60	19.91	
		831.5 (26865)	21.51	20.48	19.83	
		816.5 (26715)	21.42	20.51	19.78	
	10MHz	1RB-High (49)	844 (26990)	22.55	21.78	21.10
			831.5 (26865)	22.56	21.88	21.11
			820 (26750)	22.51	21.47	20.84
1RB-Middle (24)		844 (26990)	22.67	21.97	21.23	
		831.5 (26865)	22.60	21.95	21.18	
		820 (26750)	22.49	21.39	20.86	
1RB-Low (0)		844 (26990)	22.67	21.86	21.23	
		831.5 (26865)	22.47	21.85	21.29	
		820 (26750)	22.46	21.44	20.60	
25RB-High (25)		844 (26990)	21.52	20.58	19.78	
		831.5 (26865)	21.56	20.51	19.73	
		820 (26750)	21.51	20.47	19.77	
25RB-Middle (12)		844 (26990)	21.54	20.60	19.98	
		831.5 (26865)	21.57	20.51	19.91	
		820 (26750)	21.51	20.50	19.92	
25RB-Low (0)		844 (26990)	21.45	20.57	19.84	
		831.5 (26865)	21.45	20.48	19.95	
		820 (26750)	21.36	20.49	19.76	
50RB (0)		844 (26990)	21.56	20.55	19.86	
		831.5 (26865)	21.56	20.48	19.77	
		820 (26750)	21.44	20.48	19.95	
15MHz		1RB-High (74)	841.5 (26965)	22.74	21.96	21.96
			831.5 (26865)	22.73	22.05	22.05
			822.5 (26775)	22.71	21.64	21.64
	1RB-Middle (37)	841.5 (26965)	22.87	22.13	22.13	
		831.5 (26865)	22.78	22.10	22.10	
		822.5 (26775)	22.65	21.56	21.56	
	1RB-Low (0)	841.5 (26965)	22.82	22.04	22.04	
		831.5 (26865)	22.65	22.01	22.01	
		822.5 (26775)	22.63	21.59	21.59	
	36RB-High (38)	841.5 (26965)	21.68	20.75	20.75	
		831.5 (26865)	21.74	20.66	20.66	
		822.5 (26775)	21.68	20.66	20.66	
	36RB-Middle (19)	841.5 (26965)	21.71	20.78	20.78	
		831.5 (26865)	21.72	20.68	20.68	
		822.5 (26775)	21.66	20.69	20.69	
	36RB-Low (0)	841.5 (26965)	21.61	20.74	20.74	
		831.5 (26865)	21.60	20.68	20.68	
		822.5 (26775)	21.56	20.64	20.64	
	75RB (0)	841.5 (26965)	21.71	20.75	20.75	
		831.5 (26865)	21.71	20.68	20.68	
		822.5 (26775)	21.61	20.67	20.67	

LTE B41 PC2 A1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK	
5MHz	1RB-High (24)	2687.5 (41565)	25.74	24.56	23.89	
		2640.3(41093)	25.65	24.37	23.73	
		2593 (40620)	25.50	24.55	23.84	
		2545.8(40148)	25.55	24.32	23.53	
		2498.5 (39675)	25.59	24.38	23.71	
	1RB-Middle (12)	2687.5 (41565)	25.58	24.67	23.87	
		2640.3(41093)	25.65	24.45	23.86	
		2593 (40620)	25.50	24.69	23.90	
		2545.8(40148)	25.63	24.50	23.79	
		2498.5 (39675)	25.75	24.48	23.70	
	1RB-Low (0)	2687.5 (41565)	25.65	24.51	23.80	
		2640.3(41093)	25.56	24.48	23.85	
		2593 (40620)	25.38	24.41	23.77	
		2545.8(40148)	25.51	24.32	23.67	
		2498.5 (39675)	25.62	24.43	23.81	
	12RB-High (13)	2687.5 (41565)	24.73	23.67	22.87	
		2640.3(41093)	24.69	23.68	22.92	
		2593 (40620)	24.51	23.51	22.76	
		2545.8(40148)	24.55	23.54	22.88	
		2498.5 (39675)	24.67	23.61	22.99	
	12RB-Middle (6)	2687.5 (41565)	24.77	23.69	22.99	
		2640.3(41093)	24.75	23.75	23.11	
		2593 (40620)	24.47	23.62	22.89	
		2545.8(40148)	24.54	23.49	22.87	
		2498.5 (39675)	24.69	23.68	22.87	
	12RB-Low (0)	2687.5 (41565)	24.68	23.65	22.87	
		2640.3(41093)	24.68	23.67	23.05	
		2593 (40620)	24.51	23.53	22.94	
		2545.8(40148)	24.49	23.42	22.74	
		2498.5 (39675)	24.71	23.68	22.99	
	25RB (0)	2687.5 (41565)	24.72	23.73	23.01	
		2640.3(41093)	24.67	23.65	22.99	
		2593 (40620)	24.49	23.48	22.75	
		2545.8(40148)	24.53	23.49	22.80	
		2498.5 (39675)	24.67	23.59	22.89	
	10MHz	1RB-High (49)	2685 (41540)	25.76	24.55	23.94
			2639(41080)	25.65	24.35	23.72
			2593 (40620)	25.46	24.57	23.75
			2547(40160)	25.50	24.31	23.66
			2501 (39700)	25.63	24.43	23.68
1RB-Middle (24)		2685 (41540)	25.59	24.65	23.95	
		2639(41080)	25.64	24.48	23.84	
		2593 (40620)	25.52	24.66	24.07	
		2547(40160)	25.59	24.46	23.79	
		2501 (39700)	25.73	24.45	23.80	
1RB-Low (0)		2685 (41540)	25.63	24.48	23.75	
		2639(41080)	25.56	24.48	23.73	
		2593 (40620)	25.37	24.40	23.75	
		2547(40160)	25.50	24.32	23.55	
		2501 (39700)	25.59	24.44	23.75	
25RB-High (25)		2685 (41540)	24.75	23.70	22.99	
		2639(41080)	24.67	23.69	22.93	
		2593 (40620)	24.52	23.51	22.76	
		2547(40160)	24.57	23.52	22.81	
		2501 (39700)	24.67	23.64	22.98	
25RB-Middle (12)		2685 (41540)	24.73	23.72	23.02	
		2639(41080)	24.70	23.75	22.97	
		2593 (40620)	24.52	23.59	22.89	
		2547(40160)	24.51	23.53	22.80	
		2501 (39700)	24.65	23.67	22.98	
25RB-Low (0)		2685 (41540)	24.68	23.60	22.93	
		2639(41080)	24.67	23.65	22.92	
		2593 (40620)	24.51	23.50	22.80	
		2547(40160)	24.49	23.38	22.67	
		2501 (39700)	24.72	23.68	22.86	
50RB (0)		2685 (41540)	24.71	23.74	23.00	
		2639(41080)	24.66	23.66	22.88	
		2593 (40620)	24.47	23.48	22.84	
		2547(40160)	24.52	23.47	22.79	
		2501 (39700)	24.67	23.60	22.96	

15MHz	1RB-High (74)	2682.5 (41515)	25.76	24.56	23.82
		2637.8(41068)	25.64	24.37	23.71
		2593 (40620)	25.46	24.55	23.74
		2548.3(40173)	25.52	24.36	23.73
		2503.5 (39725)	25.64	24.43	23.76
	1RB-Middle (37)	2682.5 (41515)	25.57	24.65	24.01
		2637.8(41068)	25.64	24.44	23.69
		2593 (40620)	25.50	24.67	23.95
		2548.3(40173)	25.64	24.48	23.68
		2503.5 (39725)	25.71	24.46	23.70
	1RB-Low (0)	2682.5 (41515)	25.61	24.52	23.90
		2637.8(41068)	25.54	24.51	23.78
		2593 (40620)	25.39	24.43	23.69
		2548.3(40173)	25.50	24.35	23.66
		2503.5 (39725)	25.61	24.43	23.66
	36RB-High (38)	2682.5 (41515)	24.76	23.70	22.97
		2637.8(41068)	24.65	23.64	22.97
		2593 (40620)	24.48	23.50	22.87
		2548.3(40173)	24.57	23.52	22.77
		2503.5 (39725)	24.67	23.59	22.90
	36RB-Middle (19)	2682.5 (41515)	24.75	23.69	22.97
		2637.8(41068)	24.72	23.73	23.14
		2593 (40620)	24.49	23.63	22.97
		2548.3(40173)	24.50	23.50	22.77
		2503.5 (39725)	24.64	23.68	22.93
	36RB-Low (0)	2682.5 (41515)	24.69	23.63	22.96
		2637.8(41068)	24.72	23.65	22.89
		2593 (40620)	24.49	23.51	22.90
2548.3(40173)		24.44	23.42	22.77	
2503.5 (39725)		24.69	23.66	23.04	
75RB (0)	2682.5 (41515)	24.67	23.76	22.96	
	2637.8(41068)	24.70	23.62	22.98	
	2593 (40620)	24.45	23.51	22.73	
	2548.3(40173)	24.49	23.51	22.78	
	2503.5 (39725)	24.62	23.62	22.96	
20MHz	1RB-High (99)	2680 (41490)	25.92	24.74	24.04
		2636.5(41055)	25.83	24.55	23.85
		2593 (40620)	25.65	24.72	23.94
		2549.5(40185)	25.70	24.51	23.73
		2506 (39750)	25.79	24.58	23.97
		2680 (41490)	25.76	24.82	24.22
	1RB-Middle (50)	2636.5(41055)	25.83	24.63	23.94
		2593 (40620)	25.70	24.84	24.13
		2549.5(40185)	25.79	24.66	24.03
		2506 (39750)	25.91	24.63	23.93
		2680 (41490)	25.80	24.68	23.99
		2636.5(41055)	25.73	24.66	23.94
	1RB-Low (0)	2593 (40620)	25.56	24.60	23.98
		2549.5(40185)	25.70	24.51	23.81
		2506 (39750)	25.78	24.62	23.99
		2680 (41490)	24.93	23.87	23.07
		2636.5(41055)	24.85	23.84	23.22
	50RB-High (50)	2593 (40620)	24.67	23.70	22.92
		2549.5(40185)	24.72	23.72	22.94
		2506 (39750)	24.83	23.79	23.17
		2680 (41490)	24.92	23.89	23.12
		2636.5(41055)	24.90	23.92	23.31
	50RB-Middle (25)	2593 (40620)	24.67	23.78	23.16
		2549.5(40185)	24.70	23.68	22.94
		2506 (39750)	24.84	23.84	23.19
		2680 (41490)	24.88	23.80	23.04
		2636.5(41055)	24.87	23.85	23.14
	50RB-Low (0)	2593 (40620)	24.68	23.70	22.98
		2549.5(40185)	24.64	23.58	22.85
		2506 (39750)	24.88	23.83	23.23
		2680 (41490)	24.87	23.91	23.22
		2636.5(41055)	24.85	23.82	23.20
	100RB (0)	2593 (40620)	24.64	23.66	23.00
		2549.5(40185)	24.69	23.66	22.90
		2506 (39750)	24.82	23.78	23.08
		2680 (41490)	24.87	23.91	23.22

LTE B41 PC2 B1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK	
5MHz	1RB-High (24)	2687.5 (41565)	21.66	20.88	20.28	
		2640.3(41093)	21.62	20.79	20.17	
		2593 (40620)	21.60	21.02	20.36	
		2545.8(40148)	21.57	20.84	20.25	
	1RB-Middle (12)	2498.5 (39675)	21.72	20.85	20.22	
		2687.5 (41565)	21.71	20.99	20.44	
		2640.3(41093)	21.69	20.83	20.04	
		2593 (40620)	21.69	21.09	20.30	
	1RB-Low (0)	2545.8(40148)	21.70	20.93	20.33	
		2498.5 (39675)	21.80	20.94	20.19	
		2687.5 (41565)	21.56	20.85	20.23	
		2640.3(41093)	21.60	20.74	20.15	
	12RB-High (13)	2593 (40620)	21.51	20.98	20.43	
		2545.8(40148)	21.61	20.86	20.14	
		2498.5 (39675)	21.70	20.82	20.18	
		2687.5 (41565)	20.70	19.69	19.02	
	12RB-Middle (6)	2640.3(41093)	20.65	19.64	18.90	
		2593 (40620)	20.58	19.57	18.83	
		2545.8(40148)	20.64	19.67	18.96	
		2498.5 (39675)	20.74	19.78	19.14	
	12RB-Low (0)	2687.5 (41565)	20.59	19.66	18.98	
		2640.3(41093)	20.65	19.67	18.99	
		2593 (40620)	20.64	19.65	18.93	
		2545.8(40148)	20.62	19.65	18.95	
	25RB (0)	2498.5 (39675)	20.77	19.79	19.02	
		2687.5 (41565)	20.58	19.54	18.75	
		2640.3(41093)	20.65	19.65	19.05	
		2593 (40620)	20.63	19.61	19.01	
	10MHz	1RB-High (49)	2545.8(40148)	20.59	19.59	19.04
			2498.5 (39675)	20.74	19.80	19.08
			2687.5 (41565)	20.64	19.64	18.97
			2640.3(41093)	20.64	19.66	19.11
		1RB-Middle (24)	2593 (40620)	20.63	19.60	18.80
			2545.8(40148)	20.60	19.60	18.98
			2498.5 (39675)	20.72	19.79	19.08
			2685 (41540)	21.66	20.88	20.28
		1RB-Low (0)	2639(41080)	21.62	20.79	20.17
			2593 (40620)	21.60	21.02	20.36
			2547(40160)	21.57	20.84	20.25
			2501 (39700)	21.72	20.85	20.22
	25RB-High (25)	2685 (41540)	21.71	20.99	20.44	
		2639(41080)	21.69	20.83	20.04	
		2593 (40620)	21.69	21.09	20.30	
		2547(40160)	21.70	20.93	20.33	
	25RB-Middle (12)	2501 (39700)	21.80	20.94	20.19	
		2685 (41540)	21.56	20.85	20.23	
		2639(41080)	21.60	20.74	20.15	
		2593 (40620)	21.51	20.98	20.43	
25RB-Low (0)	2547(40160)	21.61	20.86	20.14		
	2501 (39700)	21.70	20.82	20.18		
	2685 (41540)	20.70	19.69	19.02		
	2639(41080)	20.65	19.64	18.90		
50RB (0)	2593 (40620)	20.58	19.57	18.83		
	2547(40160)	20.64	19.67	18.96		
	2501 (39700)	20.74	19.78	19.14		
	2685 (41540)	20.59	19.66	18.98		
	25RB-Middle (12)	2639(41080)	20.65	19.67	18.99	
		2593 (40620)	20.64	19.65	18.93	
		2547(40160)	20.62	19.65	18.95	
		2501 (39700)	20.77	19.79	19.02	
	25RB-Low (0)	2685 (41540)	20.58	19.54	18.75	
		2639(41080)	20.65	19.65	19.05	
		2593 (40620)	20.63	19.61	19.01	
		2547(40160)	20.59	19.59	19.04	
	50RB (0)	2501 (39700)	20.74	19.80	19.08	
		2685 (41540)	20.64	19.64	18.97	
		2639(41080)	20.64	19.66	19.11	
		2593 (40620)	20.63	19.60	18.80	
		2547(40160)	20.60	19.60	18.98	
		2501 (39700)	20.72	19.79	19.08	

15MHz	1RB-High (74)	2682.5 (41515)	21.66	20.88	20.28
		2637.8(41068)	21.62	20.79	20.17
		2593 (40620)	21.60	21.02	20.36
		2548.3(40173)	21.57	20.84	20.25
		2503.5 (39725)	21.72	20.85	20.22
	1RB-Middle (37)	2682.5 (41515)	21.71	20.99	20.44
		2637.8(41068)	21.69	20.83	20.04
		2593 (40620)	21.69	21.09	20.30
		2548.3(40173)	21.70	20.93	20.33
		2503.5 (39725)	21.80	20.94	20.19
	1RB-Low (0)	2682.5 (41515)	21.56	20.85	20.23
		2637.8(41068)	21.60	20.74	20.15
		2593 (40620)	21.51	20.98	20.43
		2548.3(40173)	21.61	20.86	20.14
		2503.5 (39725)	21.70	20.82	20.18
	36RB-High (38)	2682.5 (41515)	20.70	19.69	19.02
		2637.8(41068)	20.65	19.64	18.90
		2593 (40620)	20.58	19.57	18.83
		2548.3(40173)	20.64	19.67	18.96
		2503.5 (39725)	20.74	19.78	19.14
36RB-Middle (19)	2682.5 (41515)	20.59	19.66	18.98	
	2637.8(41068)	20.65	19.67	18.99	
	2593 (40620)	20.64	19.65	18.93	
	2548.3(40173)	20.62	19.65	18.95	
	2503.5 (39725)	20.77	19.79	19.02	
36RB-Low (0)	2682.5 (41515)	20.58	19.54	18.75	
	2637.8(41068)	20.65	19.65	19.05	
	2593 (40620)	20.63	19.61	19.01	
	2548.3(40173)	20.59	19.59	19.04	
	2503.5 (39725)	20.74	19.80	19.08	
75RB (0)	2682.5 (41515)	20.64	19.64	18.97	
	2637.8(41068)	20.64	19.66	19.11	
	2593 (40620)	20.63	19.60	18.80	
	2548.3(40173)	20.60	19.60	18.98	
	2503.5 (39725)	20.72	19.79	19.08	
20MHz	1RB-High (99)	2680 (41490)	21.66	20.88	20.28
		2636.5(41055)	21.62	20.79	20.17
		2593 (40620)	21.60	21.02	20.36
		2549.5(40185)	21.57	20.84	20.25
		2506 (39750)	21.72	20.85	20.22
		2680 (41490)	21.71	20.99	20.44
	1RB-Middle (50)	2636.5(41055)	21.69	20.83	20.04
		2593 (40620)	21.69	21.09	20.30
		2549.5(40185)	21.70	20.93	20.33
		2506 (39750)	21.80	20.94	20.19
		2680 (41490)	21.56	20.85	20.23
		2636.5(41055)	21.60	20.74	20.15
	1RB-Low (0)	2593 (40620)	21.51	20.98	20.43
		2549.5(40185)	21.61	20.86	20.14
		2506 (39750)	21.70	20.82	20.18
		2680 (41490)	20.70	19.69	19.02
		2636.5(41055)	20.65	19.64	18.90
	50RB-High (50)	2593 (40620)	20.58	19.57	18.83
		2549.5(40185)	20.64	19.67	18.96
		2506 (39750)	20.74	19.78	19.14
		2680 (41490)	20.59	19.66	18.98
		2636.5(41055)	20.65	19.67	18.99
	50RB-Middle (25)	2593 (40620)	20.64	19.65	18.93
		2549.5(40185)	20.62	19.65	18.95
		2506 (39750)	20.77	19.79	19.02
		2680 (41490)	20.58	19.54	18.75
		2636.5(41055)	20.65	19.65	19.05
	50RB-Low (0)	2593 (40620)	20.63	19.61	19.01
		2549.5(40185)	20.59	19.59	19.04
		2506 (39750)	20.74	19.80	19.08
		2680 (41490)	20.64	19.64	18.97
		2636.5(41055)	20.64	19.66	19.11
100RB (0)	2593 (40620)	20.63	19.60	18.80	
	2549.5(40185)	20.60	19.60	18.98	
	2506 (39750)	20.72	19.79	19.08	

LTE B41 PC2 C1/D1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK	
5MHz	1RB-High (24)	2687.5 (41565)	18.75	17.87	17.31	
		2640.3(41093)	18.70	17.67	17.02	
		2593 (40620)	18.56	17.91	17.19	
		2545.8(40148)	18.49	17.69	16.92	
		2498.5 (39675)	18.70	17.75	17.02	
	1RB-Middle (12)	2687.5 (41565)	18.77	17.95	17.14	
		2640.3(41093)	18.79	17.78	17.00	
		2593 (40620)	18.61	17.98	17.25	
		2545.8(40148)	18.52	17.76	17.01	
	1RB-Low (0)	2498.5 (39675)	18.76	17.77	17.05	
		2687.5 (41565)	18.61	17.76	17.18	
		2640.3(41093)	18.64	17.65	16.87	
		2593 (40620)	18.48	17.77	17.16	
	12RB-High (13)	2545.8(40148)	18.42	17.70	17.01	
		2498.5 (39675)	18.67	17.67	16.96	
		2687.5 (41565)	17.74	16.66	16.05	
		2640.3(41093)	17.68	16.52	15.79	
	12RB-Middle (6)	2593 (40620)	17.51	16.50	15.85	
		2545.8(40148)	17.53	16.40	15.74	
		2498.5 (39675)	17.60	16.53	15.86	
		2687.5 (41565)	17.71	16.61	16.01	
	12RB-Low (0)	2640.3(41093)	17.68	16.61	15.94	
		2593 (40620)	17.58	16.57	15.83	
		2545.8(40148)	17.54	16.44	15.69	
		2498.5 (39675)	17.60	16.53	15.82	
	25RB (0)	2687.5 (41565)	17.62	16.56	15.82	
		2640.3(41093)	17.61	16.58	15.99	
		2593 (40620)	17.55	16.53	15.95	
		2545.8(40148)	17.44	16.39	15.80	
	10MHz	1RB-High (49)	2498.5 (39675)	17.60	16.51	15.79
			2687.5 (41565)	17.63	16.58	15.99
			2640.3(41093)	17.62	16.58	15.88
			2593 (40620)	17.52	16.45	15.79
			2545.8(40148)	17.42	16.34	15.76
		1RB-Middle (24)	2498.5 (39675)	17.57	16.50	15.88
			2685 (41540)	18.74	17.91	17.30
			2639(41080)	18.70	17.68	17.01
			2593 (40620)	18.60	17.89	17.16
			2547(40160)	18.52	17.67	16.95
		1RB-Low (0)	2501 (39700)	18.66	17.75	17.03
			2685 (41540)	18.77	17.92	17.13
	2639(41080)		18.78	17.77	16.98	
	2593 (40620)		18.61	17.97	17.29	
	2547(40160)		18.51	17.78	17.01	
	25RB-High (25)	2501 (39700)	18.76	17.79	17.09	
		2685 (41540)	18.61	17.77	17.17	
		2639(41080)	18.68	17.63	16.87	
		2593 (40620)	18.45	17.77	17.14	
2547(40160)		18.45	17.68	17.04		
25RB-Middle (12)	2501 (39700)	18.66	17.65	17.00		
	2685 (41540)	17.71	16.68	16.04		
	2639(41080)	17.63	16.55	15.81		
	2593 (40620)	17.55	16.49	15.84		
	2547(40160)	17.51	16.43	15.69		
25RB-Low (0)	2501 (39700)	17.64	16.53	15.89		
	2685 (41540)	17.67	16.63	16.00		
	2639(41080)	17.66	16.58	15.93		
	2593 (40620)	17.55	16.53	15.84		
	2547(40160)	17.51	16.42	15.70		
50RB (0)	2501 (39700)	17.60	16.52	15.78		
	2685 (41540)	17.64	16.56	15.80		
	2639(41080)	17.65	16.60	15.98		
	2593 (40620)	17.56	16.55	15.97		
	2547(40160)	17.45	16.39	15.79		
	50RB (0)	2501 (39700)	17.62	16.51	15.75	
		2685 (41540)	17.63	16.61	15.95	
		2639(41080)	17.63	16.56	15.89	
		2593 (40620)	17.56	16.48	15.76	
		2547(40160)	17.42	16.34	15.73	
		2501 (39700)	17.54	16.52	15.84	

15MHz	1RB-High (74)	2682.5 (41515)	18.72	17.88	17.26
		2637.8(41068)	18.74	17.68	16.99
		2593 (40620)	18.60	17.90	17.14
		2548.3(40173)	18.49	17.71	16.93
		2503.5 (39725)	18.69	17.70	17.03
	1RB-Middle (37)	2682.5 (41515)	18.78	17.95	17.17
		2637.8(41068)	18.83	17.74	17.03
		2593 (40620)	18.63	17.95	17.26
		2548.3(40173)	18.55	17.77	16.98
		2503.5 (39725)	18.80	17.80	17.09
	1RB-Low (0)	2682.5 (41515)	18.57	17.78	17.15
		2637.8(41068)	18.66	17.67	16.92
		2593 (40620)	18.43	17.77	17.16
		2548.3(40173)	18.44	17.69	17.00
		2503.5 (39725)	18.67	17.62	17.01
	36RB-High (38)	2682.5 (41515)	17.74	16.63	16.01
		2637.8(41068)	17.64	16.55	15.79
		2593 (40620)	17.51	16.50	15.80
		2548.3(40173)	17.53	16.40	15.69
		2503.5 (39725)	17.63	16.54	15.87
	36RB-Middle (19)	2682.5 (41515)	17.72	16.64	15.99
		2637.8(41068)	17.66	16.60	15.94
		2593 (40620)	17.57	16.56	15.85
		2548.3(40173)	17.54	16.41	15.68
		2503.5 (39725)	17.62	16.57	15.82
	36RB-Low (0)	2682.5 (41515)	17.60	16.55	15.80
		2637.8(41068)	17.65	16.60	15.96
		2593 (40620)	17.56	16.53	15.96
2548.3(40173)		17.44	16.40	15.79	
2503.5 (39725)		17.63	16.52	15.76	
75RB (0)	2682.5 (41515)	17.64	16.58	15.95	
	2637.8(41068)	17.65	16.56	15.87	
	2593 (40620)	17.52	16.47	15.74	
	2548.3(40173)	17.42	16.38	15.76	
	2503.5 (39725)	17.57	16.53	15.85	
20MHz	1RB-High (99)	2680 (41490)	18.90	18.07	17.46
		2636.5(41055)	18.90	17.86	17.17
		2593 (40620)	18.76	18.07	17.34
		2549.5(40185)	18.69	17.86	17.10
		2506 (39750)	18.86	17.90	17.22
	1RB-Middle (50)	2680 (41490)	18.93	18.10	17.32
		2636.5(41055)	18.98	17.94	17.18
		2593 (40620)	18.81	18.15	17.44
		2549.5(40185)	18.71	17.95	17.17
		2506 (39750)	18.96	17.95	17.25
	1RB-Low (0)	2680 (41490)	18.77	17.95	17.34
		2636.5(41055)	18.83	17.82	17.07
		2593 (40620)	18.63	17.97	17.32
		2549.5(40185)	18.61	17.85	17.20
		2506 (39750)	18.82	17.82	17.16
	50RB-High (50)	2680 (41490)	17.90	16.83	16.20
		2636.5(41055)	17.83	16.72	15.97
		2593 (40620)	17.71	16.68	16.00
		2549.5(40185)	17.70	16.58	15.89
		2506 (39750)	17.80	16.71	16.06
	50RB-Middle (25)	2680 (41490)	17.87	16.81	16.19
		2636.5(41055)	17.83	16.76	16.09
		2593 (40620)	17.74	16.72	16.03
		2549.5(40185)	17.69	16.59	15.88
		2506 (39750)	17.77	16.72	15.97
	50RB-Low (0)	2680 (41490)	17.79	16.73	15.98
		2636.5(41055)	17.80	16.76	16.14
		2593 (40620)	17.74	16.72	16.12
		2549.5(40185)	17.63	16.55	15.95
		2506 (39750)	17.79	16.70	15.94
	100RB (0)	2680 (41490)	17.83	16.76	16.15
		2636.5(41055)	17.82	16.73	16.06
		2593 (40620)	17.71	16.65	15.94
		2549.5(40185)	17.61	16.53	15.92
		2506 (39750)	17.74	16.68	16.04

LTE B41 PC3 C1/D1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK	
5MHz	1RB-High (24)	2687.5 (41565)	15.39	14.33	13.72	
		2640.3(41093)	15.39	14.20	13.59	
		2593 (40620)	15.36	14.45	13.80	
		2545.8(40148)	15.28	14.21	13.62	
		2498.5 (39675)	15.48	14.34	13.63	
	1RB-Middle (12)	2687.5 (41565)	15.42	14.34	13.54	
		2640.3(41093)	15.52	14.26	13.47	
		2593 (40620)	15.37	14.48	13.73	
		2545.8(40148)	15.38	14.28	13.49	
		2498.5 (39675)	15.46	14.30	13.71	
	1RB-Low (0)	2687.5 (41565)	15.37	14.21	13.58	
		2640.3(41093)	15.45	14.22	13.50	
		2593 (40620)	15.26	14.43	13.71	
		2545.8(40148)	15.26	14.18	13.51	
		2498.5 (39675)	15.42	14.21	13.56	
	12RB-High (13)	2687.5 (41565)	14.43	13.35	12.62	
		2640.3(41093)	14.41	13.36	12.78	
		2593 (40620)	14.31	13.32	12.73	
		2545.8(40148)	14.32	13.38	12.64	
		2498.5 (39675)	14.42	13.57	12.77	
	12RB-Middle (6)	2687.5 (41565)	14.42	13.34	12.58	
		2640.3(41093)	14.44	13.36	12.68	
		2593 (40620)	14.35	13.45	12.86	
		2545.8(40148)	14.35	13.40	12.61	
		2498.5 (39675)	14.39	13.54	12.87	
	12RB-Low (0)	2687.5 (41565)	14.35	13.29	12.61	
		2640.3(41093)	14.44	13.41	12.65	
		2593 (40620)	14.34	13.50	12.88	
		2545.8(40148)	14.29	13.31	12.62	
		2498.5 (39675)	14.44	13.55	12.84	
	25RB (0)	2687.5 (41565)	14.41	13.32	12.62	
		2640.3(41093)	14.39	13.38	12.78	
		2593 (40620)	14.31	13.46	12.67	
		2545.8(40148)	14.25	13.36	12.57	
		2498.5 (39675)	14.38	13.53	12.84	
	10MHz	1RB-High (49)	2685 (41540)	15.37	14.31	13.69
			2639(41080)	15.42	14.23	13.59
			2593 (40620)	15.37	14.47	13.82
			2547(40160)	15.30	14.25	13.59
			2501 (39700)	15.47	14.30	13.64
		1RB-Middle (24)	2685 (41540)	15.40	14.32	13.57
			2639(41080)	15.51	14.31	13.48
			2593 (40620)	15.35	14.44	13.68
			2547(40160)	15.38	14.28	13.52
			2501 (39700)	15.48	14.29	13.70
		1RB-Low (0)	2685 (41540)	15.35	14.24	13.59
			2639(41080)	15.43	14.23	13.47
			2593 (40620)	15.29	14.41	13.68
2547(40160)			15.28	14.16	13.52	
2501 (39700)			15.38	14.21	13.59	
25RB-High (25)		2685 (41540)	14.39	13.38	12.60	
		2639(41080)	14.44	13.36	12.75	
		2593 (40620)	14.28	13.33	12.70	
		2547(40160)	14.34	13.38	12.67	
		2501 (39700)	14.40	13.53	12.78	
25RB-Middle (12)		2685 (41540)	14.43	13.38	12.57	
		2639(41080)	14.46	13.39	12.69	
		2593 (40620)	14.31	13.48	12.84	
		2547(40160)	14.34	13.37	12.59	
		2501 (39700)	14.41	13.55	12.87	
25RB-Low (0)		2685 (41540)	14.36	13.31	12.64	
		2639(41080)	14.47	13.37	12.67	
		2593 (40620)	14.31	13.49	12.89	
		2547(40160)	14.30	13.33	12.63	
		2501 (39700)	14.40	13.53	12.82	
50RB (0)		2685 (41540)	14.42	13.32	12.62	
		2639(41080)	14.41	13.37	12.74	
		2593 (40620)	14.29	13.44	12.67	
		2547(40160)	14.28	13.34	12.59	
		2501 (39700)	14.39	13.52	12.87	

15MHz	1RB-High (74)	2682.5 (41515)	15.36	14.34	13.72
		2637.8(41068)	15.40	14.24	13.57
		2593 (40620)	15.37	14.44	13.82
		2548.3(40173)	15.28	14.21	13.64
		2503.5 (39725)	15.48	14.34	13.61
	1RB-Middle (37)	2682.5 (41515)	15.44	14.36	13.53
		2637.8(41068)	15.52	14.29	13.48
		2593 (40620)	15.35	14.48	13.73
		2548.3(40173)	15.37	14.24	13.49
		2503.5 (39725)	15.49	14.29	13.69
	1RB-Low (0)	2682.5 (41515)	15.33	14.22	13.60
		2637.8(41068)	15.43	14.18	13.47
		2593 (40620)	15.26	14.40	13.67
		2548.3(40173)	15.29	14.18	13.49
		2503.5 (39725)	15.41	14.26	13.54
	36RB-High (38)	2682.5 (41515)	14.40	13.39	12.60
		2637.8(41068)	14.44	13.38	12.78
		2593 (40620)	14.30	13.36	12.70
		2548.3(40173)	14.33	13.35	12.68
		2503.5 (39725)	14.40	13.57	12.77
	36RB-Middle (19)	2682.5 (41515)	14.44	13.33	12.59
		2637.8(41068)	14.45	13.39	12.70
		2593 (40620)	14.33	13.50	12.84
		2548.3(40173)	14.32	13.38	12.62
		2503.5 (39725)	14.41	13.57	12.90
	36RB-Low (0)	2682.5 (41515)	14.38	13.31	12.62
		2637.8(41068)	14.45	13.39	12.63
		2593 (40620)	14.33	13.51	12.87
2548.3(40173)		14.31	13.33	12.61	
2503.5 (39725)		14.39	13.51	12.82	
75RB (0)	2682.5 (41515)	14.42	13.34	12.62	
	2637.8(41068)	14.42	13.38	12.77	
	2593 (40620)	14.31	13.44	12.68	
	2548.3(40173)	14.25	13.36	12.62	
	2503.5 (39725)	14.38	13.49	12.85	
20MHz	1RB-High (99)	2680 (41490)	15.56	14.51	13.87
		2636.5(41055)	15.58	14.40	13.75
		2593 (40620)	15.55	14.63	13.99
		2549.5(40185)	15.48	14.40	13.79
		2506 (39750)	15.64	14.49	13.81
	1RB-Middle (50)	2680 (41490)	15.59	14.52	13.72
		2636.5(41055)	15.67	14.46	13.66
		2593 (40620)	15.55	14.63	13.88
		2549.5(40185)	15.55	14.44	13.69
		2506 (39750)	15.66	14.49	13.87
	1RB-Low (0)	2680 (41490)	15.52	14.41	13.76
		2636.5(41055)	15.60	14.38	13.65
		2593 (40620)	15.44	14.59	13.86
		2549.5(40185)	15.45	14.35	13.69
		2506 (39750)	15.57	14.41	13.74
	50RB-High (50)	2680 (41490)	14.59	13.54	12.78
		2636.5(41055)	14.59	13.54	12.93
		2593 (40620)	14.47	13.52	12.88
		2549.5(40185)	14.50	13.53	12.84
		2506 (39750)	14.57	13.73	12.96
	50RB-Middle (25)	2680 (41490)	14.59	13.53	12.74
		2636.5(41055)	14.61	13.55	12.85
		2593 (40620)	14.50	13.65	13.01
		2549.5(40185)	14.51	13.56	12.78
		2506 (39750)	14.57	13.72	13.06
	50RB-Low (0)	2680 (41490)	14.53	13.46	12.79
		2636.5(41055)	14.62	13.56	12.82
		2593 (40620)	14.51	13.66	13.06
		2549.5(40185)	14.46	13.51	12.79
		2506 (39750)	14.59	13.71	13.02
	100RB (0)	2680 (41490)	14.60	13.51	12.81
		2636.5(41055)	14.58	13.54	12.94
		2593 (40620)	14.48	13.62	12.87
		2549.5(40185)	14.45	13.53	12.77
		2506 (39750)	14.57	13.69	13.04

LTE B41 PC3 A1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK	
5MHz	1RB-High (24)	2687.5 (41565)	22.63	21.50	20.87	
		2640.3(41093)	22.58	21.38	20.69	
		2593 (40620)	22.56	21.45	20.82	
		2545.8(40148)	22.55	21.37	20.68	
		2498.5 (39675)	22.53	21.32	20.57	
	1RB-Middle (12)	2687.5 (41565)	22.68	21.59	20.84	
		2640.3(41093)	22.71	21.47	20.90	
		2593 (40620)	22.51	21.59	20.97	
		2545.8(40148)	22.53	21.37	20.75	
		2498.5 (39675)	22.68	21.45	20.65	
	1RB-Low (0)	2687.5 (41565)	22.62	21.44	20.84	
		2640.3(41093)	22.51	21.44	20.63	
		2593 (40620)	22.40	21.33	20.76	
		2545.8(40148)	22.36	21.37	20.58	
		2498.5 (39675)	22.53	21.47	20.75	
	12RB-High (13)	2687.5 (41565)	21.66	20.61	19.91	
		2640.3(41093)	21.56	20.59	19.76	
		2593 (40620)	21.43	20.46	19.67	
		2545.8(40148)	21.48	20.39	19.66	
		2498.5 (39675)	21.54	20.55	19.86	
	12RB-Middle (6)	2687.5 (41565)	21.67	20.65	20.00	
		2640.3(41093)	21.60	20.63	19.93	
		2593 (40620)	21.47	20.55	19.78	
		2545.8(40148)	21.42	20.39	19.75	
		2498.5 (39675)	21.58	20.54	19.84	
	12RB-Low (0)	2687.5 (41565)	21.58	20.56	19.88	
		2640.3(41093)	21.61	20.56	19.95	
		2593 (40620)	21.42	20.44	19.73	
		2545.8(40148)	21.41	20.44	19.75	
		2498.5 (39675)	21.58	20.59	19.85	
	25RB (0)	2687.5 (41565)	21.63	20.60	19.92	
		2640.3(41093)	21.60	20.54	19.77	
		2593 (40620)	21.40	20.33	19.64	
		2545.8(40148)	21.42	20.40	19.65	
		2498.5 (39675)	21.53	20.51	19.87	
	10MHz	1RB-High (49)	2685 (41540)	22.61	21.52	20.84
			2639(41080)	22.63	21.36	20.70
			2593 (40620)	22.44	21.49	20.86
			2547(40160)	22.40	21.35	20.68
			2501 (39700)	22.55	21.31	20.59
		1RB-Middle (24)	2685 (41540)	22.69	21.58	20.84
			2639(41080)	22.68	21.48	20.86
			2593 (40620)	22.54	21.61	20.92
			2547(40160)	22.49	21.38	20.78
			2501 (39700)	22.67	21.40	20.65
		1RB-Low (0)	2685 (41540)	22.62	21.45	20.82
			2639(41080)	22.51	21.42	20.66
			2593 (40620)	22.41	21.36	20.71
2547(40160)			22.38	21.35	20.56	
2501 (39700)			22.53	21.45	20.76	
25RB-High (25)		2685 (41540)	21.62	20.56	19.86	
		2639(41080)	21.59	20.60	19.79	
		2593 (40620)	21.41	20.48	19.67	
		2547(40160)	21.48	20.39	19.71	
		2501 (39700)	21.58	20.55	19.84	
25RB-Middle (12)		2685 (41540)	21.64	20.61	20.04	
		2639(41080)	21.63	20.59	19.95	
		2593 (40620)	21.51	20.54	19.81	
		2547(40160)	21.44	20.35	19.76	
		2501 (39700)	21.60	20.52	19.79	
25RB-Low (0)		2685 (41540)	21.59	20.60	19.87	
		2639(41080)	21.60	20.54	19.97	
		2593 (40620)	21.45	20.43	19.70	
		2547(40160)	21.39	20.43	19.74	
		2501 (39700)	21.61	20.54	19.85	
50RB (0)		2685 (41540)	21.60	20.58	19.95	
		2639(41080)	21.57	20.57	19.76	
		2593 (40620)	21.37	20.32	19.68	
		2547(40160)	21.38	20.40	19.65	
		2501 (39700)	21.54	20.52	19.85	

15MHz	1RB-High (74)	2682.5 (41515)	22.63	21.50	20.84	
		2637.8(41068)	22.59	21.38	20.68	
		2593 (40620)	22.47	21.47	20.85	
		2548.3(40173)	22.44	21.38	20.65	
			2503.5 (39725)	22.57	21.31	20.55
	1RB-Middle (37)	2682.5 (41515)	22.67	21.61	20.83	
		2637.8(41068)	22.67	21.51	20.89	
		2593 (40620)	22.55	21.60	20.93	
		2548.3(40173)	22.49	21.37	20.75	
			2503.5 (39725)	22.65	21.40	20.61
	1RB-Low (0)	2682.5 (41515)	22.63	21.45	20.83	
		2637.8(41068)	22.52	21.43	20.63	
		2593 (40620)	22.37	21.38	20.74	
		2548.3(40173)	22.36	21.39	20.57	
			2503.5 (39725)	22.49	21.46	20.79
	36RB-High (38)	2682.5 (41515)	21.67	20.57	19.87	
		2637.8(41068)	21.56	20.55	19.80	
		2593 (40620)	21.38	20.47	19.64	
		2548.3(40173)	21.44	20.37	19.67	
			2503.5 (39725)	21.58	20.51	19.87
	36RB-Middle (19)	2682.5 (41515)	21.67	20.65	20.04	
		2637.8(41068)	21.63	20.62	19.96	
		2593 (40620)	21.46	20.51	19.76	
		2548.3(40173)	21.44	20.35	19.77	
			2503.5 (39725)	21.55	20.55	19.84
	36RB-Low (0)	2682.5 (41515)	21.59	20.55	19.89	
		2637.8(41068)	21.63	20.59	19.94	
		2593 (40620)	21.43	20.46	19.72	
2548.3(40173)		21.43	20.40	19.75		
		2503.5 (39725)	21.60	20.54	19.86	
75RB (0)	2682.5 (41515)	21.61	20.59	19.97		
	2637.8(41068)	21.57	20.55	19.81		
	2593 (40620)	21.38	20.33	19.65		
	2548.3(40173)	21.43	20.35	19.63		
		2503.5 (39725)	21.56	20.51	19.84	
20MHz	1RB-High (99)	2680 (41490)	22.78	21.67	21.03	
		2636.5(41055)	22.78	21.54	20.85	
		2593 (40620)	22.63	21.65	21.01	
		2549.5(40185)	22.60	21.54	20.83	
			2506 (39750)	22.72	21.50	20.75
	1RB-Middle (50)	2680 (41490)	22.84	21.76	21.00	
		2636.5(41055)	22.86	21.67	21.06	
		2593 (40620)	22.71	21.77	21.12	
		2549.5(40185)	22.68	21.56	20.93	
			2506 (39750)	22.83	21.60	20.80
	1RB-Low (0)	2680 (41490)	22.82	21.62	21.01	
		2636.5(41055)	22.68	21.60	20.81	
		2593 (40620)	22.57	21.53	20.91	
		2549.5(40185)	22.54	21.54	20.74	
			2506 (39750)	22.69	21.62	20.94
	50RB-High (50)	2680 (41490)	21.82	20.76	20.06	
		2636.5(41055)	21.74	20.75	19.96	
		2593 (40620)	21.58	20.63	19.84	
		2549.5(40185)	21.64	20.57	19.86	
			2506 (39750)	21.74	20.71	20.03
	50RB-Middle (25)	2680 (41490)	21.83	20.80	20.20	
		2636.5(41055)	21.80	20.79	20.13	
		2593 (40620)	21.66	20.70	19.96	
		2549.5(40185)	21.61	20.55	19.94	
			2506 (39750)	21.75	20.72	19.99
	50RB-Low (0)	2680 (41490)	21.76	20.75	20.05	
		2636.5(41055)	21.78	20.74	20.12	
		2593 (40620)	21.62	20.61	19.88	
2549.5(40185)		21.58	20.59	19.94		
		2506 (39750)	21.77	20.74	20.02	
100RB (0)	2680 (41490)	21.79	20.77	20.12		
	2636.5(41055)	21.75	20.72	19.96		
	2593 (40620)	21.56	20.52	19.84		
	2549.5(40185)	21.58	20.55	19.81		
		2506 (39750)	21.73	20.69	20.02	

LTE B41 PC3 B1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK	
5MHz	1RB-High (24)	2687.5 (41565)	18.44	17.34	16.73	
		2640.3(41093)	18.47	17.28	16.64	
		2593 (40620)	18.34	17.44	16.72	
		2545.8(40148)	18.31	17.19	16.57	
		2498.5 (39675)	18.48	17.29	16.57	
	1RB-Middle (12)	2687.5 (41565)	18.53	17.42	16.76	
		2640.3(41093)	18.52	17.34	16.75	
		2593 (40620)	18.44	17.49	16.87	
		2545.8(40148)	18.42	17.35	16.67	
	1RB-Low (0)	2498.5 (39675)	18.59	17.39	16.74	
		2687.5 (41565)	18.40	17.24	16.57	
		2640.3(41093)	18.39	17.18	16.48	
		2593 (40620)	18.27	17.39	16.68	
	12RB-High (13)	2545.8(40148)	18.30	17.23	16.62	
		2498.5 (39675)	18.45	17.24	16.64	
		2687.5 (41565)	17.53	16.50	15.75	
		2640.3(41093)	17.45	16.47	15.65	
	12RB-Middle (6)	2593 (40620)	17.32	16.37	15.70	
		2545.8(40148)	17.38	16.34	15.78	
		2498.5 (39675)	17.52	16.47	15.76	
		2687.5 (41565)	17.45	16.43	15.64	
	12RB-Low (0)	2640.3(41093)	17.44	16.50	15.84	
		2593 (40620)	17.39	16.45	15.78	
		2545.8(40148)	17.38	16.32	15.68	
		2498.5 (39675)	17.51	16.51	15.73	
	25RB (0)	2687.5 (41565)	17.41	16.37	15.79	
		2640.3(41093)	17.38	16.40	15.78	
		2593 (40620)	17.42	16.45	15.79	
		2545.8(40148)	17.32	16.33	15.50	
	10MHz	1RB-High (49)	2498.5 (39675)	17.52	16.50	15.87
			2687.5 (41565)	17.42	16.44	15.73
			2640.3(41093)	17.44	16.48	15.77
			2593 (40620)	17.38	16.36	15.73
			2545.8(40148)	17.36	16.27	15.62
		1RB-Middle (24)	2498.5 (39675)	17.45	16.46	15.81
			2685 (41540)	18.46	17.37	16.76
			2639(41080)	18.42	17.27	16.64
			2593 (40620)	18.35	17.44	16.76
			2547(40160)	18.31	17.23	16.53
		1RB-Low (0)	2501 (39700)	18.47	17.27	16.59
			2685 (41540)	18.56	17.39	16.79
			2639(41080)	18.54	17.31	16.74
			2593 (40620)	18.43	17.49	16.84
			2547(40160)	18.40	17.36	16.63
		25RB-High (25)	2501 (39700)	18.59	17.39	16.75
			2685 (41540)	18.38	17.24	16.59
			2639(41080)	18.36	17.19	16.49
			2593 (40620)	18.29	17.36	16.68
2547(40160)			18.26	17.21	16.63	
25RB-Middle (12)		2501 (39700)	18.42	17.21	16.61	
		2685 (41540)	17.49	16.48	15.78	
		2639(41080)	17.46	16.44	15.69	
		2593 (40620)	17.35	16.38	15.70	
		2547(40160)	17.40	16.37	15.74	
25RB-Low (0)		2501 (39700)	17.49	16.51	15.77	
		2685 (41540)	17.44	16.42	15.68	
		2639(41080)	17.44	16.48	15.84	
		2593 (40620)	17.40	16.41	15.79	
		2547(40160)	17.41	16.36	15.67	
50RB (0)		2501 (39700)	17.54	16.49	15.75	
		2685 (41540)	17.36	16.37	15.80	
		2639(41080)	17.39	16.43	15.76	
		2593 (40620)	17.43	16.40	15.76	
		2547(40160)	17.34	16.30	15.54	
		2501 (39700)	17.50	16.49	15.82	
		2685 (41540)	17.43	16.45	15.77	
		2639(41080)	17.45	16.45	15.82	
		2593 (40620)	17.38	16.39	15.71	
		2547(40160)	17.32	16.30	15.60	
			2501 (39700)	17.48	16.43	15.80

15MHz	1RB-High (74)	2682.5 (41515)	18.44	17.37	16.77
		2637.8(41068)	18.42	17.27	16.65
		2593 (40620)	18.37	17.47	16.72
		2548.3(40173)	18.27	17.20	16.56
		2503.5 (39725)	18.47	17.25	16.59
	1RB-Middle (37)	2682.5 (41515)	18.52	17.44	16.77
		2637.8(41068)	18.57	17.31	16.75
		2593 (40620)	18.41	17.54	16.86
		2548.3(40173)	18.45	17.31	16.62
		2503.5 (39725)	18.56	17.41	16.75
	1RB-Low (0)	2682.5 (41515)	18.35	17.23	16.58
		2637.8(41068)	18.40	17.18	16.51
		2593 (40620)	18.30	17.37	16.65
		2548.3(40173)	18.28	17.24	16.62
		2503.5 (39725)	18.44	17.25	16.63
	36RB-High (38)	2682.5 (41515)	17.53	16.49	15.76
		2637.8(41068)	17.44	16.45	15.65
		2593 (40620)	17.31	16.37	15.72
		2548.3(40173)	17.40	16.37	15.78
		2503.5 (39725)	17.49	16.47	15.76
	36RB-Middle (19)	2682.5 (41515)	17.44	16.45	15.64
		2637.8(41068)	17.44	16.50	15.86
		2593 (40620)	17.38	16.42	15.76
		2548.3(40173)	17.41	16.33	15.65
		2503.5 (39725)	17.55	16.47	15.71
	36RB-Low (0)	2682.5 (41515)	17.39	16.39	15.78
		2637.8(41068)	17.42	16.41	15.79
		2593 (40620)	17.41	16.41	15.76
2548.3(40173)		17.32	16.31	15.52	
2503.5 (39725)		17.53	16.46	15.83	
75RB (0)	2682.5 (41515)	17.47	16.43	15.73	
	2637.8(41068)	17.41	16.45	15.82	
	2593 (40620)	17.34	16.40	15.71	
	2548.3(40173)	17.36	16.28	15.60	
	2503.5 (39725)	17.49	16.45	15.80	
20MHz	1RB-High (99)	2680 (41490)	18.61	17.53	16.92
		2636.5(41055)	18.62	17.44	16.84
		2593 (40620)	18.54	17.64	16.92
		2549.5(40185)	18.46	17.39	16.73
		2506 (39750)	18.66	17.45	16.75
	1RB-Middle (50)	2680 (41490)	18.71	17.59	16.96
		2636.5(41055)	18.72	17.50	16.90
		2593 (40620)	18.61	17.69	17.02
		2549.5(40185)	18.60	17.51	16.82
		2506 (39750)	18.76	17.58	16.90
	1RB-Low (0)	2680 (41490)	18.55	17.41	16.74
		2636.5(41055)	18.56	17.37	16.66
		2593 (40620)	18.47	17.56	16.84
		2549.5(40185)	18.46	17.39	16.79
		2506 (39750)	18.61	17.41	16.81
	50RB-High (50)	2680 (41490)	17.68	16.67	15.95
		2636.5(41055)	17.61	16.64	15.84
		2593 (40620)	17.50	16.57	15.89
		2549.5(40185)	17.55	16.53	15.93
		2506 (39750)	17.68	16.67	15.92
	50RB-Middle (25)	2680 (41490)	17.63	16.62	15.84
		2636.5(41055)	17.64	16.67	16.03
		2593 (40620)	17.55	16.61	15.96
		2549.5(40185)	17.58	16.52	15.83
		2506 (39750)	17.70	16.66	15.91
	50RB-Low (0)	2680 (41490)	17.56	16.55	15.95
		2636.5(41055)	17.58	16.59	15.94
		2593 (40620)	17.59	16.60	15.95
		2549.5(40185)	17.51	16.48	15.69
		2506 (39750)	17.68	16.66	16.02
	100RB (0)	2680 (41490)	17.62	16.60	15.92
		2636.5(41055)	17.61	16.65	15.97
		2593 (40620)	17.54	16.56	15.90
		2549.5(40185)	17.51	16.47	15.77
		2506 (39750)	17.64	16.61	15.97

LTE B66 ANT1 A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1779.3 (132665)	23.53	22.59	21.91
		1745 (132322)	23.39	22.48	21.77
		1710.7 (131979)	23.35	22.36	21.66
	1RB-Middle (3)	1779.3 (132665)	23.58	22.68	21.91
		1745 (132322)	23.52	22.54	21.82
		1710.7 (131979)	23.42	22.47	21.79
	1RB-Low (0)	1779.3 (132665)	23.42	22.52	21.88
		1745 (132322)	23.34	22.41	21.77
		1710.7 (131979)	23.32	22.32	21.72
	3RB-High (3)	1779.3 (132665)	22.56	21.49	20.79
		1745 (132322)	22.51	21.48	20.81
		1710.7 (131979)	22.34	21.46	20.82
	3RB-Middle (1)	1779.3 (132665)	22.60	21.55	20.76
		1745 (132322)	22.46	21.42	20.79
		1710.7 (131979)	22.43	21.48	20.85
	3RB-Low (0)	1779.3 (132665)	22.59	21.57	20.82
		1745 (132322)	22.46	21.44	20.67
		1710.7 (131979)	22.36	21.45	20.77
	6RB (0)	1779.3 (132665)	22.53	21.52	20.86
		1745 (132322)	22.44	21.45	20.68
		1710.7 (131979)	22.33	21.49	20.72
3MHz	1RB-High (14)	1778.5 (132657)	23.54	22.59	21.91
		1745 (132322)	23.40	22.48	21.77
		1711.5 (131987)	23.37	22.36	21.67
	1RB-Middle (7)	1778.5 (132657)	23.63	22.65	21.95
		1745 (132322)	23.48	22.58	21.82
		1711.5 (131987)	23.44	22.45	21.76
	1RB-Low (0)	1778.5 (132657)	23.43	22.51	21.88
		1745 (132322)	23.35	22.41	21.74
		1711.5 (131987)	23.27	22.34	21.70
	8RB-High (7)	1778.5 (132657)	22.54	21.51	20.82
		1745 (132322)	22.49	21.45	20.81
		1711.5 (131987)	22.33	21.44	20.86
	8RB-Middle (4)	1778.5 (132657)	22.60	21.56	20.81
		1745 (132322)	22.49	21.41	20.80
		1711.5 (131987)	22.38	21.51	20.85
	8RB-Low (0)	1778.5 (132657)	22.61	21.58	20.83
		1745 (132322)	22.47	21.40	20.68
		1711.5 (131987)	22.37	21.44	20.76
	15RB (0)	1778.5 (132657)	22.57	21.56	20.85
		1745 (132322)	22.46	21.44	20.66
		1711.5 (131987)	22.34	21.48	20.75
5MHz	1RB-High (24)	1777.5 (132647)	23.55	22.57	21.94
		1745 (132322)	23.44	22.47	21.78
		1712.5 (131997)	23.35	22.34	21.64
	1RB-Middle (12)	1777.5 (132647)	23.62	22.66	21.91
		1745 (132322)	23.48	22.53	21.79
		1712.5 (131997)	23.39	22.45	21.77
	1RB-Low (0)	1777.5 (132647)	23.46	22.50	21.85
		1745 (132322)	23.38	22.39	21.77
		1712.5 (131997)	23.28	22.33	21.71
	12RB-High (13)	1777.5 (132647)	22.56	21.52	20.78
		1745 (132322)	22.51	21.47	20.80
		1712.5 (131997)	22.34	21.45	20.82
	12RB-Middle (6)	1777.5 (132647)	22.60	21.56	20.81
		1745 (132322)	22.49	21.41	20.80
		1712.5 (131997)	22.42	21.48	20.86
	12RB-Low (0)	1777.5 (132647)	22.60	21.57	20.82
		1745 (132322)	22.44	21.44	20.68
		1712.5 (131997)	22.34	21.49	20.78
	25RB (0)	1777.5 (132647)	22.52	21.54	20.89
		1745 (132322)	22.46	21.45	20.66
		1712.5 (131997)	22.36	21.50	20.75

10MHz	1RB-High (49)	1775 (132622)	23.53	22.59	21.92
		1745 (132322)	23.44	22.49	21.82
		1715 (132022)	23.38	22.33	21.68
	1RB-Middle (24)	1775 (132622)	23.63	22.63	21.94
		1745 (132322)	23.48	22.58	21.84
		1715 (132022)	23.42	22.47	21.78
	1RB-Low (0)	1775 (132622)	23.42	22.50	21.90
		1745 (132322)	23.34	22.38	21.74
		1715 (132022)	23.29	22.32	21.72
	25RB-High (25)	1775 (132622)	22.53	21.52	20.81
		1745 (132322)	22.52	21.48	20.82
		1715 (132022)	22.35	21.45	20.86
	25RB-Middle (12)	1775 (132622)	22.62	21.57	20.77
		1745 (132322)	22.49	21.40	20.81
		1715 (132022)	22.39	21.46	20.87
	25RB-Low (0)	1775 (132622)	22.61	21.55	20.81
		1745 (132322)	22.43	21.40	20.64
		1715 (132022)	22.35	21.46	20.79
50RB (0)	1775 (132622)	22.57	21.56	20.89	
	1745 (132322)	22.46	21.42	20.67	
	1715 (132022)	22.38	21.47	20.75	
15MHz	1RB-High (74)	1772.5 (132597)	23.55	22.59	21.93
		1745 (132322)	23.39	22.48	21.82
		1717.5 (132047)	23.33	22.35	21.68
	1RB-Middle (37)	1772.5 (132597)	23.63	22.63	21.91
		1745 (132322)	23.49	22.54	21.84
		1717.5 (132047)	23.41	22.47	21.76
	1RB-Low (0)	1772.5 (132597)	23.46	22.51	21.90
		1745 (132322)	23.37	22.41	21.73
		1717.5 (132047)	23.28	22.33	21.71
	36RB-High (38)	1772.5 (132597)	22.56	21.50	20.78
		1745 (132322)	22.48	21.47	20.81
		1717.5 (132047)	22.38	21.47	20.84
	36RB-Middle (19)	1772.5 (132597)	22.62	21.59	20.78
		1745 (132322)	22.47	21.42	20.78
		1717.5 (132047)	22.38	21.46	20.88
	36RB-Low (0)	1772.5 (132597)	22.60	21.57	20.84
		1745 (132322)	22.47	21.40	20.67
		1717.5 (132047)	22.36	21.45	20.78
75RB (0)	1772.5 (132597)	22.56	21.55	20.86	
	1745 (132322)	22.44	21.41	20.68	
	1717.5 (132047)	22.35	21.49	20.71	
20MHz	1RB-High (99)	1770 (132572)	23.71	22.75	22.11
		1745 (132322)	23.59	22.64	21.97
		1720 (132072)	23.53	22.53	21.84
	1RB-Middle (50)	1770 (132572)	23.78	22.83	22.10
		1745 (132322)	23.68	22.73	21.99
		1720 (132072)	23.59	22.65	21.95
	1RB-Low (0)	1770 (132572)	23.61	22.69	22.05
		1745 (132322)	23.53	22.58	21.92
		1720 (132072)	23.47	22.52	21.89
	50RB-High (50)	1770 (132572)	22.72	21.68	20.97
		1745 (132322)	22.67	21.64	20.97
		1720 (132072)	22.53	21.63	21.01
	50RB-Middle (25)	1770 (132572)	22.77	21.75	20.96
		1745 (132322)	22.64	21.59	20.98
		1720 (132072)	22.58	21.66	21.05
	50RB-Low (0)	1770 (132572)	22.76	21.73	21.01
		1745 (132322)	22.63	21.60	20.83
		1720 (132072)	22.52	21.64	20.96
100RB (0)	1770 (132572)	22.72	21.71	21.05	
	1745 (132322)	22.63	21.60	20.83	
	1720 (132072)	22.53	21.66	20.91	

LTE B66 ANT1 B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1779.3 (132665)	19.33	18.38	17.63
		1745 (132322)	19.25	18.30	17.65
		1710.7 (131979)	19.15	18.18	17.47
	1RB-Middle (3)	1779.3 (132665)	19.41	18.44	17.87
		1745 (132322)	19.34	18.41	17.76
		1710.7 (131979)	19.24	18.30	17.55
	1RB-Low (0)	1779.3 (132665)	19.26	18.31	17.54
		1745 (132322)	19.17	18.25	17.48
		1710.7 (131979)	19.11	18.15	17.42
	3RB-High (3)	1779.3 (132665)	18.32	17.34	16.58
		1745 (132322)	18.28	17.26	16.54
		1710.7 (131979)	18.20	17.22	16.56
	3RB-Middle (1)	1779.3 (132665)	18.43	17.41	16.61
		1745 (132322)	18.29	17.26	16.64
		1710.7 (131979)	18.18	17.20	16.55
	3RB-Low (0)	1779.3 (132665)	18.40	17.36	16.58
		1745 (132322)	18.30	17.27	16.45
		1710.7 (131979)	18.20	17.18	16.62
6RB (0)	1779.3 (132665)	18.38	17.43	16.67	
	1745 (132322)	18.28	17.34	16.73	
	1710.7 (131979)	18.23	17.22	16.42	
3MHz	1RB-High (14)	1778.5 (132657)	19.30	18.38	17.59
		1745 (132322)	19.27	18.27	17.70
		1711.5 (131987)	19.16	18.19	17.45
	1RB-Middle (7)	1778.5 (132657)	19.37	18.45	17.88
		1745 (132322)	19.31	18.41	17.75
		1711.5 (131987)	19.23	18.27	17.55
	1RB-Low (0)	1778.5 (132657)	19.27	18.36	17.54
		1745 (132322)	19.17	18.23	17.50
		1711.5 (131987)	19.06	18.17	17.39
	8RB-High (7)	1778.5 (132657)	18.34	17.34	16.59
		1745 (132322)	18.30	17.25	16.51
		1711.5 (131987)	18.21	17.20	16.57
	8RB-Middle (4)	1778.5 (132657)	18.40	17.40	16.62
		1745 (132322)	18.29	17.25	16.65
		1711.5 (131987)	18.21	17.23	16.51
	8RB-Low (0)	1778.5 (132657)	18.43	17.36	16.58
		1745 (132322)	18.27	17.27	16.48
		1711.5 (131987)	18.18	17.19	16.62
15RB (0)	1778.5 (132657)	18.41	17.38	16.64	
	1745 (132322)	18.31	17.29	16.71	
	1711.5 (131987)	18.18	17.21	16.39	
5MHz	1RB-High (24)	1777.5 (132647)	19.31	18.40	17.60
		1745 (132322)	19.25	18.30	17.66
		1712.5 (131997)	19.15	18.18	17.49
	1RB-Middle (12)	1777.5 (132647)	19.40	18.44	17.88
		1745 (132322)	19.34	18.40	17.76
		1712.5 (131997)	19.21	18.32	17.55
	1RB-Low (0)	1777.5 (132647)	19.28	18.36	17.55
		1745 (132322)	19.21	18.25	17.51
		1712.5 (131997)	19.07	18.13	17.42
	12RB-High (13)	1777.5 (132647)	18.32	17.35	16.58
		1745 (132322)	18.26	17.27	16.54
		1712.5 (131997)	18.19	17.17	16.59
	12RB-Middle (6)	1777.5 (132647)	18.40	17.43	16.65
		1745 (132322)	18.32	17.27	16.66
		1712.5 (131997)	18.22	17.21	16.54
	12RB-Low (0)	1777.5 (132647)	18.41	17.41	16.58
		1745 (132322)	18.28	17.26	16.50
		1712.5 (131997)	18.19	17.20	16.62
25RB (0)	1777.5 (132647)	18.39	17.42	16.65	
	1745 (132322)	18.27	17.31	16.73	
	1712.5 (131997)	18.21	17.20	16.41	

10MHz	1RB-High (49)	1775 (132622)	19.29	18.38	17.59
		1745 (132322)	19.25	18.27	17.66
		1715 (132022)	19.18	18.22	17.46
	1RB-Middle (24)	1775 (132622)	19.40	18.45	17.87
		1745 (132322)	19.35	18.39	17.72
		1715 (132022)	19.25	18.29	17.57
	1RB-Low (0)	1775 (132622)	19.28	18.31	17.53
		1745 (132322)	19.20	18.24	17.47
		1715 (132022)	19.07	18.14	17.39
	25RB-High (25)	1775 (132622)	18.30	17.37	16.57
		1745 (132322)	18.28	17.25	16.50
		1715 (132022)	18.18	17.18	16.57
	25RB-Middle (12)	1775 (132622)	18.42	17.39	16.63
		1745 (132322)	18.31	17.28	16.62
		1715 (132022)	18.18	17.21	16.55
	25RB-Low (0)	1775 (132622)	18.41	17.39	16.60
		1745 (132322)	18.31	17.29	16.50
		1715 (132022)	18.18	17.22	16.60
	50RB (0)	1775 (132622)	18.37	17.43	16.63
		1745 (132322)	18.27	17.32	16.72
		1715 (132022)	18.21	17.18	16.43
15MHz	1RB-High (74)	1772.5 (132597)	19.31	18.40	17.59
		1745 (132322)	19.27	18.31	17.68
		1717.5 (132047)	19.14	18.20	17.44
	1RB-Middle (37)	1772.5 (132597)	19.40	18.45	17.85
		1745 (132322)	19.30	18.39	17.73
		1717.5 (132047)	19.22	18.31	17.54
	1RB-Low (0)	1772.5 (132597)	19.29	18.34	17.54
		1745 (132322)	19.17	18.22	17.47
		1717.5 (132047)	19.10	18.12	17.41
	36RB-High (38)	1772.5 (132597)	18.31	17.36	16.62
		1745 (132322)	18.27	17.28	16.53
		1717.5 (132047)	18.20	17.17	16.55
	36RB-Middle (19)	1772.5 (132597)	18.43	17.41	16.66
		1745 (132322)	18.32	17.26	16.66
		1717.5 (132047)	18.23	17.22	16.53
	36RB-Low (0)	1772.5 (132597)	18.41	17.39	16.60
		1745 (132322)	18.29	17.26	16.49
		1717.5 (132047)	18.16	17.20	16.57
	75RB (0)	1772.5 (132597)	18.37	17.41	16.63
		1745 (132322)	18.31	17.32	16.73
		1717.5 (132047)	18.18	17.21	16.38
20MHz	1RB-High (99)	1770 (132572)	19.48	18.56	17.79
		1745 (132322)	19.43	18.47	17.85
		1720 (132072)	19.33	18.38	17.64
	1RB-Middle (50)	1770 (132572)	19.57	18.64	18.03
		1745 (132322)	19.50	18.56	17.92
		1720 (132072)	19.41	18.47	17.73
	1RB-Low (0)	1770 (132572)	19.44	18.51	17.72
		1745 (132322)	19.36	18.42	17.67
		1720 (132072)	19.26	18.32	17.58
	50RB-High (50)	1770 (132572)	18.50	17.52	16.77
		1745 (132322)	18.46	17.43	16.70
		1720 (132072)	18.36	17.37	16.75
	50RB-Middle (25)	1770 (132572)	18.58	17.59	16.81
		1745 (132322)	18.47	17.44	16.82
		1720 (132072)	18.38	17.39	16.71
	50RB-Low (0)	1770 (132572)	18.59	17.56	16.77
		1745 (132322)	18.47	17.45	16.65
		1720 (132072)	18.35	17.38	16.77
	100RB (0)	1770 (132572)	18.56	17.58	16.83
		1745 (132322)	18.46	17.49	16.89
		1720 (132072)	18.38	17.37	16.58

LTE B66 ANT3 C1/D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1779.3 (132665)	17.29	16.34	15.65
		1745 (132322)	17.21	16.29	15.53
		1710.7 (131979)	17.11	16.22	15.60
	1RB-Middle (3)	1779.3 (132665)	17.35	16.43	15.69
		1745 (132322)	17.26	16.32	15.62
		1710.7 (131979)	17.23	16.28	15.67
	1RB-Low (0)	1779.3 (132665)	17.24	16.26	15.49
		1745 (132322)	17.11	16.19	15.45
		1710.7 (131979)	17.03	16.06	15.42
	3RB-High (3)	1779.3 (132665)	16.30	15.26	14.63
		1745 (132322)	16.22	15.25	14.54
		1710.7 (131979)	16.08	15.09	14.39
	3RB-Middle (1)	1779.3 (132665)	16.32	15.39	14.65
		1745 (132322)	16.26	15.23	14.45
		1710.7 (131979)	16.18	15.18	14.41
	3RB-Low (0)	1779.3 (132665)	16.35	15.32	14.70
		1745 (132322)	16.09	15.12	14.41
		1710.7 (131979)	16.21	15.24	14.54
6RB (0)	1779.3 (132665)	16.30	15.34	14.52	
	1745 (132322)	16.13	15.14	14.41	
	1710.7 (131979)	16.09	15.17	14.50	
3MHz	1RB-High (14)	1778.5 (132657)	17.29	16.39	15.64
		1745 (132322)	17.25	16.25	15.55
		1711.5 (131987)	17.13	16.21	15.59
	1RB-Middle (7)	1778.5 (132657)	17.37	16.45	15.69
		1745 (132322)	17.27	16.32	15.64
		1711.5 (131987)	17.24	16.26	15.69
	1RB-Low (0)	1778.5 (132657)	17.25	16.27	15.49
		1745 (132322)	17.12	16.18	15.41
		1711.5 (131987)	17.03	16.05	15.46
	8RB-High (7)	1778.5 (132657)	16.29	15.29	14.63
		1745 (132322)	16.18	15.23	14.54
		1711.5 (131987)	16.10	15.08	14.38
	8RB-Middle (4)	1778.5 (132657)	16.34	15.37	14.65
		1745 (132322)	16.27	15.24	14.46
		1711.5 (131987)	16.17	15.20	14.42
	8RB-Low (0)	1778.5 (132657)	16.30	15.31	14.68
		1745 (132322)	16.11	15.15	14.40
		1711.5 (131987)	16.20	15.21	14.58
15RB (0)	1778.5 (132657)	16.30	15.34	14.55	
	1745 (132322)	16.16	15.10	14.41	
	1711.5 (131987)	16.12	15.13	14.52	
5MHz	1RB-High (24)	1777.5 (132647)	17.26	16.34	15.61
		1745 (132322)	17.23	16.29	15.53
		1712.5 (131997)	17.16	16.19	15.59
	1RB-Middle (12)	1777.5 (132647)	17.35	16.40	15.67
		1745 (132322)	17.27	16.31	15.65
		1712.5 (131997)	17.23	16.30	15.70
	1RB-Low (0)	1777.5 (132647)	17.23	16.28	15.49
		1745 (132322)	17.13	16.20	15.45
		1712.5 (131997)	16.99	16.08	15.45
	12RB-High (13)	1777.5 (132647)	16.31	15.30	14.63
		1745 (132322)	16.21	15.22	14.52
		1712.5 (131997)	16.11	15.09	14.38
	12RB-Middle (6)	1777.5 (132647)	16.32	15.38	14.63
		1745 (132322)	16.29	15.23	14.47
		1712.5 (131997)	16.14	15.18	14.44
	12RB-Low (0)	1777.5 (132647)	16.30	15.30	14.68
		1745 (132322)	16.12	15.15	14.38
		1712.5 (131997)	16.22	15.24	14.55
25RB (0)	1777.5 (132647)	16.31	15.32	14.54	
	1745 (132322)	16.16	15.10	14.43	
	1712.5 (131997)	16.11	15.16	14.48	

10MHz	1RB-High (49)	1775 (132622)	17.30	16.35	15.62
		1745 (132322)	17.24	16.27	15.56
		1715 (132022)	17.15	16.18	15.59
	1RB-Middle (24)	1775 (132622)	17.36	16.45	15.65
		1745 (132322)	17.27	16.33	15.64
		1715 (132022)	17.25	16.30	15.69
	1RB-Low (0)	1775 (132622)	17.20	16.28	15.45
		1745 (132322)	17.12	16.16	15.42
		1715 (132022)	16.99	16.09	15.43
	25RB-High (25)	1775 (132622)	16.30	15.29	14.66
		1745 (132322)	16.20	15.22	14.57
		1715 (132022)	16.10	15.10	14.40
	25RB-Middle (12)	1775 (132622)	16.33	15.34	14.67
		1745 (132322)	16.25	15.24	14.48
		1715 (132022)	16.17	15.18	14.41
	25RB-Low (0)	1775 (132622)	16.32	15.34	14.71
		1745 (132322)	16.08	15.14	14.38
		1715 (132022)	16.22	15.20	14.57
50RB (0)	1775 (132622)	16.32	15.34	14.52	
	1745 (132322)	16.14	15.10	14.42	
	1715 (132022)	16.12	15.14	14.50	
15MHz	1RB-High (74)	1772.5 (132597)	17.26	16.37	15.61
		1745 (132322)	17.25	16.30	15.53
		1717.5 (132047)	17.16	16.18	15.57
	1RB-Middle (37)	1772.5 (132597)	17.39	16.40	15.65
		1745 (132322)	17.28	16.33	15.65
		1717.5 (132047)	17.22	16.28	15.68
	1RB-Low (0)	1772.5 (132597)	17.21	16.27	15.44
		1745 (132322)	17.10	16.18	15.46
		1717.5 (132047)	16.99	16.09	15.43
	36RB-High (38)	1772.5 (132597)	16.28	15.28	14.65
		1745 (132322)	16.22	15.20	14.52
		1717.5 (132047)	16.09	15.06	14.37
	36RB-Middle (19)	1772.5 (132597)	16.34	15.38	14.68
		1745 (132322)	16.24	15.21	14.45
		1717.5 (132047)	16.14	15.21	14.45
	36RB-Low (0)	1772.5 (132597)	16.32	15.33	14.66
		1745 (132322)	16.08	15.12	14.41
		1717.5 (132047)	16.21	15.23	14.57
75RB (0)	1772.5 (132597)	16.28	15.34	14.53	
	1745 (132322)	16.16	15.15	14.42	
	1717.5 (132047)	16.10	15.15	14.52	
20MHz	1RB-High (99)	1770 (132572)	17.46	16.54	15.80
		1745 (132322)	17.41	16.45	15.73
		1720 (132072)	17.31	16.37	15.75
	1RB-Middle (50)	1770 (132572)	17.55	16.60	15.84
		1745 (132322)	17.43	16.49	15.81
		1720 (132072)	17.40	16.46	15.86
	1RB-Low (0)	1770 (132572)	17.40	16.43	15.64
		1745 (132322)	17.28	16.36	15.61
		1720 (132072)	17.18	16.24	15.62
	50RB-High (50)	1770 (132572)	16.48	15.46	14.82
		1745 (132322)	16.38	15.40	14.72
		1720 (132072)	16.27	15.25	14.56
	50RB-Middle (25)	1770 (132572)	16.52	15.54	14.83
		1745 (132322)	16.44	15.41	14.64
		1720 (132072)	16.34	15.37	14.60
	50RB-Low (0)	1770 (132572)	16.50	15.50	14.86
		1745 (132322)	16.28	15.30	14.58
		1720 (132072)	16.38	15.39	14.73
100RB (0)	1770 (132572)	16.48	15.50	14.70	
	1745 (132322)	16.32	15.30	14.60	
	1720 (132072)	16.27	15.33	14.67	

LTE B66 ANT3 B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1779.3 (132665)	21.35	20.42	19.69
		1745 (132322)	21.32	20.42	19.82
		1710.7 (131979)	21.24	20.33	19.54
	1RB-Middle (3)	1779.3 (132665)	21.46	20.48	19.78
		1745 (132322)	21.34	20.40	19.62
		1710.7 (131979)	21.32	20.35	19.62
	1RB-Low (0)	1779.3 (132665)	21.31	20.39	19.74
		1745 (132322)	21.18	20.27	19.54
		1710.7 (131979)	21.10	20.18	19.40
	3RB-High (3)	1779.3 (132665)	20.42	19.37	18.59
		1745 (132322)	20.28	19.32	18.64
		1710.7 (131979)	20.17	19.18	18.54
	3RB-Middle (1)	1779.3 (132665)	20.47	19.43	18.72
		1745 (132322)	20.31	19.32	18.61
		1710.7 (131979)	20.27	19.25	18.52
	3RB-Low (0)	1779.3 (132665)	20.42	19.40	18.63
		1745 (132322)	20.18	19.18	18.45
		1710.7 (131979)	20.28	19.26	18.49
	6RB (0)	1779.3 (132665)	20.45	19.44	18.63
		1745 (132322)	20.23	19.21	18.56
		1710.7 (131979)	20.18	19.22	18.55
3MHz	1RB-High (14)	1778.5 (132657)	21.35	20.46	19.68
		1745 (132322)	21.32	20.37	19.81
		1711.5 (131987)	21.25	20.31	19.54
	1RB-Middle (7)	1778.5 (132657)	21.44	20.52	19.76
		1745 (132322)	21.33	20.39	19.64
		1711.5 (131987)	21.30	20.37	19.63
	1RB-Low (0)	1778.5 (132657)	21.33	20.34	19.74
		1745 (132322)	21.22	20.26	19.51
		1711.5 (131987)	21.09	20.18	19.41
	8RB-High (7)	1778.5 (132657)	20.39	19.37	18.56
		1745 (132322)	20.26	19.29	18.61
		1711.5 (131987)	20.15	19.17	18.58
	8RB-Middle (4)	1778.5 (132657)	20.44	19.42	18.69
		1745 (132322)	20.33	19.34	18.62
		1711.5 (131987)	20.27	19.29	18.49
	8RB-Low (0)	1778.5 (132657)	20.43	19.44	18.66
		1745 (132322)	20.16	19.22	18.44
		1711.5 (131987)	20.28	19.28	18.48
	15RB (0)	1778.5 (132657)	20.46	19.40	18.64
		1745 (132322)	20.24	19.24	18.55
		1711.5 (131987)	20.21	19.26	18.52
5MHz	1RB-High (24)	1777.5 (132647)	21.37	20.44	19.66
		1745 (132322)	21.30	20.38	19.77
		1712.5 (131997)	21.21	20.32	19.51
	1RB-Middle (12)	1777.5 (132647)	21.44	20.48	19.78
		1745 (132322)	21.36	20.39	19.62
		1712.5 (131997)	21.31	20.37	19.65
	1RB-Low (0)	1777.5 (132647)	21.31	20.38	19.73
		1745 (132322)	21.19	20.27	19.52
		1712.5 (131997)	21.11	20.18	19.42
	12RB-High (13)	1777.5 (132647)	20.40	19.36	18.56
		1745 (132322)	20.28	19.29	18.63
		1712.5 (131997)	20.14	19.15	18.58
	12RB-Middle (6)	1777.5 (132647)	20.49	19.42	18.70
		1745 (132322)	20.30	19.33	18.61
		1712.5 (131997)	20.25	19.26	18.48
	12RB-Low (0)	1777.5 (132647)	20.46	19.41	18.62
		1745 (132322)	20.19	19.18	18.48
		1712.5 (131997)	20.29	19.30	18.50
	25RB (0)	1777.5 (132647)	20.41	19.45	18.65
		1745 (132322)	20.22	19.23	18.55
		1712.5 (131997)	20.22	19.23	18.53

10MHz	1RB-High (49)	1775 (132622)	21.38	20.42	19.69
		1745 (132322)	21.33	20.38	19.81
		1715 (132022)	21.21	20.32	19.54
	1RB-Middle (24)	1775 (132622)	21.47	20.48	19.79
		1745 (132322)	21.35	20.41	19.61
		1715 (132022)	21.29	20.38	19.60
	1RB-Low (0)	1775 (132622)	21.33	20.34	19.73
		1745 (132322)	21.20	20.23	19.52
		1715 (132022)	21.14	20.17	19.45
	25RB-High (25)	1775 (132622)	20.39	19.41	18.58
		1745 (132322)	20.26	19.31	18.62
		1715 (132022)	20.14	19.13	18.55
	25RB-Middle (12)	1775 (132622)	20.46	19.42	18.70
		1745 (132322)	20.30	19.36	18.59
		1715 (132022)	20.25	19.25	18.50
	25RB-Low (0)	1775 (132622)	20.44	19.44	18.66
		1745 (132322)	20.18	19.19	18.46
		1715 (132022)	20.25	19.31	18.47
50RB (0)	1775 (132622)	20.44	19.45	18.64	
	1745 (132322)	20.27	19.23	18.52	
	1715 (132022)	20.22	19.23	18.53	
15MHz	1RB-High (74)	1772.5 (132597)	21.36	20.47	19.68
		1745 (132322)	21.29	20.38	19.77
		1717.5 (132047)	21.23	20.29	19.54
	1RB-Middle (37)	1772.5 (132597)	21.43	20.50	19.78
		1745 (132322)	21.33	20.38	19.64
		1717.5 (132047)	21.30	20.36	19.65
	1RB-Low (0)	1772.5 (132597)	21.34	20.39	19.76
		1745 (132322)	21.19	20.24	19.52
		1717.5 (132047)	21.13	20.21	19.40
	36RB-High (38)	1772.5 (132597)	20.43	19.39	18.56
		1745 (132322)	20.29	19.28	18.65
		1717.5 (132047)	20.16	19.16	18.53
	36RB-Middle (19)	1772.5 (132597)	20.45	19.46	18.72
		1745 (132322)	20.34	19.37	18.61
		1717.5 (132047)	20.27	19.28	18.50
	36RB-Low (0)	1772.5 (132597)	20.47	19.40	18.62
		1745 (132322)	20.16	19.21	18.46
		1717.5 (132047)	20.28	19.27	18.52
75RB (0)	1772.5 (132597)	20.45	19.44	18.64	
	1745 (132322)	20.23	19.21	18.52	
	1717.5 (132047)	20.22	19.27	18.55	
20MHz	1RB-High (99)	1770 (132572)	21.54	20.62	19.86
		1745 (132322)	21.48	20.57	19.97
		1720 (132072)	21.41	20.48	19.71
	1RB-Middle (50)	1770 (132572)	21.63	20.68	19.95
		1745 (132322)	21.52	20.57	19.80
		1720 (132072)	21.48	20.53	19.80
	1RB-Low (0)	1770 (132572)	21.49	20.54	19.93
		1745 (132322)	21.38	20.43	19.71
		1720 (132072)	21.29	20.36	19.60
	50RB-High (50)	1770 (132572)	20.59	19.56	18.76
		1745 (132322)	20.46	19.48	18.80
		1720 (132072)	20.33	19.33	18.73
	50RB-Middle (25)	1770 (132572)	20.64	19.61	18.89
		1745 (132322)	20.50	19.52	18.77
		1720 (132072)	20.43	19.45	18.67
	50RB-Low (0)	1770 (132572)	20.62	19.59	18.82
		1745 (132322)	20.34	19.37	18.64
		1720 (132072)	20.44	19.46	18.67
100RB (0)	1770 (132572)	20.61	19.60	18.83	
	1745 (132322)	20.42	19.39	18.72	
	1720 (132072)	20.38	19.42	18.72	

LTE B66 ANT3 A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	QPSK
1.4MHz	1RB-High (5)	1779.3 (132665)	23.60	22.70	22.10
		1745 (132322)	23.50	22.60	21.80
		1710.7 (131979)	23.50	22.50	21.70
	1RB-Middle (3)	1779.3 (132665)	23.70	22.80	22.00
		1745 (132322)	23.60	22.60	22.10
		1710.7 (131979)	23.60	22.60	21.90
	1RB-Low (0)	1779.3 (132665)	23.50	22.60	22.00
		1745 (132322)	23.40	22.50	21.80
		1710.7 (131979)	23.40	22.40	21.60
	3RB-High (3)	1779.3 (132665)	22.70	21.60	20.90
		1745 (132322)	22.60	21.60	20.90
		1710.7 (131979)	22.40	21.40	20.60
	3RB-Middle (1)	1779.3 (132665)	22.70	21.70	20.90
		1745 (132322)	22.60	21.60	20.80
		1710.7 (131979)	22.50	21.50	20.70
	3RB-Low (0)	1779.3 (132665)	22.70	21.70	20.90
		1745 (132322)	22.50	21.50	20.70
		1710.7 (131979)	22.60	21.50	20.90
	6RB (0)	1779.3 (132665)	22.70	21.60	20.90
		1745 (132322)	22.50	21.50	20.70
		1710.7 (131979)	22.50	21.50	20.70
3MHz	1RB-High (14)	1778.5 (132657)	23.60	22.60	22.00
		1745 (132322)	23.50	22.60	21.90
		1711.5 (131987)	23.50	22.50	21.70
	1RB-Middle (7)	1778.5 (132657)	23.70	22.80	22.00
		1745 (132322)	23.60	22.60	22.10
		1711.5 (131987)	23.50	22.60	21.90
	1RB-Low (0)	1778.5 (132657)	23.60	22.60	22.00
		1745 (132322)	23.40	22.50	21.90
		1711.5 (131987)	23.30	22.40	21.60
	8RB-High (7)	1778.5 (132657)	22.60	21.60	21.00
		1745 (132322)	22.60	21.60	20.90
		1711.5 (131987)	22.50	21.40	20.60
	8RB-Middle (4)	1778.5 (132657)	22.70	21.70	21.00
		1745 (132322)	22.60	21.60	20.80
		1711.5 (131987)	22.60	21.50	20.70
	8RB-Low (0)	1778.5 (132657)	22.70	21.70	21.00
		1745 (132322)	22.50	21.50	20.70
		1711.5 (131987)	22.50	21.60	20.90
	15RB (0)	1778.5 (132657)	22.70	21.60	20.90
		1745 (132322)	22.50	21.50	20.70
		1711.5 (131987)	22.50	21.40	20.70
5MHz	1RB-High (24)	1777.5 (132647)	23.60	22.60	22.00
		1745 (132322)	23.60	22.60	21.90
		1712.5 (131997)	23.50	22.50	21.70
	1RB-Middle (12)	1777.5 (132647)	23.70	22.80	22.00
		1745 (132322)	23.60	22.70	22.10
		1712.5 (131997)	23.50	22.60	21.90
	1RB-Low (0)	1777.5 (132647)	23.60	22.60	22.00
		1745 (132322)	23.40	22.50	21.90
		1712.5 (131997)	23.40	22.40	21.60
	12RB-High (13)	1777.5 (132647)	22.70	21.60	20.90
		1745 (132322)	22.60	21.60	20.90
		1712.5 (131997)	22.40	21.40	20.60
	12RB-Middle (6)	1777.5 (132647)	22.70	21.70	21.00
		1745 (132322)	22.60	21.60	20.80
		1712.5 (131997)	22.50	21.50	20.70
	12RB-Low (0)	1777.5 (132647)	22.70	21.70	20.90
		1745 (132322)	22.50	21.50	20.70
		1712.5 (131997)	22.50	21.60	20.90
	25RB (0)	1777.5 (132647)	22.70	21.70	21.00
		1745 (132322)	22.50	21.50	20.70
		1712.5 (131997)	22.50	21.50	20.70

10MHz	1RB-High (49)	1775 (132622)	23.60	22.70	22.00
		1745 (132322)	23.50	22.60	21.90
		1715 (132022)	23.50	22.50	21.80
	1RB-Middle (24)	1775 (132622)	23.70	22.80	22.00
		1745 (132322)	23.60	22.70	22.10
		1715 (132022)	23.60	22.60	21.90
	1RB-Low (0)	1775 (132622)	23.50	22.60	22.00
		1745 (132322)	23.40	22.50	21.80
		1715 (132022)	23.30	22.40	21.60
	25RB-High (25)	1775 (132622)	22.70	21.60	21.00
		1745 (132322)	22.60	21.60	20.90
		1715 (132022)	22.50	21.40	20.60
	25RB-Middle (12)	1775 (132622)	22.70	21.70	21.00
		1745 (132322)	22.60	21.60	20.90
		1715 (132022)	22.50	21.50	20.70
	25RB-Low (0)	1775 (132622)	22.70	21.70	20.90
		1745 (132322)	22.50	21.40	20.70
		1715 (132022)	22.50	21.50	20.90
50RB (0)	1775 (132622)	22.70	21.70	21.00	
	1745 (132322)	22.50	21.50	20.70	
	1715 (132022)	22.50	21.40	20.70	
15MHz	1RB-High (74)	1772.5 (132597)	23.60	22.60	22.00
		1745 (132322)	23.50	22.60	21.90
		1717.5 (132047)	23.40	22.50	21.80
	1RB-Middle (37)	1772.5 (132597)	23.70	22.80	22.00
		1745 (132322)	23.60	22.70	22.00
		1717.5 (132047)	23.50	22.60	21.90
	1RB-Low (0)	1772.5 (132597)	23.50	22.60	22.00
		1745 (132322)	23.40	22.50	21.90
		1717.5 (132047)	23.30	22.40	21.70
	36RB-High (38)	1772.5 (132597)	22.70	21.60	20.90
		1745 (132322)	22.60	21.60	20.90
		1717.5 (132047)	22.50	21.40	20.60
	36RB-Middle (19)	1772.5 (132597)	22.70	21.60	20.90
		1745 (132322)	22.60	21.50	20.80
		1717.5 (132047)	22.50	21.50	20.70
	36RB-Low (0)	1772.5 (132597)	22.70	21.70	21.00
		1745 (132322)	22.50	21.50	20.70
		1717.5 (132047)	22.60	21.60	20.90
75RB (0)	1772.5 (132597)	22.70	21.70	21.00	
	1745 (132322)	22.50	21.50	20.70	
	1717.5 (132047)	22.50	21.50	20.70	
20MHz	1RB-High (99)	1770 (132572)	23.77	22.83	22.20
		1745 (132322)	23.72	22.79	22.03
		1720 (132072)	23.64	22.69	21.91
	1RB-Middle (50)	1770 (132572)	23.85	22.93	22.15
		1745 (132322)	23.75	22.84	22.24
		1720 (132072)	23.71	22.80	22.06
	1RB-Low (0)	1770 (132572)	23.71	22.81	22.17
		1745 (132322)	23.60	22.70	22.02
		1720 (132072)	23.52	22.60	21.80
	50RB-High (50)	1770 (132572)	22.83	21.79	21.12
		1745 (132322)	22.76	21.75	21.08
		1720 (132072)	22.63	21.57	20.77
	50RB-Middle (25)	1770 (132572)	22.88	21.84	21.14
		1745 (132322)	22.79	21.74	21.00
		1720 (132072)	22.72	21.65	20.92
	50RB-Low (0)	1770 (132572)	22.87	21.85	21.13
		1745 (132322)	22.65	21.63	20.89
		1720 (132072)	22.73	21.72	21.09
100RB (0)	1770 (132572)	22.85	21.83	21.12	
	1745 (132322)	22.69	21.65	20.88	
	1720 (132072)	22.66	21.64	20.87	

LTEB71 A1/B1/C1/D1/E1/F1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	256QAM	
5MHz	1RB-High (24)	695.5 (133447)	22.64	21.96	21.17	
		680.5 (133297)	22.44	21.88	21.11	
		665.5 (133147)	22.45	21.54	20.83	
	1RB-Middle (12)	695.5 (133447)	22.67	21.86	21.22	
		680.5 (133297)	22.36	21.79	21.11	
		665.5 (133147)	22.47	21.46	20.79	
	1RB-Low (0)	695.5 (133447)	22.52	21.71	20.99	
		680.5 (133297)	22.35	21.90	21.22	
		665.5 (133147)	22.42	21.62	20.95	
	12RB-High (13)	695.5 (133447)	21.73	20.80	20.05	
		680.5 (133297)	21.48	20.82	20.18	
		665.5 (133147)	21.37	20.81	20.09	
	12RB-Middle (6)	695.5 (133447)	21.56	20.68	20.02	
		680.5 (133297)	21.76	20.71	20.06	
		665.5 (133147)	21.72	20.64	19.94	
	12RB-Low (0)	695.5 (133447)	21.64	20.57	19.91	
		680.5 (133297)	21.41	20.75	20.13	
		665.5 (133147)	21.59	20.64	20.07	
	25RB (0)	695.5 (133447)	21.79	20.72	20.11	
		680.5 (133297)	21.64	20.72	20.06	
		665.5 (133147)	21.48	20.63	19.92	
	10MHz	1RB-High (49)	693 (132422)	22.63	21.98	21.21
			680.5 (133297)	22.44	21.86	21.14
			668 (133172)	22.43	21.54	20.82
1RB-Middle (24)		693 (132422)	22.67	21.90	21.23	
		680.5 (133297)	22.39	21.75	21.13	
		668 (133172)	22.50	21.42	20.79	
1RB-Low (0)		693 (132422)	22.50	21.70	20.97	
		680.5 (133297)	22.35	21.92	21.22	
		668 (133172)	22.43	21.66	20.96	
25RB-High (25)		693 (132422)	21.73	20.79	20.08	
		680.5 (133297)	21.52	20.82	20.18	
		668 (133172)	21.41	20.81	20.07	
25RB-Middle (12)		693 (132422)	21.61	20.65	20.00	
		680.5 (133297)	21.73	20.74	20.07	
		668 (133172)	21.72	20.66	19.95	
25RB-Low (0)		693 (132422)	21.66	20.55	19.89	
		680.5 (133297)	21.43	20.70	20.08	
		668 (133172)	21.59	20.64	20.07	
50RB (0)		693 (132422)	21.78	20.71	20.08	
		680.5 (133297)	21.63	20.74	20.05	
		668 (133172)	21.47	20.64	19.92	
15MHz		1RB-High (74)	690.5 (133397)	22.66	21.96	21.20
			680.5 (133297)	22.45	21.85	21.11
			670.5 (133197)	22.45	21.57	20.78
	1RB-Middle (37)	690.5 (133397)	22.66	21.91	21.22	
		680.5 (133297)	22.38	21.75	21.09	
		670.5 (133197)	22.51	21.46	20.80	
	1RB-Low (0)	690.5 (133397)	22.48	21.72	20.97	
		680.5 (133297)	22.35	21.92	21.24	
		670.5 (133197)	22.40	21.61	20.99	
	36RB-High (38)	690.5 (133397)	21.73	20.78	20.09	
		680.5 (133297)	21.51	20.82	20.18	
		670.5 (133197)	21.39	20.78	20.09	
	36RB-Middle (19)	690.5 (133397)	21.57	20.64	20.03	
		680.5 (133297)	21.74	20.73	20.10	
		670.5 (133197)	21.70	20.67	19.97	
	36RB-Low (0)	690.5 (133397)	21.63	20.54	19.90	
		680.5 (133297)	21.39	20.73	20.13	
		670.5 (133197)	21.55	20.65	20.07	
	75RB (0)	690.5 (133397)	21.79	20.74	20.07	
		680.5 (133297)	21.61	20.73	20.05	
		670.5 (133197)	21.52	20.66	19.97	
	20MHz	1RB-High (99)	688 (133372)	22.81	22.14	21.36
			683 (133322)	22.62	22.03	21.30
			673 (133222)	22.60	21.72	20.98
1RB-Middle (50)		688 (133372)	22.83	22.06	21.40	
		683 (133322)	22.56	21.95	21.29	
		673 (133222)	22.67	21.62	20.95	
1RB-Low (0)		688 (133372)	22.68	21.88	21.16	
		683 (133322)	22.51	22.08	21.41	
		673 (133222)	22.59	21.81	21.14	
50RB-High (50)		688 (133372)	21.88	20.96	20.25	
		683 (133322)	21.67	20.98	20.34	
		673 (133222)	21.56	20.97	20.26	
50RB-Middle (25)		688 (133372)	21.76	20.84	20.19	
		683 (133322)	21.93	20.91	20.26	
		673 (133222)	21.90	20.82	20.13	
50RB-Low (0)		688 (133372)	21.83	20.74	20.09	
		683 (133322)	21.58	20.90	20.28	
		673 (133222)	21.75	20.82	20.22	
100RB (0)		688 (133372)	21.98	20.89	20.27	
		683 (133322)	21.79	20.90	20.23	
		673 (133222)	21.67	20.81	20.12	

Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive. SAR test is not required since maximum output power when downlink carrier aggregation active is not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

The conducted power measurement results of LTE downlink CA are as below:

PCC					SCC				Power	
PCC Bandwidth	UL channel	DL channel	UL RB	UL RB OFFSET	SCC Bandwidth	DL channel	RB	RB OFFSET	tune up	conducted power (dBm)
4	132572	67036	1	50	12	5130	1	24	24.5	23.63
2	19100	1100	1	50	4	67036	1	50	24.5	22.68
4	132572	67036	1	50	4	67036	1	50	24.5	22.64
4	132572	67036	1	50	5	8965	1	37	24.5	22.64
66	132072	66536	1	50	66	67036	1	50	24.5	23.42
66	132572	67036	1	50	66	67108	1	50	24.5	23.60
66	132572	67036	1	50	66	67234	1	50	24.5	23.63
2	19100	1100	1	50	66	67036	1	50	24.5	22.66
12	23095	5095	1	24	66	67036	1	50	24.5	22.61
2	19100	1100	1	50	12	5130	1	24	24.5	22.67
2	18700	700	1	50	2	1100	1	50	24.5	22.55
2	18700	700	1	50	2	898	1	50	24.5	22.56
2	19100	1100	1	50	5	8965	1	37	24.5	22.65
2	19100	1100	1	50	71	68836	1	50	24.5	22.66
4	132572	67036	1	50	71	68836	1	50	24.5	23.61
25	26140	8140	1	50	25	8590	1	50	24.5	22.56
25	26140	8140	1	50	26	8965	1	37	24.5	22.53
66	132572	67036	1	50	71	68836	1	50	24.5	23.63
41	39750	39750	1	50	41	41490	1	50	24.5	22.66
25	26140	8140	1	50	41	39750	1	50	24.5	22.55
5	26965	8965	1	37	66	67036	1	50	24.5	22.72
12	23095	5095	1	24	4	67036	1	50	24.5	22.56
4	132572	67036	1	50	2	1100	1	50	24.5	23.61
5	26965	8965	1	37	4	67036	1	50	24.5	22.71
66	132572	67036	1	50	2	1100	1	50	24.5	23.59
66	132572	67036	1	50	12	5130	1	24	24.5	23.64
12	23095	5095	1	24	2	1100	1	50	24.5	22.61
5	26965	8965	1	37	2	1100	1	50	24.5	22.70
71	133372	68836	1	50	2	1100	1	50	24.5	22.67
71	133372	68836	1	50	4	67036	1	50	24.5	22.64
26	26965	8965	1	37	25	8140	1	50	24.5	22.68
71	133372	68836	1	50	66	67036	1	50	24.5	22.66
41	41490	41490	1	50	25	8140	1	50	24.5	22.68
66	132572	67036	1	50	5	8965	1	37	24.5	23.59

Note: Testing is not required in bands or modes not intended/allowed for US operation.

11.4 5G NR Measurement result

Maximum Target Power for Production Unit

Tune up (dBm)							
BAND	ANT	Power Level A1	Power Level C1	Power Level D1	Power Level E1	Power Level F1	Power Level B1
n2 (SA/NSA)	1	24	23.5	24	24	24	24
n2 (SA/NSA)	3	24	23	15	15	15	24
n25 (SA/NSA)	1	24	23	24	24	24	24
n25 (SA/NSA)	3	24	23	15	15	15	24
n5 (SA/NSA)	0	24	24	24	24	24	24
n66 (SA/NSA)	1	24	23	24	24	24	24
n66 (SA/NSA)	3	24	22	18	16	16	24
n70 (SA/NSA)	1	24	24	24	24	24	24
n41 (SA/NSA)	0	27	20.5	16.5	16.5	16.5	20
N71 (SA)	0	24	24	24	24	24	24

No.	Test Freq Description	5G-n2 ANT1 C1							Power Results (dBm)
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n2
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1907.5	381500	22.30
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1880	376000	22.28
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	22.38
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1900	380000	22.32
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1880	376000	22.31
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	22.42
7	Middle	15	5	DFT-s-OFDM Pi/2 BPSK1	Inner_Full	12_6	1852.5	370500	22.38
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12_6	1852.5	370500	22.39
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12_6	1852.5	370500	21
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12_6	1852.5	370500	19.01
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	12_6	1852.5	370500	21.87
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	12_6	1852.5	370500	21.51
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	12_6	1852.5	370500	20.01
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	12_6	1852.5	370500	18.01
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	1852.5	370500	22.29
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1852.5	370500	22.30
17	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	1852.5	370500	22.28
18	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1852.5	370500	22.27
19	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	1852.5	370500	22.25
20	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1852.5	370500	22.28
21	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25_0	1852.5	370500	22.36
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1905	381000	22.09
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1880	376000	22.07
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1855	371000	22.19
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1902.5	380500	22.25
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1880	376000	22.24
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1857.5	371500	22.37

No.	Test Freq Description	5G-n2 ANT1 A1/B1/D1/E1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n2	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1907.5	381500	23.32	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1880	376000	23.30	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	23.39	
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1900	380000	23.34	
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1880	376000	23.33	
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	23.42	
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	1852.5	370500	23.41	
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12_6	1852.5	370500	22.38	
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12_6	1852.5	370500	20.99	
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12_6	1852.5	370500	18.98	
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	12_6	1852.5	370500	22.01	
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	12_6	1852.5	370500	21.42	
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	12_6	1852.5	370500	20.01	
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	12_6	1852.5	370500	18.06	
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	1852.5	370500	22.33	
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1852.5	370500	22.30	
17	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	1852.5	370500	22.29	
18	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1852.5	370500	22.28	
19	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	1852.5	370500	23.31	
20	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1852.5	370500	23.28	
21	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25_0	1852.5	370500	22.34	
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1905	381000	23.08	
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1880	376000	23.09	
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1855	371000	23.21	
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1902.5	380500	23.28	
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1880	376000	23.26	
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1857.5	371500	23.36	

No.	Test Freq Description	5G-n2 ANT3 D1/E1/F1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n2	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1907.5	381500	14.54	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1880	376000	14.57	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	14.58	
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1900	380000	14.42	
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1880	376000	14.50	
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	14.53	
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	1852.5	370500	14.27	
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12_6	1852.5	370500	14.26	
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12_6	1852.5	370500	12.86	
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12_6	1852.5	370500	10.81	
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	12_6	1852.5	370500	13.67	
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	12_6	1852.5	370500	13.37	
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	12_6	1852.5	370500	12.01	
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	12_6	1852.5	370500	12.10	
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	1852.5	370500	14.15	
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1852.5	370500	14.22	
17	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	1852.5	370500	14.21	
18	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1852.5	370500	14.28	
19	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	1852.5	370500	14.24	
20	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1852.5	370500	14.29	
21	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25_0	1852.5	370500	14.26	
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1905	381000	14.35	
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1880	376000	14.24	
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1855	371000	14.17	
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1902.5	380500	14.21	
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1880	376000	14.22	
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1857.5	371500	14.14	

No.	Test Freq Description	5G-n2 ANT3 B1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n2	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1907.5	381500	22.54	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1880	376000	22.52	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	22.50	
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1900	380000	22.49	
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1880	376000	22.51	
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	22.53	
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	1907.5	381500	22.38	
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12_6	1907.5	381500	22.41	
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12_6	1907.5	381500	22.43	
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12_6	1907.5	381500	22.46	
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	12_6	1907.5	381500	22.29	
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	12_6	1907.5	381500	22.42	
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	12_6	1907.5	381500	22.36	
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	12_6	1907.5	381500	22.27	
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	1907.5	381500	22.35	
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1907.5	381500	22.31	
17	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	1907.5	381500	22.34	
18	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1907.5	381500	22.31	
19	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	1907.5	381500	22.24	
20	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1907.5	381500	22.31	
21	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25_0	1907.5	381500	22.32	
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1907.5	381500	22.29	
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1907.5	381500	22.26	
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1907.5	381500	22.16	
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1902.5	380500	22.19	
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1880	376000	22.21	
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1857.5	371500	22.16	

No.	Test Freq Description	5G-n2 ANT3 A1/B1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n2	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1907.5	381500	23.56	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1880	376000	23.51	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	23.54	
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1900	380000	23.48	
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1880	376000	23.52	
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	23.55	
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	1907.5	381500	23.48	
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12_6	1907.5	381500	23.51	
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12_6	1907.5	381500	23.53	
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12_6	1907.5	381500	23.51	
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	12_6	1907.5	381500	23.38	
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	12_6	1907.5	381500	23.52	
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	12_6	1907.5	381500	23.46	
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	12_6	1907.5	381500	23.36	
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	1907.5	381500	23.44	
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1907.5	381500	23.40	
17	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	1907.5	381500	23.43	
18	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1907.5	381500	23.40	
19	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	1907.5	381500	23.33	
20	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1907.5	381500	23.40	
21	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25_0	1907.5	381500	23.41	
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1907.5	381500	23.38	
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1907.5	381500	23.35	
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1907.5	381500	23.25	
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1902.5	380500	23.28	
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1880	376000	23.30	
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1857.5	371500	23.25	

No.	Test Freq Description	5G-n5 A1/B1/C1/D1/E1/F1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Tune up	n5
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	846.5	169300	24.00	23.06
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	836.5	167300	24.00	23.11
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	826.5	165300	24.00	23.12
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	839	167800	24.00	23.04
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	836.5	167300	24.00	23.05
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	834	166800	24.00	23.07
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	826.5	165300	24.00	23.01
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12_6	826.5	165300	24.00	23.03
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12_6	826.5	165300	23	21.79
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12_6	826.5	165300	21	19.87
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	12_6	826.5	165300	24	22.33
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	12_6	826.5	165300	22	21.86
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	12_6	826.5	165300	22	20.84
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	12_6	826.5	165300	18	17.78
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	826.5	165300	23	21.35
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	826.5	165300	23	21.32
17	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	826.5	165300	23	21.34
18	Middle	15	5	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	826.5	165300	23	21.42
19	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	826.5	165300	23	22.20
20	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	826.5	165300	23	22.47
21	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25_0	826.5	165300	23	21.22
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	844	168800	23	21.74
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	836.5	167300	23	22.30
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	829	165800	23	21.82
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	841.5	168300	23	21.93
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	836.5	167300	23	22.25
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	831.5	166300	23	21.96

No.	Test Freq Description	5G-n25 ANT1 C1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n25	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1912.5	382500	22.07	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1882.5	376500	22.05	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	22.09	
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1905	381000	22.28	
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1882.5	376500	22.25	
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	22.34	
7	Middle	15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50_25	1860	372000	22.24	
8	Middle	15	20	DFT-s-OFDM 16QAM	Inner_Full	50_25	1860	372000	22.26	
9	Middle	15	20	DFT-s-OFDM 64QAM	Inner_Full	50_25	1860	372000	21.06	
10	Middle	15	20	DFT-s-OFDM 256QAM	Inner_Full	50_25	1860	372000	19.20	
11	Middle	15	20	CP-OFDM QPSK	Inner_Full	50_25	1860	372000	21.58	
12	Middle	15	20	CP-OFDM 16QAM	Inner_Full	50_25	1860	372000	21.12	
13	Middle	15	20	CP-OFDM 64QAM	Inner_Full	50_25	1860	372000	20.14	
14	Middle	15	20	CP-OFDM 256QAM	Inner_Full	50_25	1860	372000	17.18	
15	Middle	15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	1860	372000	20.63	
16	Middle	15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1860	372000	20.60	
17	Middle	15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	1860	372000	20.62	
18	Middle	15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1860	372000	20.70	
19	Middle	15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	1860	372000	21.45	
20	Middle	15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1860	372000	21.71	
21	Middle	15	20	DFT-s-OFDM QPSK	Outer_Full	25_0	1860	372000	20.50	
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1910	382000	21.01	
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1882.5	376500	21.54	
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1855	371000	21.08	
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1907.5	381500	21.19	
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1882.5	376500	21.50	
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1857.5	371500	21.22	

No.	Test Freq Descripti on	5G-n25 A1/B1/C1/D1/E1/F1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Tune up	n25
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1912.5	382500	24.00	23.08
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1882.5	376500	24.00	23.01
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	24.00	23.10
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1905	381000	24.00	23.25
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1882.5	376500	24.00	23.26
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	24.00	23.32
7	Middle	15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50_25	1860	372000	24.00	23.20
8	Middle	15	20	DFT-s-OFDM 16QAM	Inner_Full	50_25	1860	372000	24.00	23.24
9	Middle	15	20	DFT-s-OFDM 64QAM	Inner_Full	50_25	1860	372000	24.00	23.27
10	Middle	15	20	DFT-s-OFDM 256QAM	Inner_Full	50_25	1860	372000	24.00	23.12
11	Middle	15	20	CP-OFDM QPSK	Inner_Full	50_25	1860	372000	24.00	23.06
12	Middle	15	20	CP-OFDM 16QAM	Inner_Full	50_25	1860	372000	24.00	23.26
13	Middle	15	20	CP-OFDM 64QAM	Inner_Full	50_25	1860	372000	24.00	23.17
14	Middle	15	20	CP-OFDM 256QAM	Inner_Full	50_25	1860	372000	24.00	23.03
15	Middle	15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2_23	1860	372000	24.00	23.15
16	Middle	15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1860	372000	24.00	23.09
17	Middle	15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1_24	1860	372000	24.00	23.14
18	Middle	15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1860	372000	24.00	23.09
19	Middle	15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1_23	1860	372000	24.00	22.99
20	Middle	15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1860	372000	24.00	23.09
21	Middle	15	20	DFT-s-OFDM QPSK	Outer_Full	25_0	1860	372000	24.00	23.11
22	High	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1910	382000	24.00	23.06
23	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1882.5	376500	24.00	23.02
24	Low	15	10	DFT-s-OFDM QPSK	Inner_Full	25_12	1855	371000	24.00	22.87
25	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1907.5	381500	24.00	22.91
26	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1882.5	376500	24.00	22.94
27	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36_18	1857.5	371500	24.00	22.87

No.	Test Freq Descripti on	5G-n25 D1/E1/F1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Tune up	n25
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1912.5	382500	15.00	14.46
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1882.5	376500	15.00	14.54
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	15.00	14.55
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1905	381000	15.00	14.47
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1882.5	376500	15.00	14.51
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	15.00	14.49
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12@6	1852.5	370500	15.00	14.49
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12@6	1852.5	370500	15.00	14.52
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12@6	1852.5	370500	15.00	14.50
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12@6	1852.5	370500	15.00	13.39
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	13@6	1852.5	370500	15.00	14.49
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	13@6	1852.5	370500	15.00	14.50
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	13@6	1852.5	370500	13.00	11.84
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	13@6	1852.5	370500	15.00	14.51
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1852.5	370500	15.00	14.53
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1852.5	370500	15.00	14.53
17	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1852.5	370500	15.00	14.50
18	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1852.5	370500	15.00	14.52
19	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25@0	1852.5	370500	15.00	14.51
20	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1852.5	370500	15.00	14.38
21	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1852.5	370500	15.00	14.48

No.	Test Freq Descripti on	5G-n25 C1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n25	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1912.5	382500	22.48	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1882.5	376500	22.48	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	22.57	
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1905	381000	22.48	
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1882.5	376500	22.52	
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	22.58	
7	default	15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50_25	1860	372000	22.56	
8	default	15	20	DFT-s-OFDM 16QAM	Inner_Full	50_25	1860	372000	22.58	
9	default	15	20	DFT-s-OFDM 64QAM	Inner_Full	50_25	1860	372000	21.03	
10	default	15	20	DFT-s-OFDM 256QAM	Inner_Full	50_25	1860	372000	18.98	
11	default	15	20	CP-OFDM QPSK	Inner_Full	50_25	1860	372000	22.01	
12	default	15	20	CP-OFDM 16QAM	Inner_Full	50_25	1860	372000	21.56	
13	default	15	20	CP-OFDM 64QAM	Inner_Full	50_25	1860	372000	20.03	
14	default	15	20	CP-OFDM 256QAM	Inner_Full	50_25	1860	372000	16.77	
15	default	15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1860	372000	22.55	
16	default	15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1860	372000	22.54	
17	default	15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1860	372000	22.52	
18	default	15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1860	372000	22.51	
19	default	15	20	DFT-s-OFDM QPSK	Outer_Full	25@0	1860	372000	22.56	
20	default	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1860	372000	22.41	
21	default	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1860	372000	22.52	
22	default	15	30	DFT-s-OFDM QPSK	Inner_Full	80@40	1860	372000	22.51	
23	default	15	40	DFT-s-OFDM QPSK	Inner_Full	108@54	1860	372000	22.52	

No.	Test Freq Description	5G-n25 A1/B1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n25	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1912.5	382500	23.49	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1882.5	376500	23.50	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1852.5	370500	23.55	
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1905	381000	23.51	
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1882.5	376500	23.52	
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	1860	372000	23.52	
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12@6	1852.5	370500	23.49	
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12@6	1852.5	370500	23.43	
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12@6	1852.5	370500	21.81	
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12@6	1852.5	370500	19.72	
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	13@6	1852.5	370500	22.91	
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	13@6	1852.5	370500	22.39	
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	13@6	1852.5	370500	20.79	
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	13@6	1852.5	370500	17.59	
15	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1852.5	370500	23.51	
16	Middle	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1852.5	370500	23.15	
17	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1852.5	370500	23.51	
18	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1852.5	370500	23.30	
19	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25@0	1852.5	370500	23.17	
20	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1852.5	370500	23.45	
21	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1852.5	370500	23.22	

No.	Test Freq Description	5G-n66 ANT1 C1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n66	
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1777.5	355500	22.28	
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1745	349000	22.15	
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1712.5	342500	22.02	
4	High	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1760	352000	22.22	
5	Middle	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1745	349000	22.17	
6	Low	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1730	346000	22.10	
7	default	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12@6	1777.5	355500	22.26	
8	default	15	5	DFT-s-OFDM 16QAM	Inner_Full	12@6	1777.5	355500	22.26	
9	default	15	5	DFT-s-OFDM 64QAM	Inner_Full	12@6	1777.5	355500	22.25	
10	default	15	5	DFT-s-OFDM 256QAM	Inner_Full	12@6	1777.5	355500	20.58	
11	default	15	5	CP-OFDM QPSK	Inner_Full	12@6	1777.5	355500	22.28	
12	default	15	5	CP-OFDM 16QAM	Inner_Full	12@6	1777.5	355500	22.25	
13	default	15	5	CP-OFDM 64QAM	Inner_Full	12@6	1777.5	355500	21.72	
14	default	15	5	CP-OFDM 256QAM	Inner_Full	12@6	1777.5	355500	18.22	
15	default	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1777.5	355500	22.18	
16	default	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1777.5	355500	22.17	
17	default	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1777.5	355500	22.14	
18	default	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1777.5	355500	22.13	
19	default	15	5	DFT-s-OFDM QPSK	Outer_Full	25@0	1777.5	355500	22.19	
20	default	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1777.5	355500	22.04	
21	default	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1777.5	355500	22.14	
22	default	15	30	DFT-s-OFDM QPSK	Inner_Full	80@40	1777.5	355500	22.13	
23	default	15	40	DFT-s-OFDM QPSK	Inner_Full	108@54	1777.5	355500	22.14	

No.	Test Freq Description	5G-n66 A1/B1/D1/E1/F1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Tune up	n66
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1777.5	355500	24.00	23.33
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1745	349000	24.00	23.16
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1712.5	342500	24.00	23.04
4	High	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1760	352000	24.00	23.22
5	Middle	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1745	349000	24.00	23.11
6	Low	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1730	346000	24.00	23.16
7	default	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12@6	1777.5	355500	24.00	23.31
8	default	15	5	DFT-s-OFDM 16QAM	Inner_Full	12@6	1777.5	355500	24.00	23.30
9	default	15	5	DFT-s-OFDM 64QAM	Inner_Full	12@6	1777.5	355500	22.00	21.73
10	default	15	5	DFT-s-OFDM 256QAM	Inner_Full	12@6	1777.5	355500	21.00	19.61
11	default	15	5	CP-OFDM QPSK	Inner_Full	12@6	1777.5	355500	24.00	22.74
12	default	15	5	CP-OFDM 16QAM	Inner_Full	12@6	1777.5	355500	24.00	22.27
13	default	15	5	CP-OFDM 64QAM	Inner_Full	12@6	1777.5	355500	22.00	20.69
14	default	15	5	CP-OFDM 256QAM	Inner_Full	12@6	1777.5	355500	20.00	18.01
15	default	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1777.5	355500	24.00	23.30
16	default	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1777.5	355500	24.00	23.29
17	default	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1777.5	355500	24.00	23.26
18	default	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1777.5	355500	24.00	23.25
19	default	15	5	DFT-s-OFDM QPSK	Outer_Full	25@0	1777.5	355500	24.00	23.31
20	default	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1777.5	355500	24.00	23.16
21	default	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1777.5	355500	24.00	23.26
22	default	15	30	DFT-s-OFDM QPSK	Inner_Full	80@40	1777.5	355500	24.00	23.25
23	default	15	40	DFT-s-OFDM QPSK	Inner_Full	108@54	1777.5	355500	24.00	23.26

No.	Test Freq Description	5G-n66 ANT3 D1							Power Results (dBm)
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n66
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1777.5	355500	17.47
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1745	349000	17.39
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1712.5	342500	17.24
4	High	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1760	352000	17.48
5	Middle	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1745	349000	17.43
6	Low	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1730	346000	17.42
7	default	15	40	DFT-s-OFDM PI/2 BPSK1	Inner_Full	108_54	1760	352000	17.46
8	default	15	40	DFT-s-OFDM 16QAM	Inner_Full	108_54	1760	352000	17.31
9	default	15	40	DFT-s-OFDM 64QAM	Inner_Full	108_54	1760	352000	16.28
10	default	15	40	DFT-s-OFDM 256QAM	Inner_Full	108_54	1760	352000	14.69
11	default	15	40	CP-OFDM QPSK	Inner_Full	108_54	1760	352000	17.04
12	default	15	40	CP-OFDM 16QAM	Inner_Full	108_54	1760	352000	16.69
13	default	15	40	CP-OFDM 64QAM	Inner_Full	108_54	1760	352000	15.50
14	default	15	40	CP-OFDM 256QAM	Inner_Full	108_54	1760	352000	14.01
15	default	15	40	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1760	352000	17.46
16	default	15	40	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1760	352000	17.45
17	default	15	40	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1760	352000	17.43
18	default	15	40	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1760	352000	17.42
19	default	15	40	DFT-s-OFDM QPSK	Outer_Full	25@0	1760	352000	17.46
20	default	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1760	352000	17.35
21	default	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1760	352000	17.43
22	default	15	30	DFT-s-OFDM QPSK	Inner_Full	80@40	1760	352000	17.42
23	default	15	40	DFT-s-OFDM QPSK	Inner_Full	108@54	1760	352000	17.43

No.	Test Freq Description	5G-n66 ANT3 C1							Power Results (dBm)
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n66
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1777.5	355500	21.51
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1745	349000	21.45
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1712.5	342500	21.31
4	High	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1760	352000	21.54
5	Middle	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1745	349000	21.49
6	Low	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1730	346000	21.46
7	default	15	40	DFT-s-OFDM PI/2 BPSK1	Inner_Full	108_54	1760	352000	21.51
8	default	15	40	DFT-s-OFDM 16QAM	Inner_Full	108_54	1760	352000	20.57
9	default	15	40	DFT-s-OFDM 64QAM	Inner_Full	108_54	1760	352000	19.12
10	default	15	40	DFT-s-OFDM 256QAM	Inner_Full	108_54	1760	352000	17.31
11	default	15	40	CP-OFDM QPSK	Inner_Full	108_54	1760	352000	20.09
12	default	15	40	CP-OFDM 16QAM	Inner_Full	108_54	1760	352000	20.01
13	default	15	40	CP-OFDM 64QAM	Inner_Full	108_54	1760	352000	18.27
14	default	15	40	CP-OFDM 256QAM	Inner_Full	108_54	1760	352000	16.04
15	default	15	40	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1760	352000	20.59
16	default	15	40	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1760	352000	20.57
17	default	15	40	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1760	352000	21.50
18	default	15	40	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1760	352000	21.46
19	default	15	40	DFT-s-OFDM QPSK	Outer_Full	25@0	1760	352000	20.60
20	default	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1760	352000	21.40
21	default	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1760	352000	21.56
22	default	15	30	DFT-s-OFDM QPSK	Inner_Full	80@40	1760	352000	21.54
23	default	15	40	DFT-s-OFDM QPSK	Inner_Full	108@54	1760	352000	21.56

No.	Test Freq Description	5G-n66 ANT3 A1/B1							Power Results (dBm)
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n66
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1777.5	355500	23.53
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1745	349000	23.43
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1712.5	342500	23.31
4	High	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1760	352000	23.51
5	Middle	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1745	349000	23.48
6	Low	15	40	DFT-s-OFDM QPSK	Inner_Full	108_54	1730	346000	23.43
7	default	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12@6	1777.5	355500	23.51
8	default	15	5	DFT-s-OFDM 16QAM	Inner_Full	12@6	1777.5	355500	22.45
9	default	15	5	DFT-s-OFDM 64QAM	Inner_Full	12@6	1777.5	355500	20.87
10	default	15	5	DFT-s-OFDM 256QAM	Inner_Full	12@6	1777.5	355500	18.90
11	default	15	5	CP-OFDM QPSK	Inner_Full	12@6	1777.5	355500	21.93
12	default	15	5	CP-OFDM 16QAM	Inner_Full	12@6	1777.5	355500	21.49
13	default	15	5	CP-OFDM 64QAM	Inner_Full	12@6	1777.5	355500	20.13
14	default	15	5	CP-OFDM 256QAM	Inner_Full	12@6	1777.5	355500	18.11
15	default	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	1777.5	355500	22.47
16	default	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1777.5	355500	22.45
17	default	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	1777.5	355500	23.47
18	default	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1777.5	355500	23.43
19	default	15	5	DFT-s-OFDM QPSK	Outer_Full	25@0	1777.5	355500	22.48
20	default	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1777.5	355500	23.35
21	default	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1777.5	355500	23.50
22	default	15	30	DFT-s-OFDM QPSK	Inner_Full	80@40	1777.5	355500	23.51
23	default	15	40	DFT-s-OFDM QPSK	Inner_Full	108@54	1777.5	355500	23.51

No.	Test Freq Description	5G-n71 A1/B1/C1/D1/E1/F1							Tune up	Power Results (dBm)
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.		n28
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	695.5	139100	24.00	23.09
2	Middle	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	680.5	136100	24.00	23.12
3	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	665.5	133100	24.00	22.98
4	High	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	688	137600	24.00	23.04
5	Middle	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	680.5	136100	24.00	23.08
6	Low	15	20	DFT-s-OFDM QPSK	Inner_Full	50_25	673	134600	24.00	23.02
7	Middle	15	5	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12@6	680.5	136100	24.00	23.10
8	Middle	15	5	DFT-s-OFDM 16QAM	Inner_Full	12@6	680.5	136100	24.00	22.06
9	Middle	15	5	DFT-s-OFDM 64QAM	Inner_Full	12@6	680.5	136100	22.00	20.60
10	Middle	15	5	DFT-s-OFDM 256QAM	Inner_Full	12@6	680.5	136100	20.00	18.63
11	Middle	15	5	CP-OFDM QPSK	Inner_Full	13@6	680.5	136100	24.00	22.01
12	Middle	15	5	CP-OFDM 16QAM	Inner_Full	13@6	680.5	136100	23.00	21.11
13	Middle	15	5	CP-OFDM 64QAM	Inner_Full	13@6	680.5	136100	22.00	20.12
14	Middle	15	5	CP-OFDM 256QAM	Inner_Full	13@6	680.5	136100	20.00	18.11
15	High	15	5	DFT-s-OFDM QPSK	Edge_Full_Right	2@23	680.5	136100	24.00	22.12
16	Low	15	5	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	680.5	136100	24.00	22.13
17	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Right	1@23	680.5	136100	24.00	23.02
18	Middle	15	5	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	680.5	136100	24.00	23.04
19	Middle	15	5	DFT-s-OFDM QPSK	Outer_Full	25@0	680.5	136100	24.00	22.06
20	Middle	15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	680.5	136100	24.00	22.91
21	Middle	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	680.5	136100	24.00	23.05

No.	Test Freq Description	5G-n41 D1/E1/F1							Tune up	Power Results (dBm)
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.		n41
1	High	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2685	537000	16.5	15.12
2	Middle1	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2639	527799	16.5	15.07
3	Middle2	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2592.99	518598	16.5	14.99
4	Middle3	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2455.02	509406	16.5	14.88
5	Low	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2501.01	500205	16.5	14.97
6	High	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2640	528000	16.5	15.32
7	Middle1	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2616.495	523299	16.5	15.23
8	Middle2	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2592.99	518598	16.5	15.15
9	Middle3	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2569.5	513900	16.5	15.08
10	Low	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2546.01	509202	16.5	14.81
11	default	30	100	DFT-s-OFDM PI/2 BPSK1	Inner_Full	135_67	2640	528000	16.5	15.26
12	default	30	100	DFT-s-OFDM 16QAM	Inner_Full	135_67	2640	528000	16.5	15.27
13	default	30	100	DFT-s-OFDM 64QAM	Inner_Full	135_67	2640	528000	16.5	15.27
14	default	30	100	DFT-s-OFDM 256QAM	Inner_Full	135_67	2640	528000	16.5	15.29
15	default	30	100	CP-OFDM QPSK	Inner_Full	135_67	2640	528000	16.5	15.27
16	default	30	100	CP-OFDM 16QAM	Inner_Full	135_67	2640	528000	16.5	15.31
17	default	30	100	CP-OFDM 64QAM	Inner_Full	135_67	2640	528000	16.5	15.23
18	default	30	100	CP-OFDM 256QAM	Inner_Full	135_67	2640	528000	16.5	15.27
19	default	30	100	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2640	528000	16.5	15.27
20	default	30	100	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2640	528000	16.5	15.29
21	default	30	100	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2640	528000	16.5	15.26
22	default	30	100	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2640	528000	16.5	15.27
23	default	30	100	DFT-s-OFDM QPSK	Outer_Full	50@0	2640	528000	16.5	15.25
24	High	30	30	DFT-s-OFDM QPSK	Inner_Full	36_18	2640	528000	16.5	15.30
25	default	30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2640	528000	16.5	15.25
26	High	30	50	DFT-s-OFDM QPSK	Inner_Full	64_32	2640	528000	16.5	15.28
27	default	30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2640	528000	16.5	15.30
28	High	30	70	DFT-s-OFDM QPSK	Inner_Full	90_45	2640	528000	16.5	15.28
29	High	30	80	DFT-s-OFDM QPSK	Inner_Full	108_54	2640	528000	16.5	15.29
30	High	30	90	DFT-s-OFDM QPSK	Inner_Full	120_60	2640	528000	16.5	15.29

No.	Test Freq Description	5G-n41 A1						Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n41
1	High	30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2679.99	535998	26.00
2	Middle-1	30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2636.49	527298	25.77
3	Middle-2	30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2592.99	518598	26.61
4	Middle-3	30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2549.51	509902	26.49
5	Low	30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2506.02	501204	26.44
6	High	30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2640	528000	25.77
7	Middle	30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2616.51	523302	26.10
8	Middle	30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2592.99	518598	26.55
9	Middle	30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2569.5	513900	26.51
10	Low	30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2546.01	509202	26.48
11	default	30	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	25@12	2592.99	518598	26.60
12	default	30	20	DFT-s-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	25.65
13	default	30	20	DFT-s-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	24.12
14	default	30	20	DFT-s-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	22.10
15	default	30	20	CP-OFDM QPSK	Inner_Full	25@12	2592.99	518598	25.11
16	default	30	20	CP-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	24.69
17	default	30	20	CP-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	23.10
18	default	30	20	CP-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	20.06
19	default	30	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2592.99	518598	23.20
20	default	30	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2592.99	518598	23.18
21	default	30	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2592.99	518598	26.23
22	default	30	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2592.99	518598	26.59
23	default	30	20	DFT-s-OFDM QPSK	Outer_Full	50@0	2592.99	518598	25.64
24	High	30	30	DFT-s-OFDM QPSK	Inner_Full	36_18	2592.99	518598	26.48
25	default	30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2592.99	518598	26.44
26	High	30	50	DFT-s-OFDM QPSK	Inner_Full	64_32	2592.99	518598	26.46
27	default	30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2592.99	518598	26.40
28	High	30	70	DFT-s-OFDM QPSK	Inner_Full	90_45	2592.99	518598	26.22
29	High	30	80	DFT-s-OFDM QPSK	Inner_Full	108_54	2592.99	518598	26.46
30	High	30	90	DFT-s-OFDM QPSK	Inner_Full	120_60	2592.99	518598	26.44

No.	Test Freq Description	5G-n41 C1						Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n41
1	High	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2685	537000	19.22
2	Middle1	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2639	527799	19.13
3	Middle2	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2592.99	518598	19.03
4	Middle3	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2455.02	509406	18.96
5	Low	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2501.01	500205	19.02
6	High	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2640	528000	19.48
7	Middle1	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2616.495	523299	19.33
8	Middle2	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2592.99	518598	19.24
9	Middle3	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2569.5	513900	19.16
10	Low	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2546.01	509202	18.92
11	default	30	100	DFT-s-OFDM PI/2 BPSK1	Inner_Full	135_67	2640	528000	19.41
12	default	30	100	DFT-s-OFDM 16QAM	Inner_Full	135_67	2640	528000	19.42
13	default	30	100	DFT-s-OFDM 64QAM	Inner_Full	135_67	2640	528000	19.42
14	default	30	100	DFT-s-OFDM 256QAM	Inner_Full	135_67	2640	528000	19.44
15	default	30	100	CP-OFDM QPSK	Inner_Full	135_67	2640	528000	19.42
16	default	30	100	CP-OFDM 16QAM	Inner_Full	135_67	2640	528000	19.43
17	default	30	100	CP-OFDM 64QAM	Inner_Full	135_67	2640	528000	19.37
18	default	30	100	CP-OFDM 256QAM	Inner_Full	135_67	2640	528000	19.42
19	default	30	100	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2640	528000	19.42
20	default	30	100	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2640	528000	19.44
21	default	30	100	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2640	528000	19.41
22	default	30	100	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2640	528000	19.42
23	default	30	100	DFT-s-OFDM QPSK	Outer_Full	50@0	2640	528000	19.40
24	High	30	30	DFT-s-OFDM QPSK	Inner_Full	36_18	2640	528000	19.45
25	default	30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2640	528000	19.40
26	High	30	50	DFT-s-OFDM QPSK	Inner_Full	64_32	2640	528000	19.43
27	default	30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2640	528000	19.45
28	High	30	70	DFT-s-OFDM QPSK	Inner_Full	90_45	2640	528000	19.43
29	High	30	80	DFT-s-OFDM QPSK	Inner_Full	108_54	2640	528000	19.44
30	High	30	90	DFT-s-OFDM QPSK	Inner_Full	120_60	2640	528000	19.44

No.	Test Freq Description	5G-n41 B1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	n41	
1	High	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2685	537000	20.14	
2	Middle1	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2639	527799	20.21	
3	Middle2	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2592.99	518598	20.04	
4	Middle3	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2455.02	509406	20.03	
5	Low	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	2501.01	500205	20.06	
6	High	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2640	528000	20.40	
7	Middle1	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2616.495	523299	20.35	
8	Middle2	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2592.99	518598	20.22	
9	Middle3	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2569.5	513900	20.00	
10	Low	30	100	DFT-s-OFDM QPSK	Inner_Full	135_67	2546.01	509202	19.98	
11	default	30	100	DFT-s-OFDM PI/2 BPSK1	Inner_Full	135_67	2640	528000	20.32	
12	default	30	100	DFT-s-OFDM 16QAM	Inner_Full	135_67	2640	528000	20.33	
13	default	30	100	DFT-s-OFDM 64QAM	Inner_Full	135_67	2640	528000	20.33	
14	default	30	100	DFT-s-OFDM 256QAM	Inner_Full	135_67	2640	528000	20.35	
15	default	30	100	CP-OFDM QPSK	Inner_Full	135_67	2640	528000	20.33	
16	default	30	100	CP-OFDM 16QAM	Inner_Full	135_67	2640	528000	20.34	
17	default	30	100	CP-OFDM 64QAM	Inner_Full	135_67	2640	528000	20.27	
18	default	30	100	CP-OFDM 256QAM	Inner_Full	135_67	2640	528000	20.19	
19	default	30	100	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2640	528000	20.33	
20	default	30	100	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2640	528000	20.35	
21	default	30	100	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2640	528000	20.32	
22	default	30	100	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2640	528000	20.33	
23	default	30	100	DFT-s-OFDM QPSK	Outer_Full	50@0	2640	528000	20.31	
24	High	30	30	DFT-s-OFDM QPSK	Inner_Full	36_18	2640	528000	20.32	
25	default	30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2640	528000	20.31	
26	High	30	50	DFT-s-OFDM QPSK	Inner_Full	64_32	2640	528000	20.34	
27	default	30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2640	528000	20.37	
28	High	30	70	DFT-s-OFDM QPSK	Inner_Full	90_45	2640	528000	20.34	
29	High	30	80	DFT-s-OFDM QPSK	Inner_Full	108_54	2640	528000	20.35	
30	High	30	90	DFT-s-OFDM QPSK	Inner_Full	120_60	2640	528000	20.35	

No.	Test Freq Description	5G-n70 A1/B1/C1/D1/E1/F1							Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Tune up	n70
1	High	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1707.5	341500	24	23.12
2	Middle1	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1702.5	340500	24	23.10
5	Low	15	5	DFT-s-OFDM QPSK	Inner_Full	12_6	1697.5	339500	24	23.02
6	High	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1707.5	341500	24	23.09
7	Middle1	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1702.5	340500	24	23.11
10	Low	15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1697.5	339500	24	23.06
1	Middle2	30	10	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	1707.5	341500	24	23.08
2	Middle2	30	10	DFT-s-OFDM 16QAM	Inner_Full	12_6	1707.5	341500	24	22.98
3	Middle2	30	10	DFT-s-OFDM 64QAM	Inner_Full	12_6	1707.5	341500	24	23.03
4	Middle2	30	10	DFT-s-OFDM 256QAM	Inner_Full	12_6	1707.5	341500	24	23.03
5	Middle2	30	10	CP-OFDM QPSK	Inner_Full	12_6	1707.5	341500	24	22.98
6	Middle2	30	10	CP-OFDM 16QAM	Inner_Full	12_6	1707.5	341500	24	23.03
7	Middle2	30	10	CP-OFDM 64QAM	Inner_Full	12_6	1707.5	341500	24	23.00
8	Middle2	30	10	CP-OFDM 256QAM	Inner_Full	12_6	1707.5	341500	24	22.98
9	Middle	30	10	DFT-s-OFDM QPSK	Edge_Full_Right	2_22	1707.5	341500	24	23.08
10	Middle	30	10	DFT-s-OFDM QPSK	Edge_Full_Left	2_0	1707.5	341500	24	23.12
11	Middle	30	10	DFT-s-OFDM QPSK	Edge_1RB_Right	1_23	1707.5	341500	24	23.01
12	Middle	30	10	DFT-s-OFDM QPSK	Edge_1RB_Left	1_0	1707.5	341500	24	23.05
13	Middle	30	10	DFT-s-OFDM QPSK	Inner_1RB_Right	1_22	1707.5	341500	24	23.07
14	Middle	30	10	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	1707.5	341500	24	23.03
15	Middle	30	10	DFT-s-OFDM QPSK	Outer_Full	25_0	1707.5	341500	24	23.01
16	Middle2	30	15	DFT-s-OFDM QPSK	Inner_Full	18_9	1707.5	341500	24	23.03
17	Middle2	30	20	DFT-s-OFDM QPSK	Inner_Full	25_12	1707.5	341500	24	23.05
18	Middle2	30	30	DFT-s-OFDM QPSK	Inner_Full	36_18	1707.5	341500	24	23.03
19	Middle2	30	40	DFT-s-OFDM QPSK	Inner_Full	50_25	1707.5	341500	24	23.03
20	Middle2	30	50	DFT-s-OFDM QPSK	Inner_Full	64_32	1707.5	341500	24	23.00
21	Middle2	30	60	DFT-s-OFDM QPSK	Inner_Full	81_40	1707.5	341500	24	22.98
22	Middle2	30	70	DFT-s-OFDM QPSK	Inner_Full	90_45	1707.5	341500	24	23.08
23	Middle2	30	80	DFT-s-OFDM QPSK	Inner_Full	108_54	1707.5	341500	24	23.10
24	Middle2	30	90	DFT-s-OFDM QPSK	Inner_Full	120_60	1707.5	341500	24	23.01

11.5 Wi-Fi and BT Measurement result

The maximum output power of BT antenna is 9.59dBm.

The maximum tune up of BT antenna is 11dBm.

Table11.5: Summary of Receiver detection mechanism-WiFi antenna

Antenna	Receiver off+ Sensor off (DSI0)	Receiver off+ Hotspot on (DSI1)	Receiver on+ WLAN off (DSI2)	Receiver on+ WLAN on (DSI3)	Receiver off+ Sensor on+ WWAN off (DSI4)	Receiver off+ Sensor on+ WWAN on (DSI5)
Main Antenna	Power Level A1	Power Level B1	Power Level C1	Power Level D1	Power Level E1	Power Level F1

The average conducted power for Wi-Fi 2.4G is as following:

Power Level D1/B1

802.11b	Channel\data	1Mbps
WLAN2450	11(2462MHz)	15.22
	6(2437(MHz)	15.02
	1(2412MHz)	15.04
	tuneup	17.00
802.11g	Channel\data	6Mbps
WLAN2450	11(2462MHz)	15.24
	6(2437(MHz)	15.21
	1(2412MHz)	15.02
	tuneup	17.00
802.11n-20MHz	Channel\data	MCS0
WLAN2450	11(2462MHz)	15.18
	6(2437(MHz)	15.16
	1(2412MHz)	15.01
	tuneup	17.00
802.11n-40MHz	Channel\data	MCS0
WLAN2450	9(2452MHz)	15.24
	6(2437MHz)	15.26
	3(2422MHz)	15.04
	tuneup	17.00

Power Level A1

802.11b	Channel\data	1Mbps
WLAN2450	11(2462MHz)	21.29
	6(2437(MHz)	21.35
	1(2412MHz)	21.30
	tuneup	21.50
802.11g	Channel\data	6Mbps
WLAN2450	11(2462MHz)	19.47
	tuneup	19.50
	6(2437(MHz)	19.81
	1(2412MHz)	19.80
	tuneup	20.50
802.11n-20MHz	Channel\data	MCS0
WLAN2450	11(2462MHz)	18.03
	tuneup	19.00
	6(2437(MHz)	18.98
	1(2412MHz)	18.86
	tuneup	20.00
802.11n-40MHz	Channel\data	MCS0
WLAN2450	9(2452MHz)	18.31
	6(2437MHz)	18.70
	3(2422MHz)	17.95
	tuneup	19.50

Power Level C1/E1

802.11b	Channel\data	1Mbps
WLAN2450	11(2462MHz)	18.98
	6(2437(MHz)	18.94
	1(2412MHz)	18.95
	tuneup	20.00
802.11g	Channel\data	6Mbps
WLAN2450	11(2462MHz)	18.90
	tuneup	19.50
	6(2437(MHz)	19.14
	1(2412MHz)	19.07
	tuneup	20.00
802.11n-20MHz	Channel\data	MCS0
WLAN2450	11(2462MHz)	18.15
	tuneup	19.00
	6(2437(MHz)	18.98
	1(2412MHz)	18.86
	tuneup	20.00
802.11n-40MHz	Channel\data	MCS0
WLAN2450	9(2452MHz)	18.31
	6(2437MHz)	18.70
	3(2422MHz)	17.95
	tuneup	19.50

The average conducted power for Wi-Fi 5G is as following:

Power Level A1:

802.11a(dBm)	
Channel\data rate	6Mbps
36(5180 MHz)	19.28
40(5200 MHz)	19.36
44(5220 MHz)	19.25
48(5240 MHz)	19.14
52(5260 MHz)	18.72
56(5280 MHz)	18.78
60(5300 MHz)	18.83
64(5320 MHz)	18.84
100(5500 MHz)	18.78
104(5520 MHz)	18.83
108(5540 MHz)	18.76
112(5560 MHz)	18.61
116(5580 MHz)	18.36
120(5600 MHz)	18.20
124(5620 MHz)	18.22
128(5640 MHz)	18.06
132(5660 MHz)	19.05
136(5680 MHz)	19.10
140(5700 MHz)	18.84
144(5720 MHz)	18.88
149(5745 MHz)	18.51
153(5765 MHz)	18.45
157(5785 MHz)	18.18
161(5805 MHz)	18.06
165(5825 MHz)	18.04
tuneup	20.00

Remark: The tune up for CH140 is 19.5dBm

Power Level D1:

802.11ac(dBm)-80MHz	
Channel\data rate	MCS0
42(5210 MHz)	11.84
58(5290 MHz)	11.64
106(5530 MHz)	11.37
122(5610 MHz)	11.04
138(5730 MHz)	11.48
155(5775 MHz)	11.04
tuneup	13



Power Level B1/C1:

802.11ac(dBm)-80MHz	
Channel\data rate	MCS0
42(5210 MHz)	13.01
58(5290 MHz)	14.04
106(5530 MHz)	13.37
122(5610 MHz)	13.02
138(5730 MHz)	13.53
155(5775 MHz)	13.05
tuneup	15.00

Remark: The tune up for CH42 is 14dBm

Power Level E1:

802.11ac(dBm)-80MHz	
Channel\data rate	MCS0
42(5210 MHz)	13.01
58(5290 MHz)	16.68
106(5530 MHz)	16.37
122(5610 MHz)	16.04
138(5730 MHz)	16.55
155(5775 MHz)	16.04
tuneup	18.00

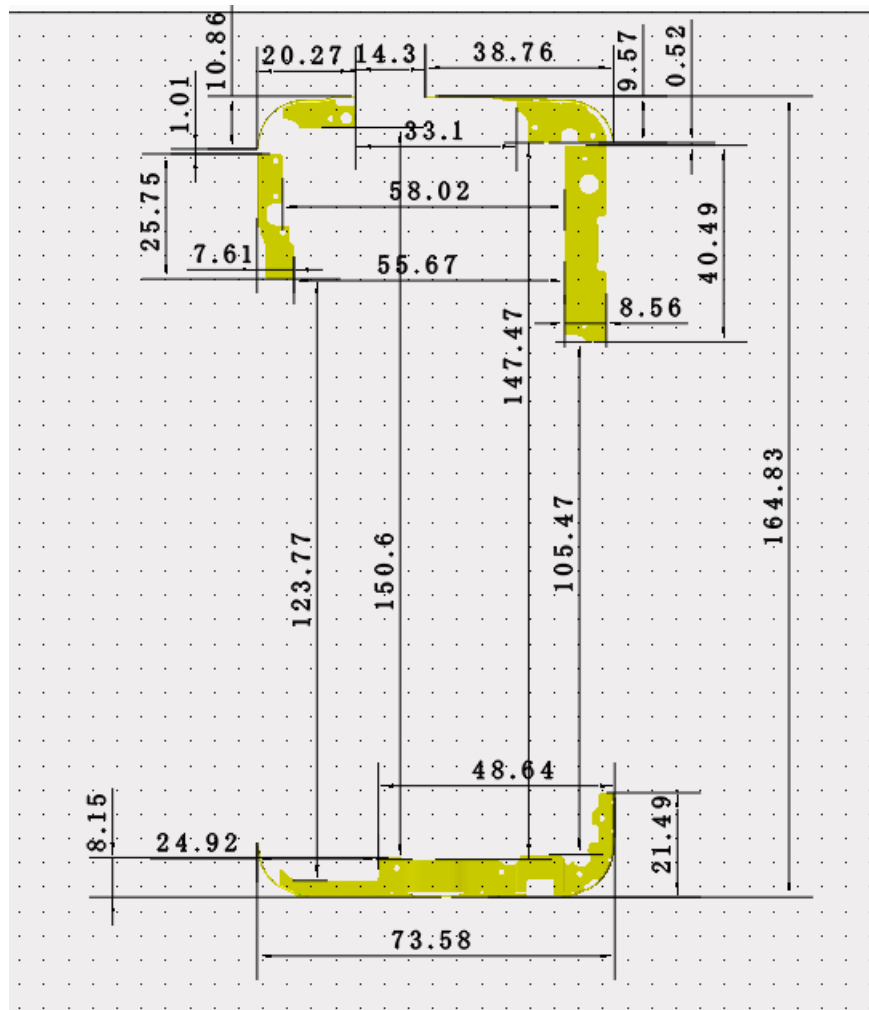
Remark: The tune up for CH42 is 14dBm

12 Simultaneous TX SAR Considerations

12.1 Introduction

The following procedures adopted from “FCC SAR Considerations for Cell Phones with Multiple Transmitters” are applicable to handsets with built-in unlicensed transmitters such as 802.11 a/b/g and Bluetooth devices which may simultaneously transmit with the licensed transmitter. For this device, the BT and Wi-Fi can transmit simultaneous with other transmitters.

12.2 Transmit Antenna Separation Distances



Rear view

ANT_NO.	Band			
	TRX	DRX	PRX_MIMO	DRX_MIMO
ANT0	GSM 850/900 WCDMA B5/8 LTE B5/12/13/26/71/7/20/8/ 29 NR n71/5/29		NR n41	
ANT1	GSM1800/1900 WCDMA B2/4/1 LTE B1/2/3/4/25/66 NR n66/25/70/n2			
ANT2		LTE B41 B38 B40 NR n41	NR n66/25/70/2	
ANT3	LTE B41 (HPUE) 38/40 NR n41 (HPUE) n2/n25/n66 LTE B2/B66 (ENDC)	GSM850/900/1800/1900 WCDMA B1/2/4/5/8 LTE B1/2/3/4/5/8/12/13/2 5/26/66/71/7 NR n71/66/25/70/29		
ANT5	GPS/WIFI (IEEE 802. 11 a/b/g/n/ac)			
ANT6				NR n25/66/41/71/ 2

Picture 12.1 Antenna Locations

12.3 SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR, the edges with less than 2.5 cm distance to the antennas need to be tested for SAR.

SAR measurement positions						
Mode	Front	Rear	Left edge	Right edge	Top edge	Bottom edge
ANT0	Yes	Yes	Yes	Yes	No	Yes
ANT1	Yes	Yes	Yes	No	No	Yes
ANT3	Yes	Yes	Yes	No	Yes	No
ANT4	Yes	Yes	No	Yes	Yes	No
ANT5	Yes	Yes	No	Yes	Yes	No

13 Evaluation of Simultaneous

Table 13.1: The sum of SAR values for Main antenna + Wifi2.4G +BT

	Position	Main antenna	WiFi-2.4G	BT	Sum
Highest SAR value for Head	Left head, Cheek (ENDC 66A-n41A)	1.13	0.26	<0.01	1.39
Highest SAR value for Body	Rear 10mm (ENDC 12A-n25A)	1.09	0.17	<0.01	1.26

Table 13.2: The sum of SAR values for Main antenna + Wifi5G +BT

	Position	Main antenna	WiFi-5G	BT	Sum
Highest SAR value for Head	Left head, Tilt (ENDC 66A-n25A)	0.65	0.85	<0.01	1.50
Highest SAR value for Body	Top 10mm (ENDC 66A-n25A)	1.21	0.38	<0.01	1.59
Highest SAR value for Body	Rear 15mm (WCDMA1900)	0.90	0.69	<0.01	1.59

Table 13.3: The SAR values for ENDC

ENDC	Left Cheek 1g (W/kg)	Left Tilt 1g (W/kg)	Right Cheek 1g (W/kg)	Right Tilt 1g (W/kg)	Front 10mm 1g (W/kg)	Rear 10mm 1g (W/kg)	Left Edge 10mm 1g (W/kg)	Right Edge 10mm 1g (W/kg)	Bottom Edge 10mm 1g (W/kg)	Top Edge 10mm 1g (W/kg)	Front 15mm 1g (W/kg)	Rear 15mm 1g (W/kg)
DC 66A (ANT1) N71A	0.37	0.22	0.34	0.26	0.39	0.56	0.36	0.38	0.37	\	0.43	0.60
DC 66A (ANT3) N71A	0.45	0.47	0.50	0.57	0.44	0.53	0.29	0.38	0.19	0.32	0.46	0.55
DC 2A(ANT1) N71A	0.46	0.31	0.39	0.32	0.39	0.59	0.37	0.38	0.40	\	0.45	0.63
DC 2A(ANT3) N71A	0.35	0.34	0.39	0.43	0.40	0.49	0.28	0.38	0.19	0.32	0.54	0.69
DC 2A(ANT1) n66A (ANT1)	0.49	0.34	0.39	0.38	0.38	0.60	0.30	\	0.48	\	0.44	0.62
DC 2A(ANT3) n66A (ANT1)	0.38	0.36	0.40	0.49	0.39	0.50	0.21	\	0.27	0.32	0.53	0.67
DC 12A N66A (ANT1)	0.54	0.31	0.59	0.44	0.67	0.94	0.58	0.65	0.63	\	0.22	0.32
DC 2A(ANT1) n66A (ANT3)	0.56	0.57	0.56	0.67	0.42	0.50	0.19	\	0.21	0.37	0.44	0.52
DC 2A(ANT3) n66A (ANT3)	0.46	0.60	0.57	0.78	0.43	0.40	0.10	\	\	0.69	0.53	0.58
DC 12A N66A (ANT3)	0.62	0.55	0.77	0.73	0.71	0.84	0.47	0.65	0.37	0.37	0.22	0.22
DC 2A(ANT1) n41A	0.46	0.43	0.82	0.87	0.49	0.56	0.43	\	0.21	0.46	0.63	0.59
DC 2A(ANT3) n41A	0.36	0.46	0.83	0.98	0.50	0.46	0.34	\	\	0.78	0.71	0.65
DC 12A N25A(ANT1)	0.56	0.33	0.59	0.43	0.69	1.01	0.62	0.65	0.68	\	0.23	0.31
DC 66A(ANT1) n25A(ANT1)	0.43	0.27	0.34	0.31	0.40	0.65	0.33	\	0.49	\	0.43	0.58
DC 66A(ANT3) n25A(ANT1)	0.50	0.52	0.50	0.62	0.45	0.61	0.26	\	0.31	0.32	0.46	0.53
DC 12A N25A ANT3	0.55	0.47	0.72	0.68	0.96	1.09	0.53	0.65	0.37	0.89	0.31	0.34
DC 66A(ANT1) n25A (ANT3)	0.42	0.40	0.47	0.56	0.67	0.73	0.25	\	0.18	0.89	0.50	0.61
DC 66A(ANT3) n25A(ANT3)	0.50	0.65	0.63	0.87	0.72	0.69	0.18	\	\	1.21	0.54	0.56
DC 66A(ANT1) n41A	0.38	0.34	0.78	0.82	0.49	0.53	0.42	\	0.18	0.46	0.60	0.56
DC 66A(ANT3) n41A	0.46	0.59	0.93	1.13	0.54	0.50	0.35	\	\	0.78	0.64	0.51
DC 66A(ANT1) n41C	0.38	0.34	0.78	0.82	0.49	0.53	0.42	\	0.18	0.46	0.60	0.56
DC 66A(ANT3) n41C	0.46	0.59	0.93	1.13	0.54	0.50	0.35	\	\	0.78	0.64	0.51
DC 2A(ANT1) n5A	0.51	0.34	0.45	0.35	0.38	0.58	0.24	0.19	0.44	\	0.44	0.62
DC 2A(ANT3) n5A	0.40	0.36	0.46	0.47	0.39	0.48	0.16	0.19	0.23	0.32	0.53	0.68
DC 66A(ANT1) n5A	0.42	0.25	0.41	0.30	0.38	0.55	0.23	0.19	0.42	\	0.41	0.59
DC 66A(ANT3) n5A	0.50	0.50	0.56	0.61	0.43	0.52	0.17	0.19	0.23	0.32	0.45	0.54
DC 5A n2A (ANT1)	0.68	0.38	0.67	0.41	0.67	1.01	0.42	\	0.63	\	0.24	0.41
DC 12A n2A (ANT1)	0.58	0.34	0.59	0.42	0.67	0.96	0.60	0.65	0.52	\	0.24	0.41
DC 66A(ANT1) n2A (ANT1)	0.45	0.27	0.34	0.31	0.37	0.60	0.31	\	0.34	\	0.43	0.68
DC 66A(ANT3) n2A (ANT1)	0.53	0.52	0.49	0.62	0.43	0.56	0.24	\	0.16	0.32	0.47	0.63
DC 2A(ANT1) n2A (ANT1)	0.53	0.36	0.38	0.36	0.38	0.63	0.32	\	0.37	\	0.46	0.71
DC 2A(ANT3) n2A (ANT1)	0.43	0.39	0.39	0.47	0.39	0.53	0.23	\	0.16	0.32	0.55	0.77
DC 5A n2A (ANT3)	0.60	0.45	0.76	0.62	0.87	1.07	0.33	\	0.48	0.79	0.26	0.29
DC 12A n2A (ANT3)	0.51	0.41	0.67	0.63	0.87	1.02	0.51	0.65	0.37	0.79	0.26	0.29
DC 66A(ANT1) n2A (ANT3)	0.37	0.34	0.43	0.51	0.57	0.66	0.23	\	0.18	0.79	0.45	0.55
DC 66A(ANT3) n2A (ANT3)	0.45	0.59	0.58	0.82	0.63	0.62	0.16	\	\	1.11	0.49	0.51
DC 2A(ANT1) n2A (ANT3)	0.45	0.43	0.47	0.56	0.58	0.69	0.24	\	0.21	0.79	0.48	0.58
DC 2A(ANT3) n2A (ANT3)	0.35	0.46	0.48	0.68	0.59	0.58	0.15	\	\	1.11	0.56	0.64

Conclusion:

According to the above tables, the sum of reported SAR values is < 1.6W/kg. So the simultaneous transmission SAR with volume scans is not required.

14 SAR Test Result

It is determined by user manual for the distance between the EUT and the phantom bottom.

The distance is 10 mm and just applied to the condition of body worn accessory.

It is performed for all SAR measurements with area scan based 1-g SAR estimation (Fast SAR). A zoom scan measurement is added when the estimated 1-g SAR is the highest measured SAR in each exposure configuration, wireless mode and frequency band combination or more than 1.2W/kg.

The calculated SAR is obtained by the following formula:

$$\text{Reported SAR} = \text{Measured SAR} \times 10^{(P_{\text{Target}} - P_{\text{Measured}})/10}$$

Where P_{Target} is the power of manufacturing upper limit;

P_{Measured} is the measured power in chapter 11.

Table 14.1: Duty Cycle

Mode	Duty Cycle
GSM850/1900	1:8.3
GPRS850/1900	1:2
WCDMA<E FDD&5G NR	1:1
LTE TDD	1:1.58 or 1:2.37

14.1 SAR results for 2G/3G/4G

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	GSM850	190	836.6		Left Cheek	0mm	\	32.01	33.50	0.220	0.31	0.155	0.22	-0.05
Head	GSM850	190	836.6		Left Tilt	0mm	\	32.01	33.50	0.123	0.17	0.090	0.13	-0.15
Head	GSM850	190	836.6		Right Cheek	0mm	\	32.01	33.50	0.263	0.37	0.197	0.28	0.07
Head	GSM850	128	836.6		Right Cheek	0mm	\	31.93	33.50	0.248	0.36	0.184	0.26	0.03
Head	GSM850	251	848.8		Right Cheek	0mm	Fig.A1	32.04	33.50	0.280	0.39	0.210	0.29	-0.18
Head	GSM850	190	836.6		Right Tilt	0mm	\	32.01	33.50	0.146	0.21	0.111	0.16	-0.18
Head	GSM850	251	848.8		Right Cheek	0mm	\	32.04	33.50	0.263	0.37	0.194	0.27	0.15
Body	GSM850	190	836.6	GPRS(4TX)	Front	10mm	\	28.79	29.50	0.493	0.58	0.291	0.34	0.19
Body	GSM850	251	848.8	GPRS(4TX)	Rear	10mm	Fig.A2	28.82	29.50	0.673	0.79	0.380	0.44	-0.12
Body	GSM850	190	836.6	GPRS(4TX)	Rear	10mm	\	28.79	29.50	0.557	0.66	0.331	0.39	0.15
Body	GSM850	128	824.2	GPRS(4TX)	Rear	10mm	\	28.70	29.50	0.535	0.64	0.308	0.37	0.13
Body	GSM850	190	836.6	GPRS(4TX)	Left Edge	10mm	\	28.79	29.50	0.212	0.25	0.137	0.16	0.03
Body	GSM850	190	836.6	GPRS(4TX)	Right Edge	10mm	\	28.79	29.50	0.501	0.59	0.324	0.38	-0.05
Body	GSM850	190	836.6	GPRS(4TX)	Bottom Edge	10mm	\	28.79	29.50	0.435	0.51	0.229	0.27	-0.08
Body	GSM850	251	848.8	EGPRS(4TX)	Rear	10mm	\	28.79	29.50	0.651	0.77	0.371	0.44	0.08
Head	GSM1900	661	1880		Left Cheek	0mm	Fig.A3	29.18	30.50	0.101	0.14	0.065	0.09	-0.20
Head	GSM1900	810	1909.8		Left Cheek	0mm	\	29.04	30.50	0.095	0.13	0.060	0.08	-0.14
Head	GSM1900	512	1850.2		Left Cheek	0mm	\	29.46	30.50	0.096	0.12	0.057	0.07	0.19
Head	GSM1900	661	1880		Left Tilt	0mm	\	29.18	30.50	0.074	0.10	0.046	0.06	0.15
Head	GSM1900	661	1880		Right Cheek	0mm	\	29.18	30.50	0.091	0.12	0.055	0.07	0.14
Head	GSM1900	661	1880		Right Tilt	0mm	\	29.18	30.50	0.051	0.07	0.034	0.05	0.06
Body	GSM1900	661	1880	GPRS(4TX)	Front	10mm	\	25.25	26.50	0.297	0.40	0.165	0.22	0.02
Body	GSM1900	661	1880	GPRS(4TX)	Rear	10mm	Fig.A4	25.25	26.50	0.537	0.72	0.311	0.41	0.07
Body	GSM1900	512	1850.2	GPRS(4TX)	Rear	10mm	\	25.37	26.50	0.533	0.69	0.306	0.40	0.02
Body	GSM1900	810	1909.8	GPRS(4TX)	Rear	10mm	\	25.14	26.50	0.462	0.63	0.269	0.37	-0.09
Body	GSM1900	661	1880	GPRS(4TX)	Left Edge	10mm	\	25.25	26.50	0.289	0.39	0.157	0.21	-0.06
Body	GSM1900	661	1880	GPRS(4TX)	Bottom Edge	10mm	\	25.25	26.50	0.260	0.35	0.152	0.20	0.13
Body	GSM1900	810	1909.8	EGPRS(4TX)	Bottom Edge	10mm	\	25.14	26.50	0.200	0.27	0.117	0.16	-0.13

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Dnrt
Head	WCDMA1900	9400	1880	RMC	Left Cheek	0mm	\	23.09	24.00	0.370	0.46	0.234	0.29	0.16
Head	WCDMA1900	9262	1852.4	RMC	Left Cheek	0mm	\	23.14	24.00	0.272	0.33	0.173	0.21	0.01
Head	WCDMA1900	9538	1907.6	RMC	Left Cheek	0mm	Fig.A5	22.90	24.00	0.381	0.49	0.239	0.31	-0.14
Head	WCDMA1900	9400	1880	RMC	Left Tilt	0mm	\	23.09	24.00	0.198	0.24	0.108	0.13	-0.18
Head	WCDMA1900	9400	1880	RMC	Right Cheek	0mm	\	23.09	24.00	0.241	0.30	0.147	0.18	-0.04
Head	WCDMA1900	9400	1880	RMC	Right Tilt	0mm	\	23.09	24.00	0.220	0.27	0.129	0.16	-0.08
Body	WCDMA1900	9400	1880	RMC	Front	10mm	\	20.98	22.00	0.247	0.31	0.140	0.18	0.02
Body	WCDMA1900	9400	1880	RMC	Rear	10mm	\	20.98	22.00	0.405	0.51	0.235	0.30	-0.18
Body	WCDMA1900	9538	1907.6	RMC	Bottom Edge	10mm	Fig.A6	20.88	22.00	0.406	0.53	0.238	0.31	-0.16
Body	WCDMA1900	9262	1852.4	RMC	Bottom Edge	10mm	\	20.91	22.00	0.330	0.42	0.189	0.24	-0.16
Body	WCDMA1900	9400	1880	RMC	Left Edge	10mm	\	20.98	22.00	0.220	0.28	0.122	0.15	-0.03
Body	WCDMA1900	9400	1880	RMC	Bottom Edge	10mm	\	20.98	22.00	0.243	0.31	0.140	0.18	0.18
Body	WCDMA1900	9400	1880	RMC	Front	15mm	\	23.09	24.00	0.373	0.46	0.228	0.28	-0.15
Body	WCDMA1900	9538	1907.6	RMC	Rear	15mm	Fig.A7	22.90	24.00	0.569	0.73	0.338	0.44	0.05
Body	WCDMA1900	9400	1880	RMC	Rear	15mm	\	23.09	24.00	0.543	0.67	0.320	0.39	0.01
Body	WCDMA1900	9262	1852.4	RMC	Rear	15mm	\	23.14	24.00	0.461	0.56	0.274	0.33	0.12
Head	WCDMA1700	1412	1732.4	RMC	Left Cheek	0mm	\	22.61	24.00	0.243	0.33	0.156	0.21	0.16
Head	WCDMA1700	1312	1712.4	RMC	Left Cheek	0mm	\	22.66	24.00	0.240	0.33	0.154	0.21	0.20
Head	WCDMA1700	1513	1752.6	RMC	Left Cheek	0mm	Fig.A8	22.62	24.00	0.257	0.35	0.165	0.23	0.02
Head	WCDMA1700	1412	1732.4	RMC	Left Tilt	0mm	\	22.61	24.00	0.144	0.20	0.086	0.12	0.06
Head	WCDMA1700	1412	1732.4	RMC	Right Cheek	0mm	\	22.61	24.00	0.180	0.25	0.117	0.16	0.17
Head	WCDMA1700	1412	1732.4	RMC	Right Tilt	0mm	\	22.61	24.00	0.159	0.22	0.096	0.13	0.10
Body	WCDMA1700	1412	1732.5	RMC	Front	10mm	\	20.62	22.00	0.241	0.33	0.139	0.19	0.15
Body	WCDMA1700	1412	1732.5	RMC	Rear	10mm	\	20.62	22.00	0.319	0.44	0.191	0.26	-0.12
Body	WCDMA1700	1513	1752.6	RMC	Bottom Edge	10mm	Fig.A9	20.66	22.00	0.362	0.49	0.217	0.30	0.11
Body	WCDMA1700	1312	1712.4	RMC	Bottom Edge	10mm	\	20.69	22.00	0.350	0.47	0.212	0.29	0.06
Body	WCDMA1700	1412	1732.5	RMC	Left Edge	10mm	\	20.62	22.00	0.175	0.24	0.093	0.13	0.20
Body	WCDMA1700	1412	1732.5	RMC	Bottom Edge	10mm	\	20.62	22.00	0.212	0.29	0.115	0.16	-0.19
Body	WCDMA1700	1412	1732.5	RMC	Front	15mm	\	22.61	24.00	0.330	0.45	0.204	0.28	0.10
Body	WCDMA1700	1513	1752.6	RMC	Rear	15mm	Fig.A10	22.62	24.00	0.506	0.70	0.316	0.43	0.16
Body	WCDMA1700	1412	1732.5	RMC	Rear	15mm	\	22.61	24.00	0.477	0.66	0.299	0.41	0.13
Body	WCDMA1700	1312	1712.4	RMC	Rear	15mm	\	22.66	24.00	0.461	0.63	0.288	0.39	-0.06
Head	WCDMA 850	4183	836.6	RMC	Left Cheek	0mm	\	22.87	24.00	0.342	0.44	0.237	0.31	0.02
Head	WCDMA 850	4183	836.6	RMC	Left Tilt	0mm	\	22.87	24.00	0.179	0.23	0.132	0.17	-0.17
Head	WCDMA 850	4183	836.6	RMC	Right Cheek	0mm	\	22.87	24.00	0.341	0.44	0.255	0.33	0.02
Head	WCDMA 850	4132	826.4	RMC	Right Cheek	0mm	\	22.85	24.00	0.326	0.43	0.244	0.32	-0.04
Head	WCDMA 850	4233	846.6	RMC	Right Cheek	0mm	Fig.A11	22.89	24.00	0.363	0.47	0.271	0.35	0.12
Head	WCDMA 850	4183	836.6	RMC	Right Tilt	0mm	\	22.87	24.00	0.208	0.27	0.158	0.21	-0.13
Body	WCDMA 850	4183	836.6	RMC	Front	10mm	\	22.87	24.00	0.282	0.37	0.169	0.22	0.06
Body	WCDMA 850	4233	846.6	RMC	Rear	10mm	\	22.89	24.00	0.421	0.54	0.246	0.32	0.16
Body	WCDMA 850	4183	836.6	RMC	Rear	10mm	Fig.A12	22.87	24.00	0.423	0.55	0.248	0.32	-0.19
Body	WCDMA 850	4132	826.4	RMC	Rear	10mm	\	22.85	24.00	0.372	0.49	0.215	0.28	-0.19
Body	WCDMA 850	4183	836.6	RMC	Left Edge	10mm	\	22.87	24.00	0.079	0.10	0.054	0.07	-0.03
Body	WCDMA 850	4183	836.6	RMC	Right Edge	10mm	\	22.87	24.00	0.217	0.28	0.143	0.19	0.01
Body	WCDMA 850	4183	836.6	RMC	Bottom Edge	10mm	\	22.87	24.00	0.292	0.38	0.151	0.20	-0.02



ULCA	Left Cheek	Left Tilt	Right Cheek	Right Tilt	Front 10mm	Rear 10mm	Left Edge 10mm	Right Edge 10mm	Bottom Edge 10mm	Top Edge 10mm	Front 15mm 1g (W/kg)	Rear 15mm 1g (W/kg)
CA_2A (ANT1) -12A	0.62	0.39	0.64	0.47	0.61	0.86	0.53	0.86	0.62	0.00	0.22	0.30
CA_2A (ANT3) -12A	0.51	0.41	0.64	0.58	0.62	0.76	0.44	0.97	0.62	0.00	0.31	0.36
CA_12A-66A(ANT1)	0.53	0.30	0.59	0.42	0.61	0.84	0.52	0.65	0.79	0.00	0.19	0.27
CA_12A-66A(ANT3)	0.61	0.55	0.75	0.73	0.66	0.80	0.45	0.65	0.62	0.32	0.23	0.22

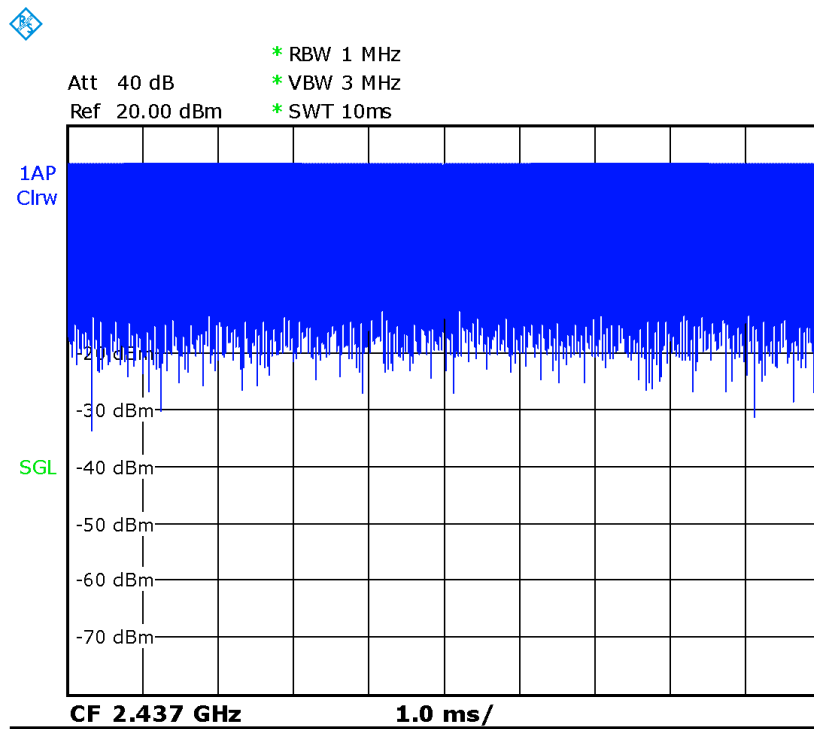
14.3 SAR Evaluation for WIFI 2.4G

The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

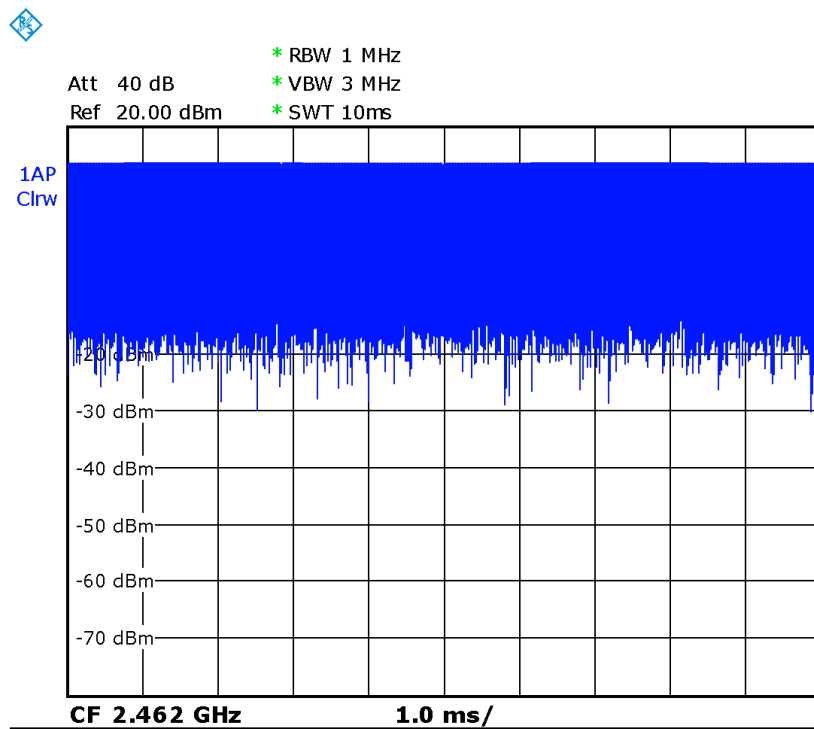
When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.

SAR Test reduction was applied from KDB 248227 guidance, when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Test setup	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	WIFI 2.4G	6	2437	Left Cheek	\	15.02	17.00	0.380	0.60	0.204	0.32	0.11
Head	WIFI 2.4G	1	2412	Left Cheek	\	15.04	17.00	0.386	0.61	0.208	0.33	-0.17
Head	WIFI 2.4G	11	2462	Left Cheek	Fig.A73	15.22	17.00	0.427	0.64	0.222	0.33	0.09
Head	WIFI 2.4G	6	2437	Left Tilt	\	15.02	17.00	0.306	0.48	0.165	0.26	0.07
Head	WIFI 2.4G	1	2412	Left Tilt	\	15.04	17.00	0.281	0.44	0.140	0.22	0.03
Head	WIFI 2.4G	6	2437	Right Cheek	\	15.02	17.00	0.167	0.26	0.097	0.15	0.05
Head	WIFI 2.4G	6	2437	Right Tilt	\	15.02	17.00	0.163	0.26	0.089	0.14	0.05
Body	WIFI 2.4G	6	2437	Front 10mm	\	15.02	17.00	0.103	0.16	0.054	0.09	-0.18
Body	WIFI 2.4G	6	2437	Rear 10mm	\	15.02	17.00	0.101	0.16	0.055	0.09	-0.08
Body	WIFI 2.4G	1	2412	Rear 10mm	\	15.04	17.00	0.097	0.15	0.048	0.08	-0.10
Body	WIFI 2.4G	11	2462	Rear 10mm	Fig.A74	15.22	17.00	0.115	0.17	0.059	0.09	0.10
Body	WIFI 2.4G	6	2437	Right Edge 10mm	\	15.02	17.00	0.086	0.14	0.046	0.07	0.16
Body	WIFI 2.4G	6	2437	Top Edge 10mm	\	15.02	17.00	0.067	0.11	0.034	0.05	0.02
Body	WIFI 2.4G	6	2437	Front 15mm	Fig.A75	21.35	21.50	0.166	0.17	0.096	0.10	0.20
Body	WIFI 2.4G	6	2437	Rear 15mm	\	21.35	21.50	0.159	0.16	0.089	0.09	-0.13
Head	WIFI 2.4G	6	2437	Left Cheek	\	18.94	20.00	0.916	1.17	0.499	0.64	0.08
Head	WIFI 2.4G	1	2412	Left Cheek	\	18.95	20.00	0.931	1.19	0.508	0.65	0.14
Head	WIFI 2.4G	11	2462	Left Cheek	Fig.A76	18.98	20.00	1.030	1.30	0.543	0.69	0.17
Head	WIFI 2.4G	6	2437	Left Tilt	\	18.94	20.00	0.737	0.94	0.404	0.52	-0.13
Head	WIFI 2.4G	11	2462	Left Tilt	\	18.98	20.00	0.610	0.77	0.351	0.44	-0.15
Head	WIFI 2.4G	6	2437	Right Cheek	\	18.94	20.00	0.403	0.51	0.238	0.30	0.13
Head	WIFI 2.4G	11	2462	Right Cheek	\	18.98	20.00	0.371	0.47	0.210	0.27	-0.05
Head	WIFI 2.4G	6	2437	Right Tilt	\	18.94	20.00	0.393	0.50	0.218	0.28	-0.18
Head	WIFI 2.4G	11	2462	Right Tilt	\	18.98	20.00	0.360	0.46	0.199	0.25	0.04
Body	WIFI 2.4G	6	2437	Front 10mm	\	18.94	20.00	0.237	0.30	0.126	0.16	0.02
Body	WIFI 2.4G	6	2437	Rear 10mm	\	18.94	20.00	0.255	0.33	0.129	0.16	0.05
Body	WIFI 2.4G	1	2412	Rear 10mm	\	18.95	20.00	0.224	0.29	0.112	0.14	0.18
Body	WIFI 2.4G	11	2462	Rear 10mm	Fig.A77	18.98	20.00	0.265	0.34	0.135	0.17	-0.04
Body	WIFI 2.4G	6	2437	Right Edge 10mm	\	18.94	20.00	0.198	0.25	0.106	0.14	0.19
Body	WIFI 2.4G	6	2437	Top Edge 10mm	\	18.94	20.00	0.155	0.20	0.080	0.10	-0.13



Picture 14.3-1 Duty factor plot



Picture 14.3-2 Duty factor plot

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Test setup	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	WIFI 5G	58	5290	Right Cheek	\	11.64	13	0.134	0.18	0.041	0.06	-0.18
Head	WIFI 5G	58	5290	Right Tilt	\	11.64	13	0.180	0.25	0.055	0.08	-0.02
Head	WIFI 5G	58	5290	Left Cheek	\	11.64	13	0.415	0.57	0.119	0.16	0.10
Head	WIFI 5G	58	5290	Left Tilt	Fig.A78	11.64	13	0.621	0.85	0.169	0.23	0.06
Head	WIFI 5G	138	5690	Right Cheek	\	11.48	13	0.077	0.11	0.027	0.04	-0.02
Head	WIFI 5G	138	5690	Right Tilt	\	11.48	13	0.102	0.14	0.036	0.05	0.16
Head	WIFI 5G	138	5690	Left Cheek	\	11.48	13	0.383	0.54	0.112	0.16	-0.11
Head	WIFI 5G	138	5690	Left Tilt	\	11.48	13	0.548	0.78	0.151	0.21	-0.11
Head	WIFI 5G	155	5775	Right Cheek	\	11.04	13	0.091	0.14	0.028	0.04	-0.11
Head	WIFI 5G	155	5775	Right Tilt	\	11.04	13	0.136	0.21	0.043	0.07	0.03
Head	WIFI 5G	155	5775	Left Cheek	\	11.04	13	0.357	0.56	0.104	0.16	-0.11
Head	WIFI 5G	155	5775	Left Tilt	\	11.04	13	0.500	0.79	0.142	0.22	0.10
Body	WIFI 5G	58	5290	Front 10mm	\	14.04	15	0.119	0.15	0.048	0.06	0.07
Body	WIFI 5G	58	5290	Rear 10mm	\	14.04	15	0.216	0.27	0.087	0.11	-0.10
Body	WIFI 5G	58	5290	Right Edge 10mm	\	14.04	15	0.118	0.15	0.055	0.07	0.00
Body	WIFI 5G	58	5290	Top Edge 10mm	Fig.A79	14.04	15	0.301	0.38	0.130	0.16	0.07
Body	WIFI 5G	138	5690	Front 10mm	\	13.53	15	0.135	0.19	0.053	0.07	0.13
Body	WIFI 5G	138	5690	Rear 10mm	\	13.53	15	0.204	0.29	0.084	0.12	-0.17
Body	WIFI 5G	138	5690	Right Edge 10mm	\	13.53	15	0.068	0.09	0.032	0.05	-0.08
Body	WIFI 5G	138	5690	Top Edge 10mm	\	13.53	15	0.219	0.31	0.116	0.16	-0.18
Body	WIFI 5G	155	5775	Front 10mm	\	13.05	15	0.101	0.16	0.040	0.06	0.00
Body	WIFI 5G	155	5775	Rear 10mm	\	13.05	15	0.186	0.29	0.074	0.12	-0.10
Body	WIFI 5G	155	5775	Right Edge 10mm	\	13.05	15	0.071	0.11	0.033	0.05	0.14
Body	WIFI 5G	155	5775	Top Edge 10mm	\	13.05	15	0.233	0.37	0.111	0.17	-0.16
Body	WIFI 5G	64	5320	Front 15mm	\	18.84	20.00	0.261	0.34	0.100	0.13	0.06
Body	WIFI 5G	64	5320	Rear 15mm	Fig.A80	18.84	20.00	0.529	0.69	0.214	0.28	0.16
Body	WIFI 5G	136	5680	Front 15mm	\	19.10	20.00	0.285	0.35	0.107	0.13	0.14
Body	WIFI 5G	136	5680	Rear 15mm	\	19.10	20.00	0.456	0.56	0.186	0.23	-0.07
Body	WIFI 5G	149	5745	Front 15mm	\	18.51	20.00	0.249	0.35	0.099	0.14	0.19
Body	WIFI 5G	149	5745	Rear 15mm	\	18.51	20.00	0.403	0.57	0.165	0.23	-0.18

14.4 SAR Evaluation For WIFI 5G

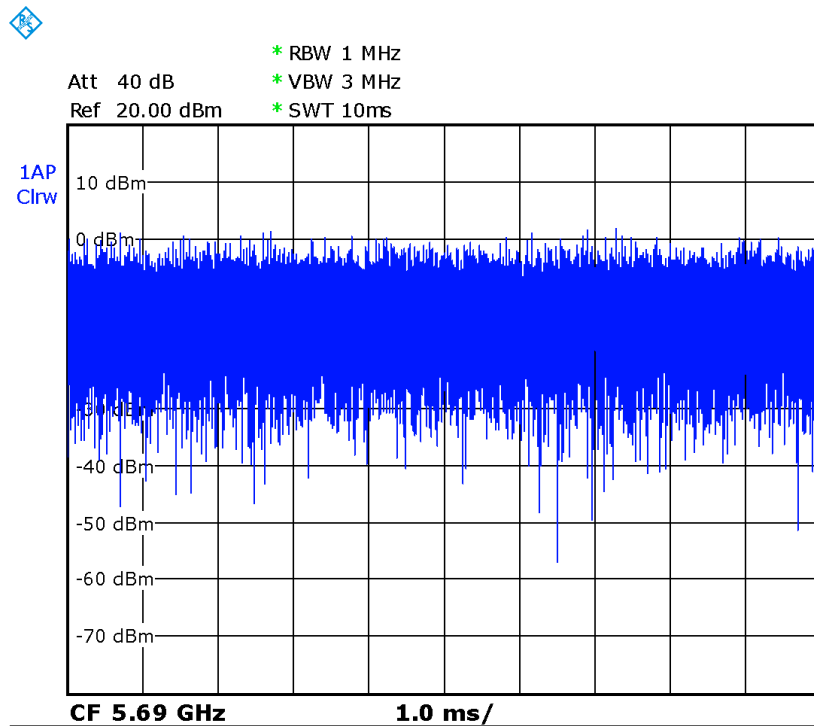
The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.

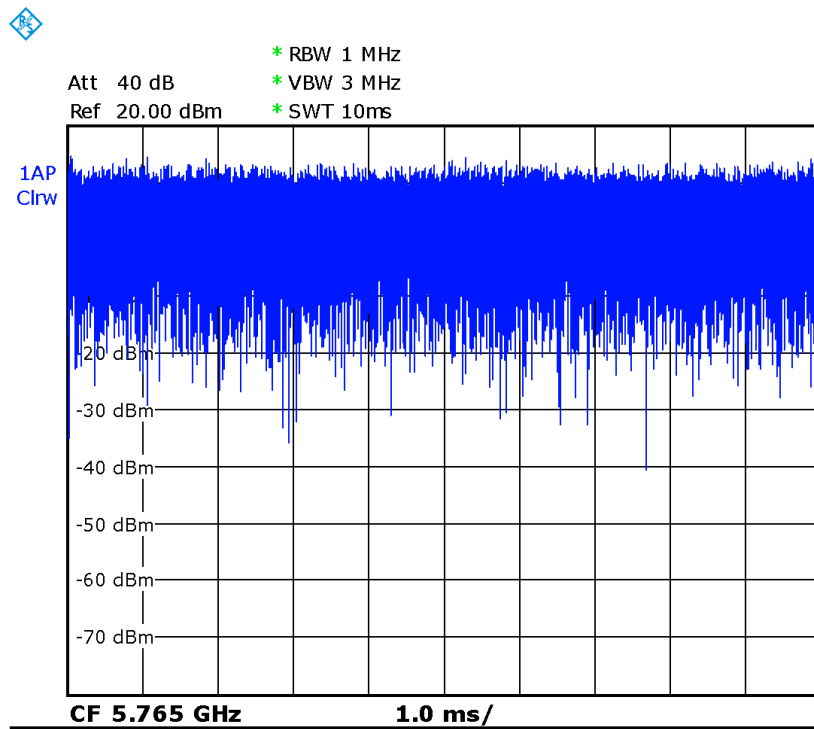
SAR Test reduction was applied from KDB 248227 guidance, when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Test setup	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	WIFI 5G	58	5290	Right Cheek	\	11.64	13	0.134	0.18	0.041	0.06	-0.18
Head	WIFI 5G	58	5290	Right Tilt	\	11.64	13	0.180	0.25	0.055	0.08	-0.02
Head	WIFI 5G	58	5290	Left Cheek	\	11.64	13	0.415	0.57	0.119	0.16	0.10
Head	WIFI 5G	58	5290	Left Tilt	Fig.A78	11.64	13	0.621	0.85	0.169	0.23	0.06
Head	WIFI 5G	138	5690	Right Cheek	\	11.48	13	0.077	0.11	0.027	0.04	-0.02
Head	WIFI 5G	138	5690	Right Tilt	\	11.48	13	0.102	0.14	0.036	0.05	0.16
Head	WIFI 5G	138	5690	Left Cheek	\	11.48	13	0.383	0.54	0.112	0.16	-0.11
Head	WIFI 5G	138	5690	Left Tilt	\	11.48	13	0.548	0.78	0.151	0.21	-0.11
Head	WIFI 5G	155	5775	Right Cheek	\	11.04	13	0.091	0.14	0.028	0.04	-0.11
Head	WIFI 5G	155	5775	Right Tilt	\	11.04	13	0.136	0.21	0.043	0.07	0.03
Head	WIFI 5G	155	5775	Left Cheek	\	11.04	13	0.357	0.56	0.104	0.16	-0.11
Head	WIFI 5G	155	5775	Left Tilt	\	11.04	13	0.500	0.79	0.142	0.22	0.10
Body	WIFI 5G	58	5290	Front 10mm	\	14.04	15	0.119	0.15	0.048	0.06	0.07
Body	WIFI 5G	58	5290	Rear 10mm	\	14.04	15	0.216	0.27	0.087	0.11	-0.10
Body	WIFI 5G	58	5290	Right Edge 10mm	\	14.04	15	0.118	0.15	0.055	0.07	0.00
Body	WIFI 5G	58	5290	Top Edge 10mm	Fig.A79	14.04	15	0.301	0.38	0.130	0.16	0.07
Body	WIFI 5G	138	5690	Front 10mm	\	13.53	15	0.135	0.19	0.053	0.07	0.13
Body	WIFI 5G	138	5690	Rear 10mm	\	13.53	15	0.204	0.29	0.084	0.12	-0.17
Body	WIFI 5G	138	5690	Right Edge 10mm	\	13.53	15	0.068	0.09	0.032	0.05	-0.08
Body	WIFI 5G	138	5690	Top Edge 10mm	\	13.53	15	0.219	0.31	0.116	0.16	-0.18
Body	WIFI 5G	155	5775	Front 10mm	\	13.05	15	0.101	0.16	0.040	0.06	0.00
Body	WIFI 5G	155	5775	Rear 10mm	\	13.05	15	0.186	0.29	0.074	0.12	-0.10
Body	WIFI 5G	155	5775	Right Edge 10mm	\	13.05	15	0.071	0.11	0.033	0.05	0.14
Body	WIFI 5G	155	5775	Top Edge 10mm	\	13.05	15	0.233	0.37	0.111	0.17	-0.16
Body	WIFI 5G	64	5320	Front 15mm	\	18.84	20.00	0.261	0.34	0.100	0.13	0.06
Body	WIFI 5G	64	5320	Rear 15mm	Fig.A80	18.84	20.00	0.529	0.69	0.214	0.28	0.16
Body	WIFI 5G	136	5680	Front 15mm	\	19.10	20.00	0.285	0.35	0.107	0.13	0.14
Body	WIFI 5G	136	5680	Rear 15mm	\	19.10	20.00	0.456	0.56	0.186	0.23	-0.07
Body	WIFI 5G	149	5745	Front 15mm	\	18.51	20.00	0.249	0.35	0.099	0.14	0.19
Body	WIFI 5G	149	5745	Rear 15mm	\	18.51	20.00	0.403	0.57	0.165	0.23	-0.18

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Test setup	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	WiFi 5G	58	5290	Right Cheek	\	14.04	15	0.231	0.29	0.072	0.09	0.04
Head	WiFi 5G	58	5290	Right Tilt	\	14.04	15	0.309	0.39	0.097	0.12	-0.02
Head	WiFi 5G	58	5290	Left Cheek	\	14.04	15	0.715	0.89	0.210	0.26	-0.14
Head	WiFi 5G	58	5290	Left Tilt	Fig.A81	14.04	15	1.070	1.33	0.297	0.37	-0.13
Head	WiFi 5G	138	5690	Right Cheek	\	13.53	15	0.133	0.19	0.047	0.07	-0.03
Head	WiFi 5G	138	5690	Right Tilt	\	13.53	15	0.175	0.25	0.064	0.09	0.05
Head	WiFi 5G	138	5690	Left Cheek	\	13.53	15	0.660	0.93	0.197	0.28	0.16
Head	WiFi 5G	138	5690	Left Tilt	\	13.53	15	0.944	1.32	0.265	0.37	-0.13
Head	WiFi 5G	155	5775	Right Cheek	\	13.05	15	0.157	0.25	0.049	0.08	0.19
Head	WiFi 5G	155	5775	Right Tilt	\	13.05	15	0.234	0.37	0.076	0.12	0.12
Head	WiFi 5G	155	5775	Left Cheek	\	13.05	15	0.616	0.96	0.183	0.29	-0.05
Head	WiFi 5G	155	5775	Left Tilt	\	13.05	15	0.876	1.37	0.250	0.39	0.19
Body	WiFi 5G	58	5290	Front 10mm	\	16.68	18	0.222	0.30	0.090	0.12	-0.01
Body	WiFi 5G	58	5290	Rear 10mm	\	16.68	18	0.403	0.55	0.164	0.22	0.11
Body	WiFi 5G	58	5290	Right Edge 10mm	\	16.68	18	0.221	0.30	0.103	0.14	0.06
Body	WiFi 5G	58	5290	Top Edge 10mm	Fig.A82	16.68	18	0.662	0.90	0.244	0.33	0.08
Body	WiFi 5G	138	5690	Front 10mm	\	16.55	18	0.253	0.35	0.099	0.14	-0.05
Body	WiFi 5G	138	5690	Rear 10mm	\	16.55	18	0.382	0.53	0.157	0.22	0.07
Body	WiFi 5G	138	5690	Right Edge 10mm	\	16.55	18	0.126	0.18	0.061	0.08	-0.13
Body	WiFi 5G	138	5690	Top Edge 10mm	\	16.55	18	0.552	0.77	0.218	0.30	0.02
Body	WiFi 5G	155	5775	Front 10mm	\	16.04	18	0.189	0.30	0.076	0.12	-0.09
Body	WiFi 5G	155	5775	Rear 10mm	\	16.04	18	0.348	0.55	0.139	0.22	-0.09
Body	WiFi 5G	155	5775	Right Edge 10mm	\	16.04	18	0.133	0.21	0.062	0.10	-0.14
Body	WiFi 5G	155	5775	Top Edge 10mm	\	16.04	18	0.517	0.81	0.209	0.33	-0.14



Picture 14.4-1 The plot of duty factor for CH.138



Picture 14.4-2 The plot of duty factor for CH.153

14.5 SAR Evaluation For BT

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/R B	Test Position	Distance	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	BT	78	2480	EDR	Left Cheek	0mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/
Head	BT	78	2480	EDR	Left Tilt	0mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/
Head	BT	78	2480	EDR	Right Cheek	0mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/
Head	BT	78	2480	EDR	Right Cheek	0mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/
Body	BT	78	2480	EDR	Front	10mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/
Body	BT	78	2480	EDR	Rear	10mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/
Body	BT	78	2480	EDR	Right Edge	10mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/
Body	BT	78	2480	EDR	Top Edge	10mm	9.63	10.00	<0.01	<0.01	<0.01	<0.01	/

14.6 SAR results for 10-g extremity SAR

According to the KDB648474 D04, 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 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

For this device, SAR is not required for 10-g extremity SAR because the scaled SAR is ≤ 1.2 W/kg.

15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Original SAR(W/kg)	First Repeated SAR(W/kg)	The Ratio
Body	LTE Band7	21350	2560	1RB-Middle	Bottom Edge	10mm	0.811	0.789	1.03
Head	WIFI 2.4G	6	2437	19db 1M 11b	Left Cheek	0mm	0.916	0.896	1.02
Head	WIFI 2.4G	1	2412	19db 1M 11b	Left Cheek	0mm	0.931	0.913	1.02
Head	WIFI 2.4G	11	2462	19db 1M 11b	Left Cheek	0mm	1.030	1.015	1.01
Head	WIFI 5G	58	5290	802.11ac 80M(dBm)	Left Tilt	0mm	1.070	1.050	1.02
Head	WIFI 5G	138	5690	802.11ac 80M(dBm)	Left Tilt	0mm	0.944	0.928	1.02
Head	WIFI 5G	155	5775	802.11ac 80M(dBm)	Left Tilt	0mm	0.876	0.861	1.02
Body	n25	372000	1860	DFT-s-OFDM QPSK	Top Edge	10mm	0.811	0.789	1.03

16 Measurement Uncertainty

16.1 Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521

Combined standard uncertainty	$u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$							9.55	9.43	257
Expanded uncertainty (confidence interval of 95 %)	$u_e = 2u_c$							19.1	18.9	

16.2 Measurement Uncertainty for Normal SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞

21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.7	10.6	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						21.4	21.1	

16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞

20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						10.4	10.3	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						20.8	20.6	

16.4 Measurement Uncertainty for Fast SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	14.0	R	$\sqrt{3}$	1	1	8.1	8.1	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5

17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						27.0	26.8	

17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 14, 2022	One year
02	Power sensor	NRP110T	101139	January 13, 2022	One year
03	Power sensor	NRP110T	101159	January 13, 2022	One year
04	Signal Generator	E4438C	MY49071430	January 13, 2022	One year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	CMW500	159850	January 24, 2022	One year
07	E-field Probe	SPEAG EX3DV4	7464	January 26,2022	One year
08	DAE	SPEAG DAE4	549	January 07, 2022	One year
09	Dipole Validation Kit	SPEAG D750V3	1017	July 12,,2021	One year
10	Dipole Validation Kit	SPEAG D835V2	4d069	July 21,,2021	One year
11	Dipole Validation Kit	SPEAG D1750V2	1003	July 12,,2021	One year
12	Dipole Validation Kit	SPEAG D1900V2	5d101	July 15,2021	One year
13	Dipole Validation Kit	SPEAG D2450V2	853	July 26,2021	One year
14	Dipole Validation Kit	SPEAG D2600V2	1012	July 26,2021	One year
15	Dipole Validation Kit	SPEAG D5GHzV2	1262	January 22,2022	One year

END OF REPORT BODY

ANNEX A Graph Results

GSM850_CH251 Right Cheek

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 835 MHz

Medium parameters used: $f = 848.8$; $\sigma = 0.916$ mho/m; $\epsilon_r = 40.82$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: GSM850 848.8 Duty Cycle: 1:8.3

Probe: EX3DV4 – SN7464 ConvF(9.96,9.96,9.96)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.353 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.736 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.362 W/kg

SAR(1 g) = 0.28 W/kg; SAR(10 g) = 0.21 W/kg

Maximum value of SAR (measured) = 0.294 W/kg

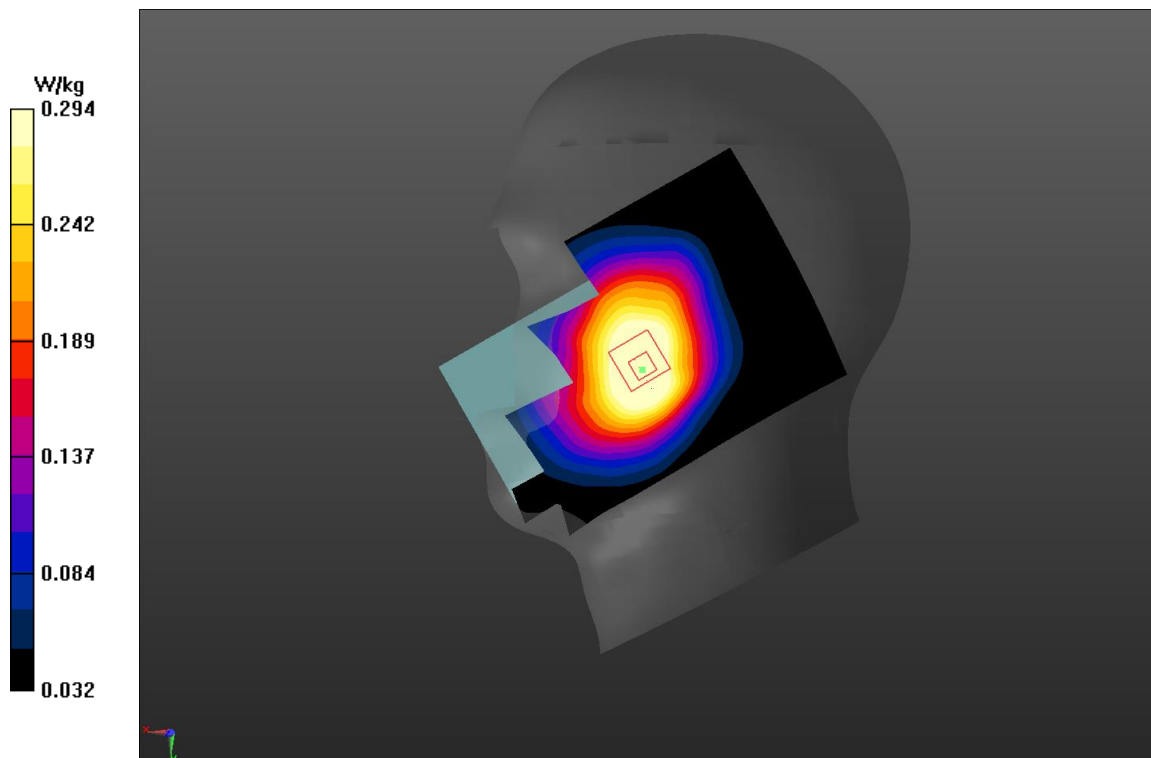
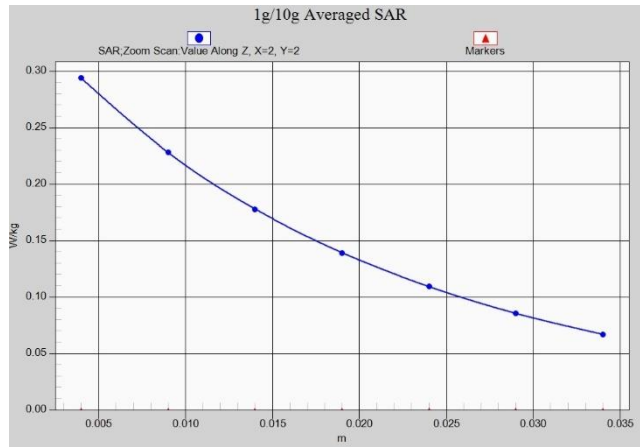


Fig A.1



GSM850_CH251 Rear GPRS(4TX)

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 835 MHz

Medium parameters used: $f = 848.8$; $\sigma = 0.899$ mho/m; $\epsilon_r = 41.98$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: GSM850 848.8 Duty Cycle: 1:2

Probe: EX3DV4 – SN7464 ConvF(9.96,9.96,9.96)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.07 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.55 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.673 W/kg; SAR(10 g) = 0.38 W/kg

Maximum value of SAR (measured) = 1.04W/kg

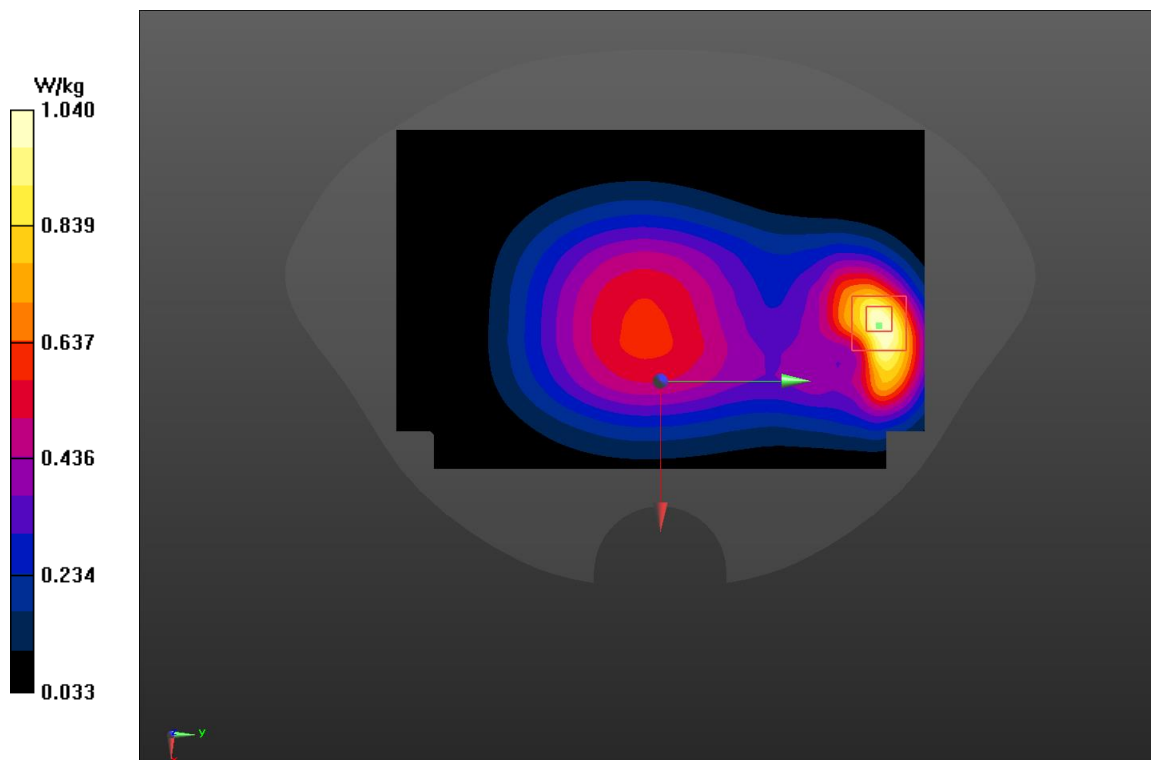
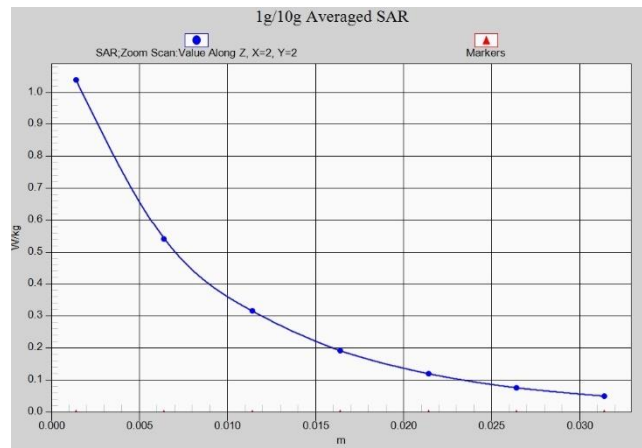


Fig A.2



PCS1900_CH661 Left Cheek

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1880$; $\sigma = 1.35$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: PCS1900 1850.2 Duty Cycle: 1:8.3

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.28 W/kg

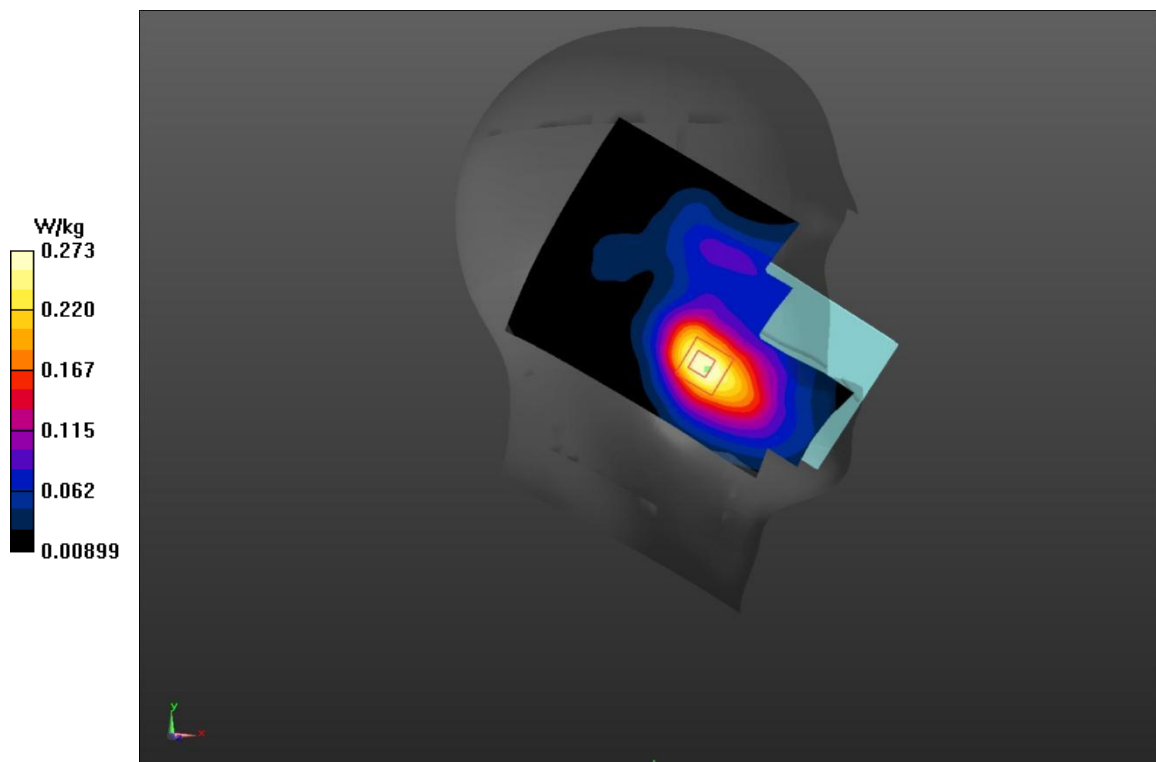
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

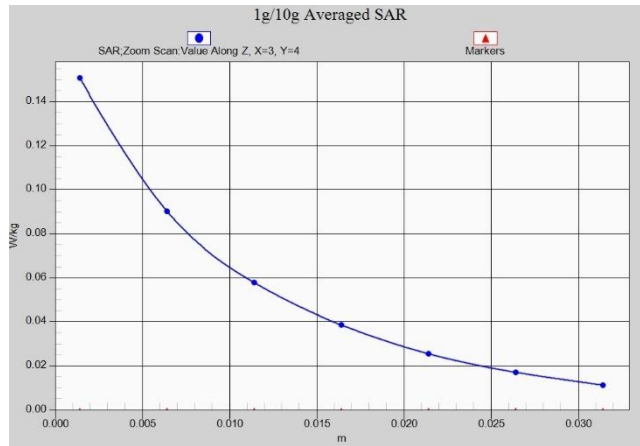
Reference Value = 1.545 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.323 W/kg

SAR(1 g) = 0.096 W/kg; SAR(10 g) = 0.057 W/kg

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

**Fig A.3**



PCS1900_CH661 Rear GPRS(4TX) 10mm

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1880$; $\sigma = 1.373$ mho/m; $\epsilon_r = 40.35$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: PCS1900 1880 Duty Cycle: 1:2

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.805 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.86 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.311 W/kg

Maximum value of SAR (measured) = 0.794W/kg

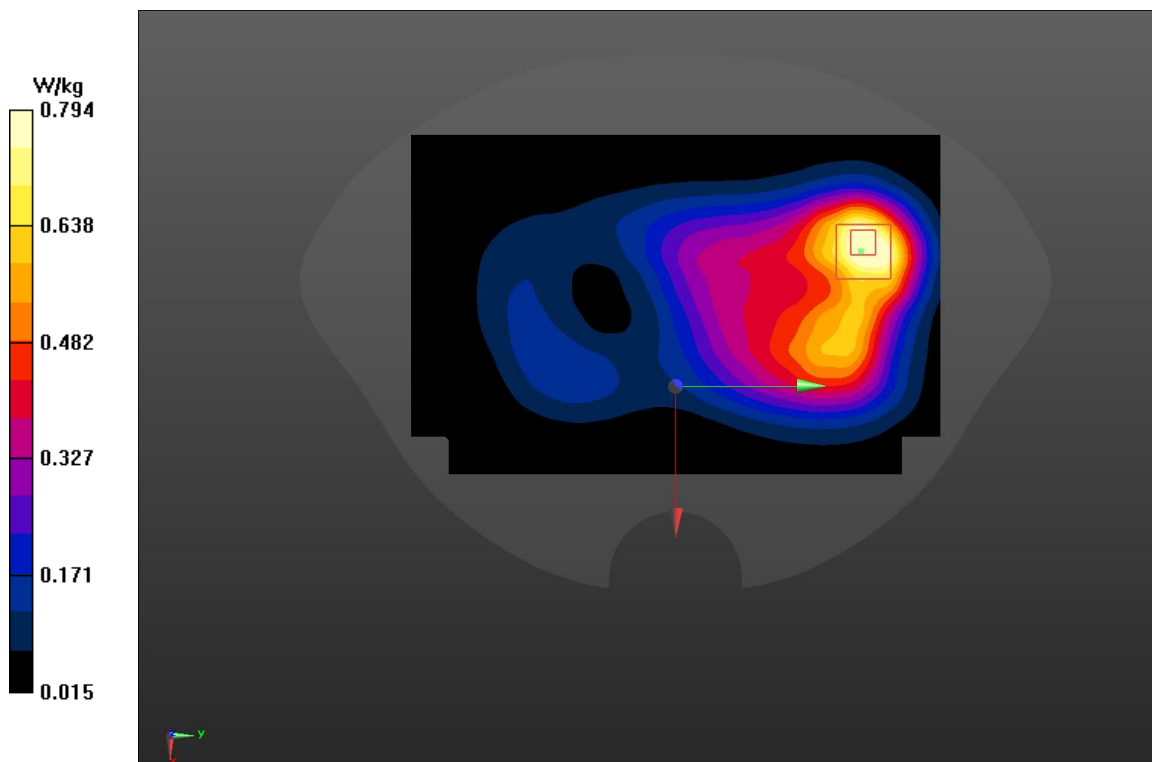
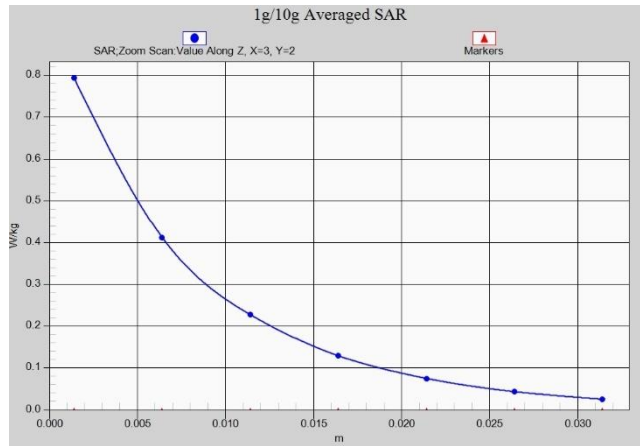


Fig A.4



WCDMA1900-BII_CH9538 Left Cheek

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1907.6$; $\sigma = 1.405$ mho/m; $\epsilon_r = 39.43$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1907.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.532 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.526 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.624 W/kg

SAR(1 g) = 0.381 W/kg; SAR(10 g) = 0.239 W/kg

Maximum value of SAR (measured) = 0.533 W/kg

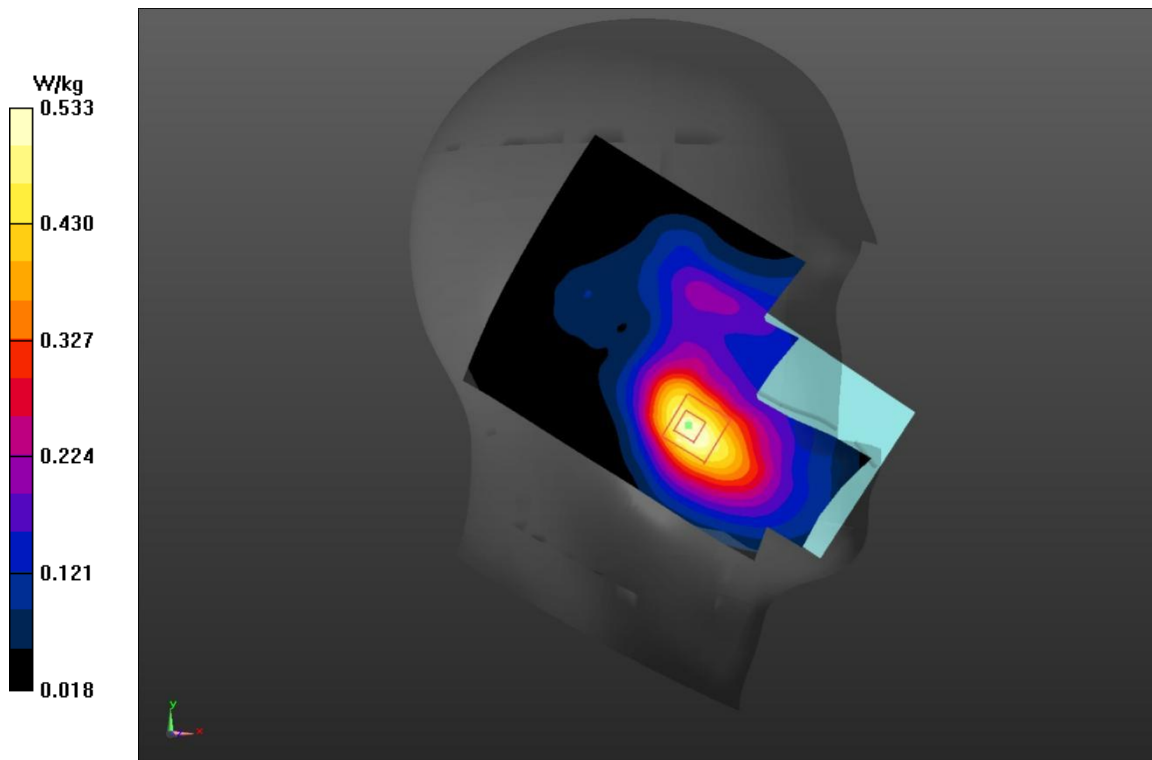
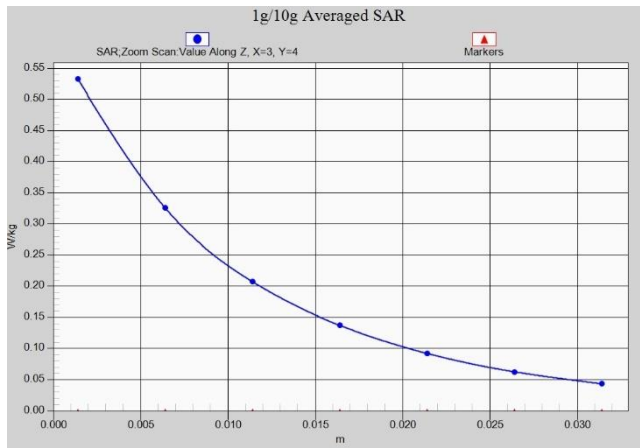


Fig A.5



WCDMA1900-BII_CH9538 Bottom Edge 10mm

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1907.6$; $\sigma = 1.4$ mho/m; $\epsilon_r = 40.32$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1907.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.605 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.59 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.726 W/kg

SAR(1 g) = 0.406 W/kg; SAR(10 g) = 0.238 W/kg

Maximum value of SAR (measured) = 0.585 W/kg

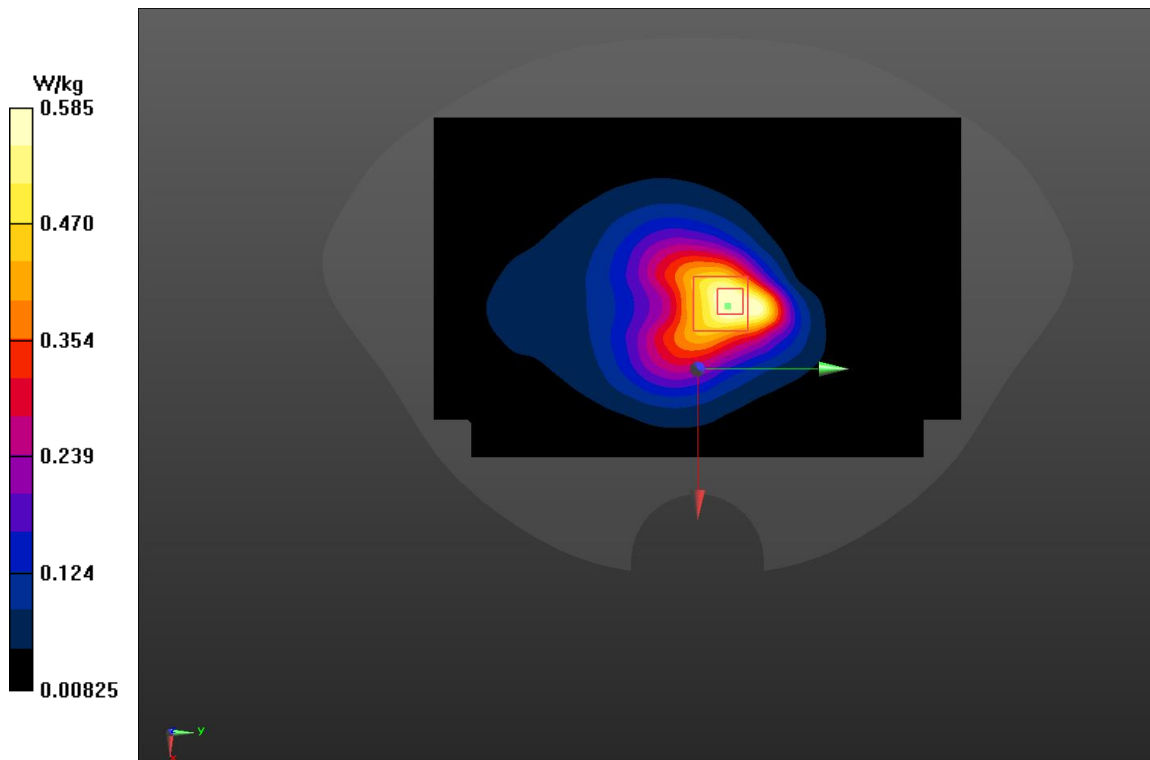
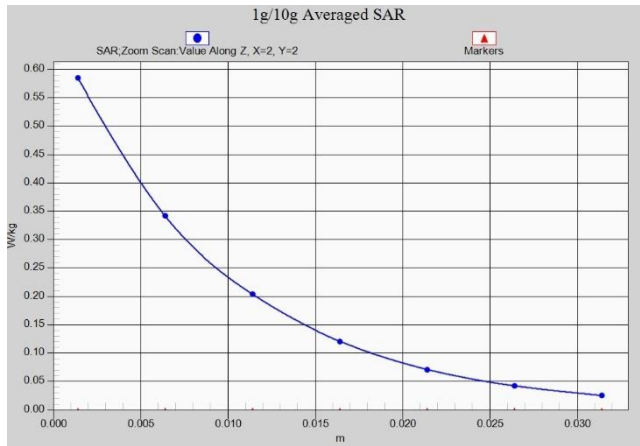


Fig A.6



WCDMA1900-BII_CH9538 Rear 15mm

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1907.6$; $\sigma = 1.4$ mho/m; $\epsilon_r = 40.32$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1907.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 m

Maximum value of SAR (interpolated) = 0.873 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.31 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.338 W/kg

Maximum value of SAR (measured) = 0846 W/kg

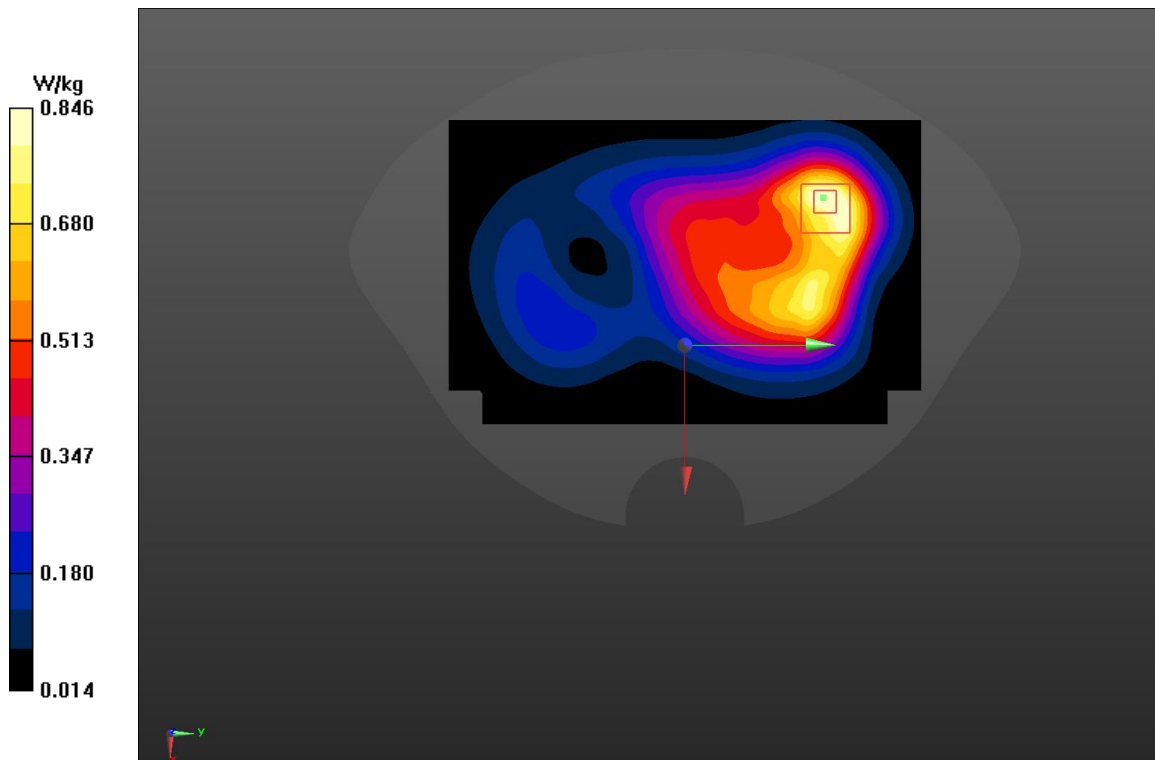
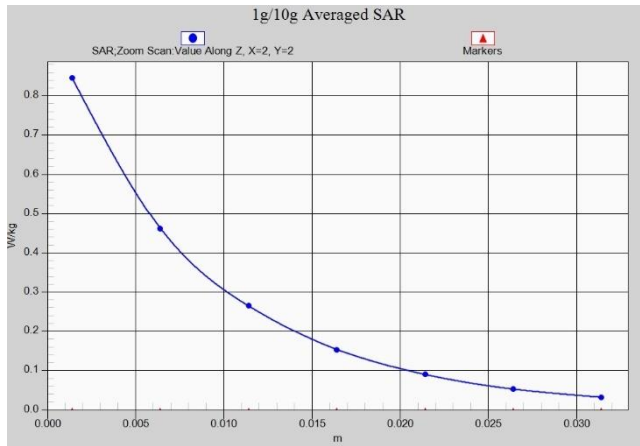


Fig A.7



WCDMA1700-BIV_CH1513 Left Cheek

Date: 6/8/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1752.6$; $\sigma = 1.383$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1752.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.372 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.355 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.406 W/kg

SAR(1 g) = 0.257 W/kg; SAR(10 g) = 0.165 W/kg

Maximum value of SAR (measured) = 0.346 W/kg

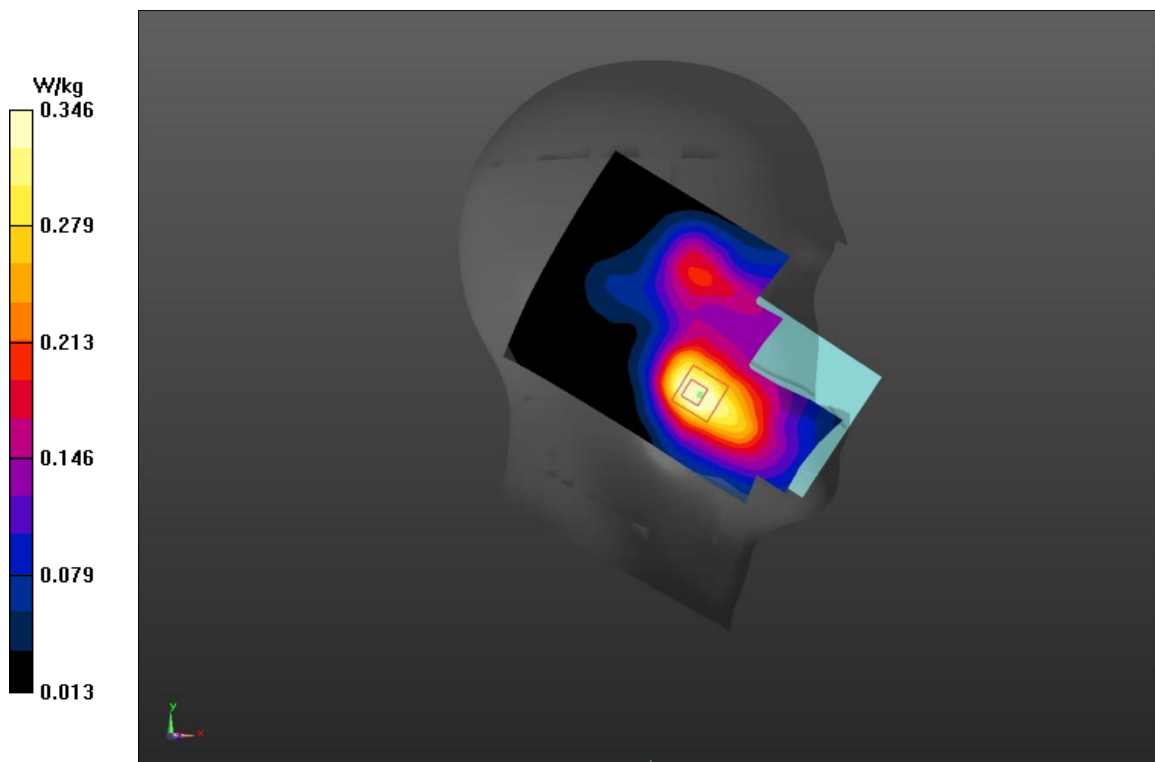
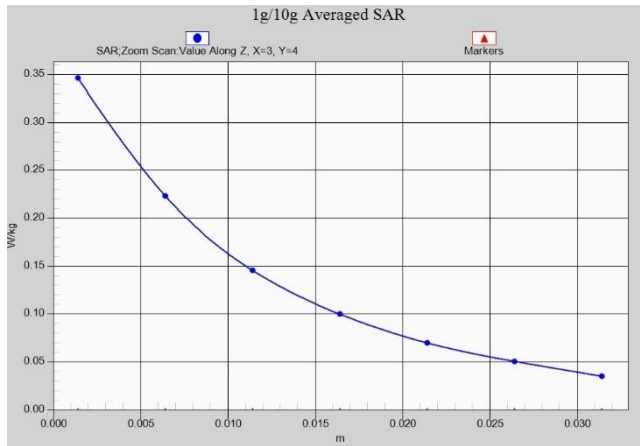


Fig A.8



WCDMA1700-BIV_CH1513 Bottom Edge 10mm

Date: 6/8/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1752.6$; $\sigma = 1.373$ mho/m; $\epsilon_r = 40.02$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1752.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.55 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.43 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.618 W/kg

SAR(1 g) = 0.362 W/kg; SAR(10 g) = 0.217 W/kg

Maximum value of SAR (measured) = 0.514 W/kg

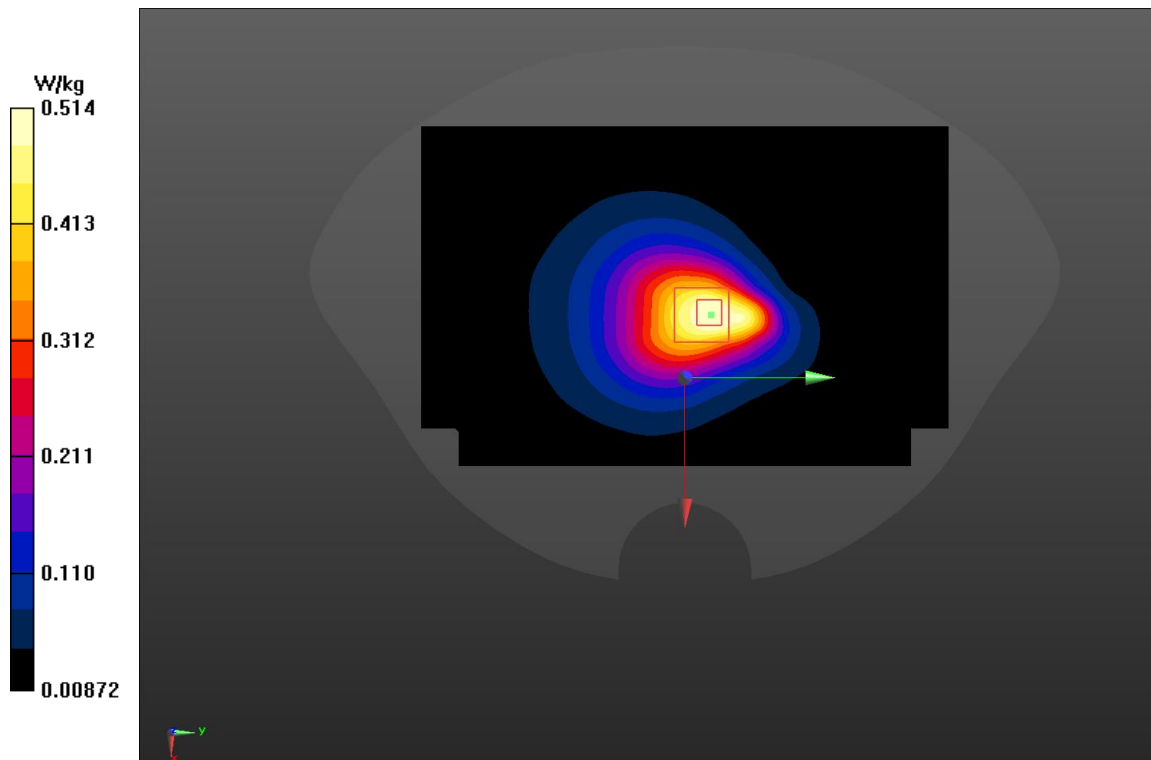
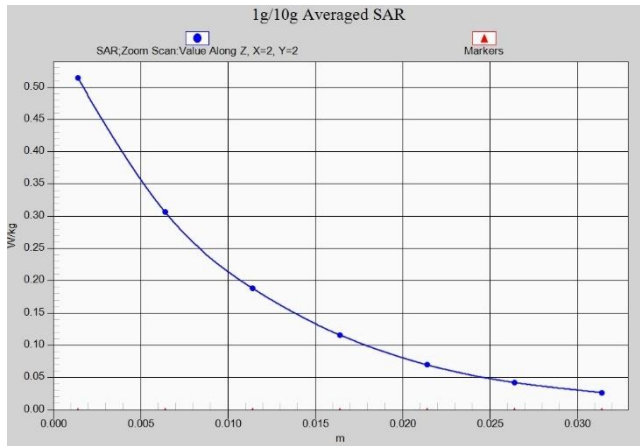


Fig A.9



WCDMA1700-BIV_CH1513 Rear 15mm

Date: 6/8/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1752.6$; $\sigma = 1.373$ mho/m; $\epsilon_r = 40.02$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1752.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.683 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.82 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.775 W/kg

SAR(1 g) = 0.506 W/kg; SAR(10 g) = 0.316 W/kg

Maximum value of SAR (measured) = 0.672 W/kg

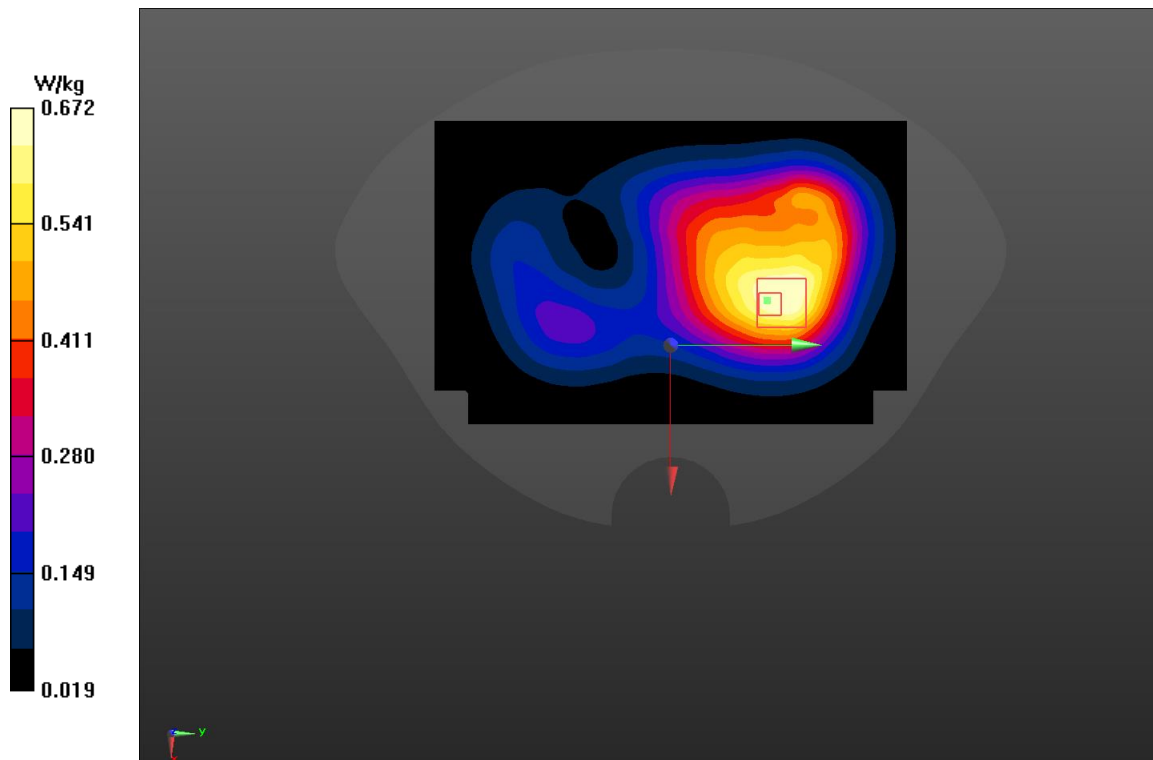
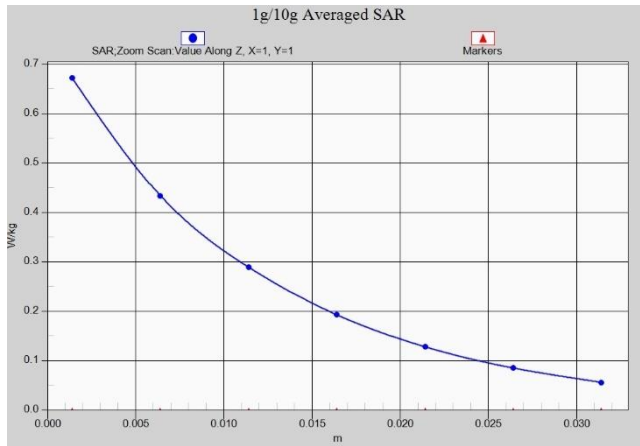


Fig A.10



WCDMA850-BV_CH4233 Right Cheek

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 835 MHz

Medium parameters used: $f = 846.6$; $\sigma = 0.914$ mho/m; $\epsilon_r = 40.83$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA850-BV 846.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(9.96,9.96,9.96)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.449 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.269 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.471 W/kg

SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.271 W/kg

Maximum value of SAR (measured) = 0.380 W/kg

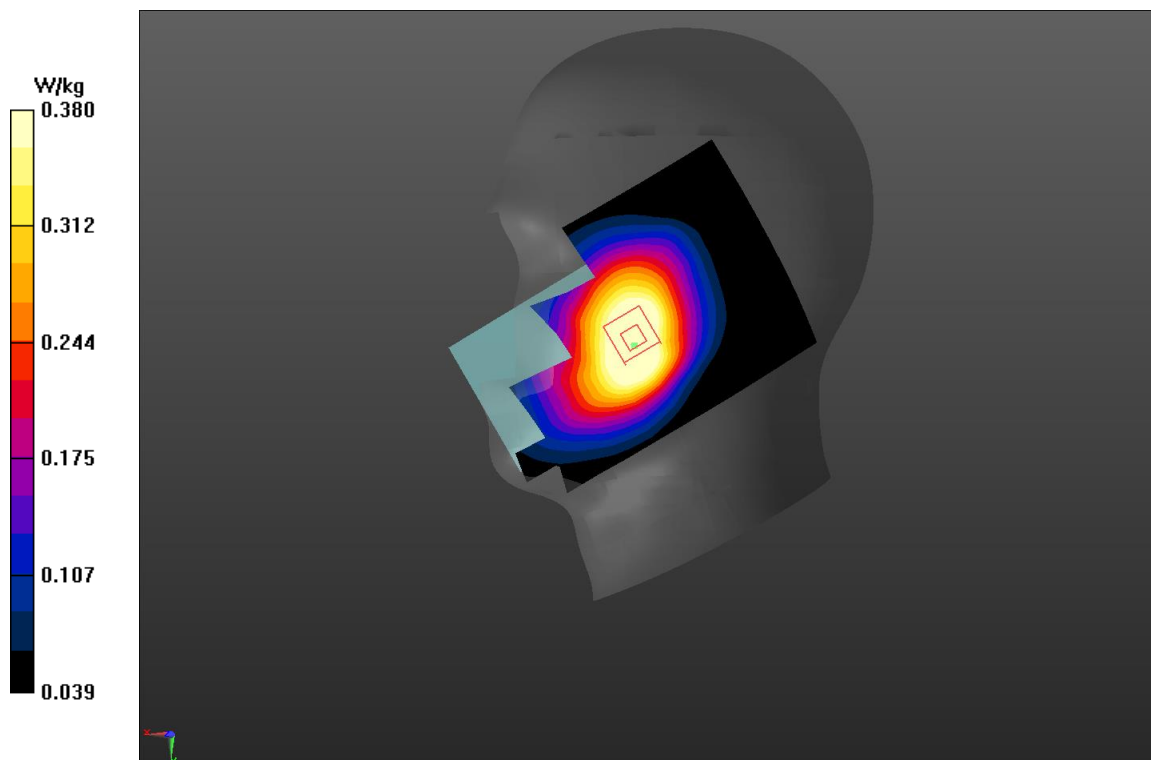
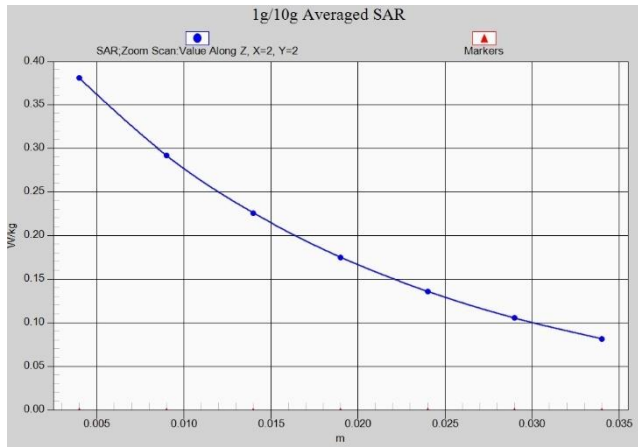


Fig A.11



WCDMA850-BV_CH4183 Rear 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 835 MHz

Medium parameters used: $f = 836.6$; $\sigma = 0.888$ mho/m; $\epsilon_r = 42$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA850-BV 836.6 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(9.96,9.96,9.96)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.621 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.76 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.771 W/kg

SAR(1 g) = 0.423 W/kg; SAR(10 g) = 0.248 W/kg

Maximum value of SAR (measured) = 0.631 W/kg

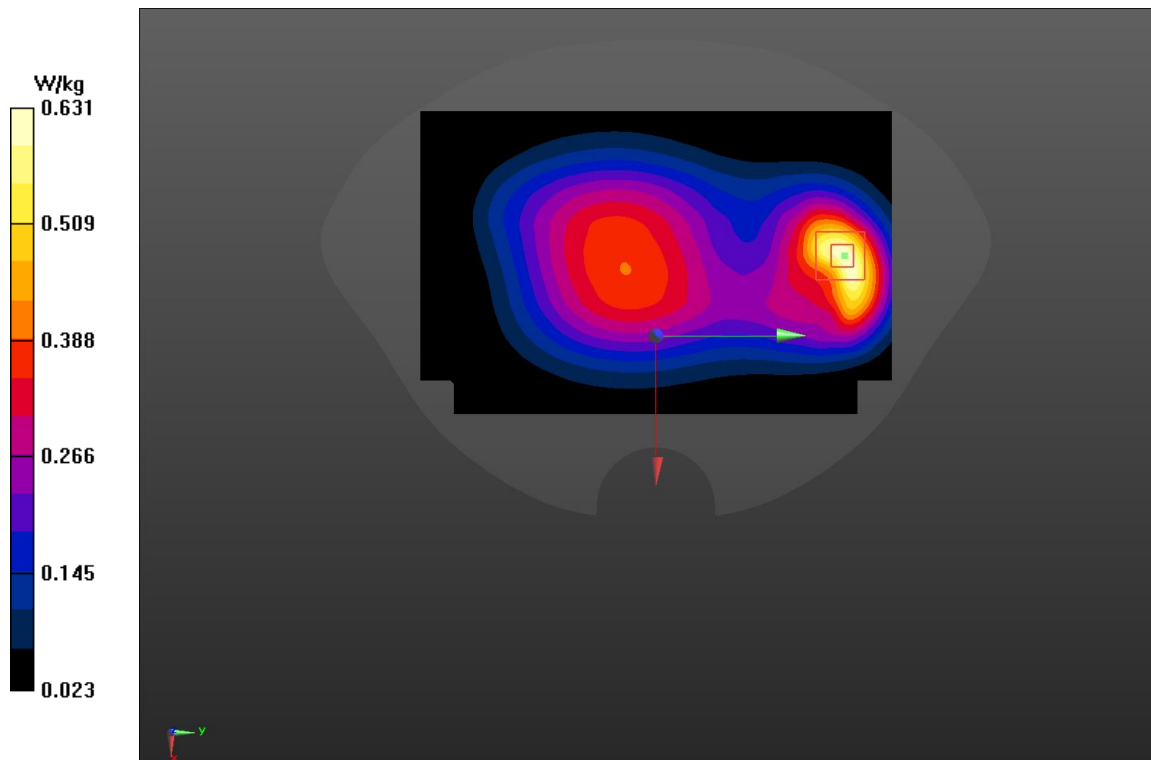
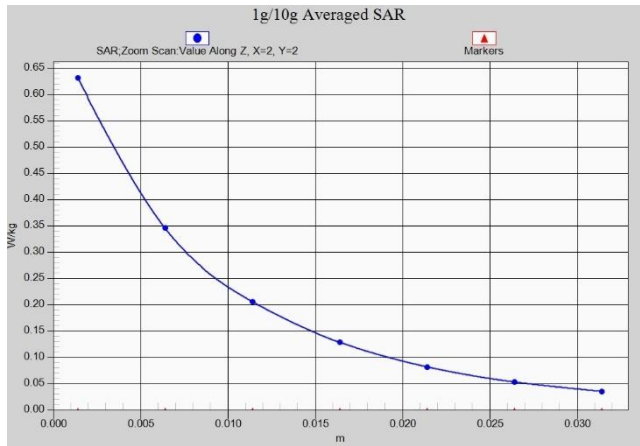


Fig A.12



LTE1900-FDD2 ANT1_CH18700 Left Cheek 1RB-Middle

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1860$; $\sigma = 1.432$ mho/m; $\epsilon_r = 38.833$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2ANT1 1860 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.322 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.586 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 0.371 W/kg

SAR(1 g) = 0.23 W/kg; SAR(10 g) = 0.146 W/kg

Maximum value of SAR (measured) = 0.315 W/kg

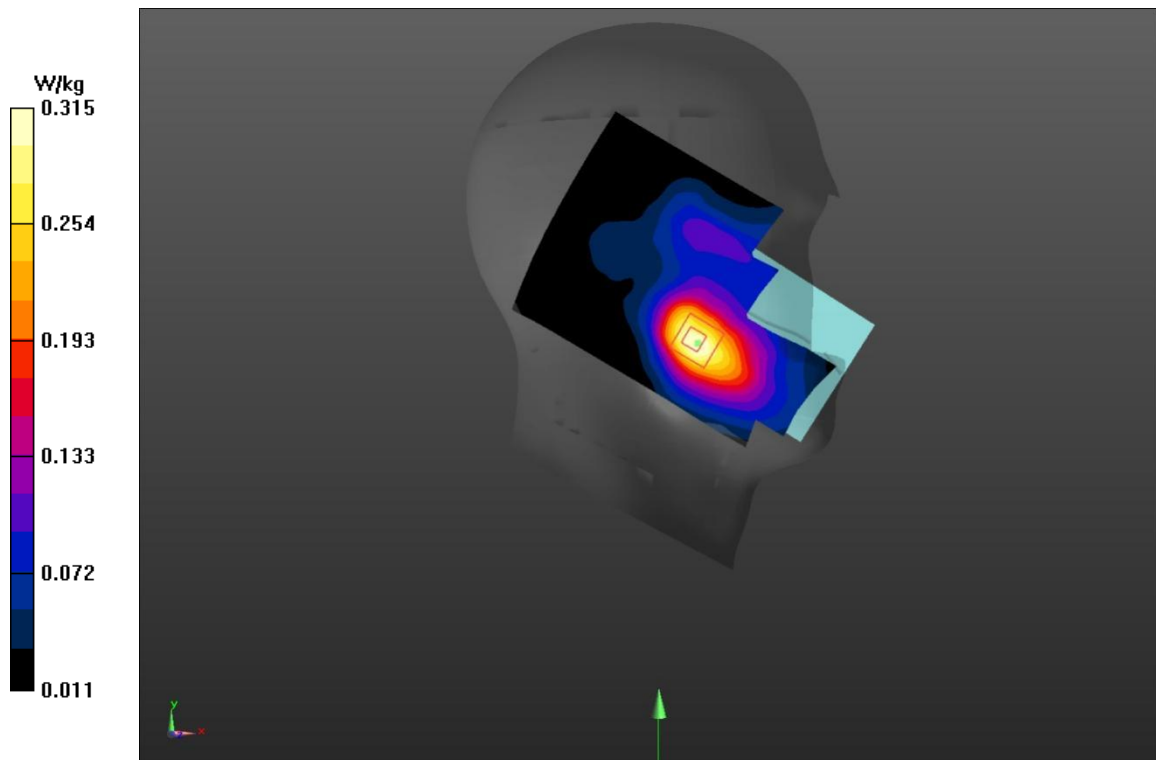
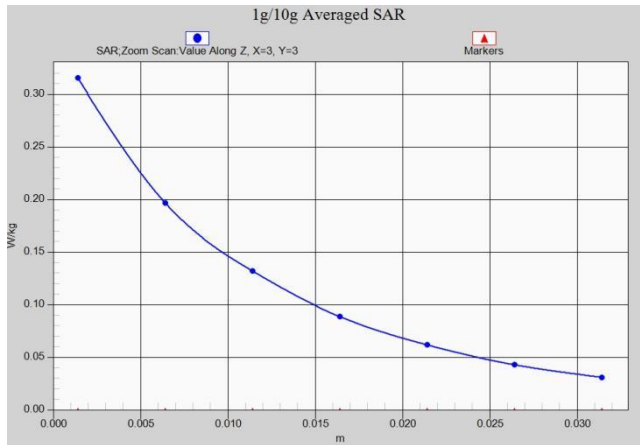


Fig A.13



LTE1900-FDD2 ANT1_CH18700 Rear 50RB-Low 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1860$; $\sigma = 1.432$ mho/m; $\epsilon_r = 38.833$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2ANT1 1860 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.373 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.348 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.469 W/kg

SAR(1 g) = 0.249 W/kg; SAR(10 g) = 0.14 W/kg

Maximum value of SAR (measured) = 0.363 W/kg

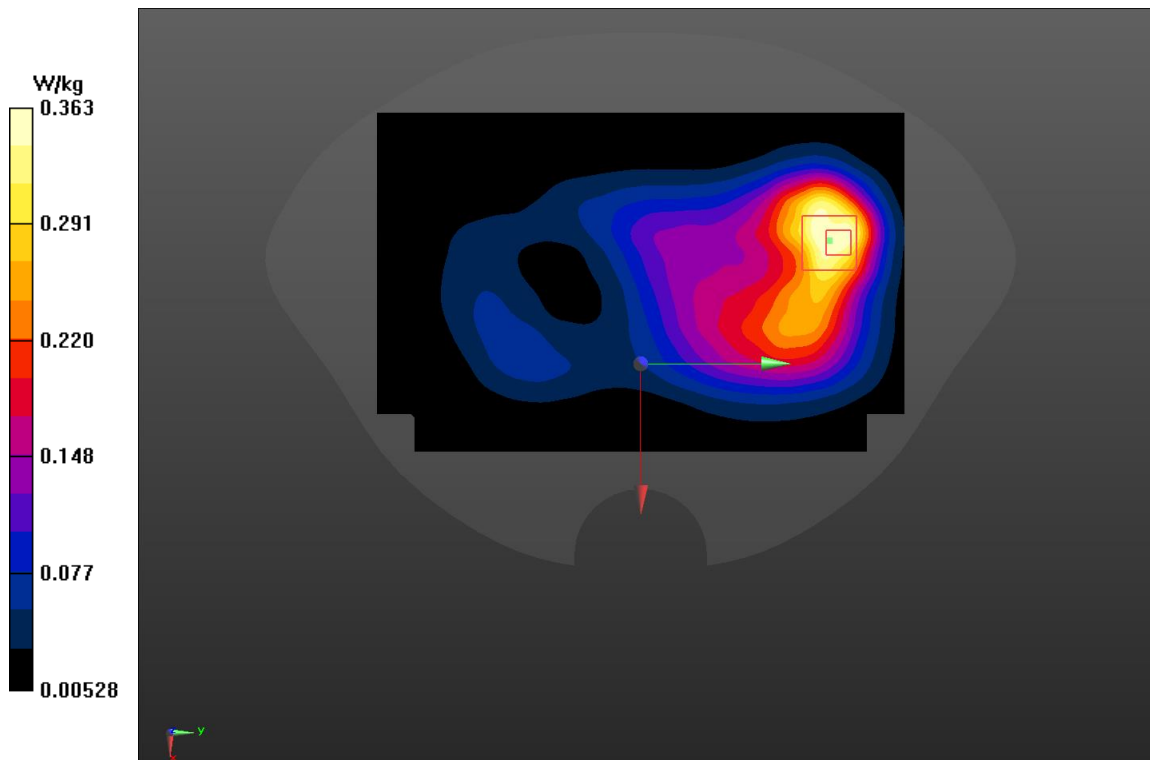
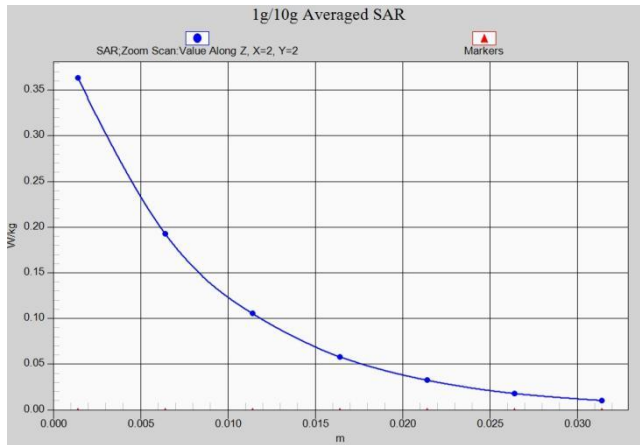


Fig A.14



LTE1900-FDD2 ANT1_CH18700 Rear 1RB-Middle 15mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1860$; $\sigma = 1.432$ mho/m; $\epsilon_r = 38.833$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2ANT1 1860 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.382 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.104 V/m; Power Drift = 0.41 dB

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.244 W/kg; SAR(10 g) = 0.142 W/kg

Maximum value of SAR (measured) = 0.365 W/kg

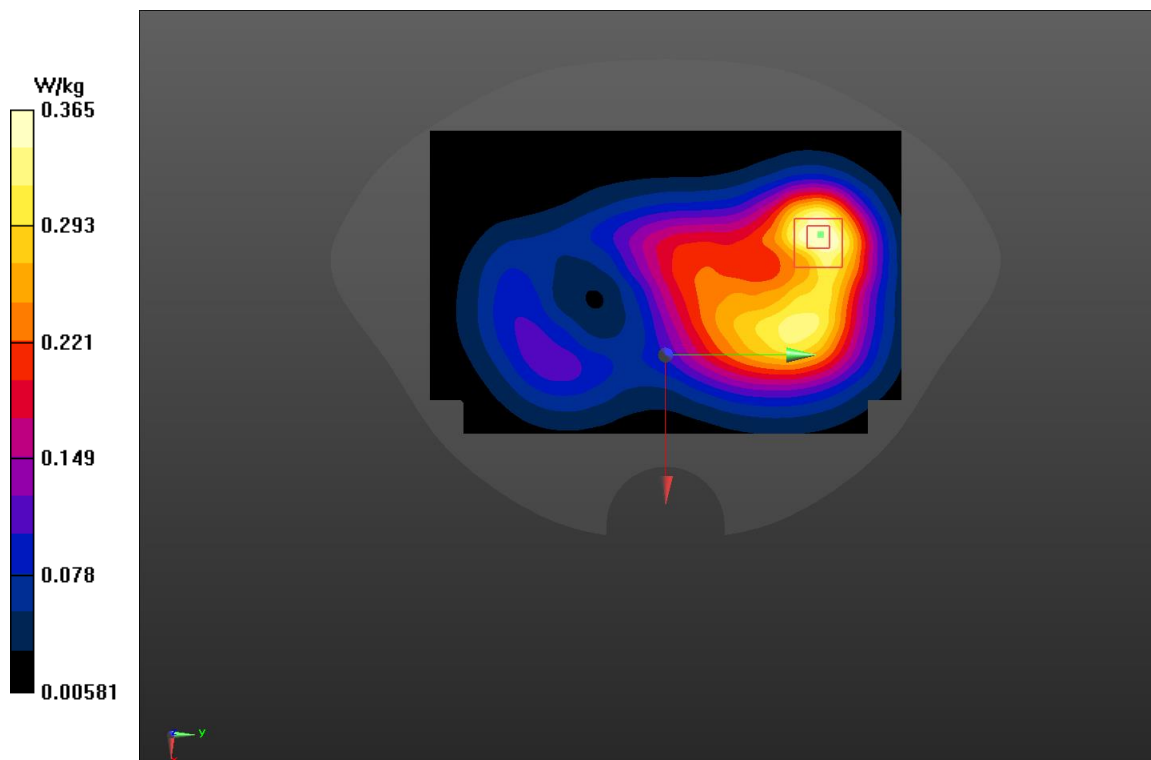
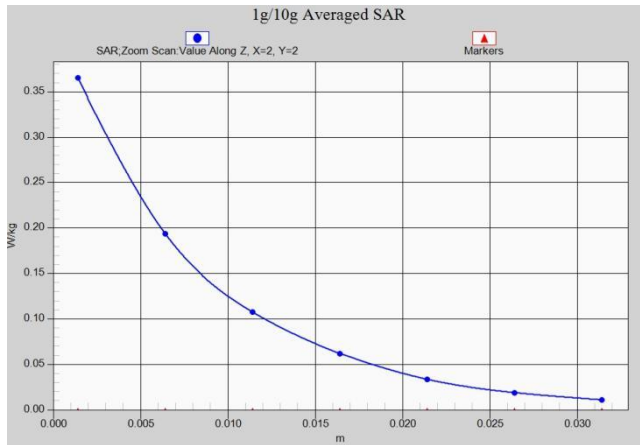


Fig A.15



LTE1900-FDD2 ANT3_CH18700 Right Tilt 1RB-Middle

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1860$; $\sigma = 1.432$ mho/m; $\epsilon_r = 38.833$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2ANT3 1860 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.526 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.554 V/m; Power Drift = 0.40 dB

Peak SAR (extrapolated) = 0.622 W/kg

SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.131 W/kg

Maximum value of SAR (measured) = 0.327 W/kg

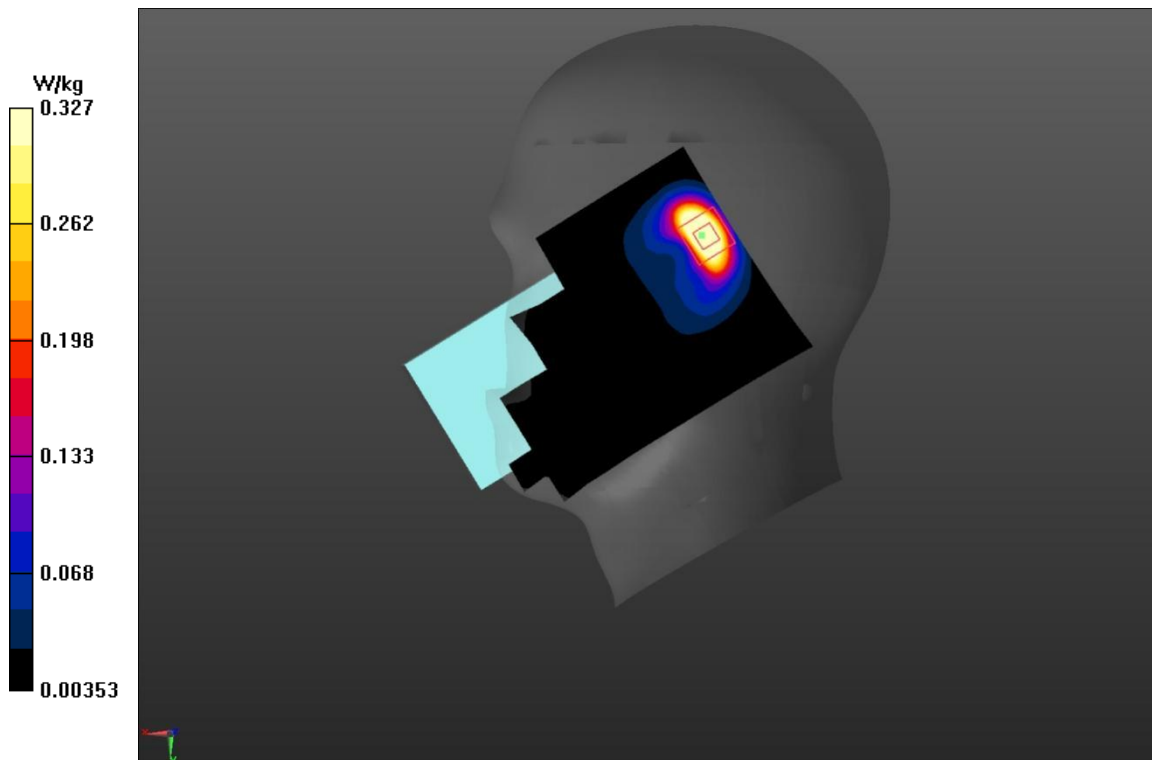
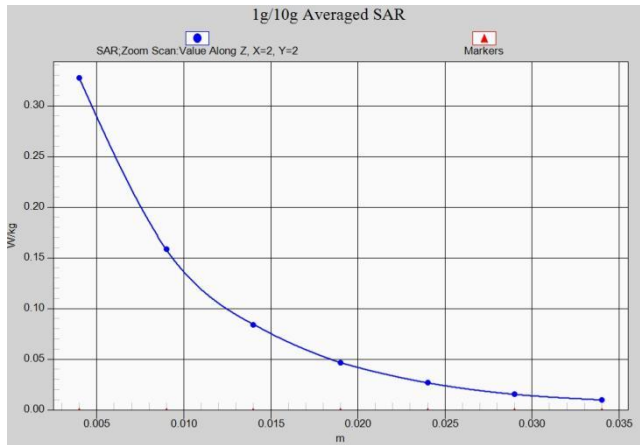


Fig A.16



LTE1900-FDD2 ANT3_CH18700 Top Edge 1RB-Middle 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1860$; $\sigma = 1.432$ mho/m; $\epsilon_r = 38.833$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2ANT3 1860 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.454 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.25 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.559 W/kg

SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.145 W/kg

Maximum value of SAR (measured) = 0.452 W/kg

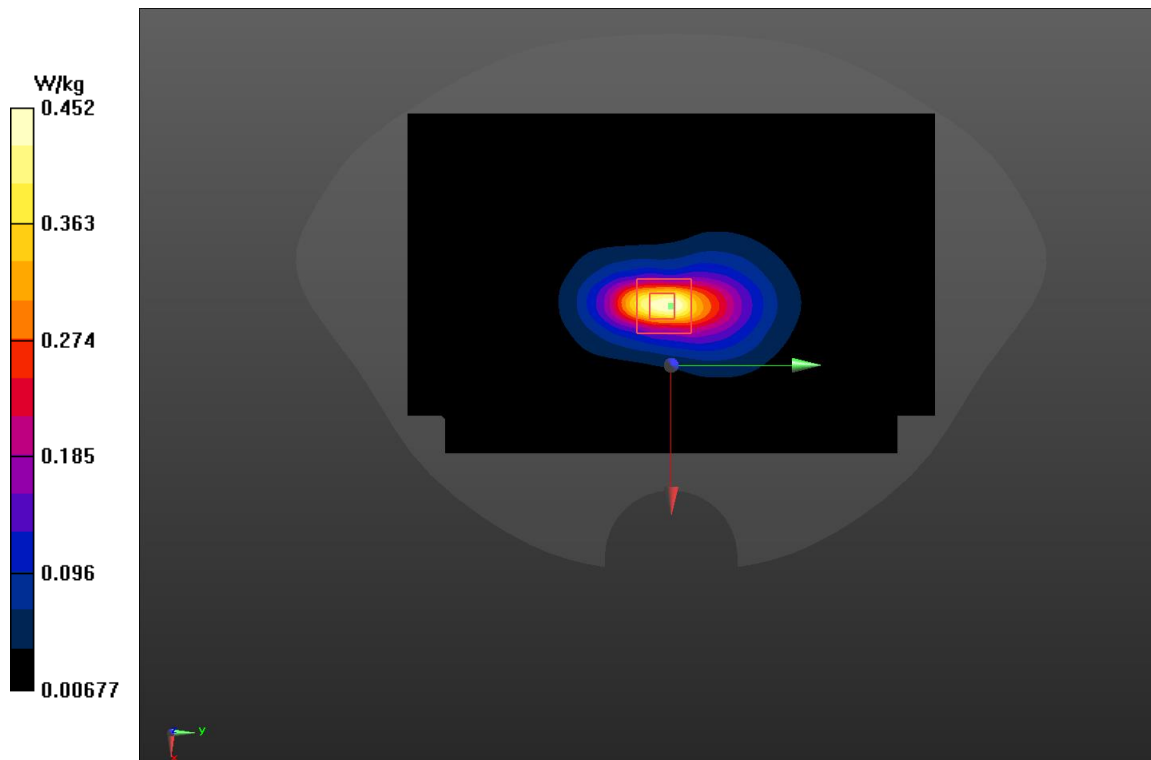
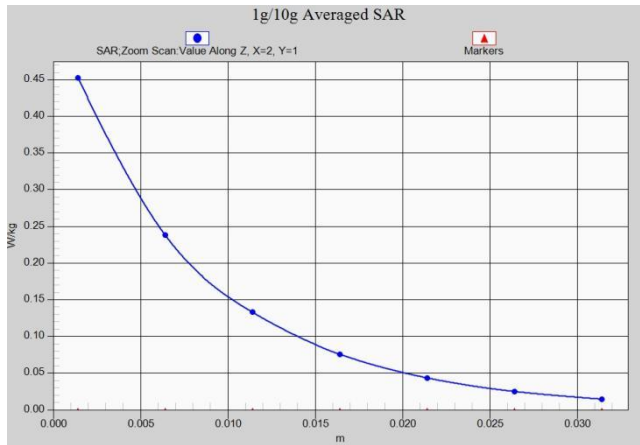


Fig A.17



LTE1900-FDD2 ANT3_CH19100 Rear 1RB-Middle 15mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1900$; $\sigma = 1.432$ mho/m; $\epsilon_r = 38.833$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2ANT3 1900 Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.344 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.219 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 0.433 W/kg

SAR(1 g) = 0.244 W/kg; SAR(10 g) = 0.139 W/kg

Maximum value of SAR (measured) = 0.355 W/kg

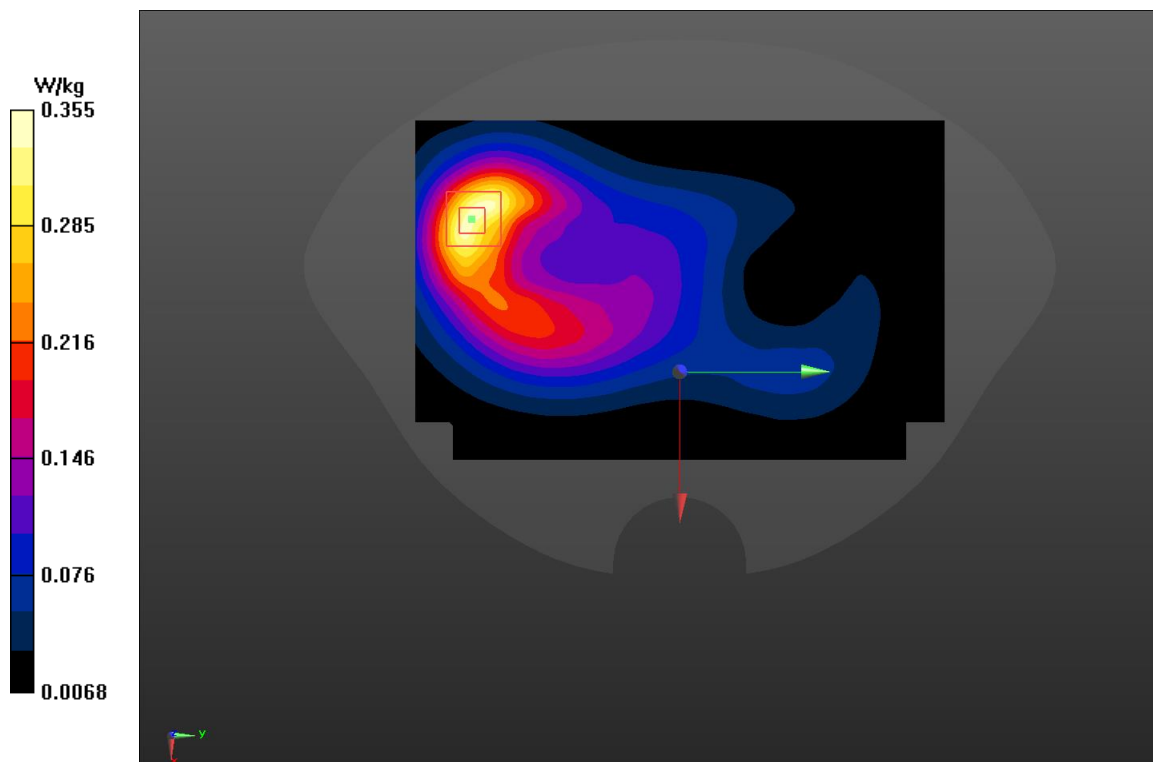
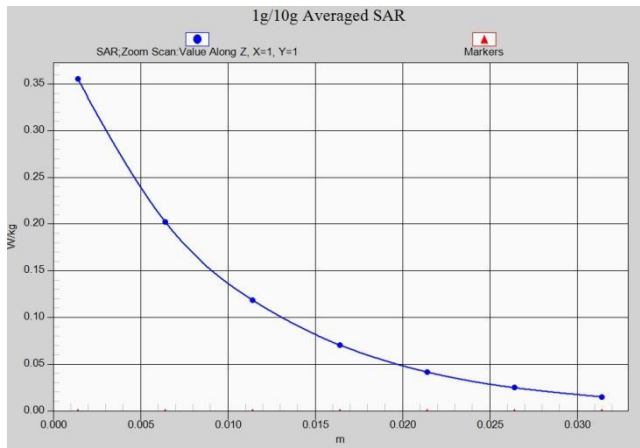


Fig A.18



LTE2500-FDD7_CH21350 Left Cheek 1RB-Middle

Date: 6/12/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2560$ MHz; $\sigma = 1.933$ mho/m; $\epsilon_r = 39.78$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.291 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.26 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.318 W/kg

SAR(1 g) = 0.377 W/kg; SAR(10 g) = 0.21 W/kg

Maximum value of SAR (measured) = 0.567 W/kg

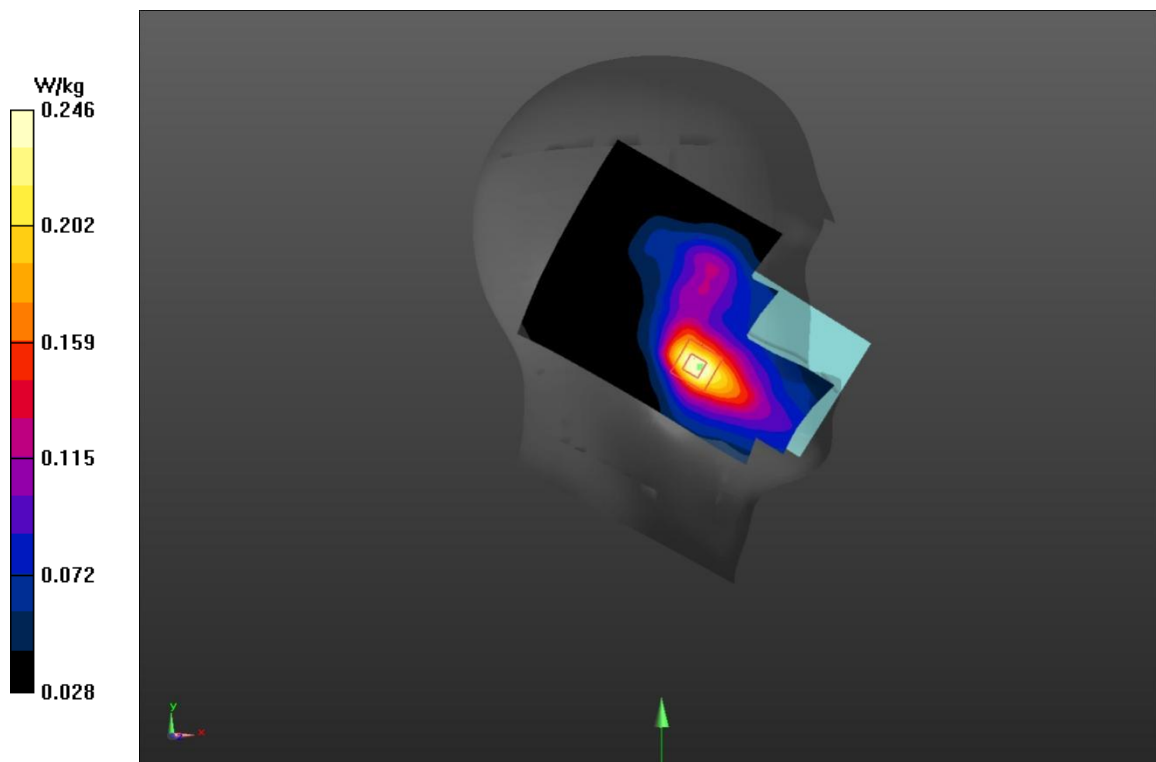
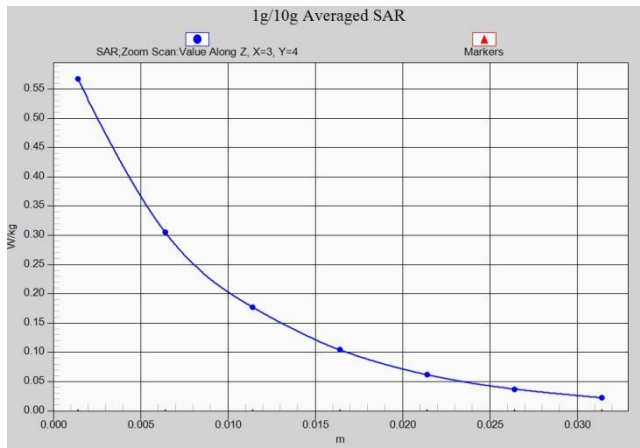


Fig A.19



LTE2500-FDD7_CH21350 Bottom Edge 1RB-Middle 10mm

Date: 6/12/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2560$ MHz; $\sigma = 1.915$ mho/m; $\epsilon_r = 38.46$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 1.31 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 16.7 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.811 W/kg; SAR(10 g) = 0.382 W/kg

Maximum value of SAR (measured) = 1.28 W/kg

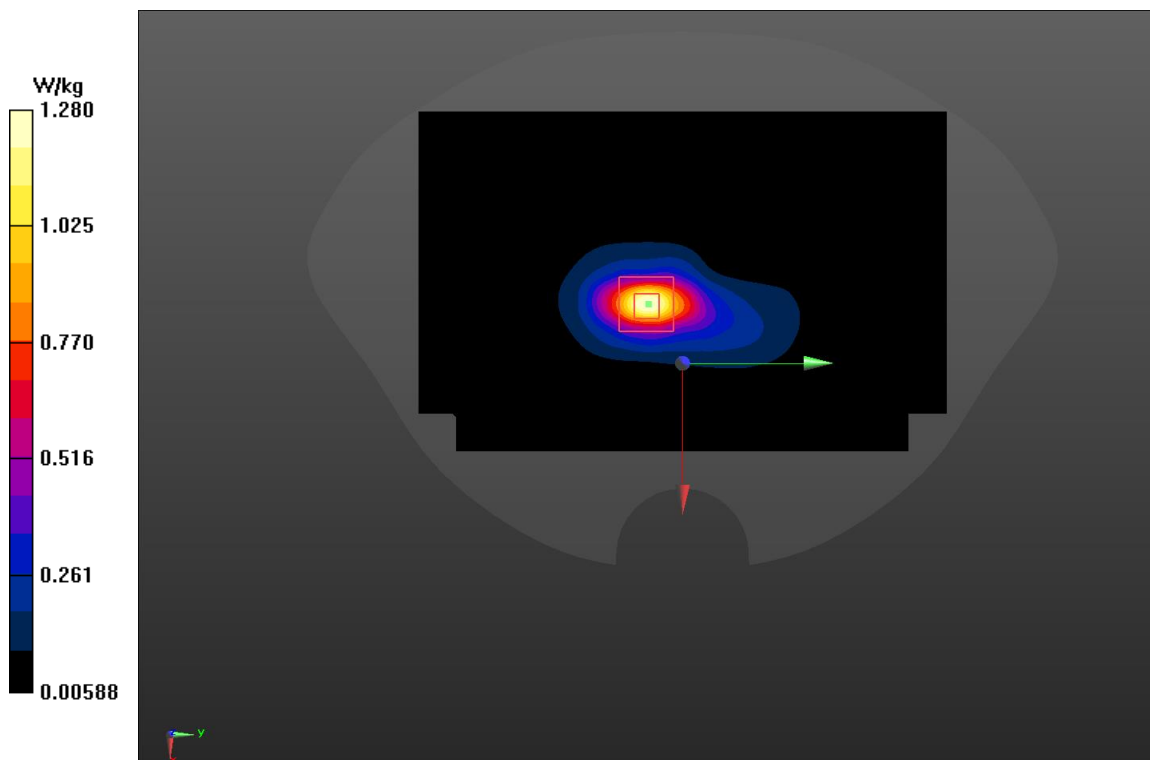
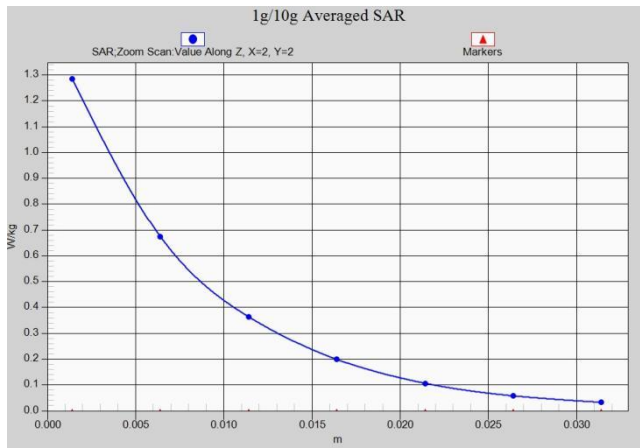


Fig A.20



LTE2500-FDD7_CH21100 Rear 1RB-Middle 15mm

Date: 6/12/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2535$ MHz; $\sigma = 1.891$ mho/m; $\epsilon_r = 38.49$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2500-FDD7 2535 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.609 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.749 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.717 W/kg

SAR(1 g) = 0.395 W/kg; SAR(10 g) = 0.21 W/kg

Maximum value of SAR (measured) = 0.602 W/kg

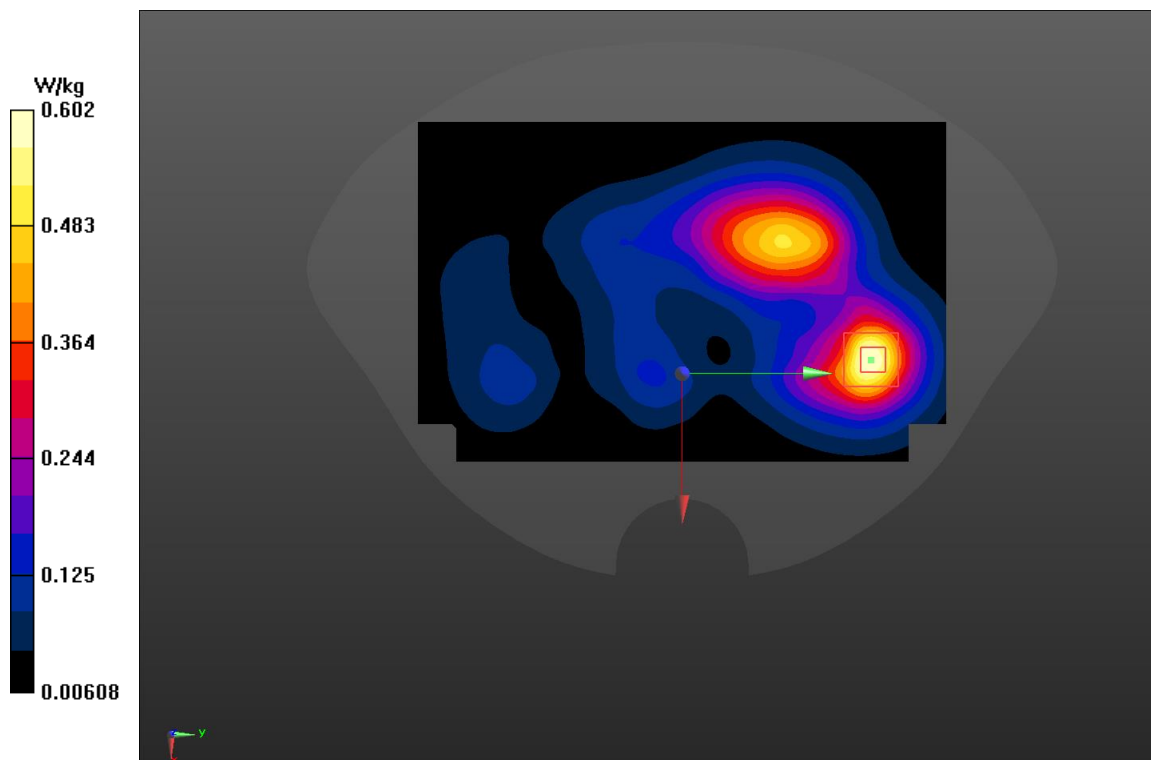
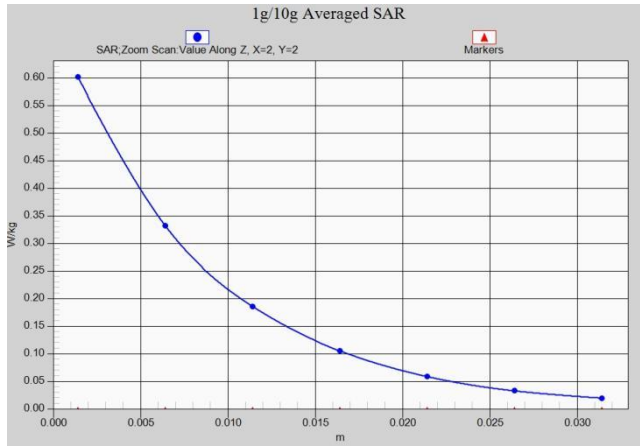


Fig A.21



LTE700-FDD12_CH23095 Right Cheek 1RB-Middle

Date: 6/4/2022

Electronics: DAE4 Sn549

Medium: head 750 MHz

Medium parameters used: $f = 707.5$ MHz; $\sigma = 0.857$ mho/m; $\epsilon_r = 42.12$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD12 707.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.26,10.26,10.26)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.338 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.18 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.363 W/kg

SAR(1 g) = 0.281 W/kg; SAR(10 g) = 0.213 W/kg

Maximum value of SAR (measured) = 0.294 W/kg

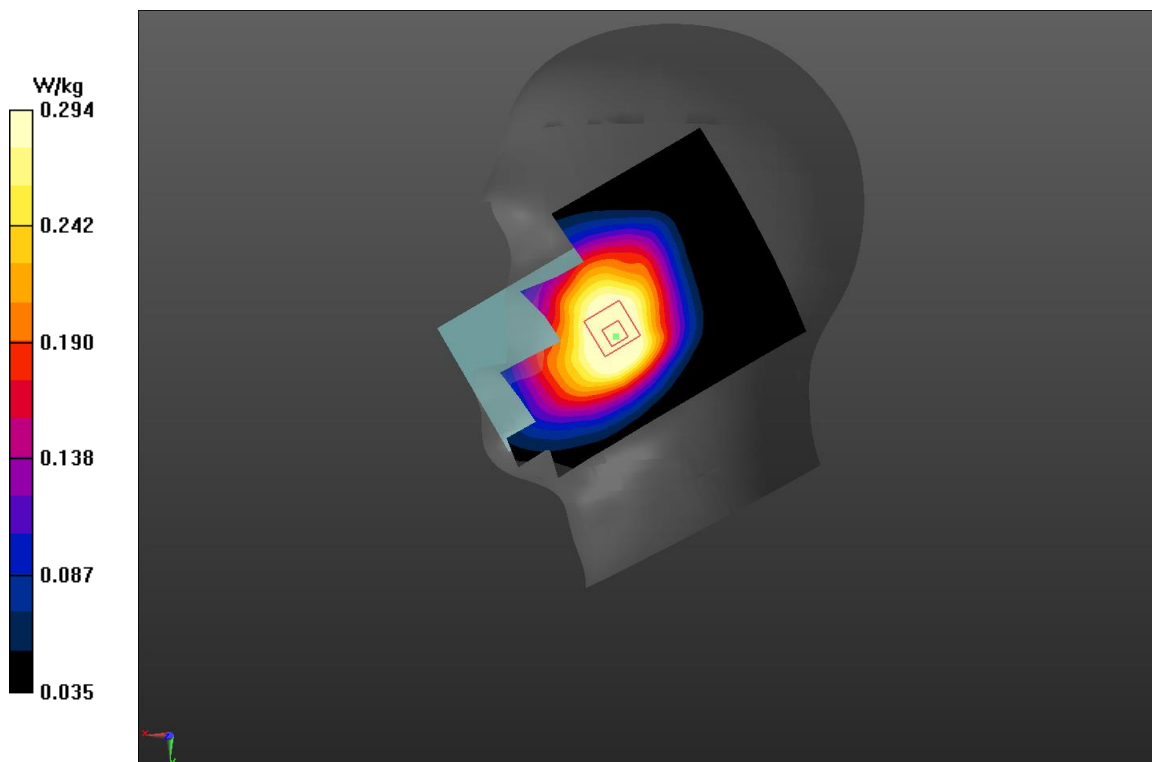
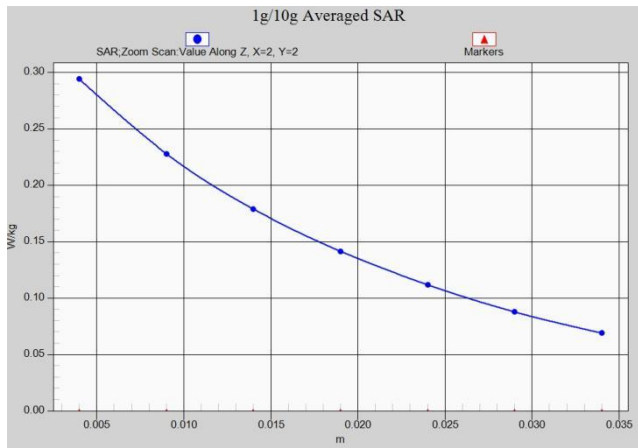


Fig A.22



LTE700-FDD12_CH23095 Right Edge 1RB-Middle 10mm

Date: 6/4/2022

Electronics: DAE4 Sn549

Medium: head 750 MHz

Medium parameters used: $f = 707.5$ MHz; $\sigma = 0.851$ mho/m; $\epsilon_r = 41.64$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD12 707.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.26,10.26,10.26)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.573 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.19 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.642 W/kg

SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.296 W/kg

Maximum value of SAR (measured) = 0.567 W/kg

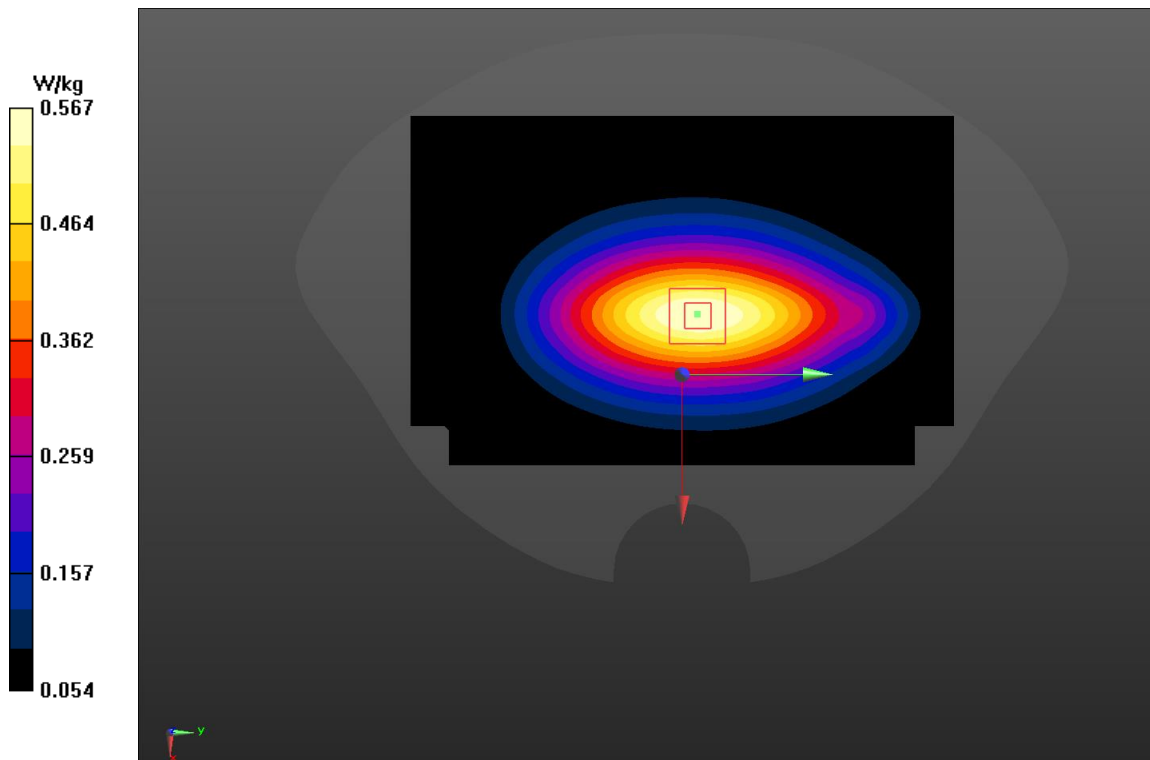
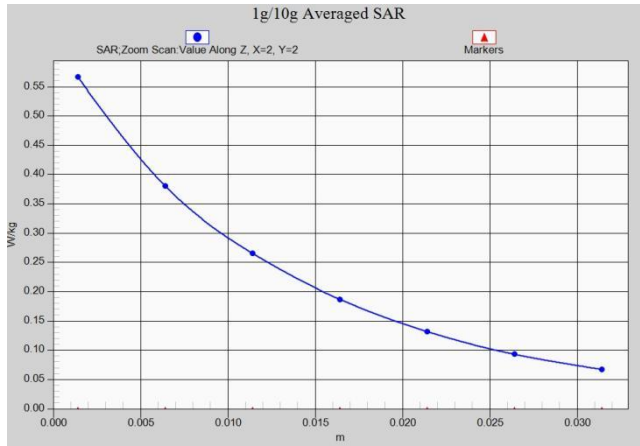


Fig A.23



LTE750-FDD13_CH23230 Left Cheek 1RB-Middle

Date: 6/4/2022

Electronics: DAE4 Sn549

Medium: head 750 MHz

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.927 \text{ mho/m}$; $\epsilon_r = 42.03$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.26,10.26,10.26)

Area Scan (71x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.152 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.295 V/m ; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.172 W/kg

SAR(1 g) = 0.129 W/kg ; SAR(10 g) = 0.096 W/kg

Maximum value of SAR (measured) = 0.156 W/kg

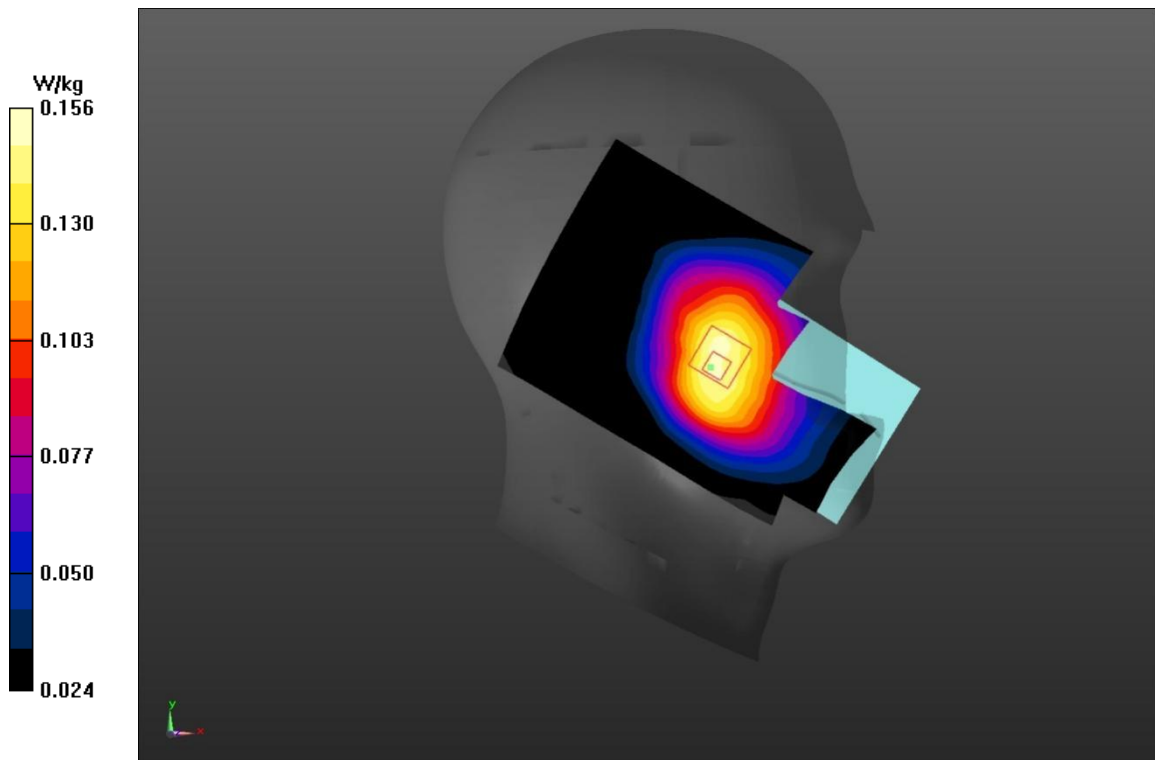
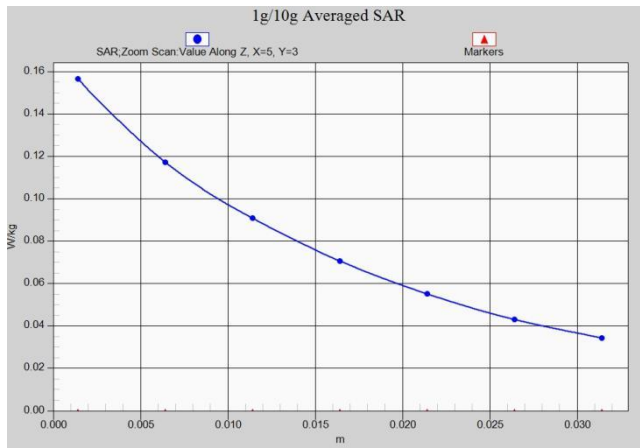


Fig A.24



LTE750-FDD13_CH23230 Bottom Edge 1RB-High 10mm

Date: 6/4/2022

Electronics: DAE4 Sn549

Medium: head 750 MHz

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.921 \text{ mho/m}$; $\epsilon_r = 41.55$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C , Liquid Temperature: 22.3°C

Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.26,10.26,10.26)

Area Scan (71x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.298 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.02 V/m ; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.404 W/kg

SAR(1 g) = 0.188 W/kg ; SAR(10 g) = 0.096 W/kg

Maximum value of SAR (measured) = 0.301 W/kg

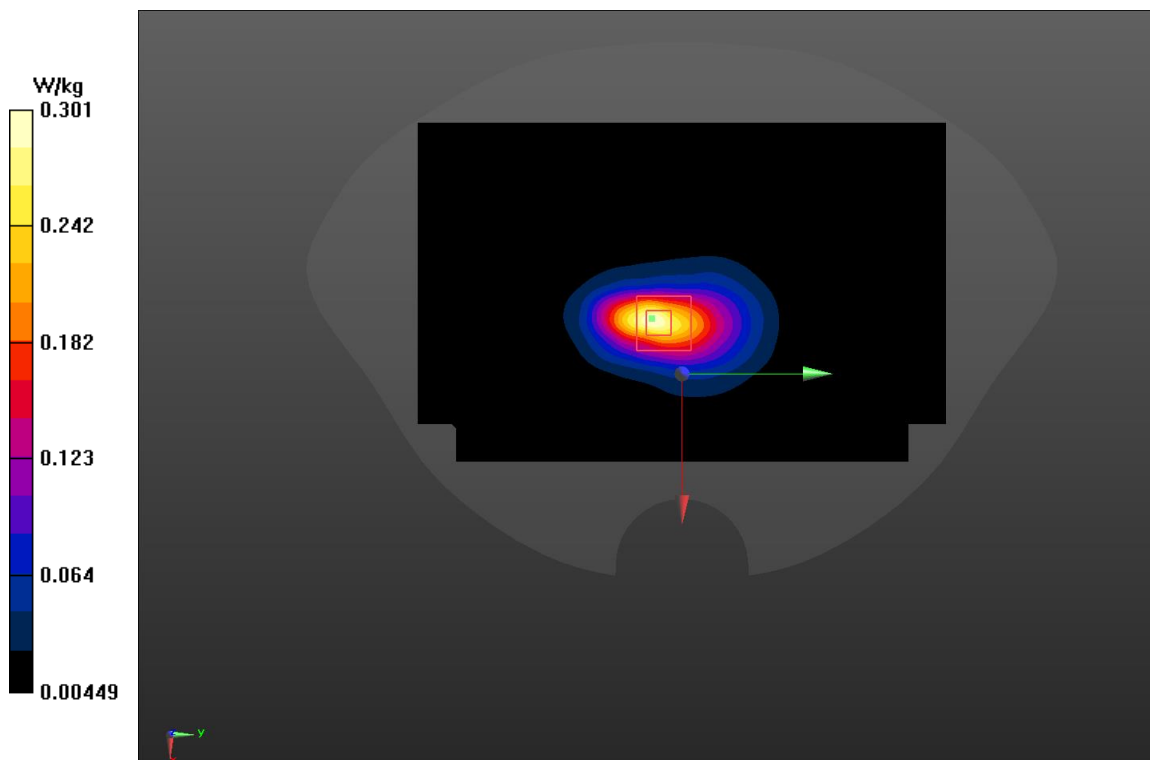
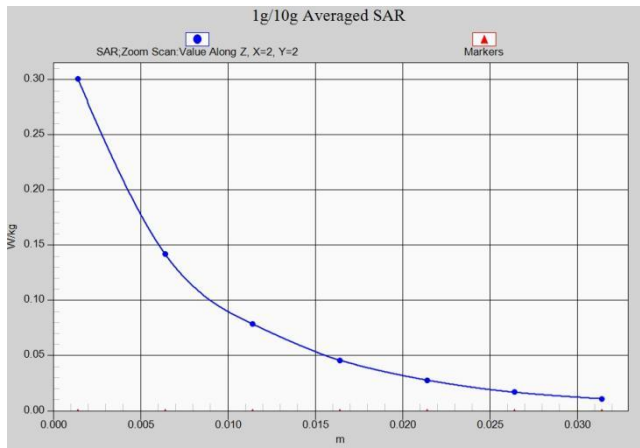


Fig A.25



LTE1900-FDD25_CH26140 Left Cheek 1RB-Middle

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1860$ MHz; $\sigma = 1.359$ mho/m; $\epsilon_r = 39.49$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD25 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.362 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.541 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.408 W/kg

SAR(1 g) = 0.254 W/kg; SAR(10 g) = 0.162 W/kg

Maximum value of SAR (measured) = 0.352 W/kg

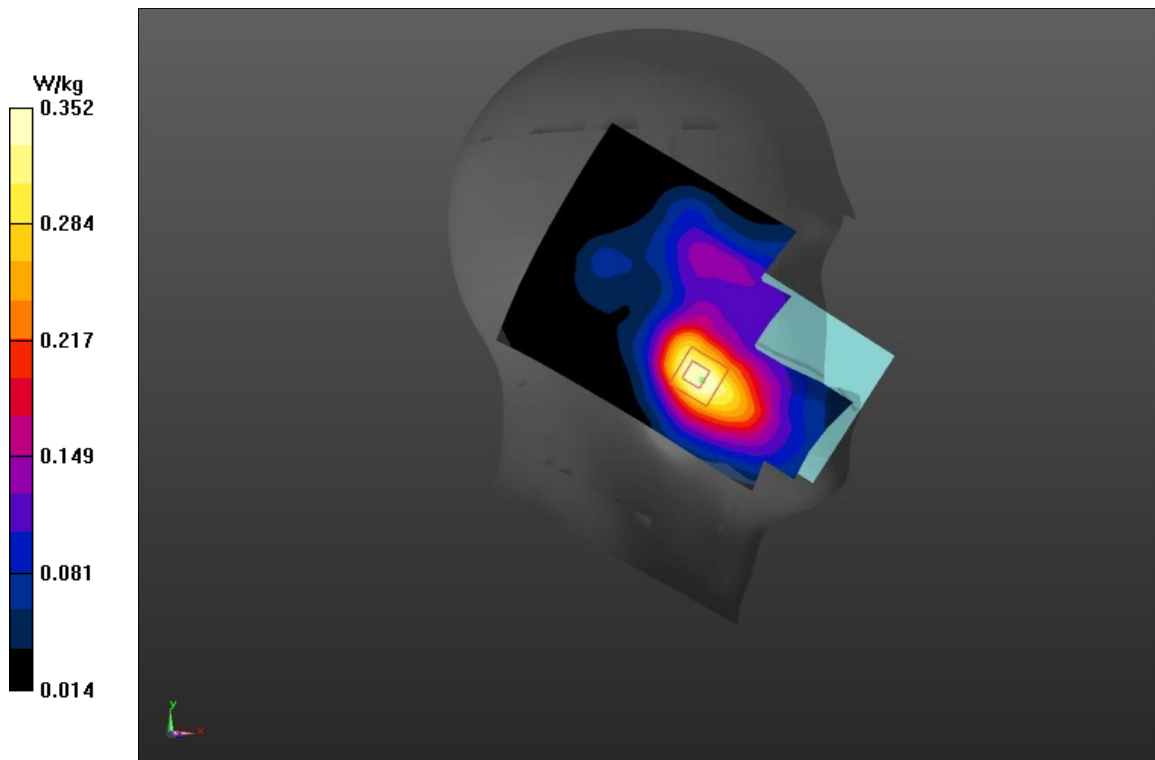
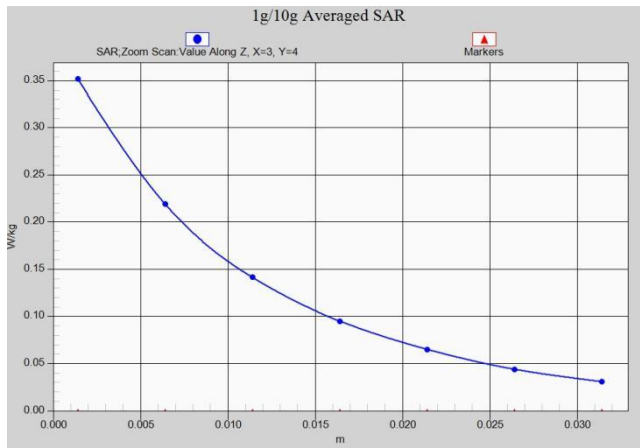


Fig A.26



LTE1900-FDD25_CH26365 Rear 1RB-Middle 10mm

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1882.5$ MHz; $\sigma = 1.375$ mho/m; $\epsilon_r = 40.35$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD25 1882.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.784 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.78 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.925 W/kg

SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.292 W/kg

Maximum value of SAR (measured) = 0.723 W/kg

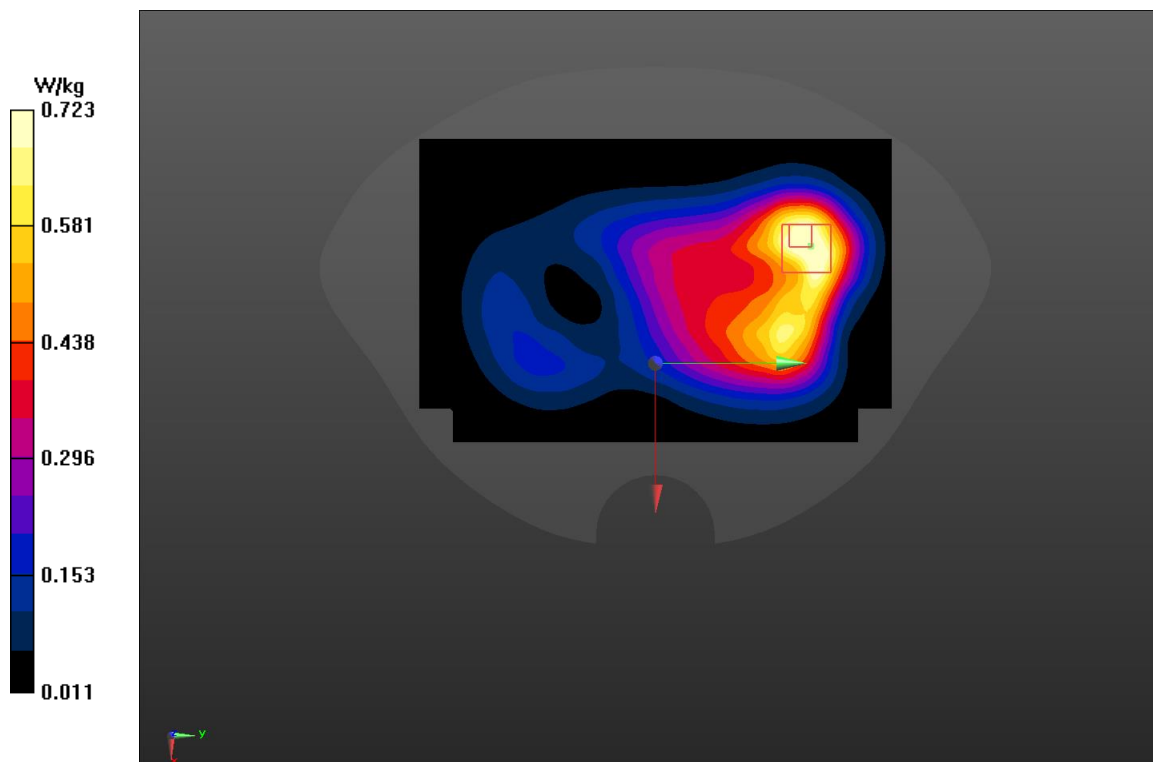
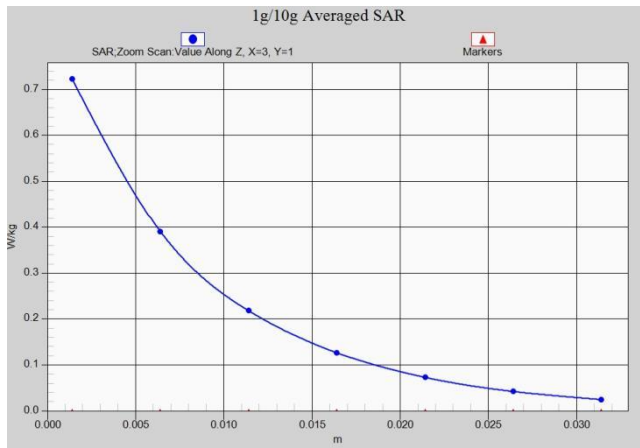


Fig A.27



LTE1900-FDD25_CH26140 Rear 1RB-Middle 15mm

Date: 6/10/2022

Electronics: DAE4 Sn549

Medium: head 1900 MHz

Medium parameters used: $f = 1860$ MHz; $\sigma = 1.354$ mho/m; $\epsilon_r = 40.38$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD25 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.18,8.18,8.18)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.67 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.02 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.778 W/kg

SAR(1 g) = 0.443 W/kg; SAR(10 g) = 0.264 W/kg

Maximum value of SAR (measured) = 0.645 W/kg

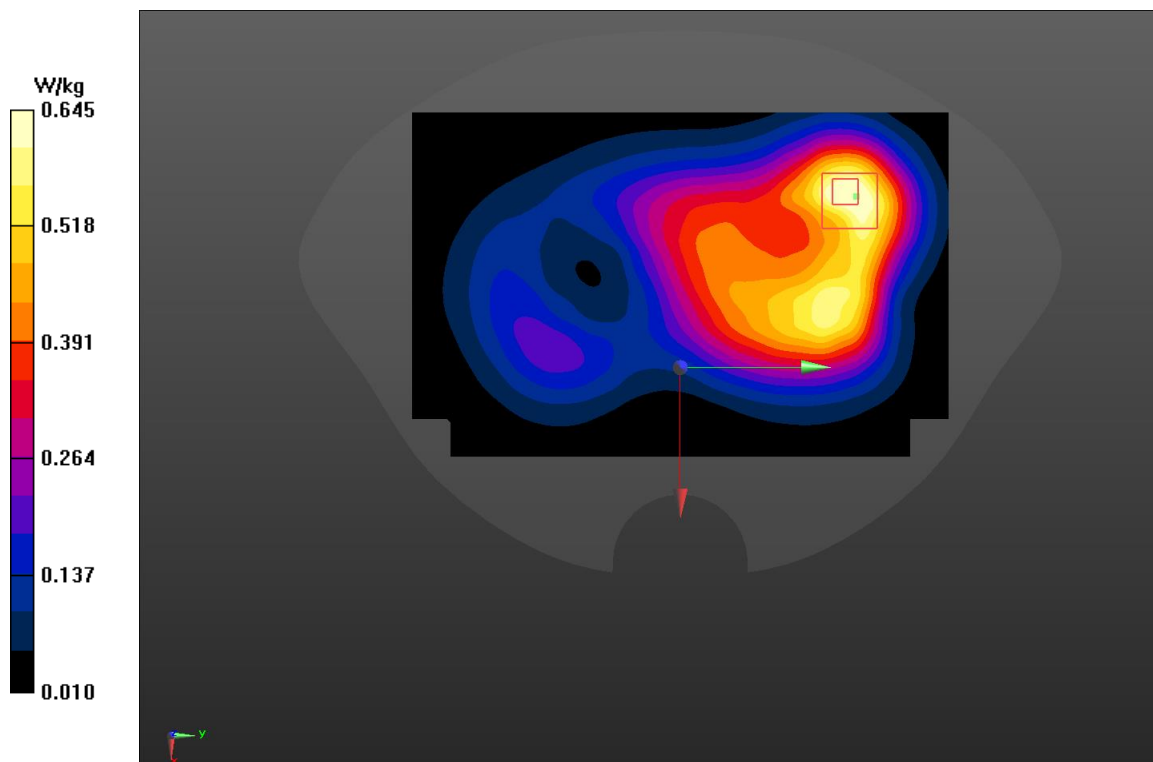
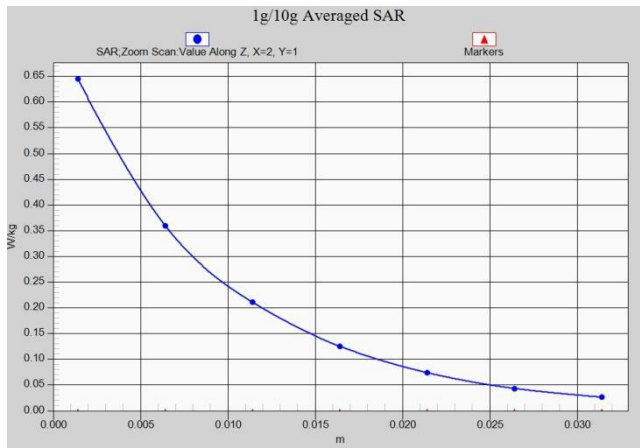


Fig A.28



LTE850-FDD26_CH26965 Right Cheek 1RB-Middle

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 835 MHz

Medium parameters used: $f = 841.5$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 40.83$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE850-FDD26 841.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(9.96,9.96,9.96)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.443 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.495 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.459 W/kg

SAR(1 g) = 0.346 W/kg; SAR(10 g) = 0.256 W/kg

Maximum value of SAR (measured) = 0.364 W/kg

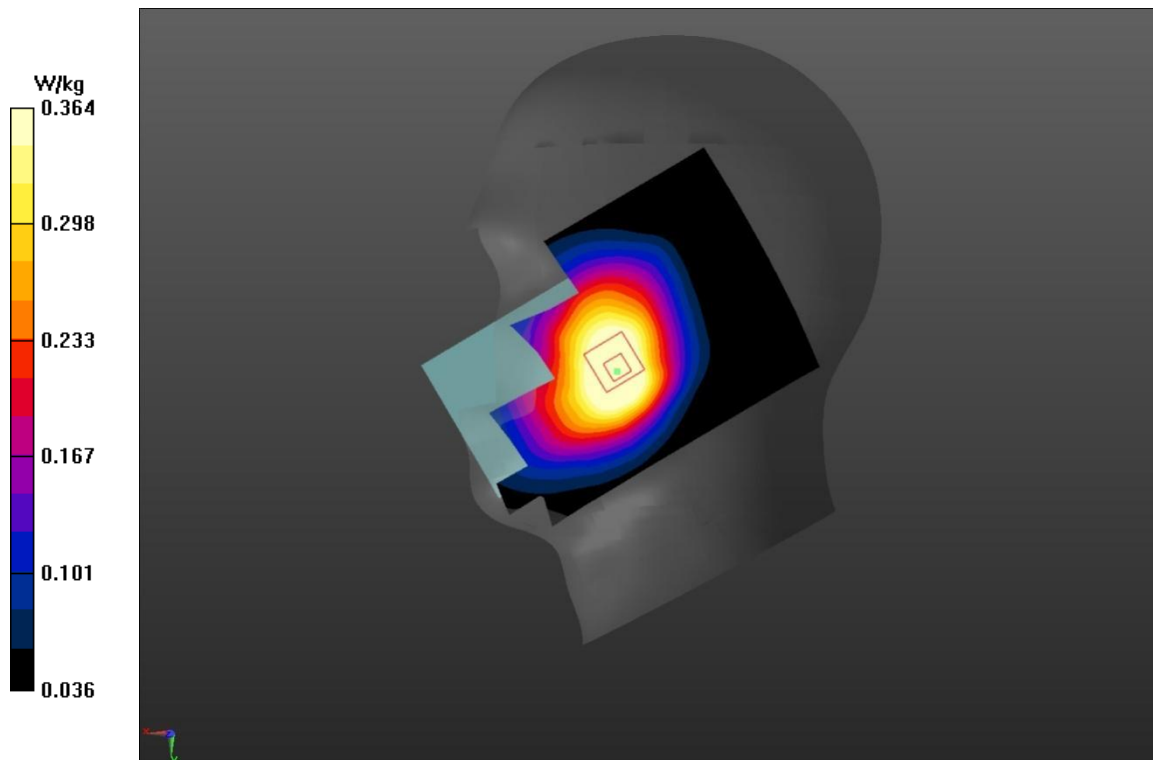
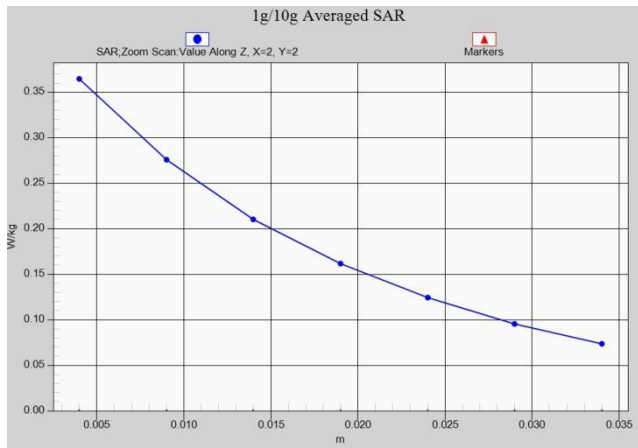


Fig A.29



LTE850-FDD26_CH26965 Rear 1RB-Middle 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 835 MHz

Medium parameters used: $f = 841.5$ MHz; $\sigma = 0.893$ mho/m; $\epsilon_r = 41.99$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE850-FDD26 841.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(9.96,9.96,9.96)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.67 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.3 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.805 W/kg

SAR(1 g) = 0.445 W/kg; SAR(10 g) = 0.261 W/kg

Maximum value of SAR (measured) = 0.660 W/kg

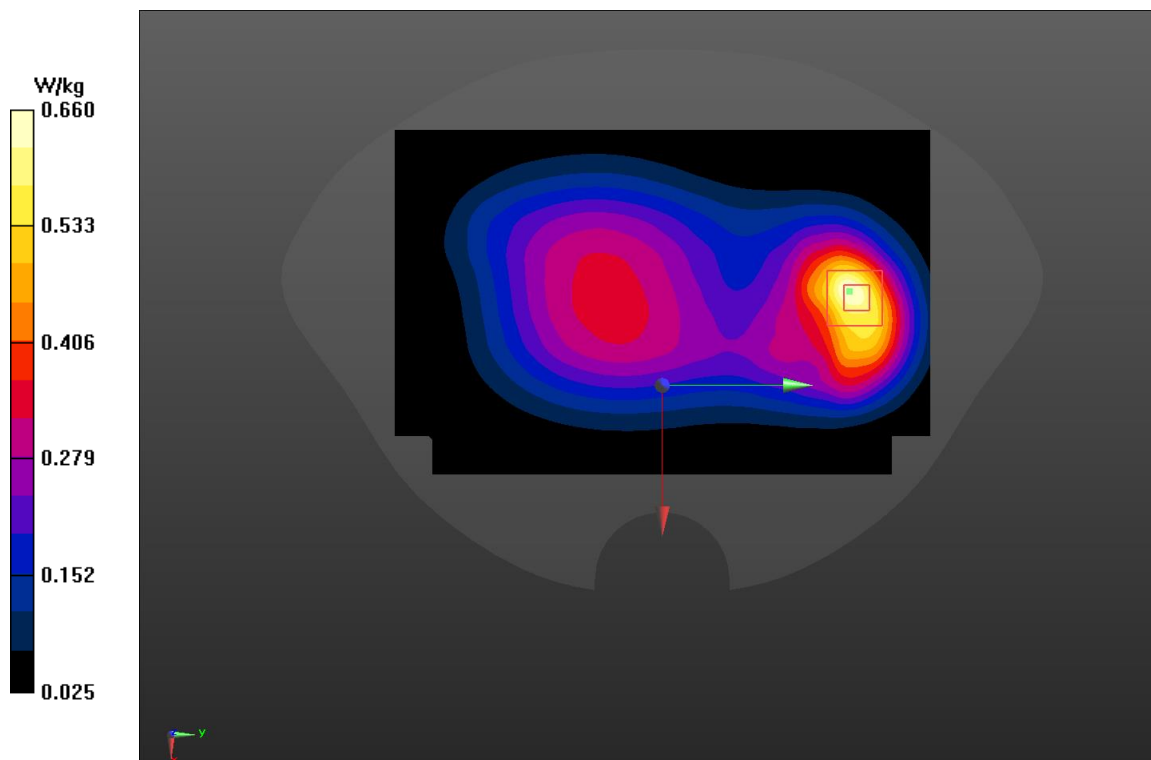
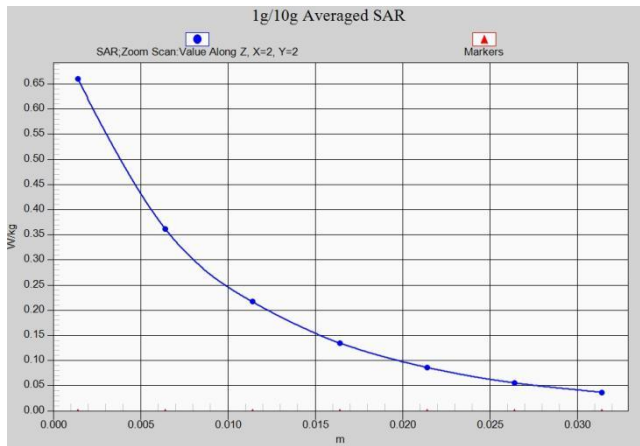


Fig A.30



LTE Band41 pc3_CH401855 Right Tilt 1RB-Middle

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2550$ MHz; $\sigma = 1.922$ mho/m; $\epsilon_r = 37.942$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTEBand41pc3 2636.5 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.06 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.981 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.519 W/kg; SAR(10 g) = 0.228 W/kg

Maximum value of SAR (measured) = 0.576 W/kg

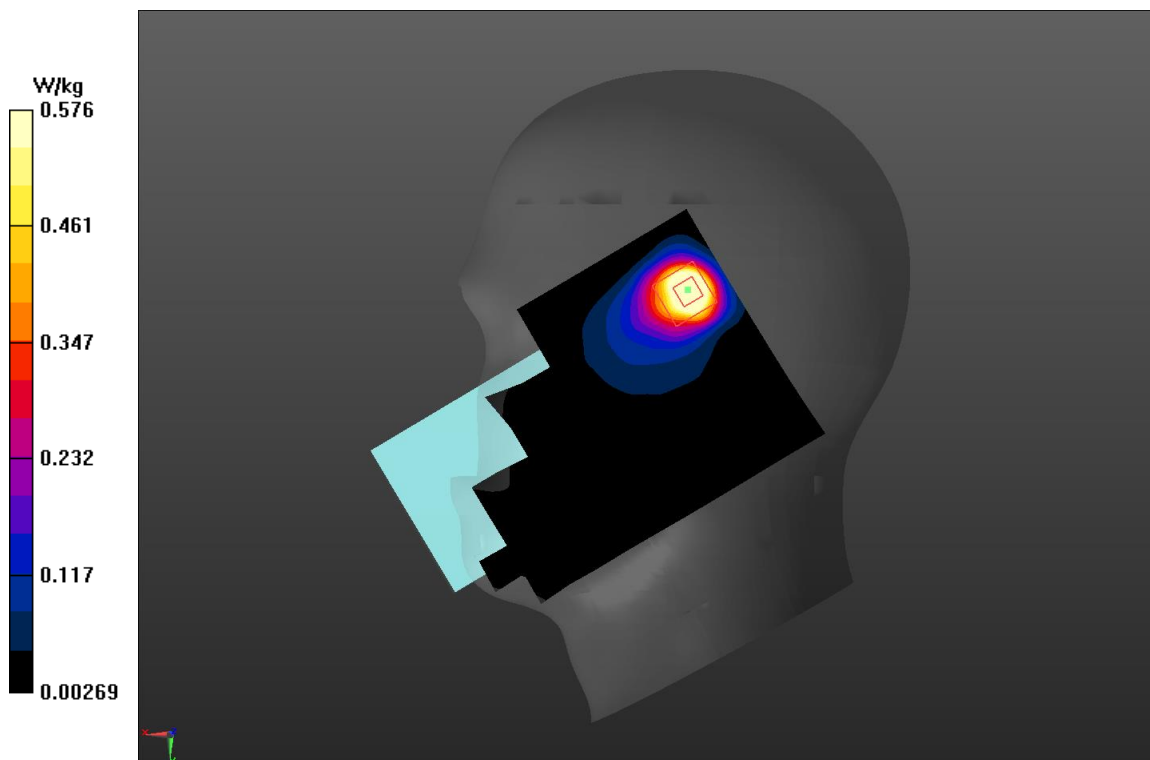
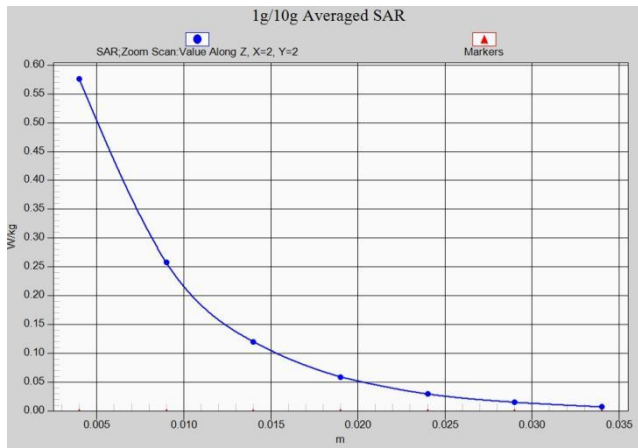


Fig A.31



LTE Band41 pc3_CH39750 Top Edge 1RB-Middle 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2506$ MHz; $\sigma = 1.997$ mho/m; $\epsilon_r = 37.823$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTEBand41pc3 2506 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.18 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.177 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.257 W/kg

SAR(1 g) = 0.115 W/kg; SAR(10 g) = 0.0499 W/kg

Maximum value of SAR (measured) = 0.195 W/kg

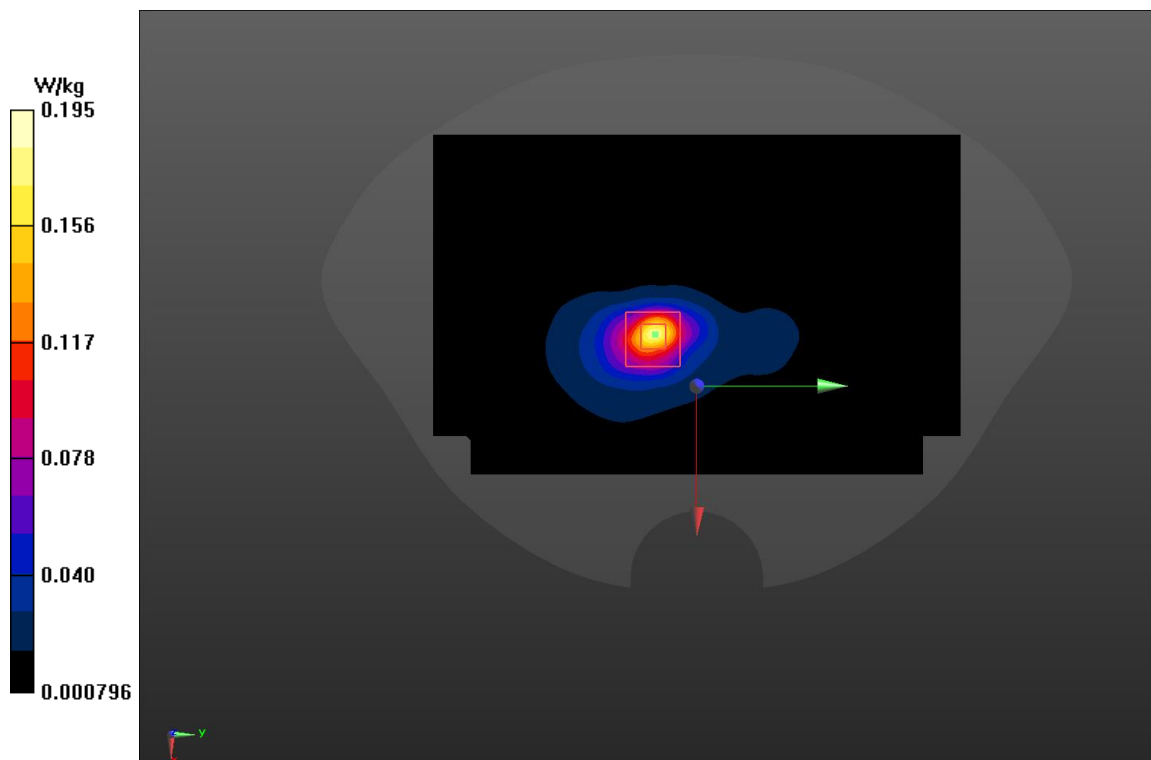
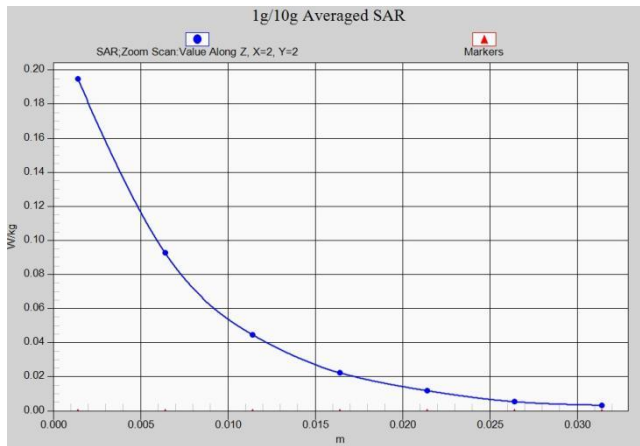


Fig A.32



LTE Band41 pc3_CH41055 Front 1RB-Middle 15mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2636.5$ MHz; $\sigma = 1.997$ mho/m; $\epsilon_r = 37.823$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTEBand41pc3 2636.5 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.276 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.804 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.313 W/kg

SAR(1 g) = 0.164 W/kg; SAR(10 g) = 0.092 W/kg

Maximum value of SAR (measured) = 0.251 W/kg

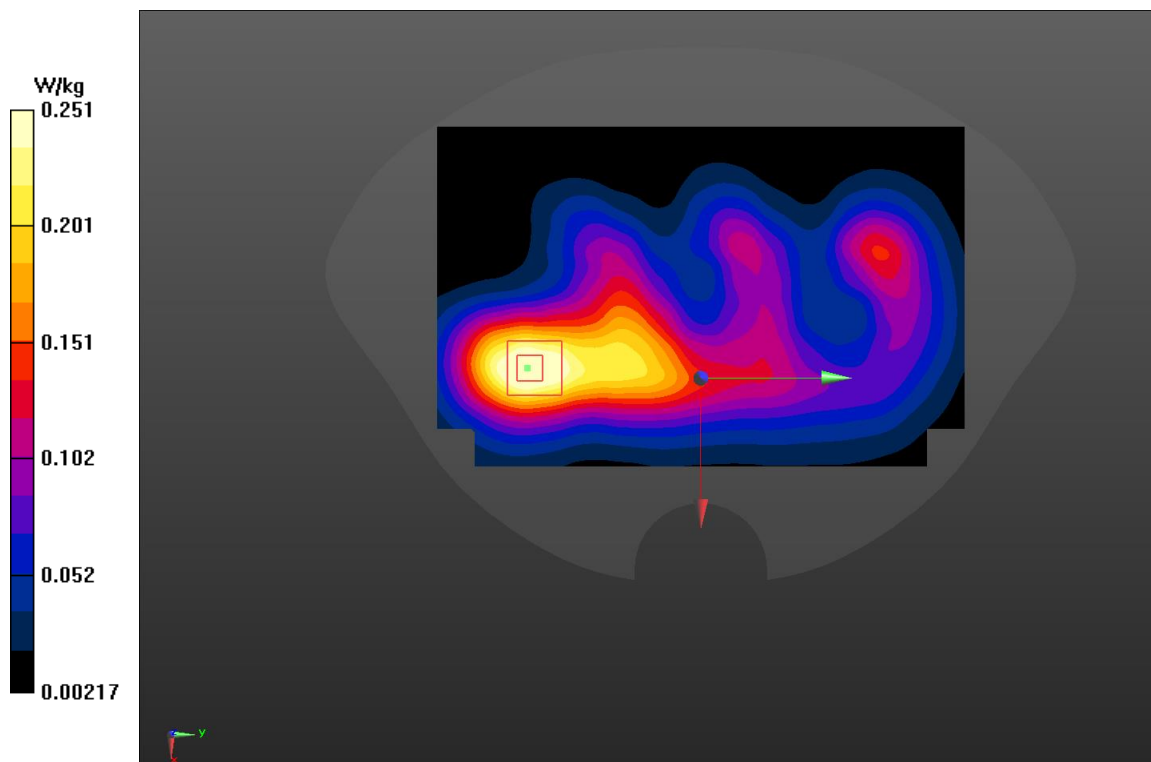
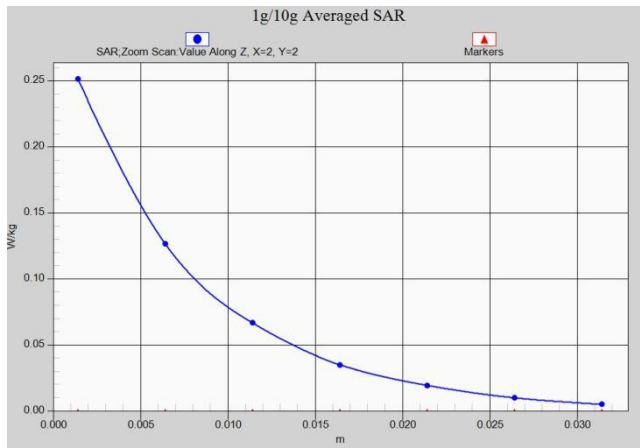


Fig A.33



LTE Band41 pc2_CH41055 Right Tilt 1RB-Middle

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2636.5$ MHz; $\sigma = 2.034$ mho/m; $\epsilon_r = 37.789$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTEBand41pc2 2636.5 MHz Duty Cycle: 1:2.309

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.32 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.987 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.602 W/kg; SAR(10 g) = 0.268 W/kg

Maximum value of SAR (measured) = 0.651 W/kg

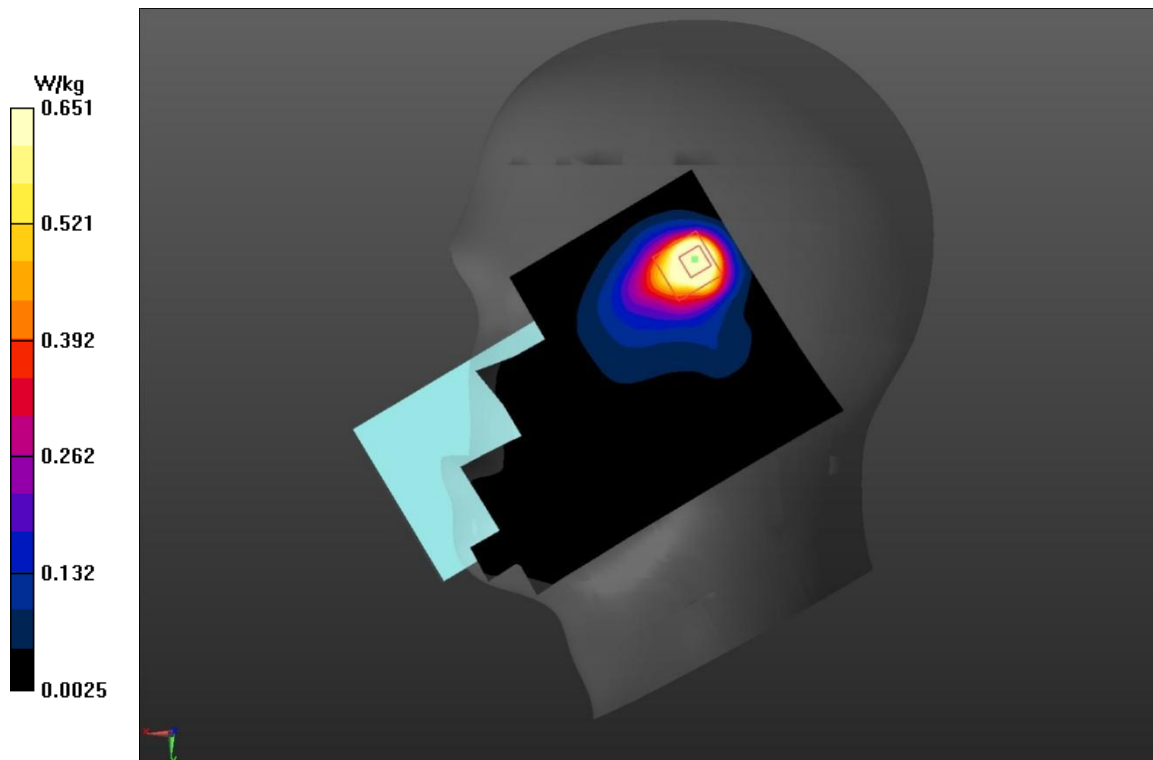
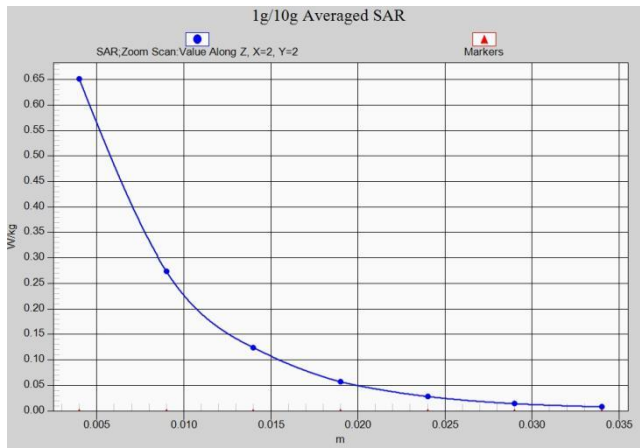


Fig A.34



LTE Band41 pc2_CH39750 Top Edge 1RB-Middle 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2506$ MHz; $\sigma = 1.997$ mho/m; $\epsilon_r = 37.823$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTEBand41pc2 2506 MHz Duty Cycle: 1:2.309

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 1.17 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 7.053 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 0.675 W/kg; SAR(10 g) = 0.277 W/kg

Maximum value of SAR (measured) = 1.25 W/kg

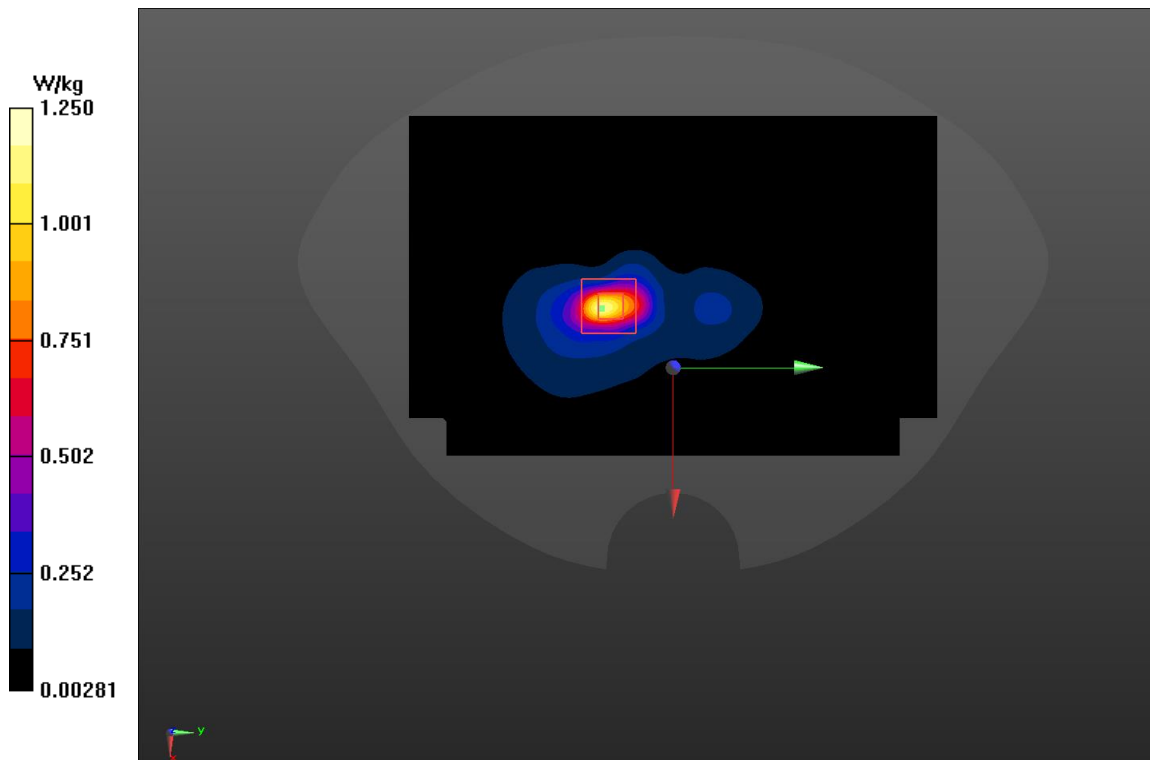
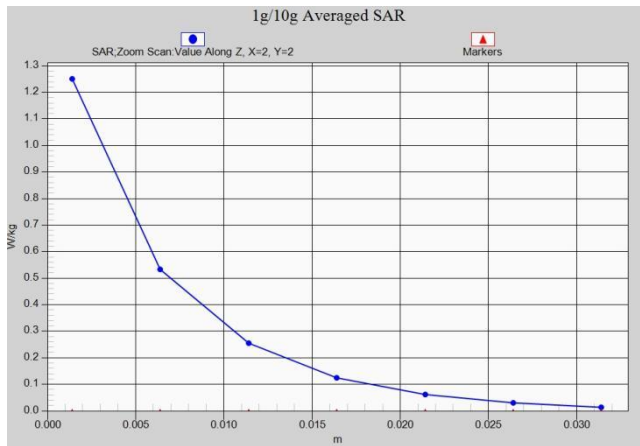


Fig A.35



LTE Band41 pc2_CH41490 Front 1RB-High 15mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 2600 MHz

Medium parameters used: $f = 2680$ MHz; $\sigma = 2.034$ mho/m; $\epsilon_r = 37.789$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTEBand41pc2 2680 MHz Duty Cycle: 1:2.309

Probe: EX3DV4 – SN7464 ConvF(7.64,7.64,7.64)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.383 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.188 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.445 W/kg

SAR(1 g) = 0.238 W/kg; SAR(10 g) = 0.134 W/kg

Maximum value of SAR (measured) = 0.361 W/kg

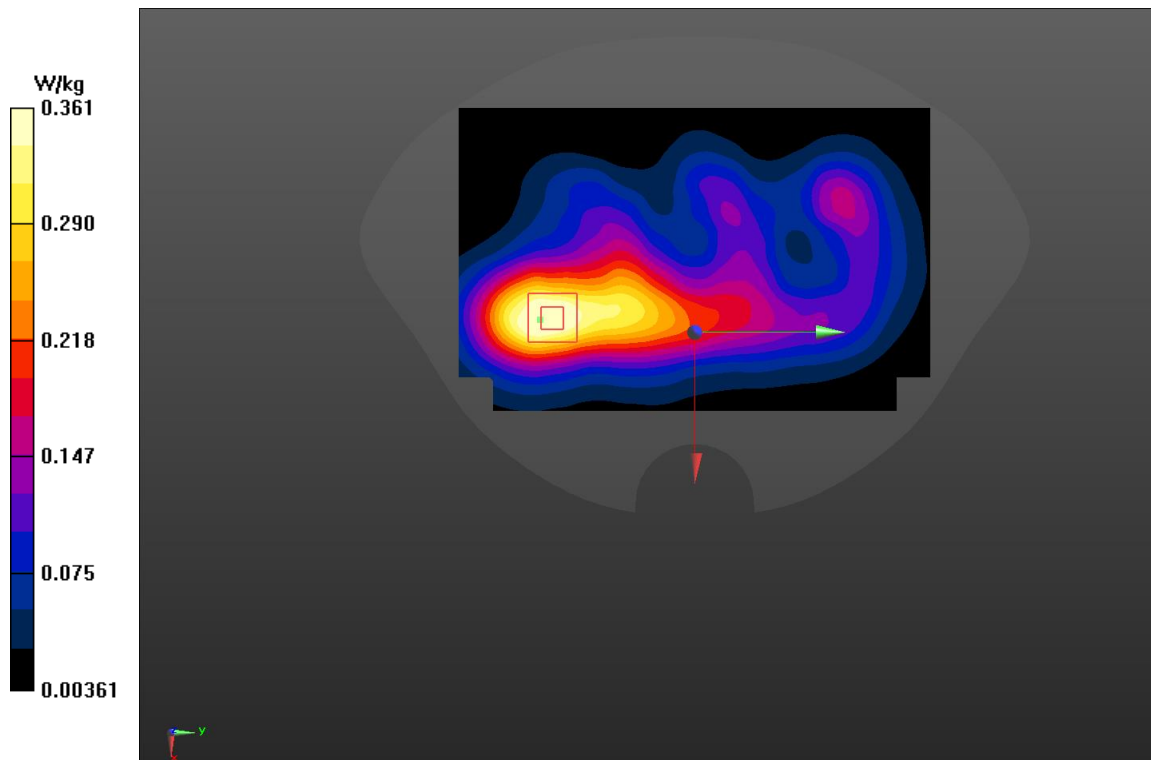
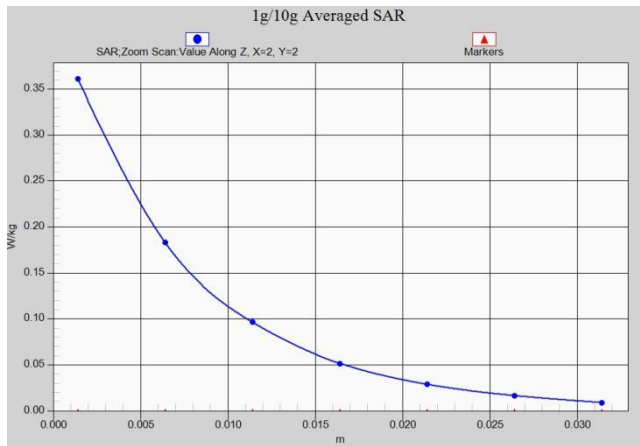


Fig A.36



LTE1700-FDD66 ANT1_CH123572 Left Cheek 1RB-Middle

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1770$ MHz; $\sigma = 1.405$ mho/m; $\epsilon_r = 38.905$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66ANT1 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.23 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.192 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.258 W/kg

SAR(1 g) = 0.169 W/kg; SAR(10 g) = 0.11 W/kg

Maximum value of SAR (measured) = 0.223W/kg

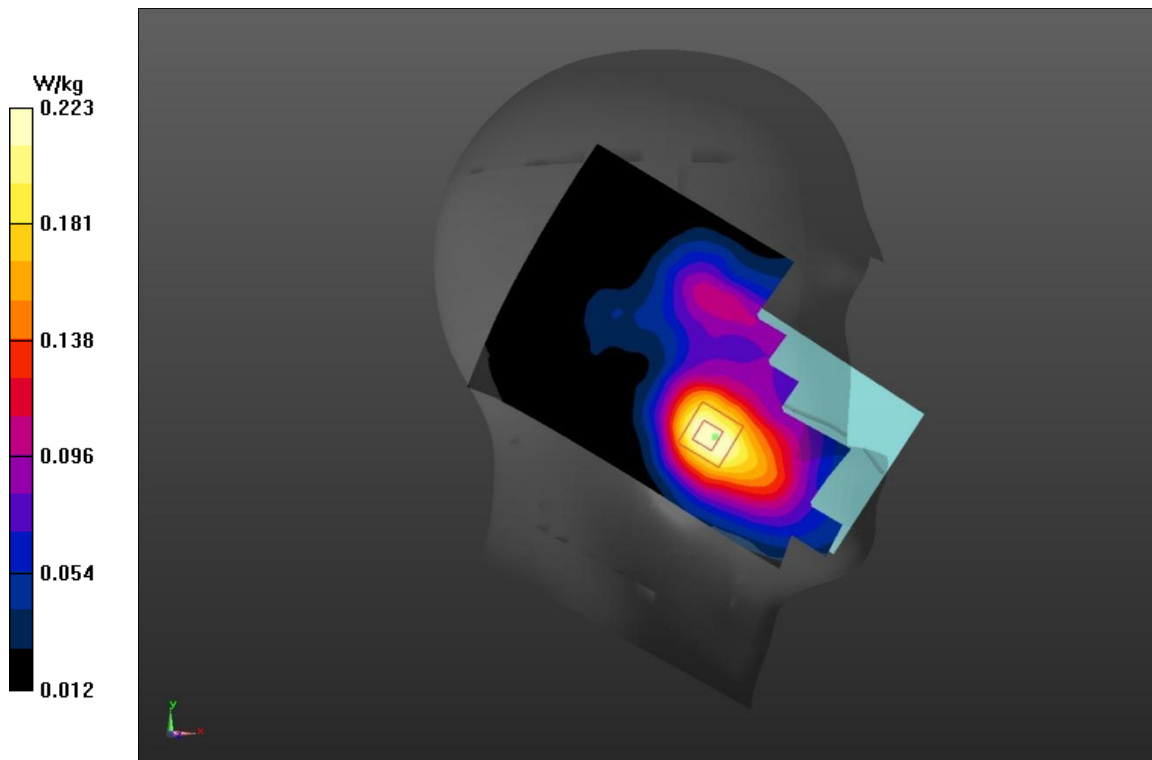
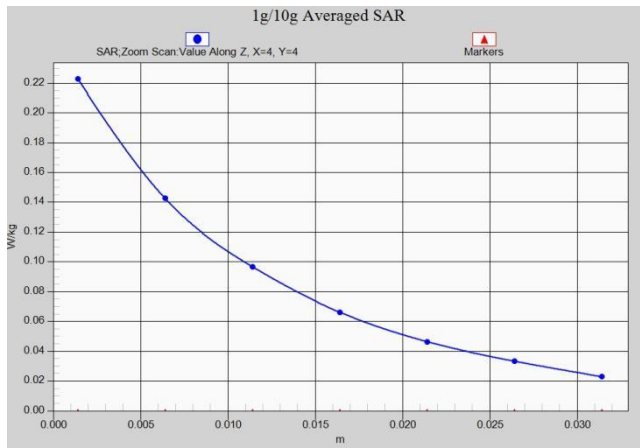


Fig A.37



LTE1700-FDD66 ANT1_CH132572 Rear 50RB-Low 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1770$ MHz; $\sigma = 1.405$ mho/m; $\epsilon_r = 38.905$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66ANT1 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.303 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.773 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.336 W/kg

SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.138 W/kg

Maximum value of SAR (measured) = 0.292 W/kg

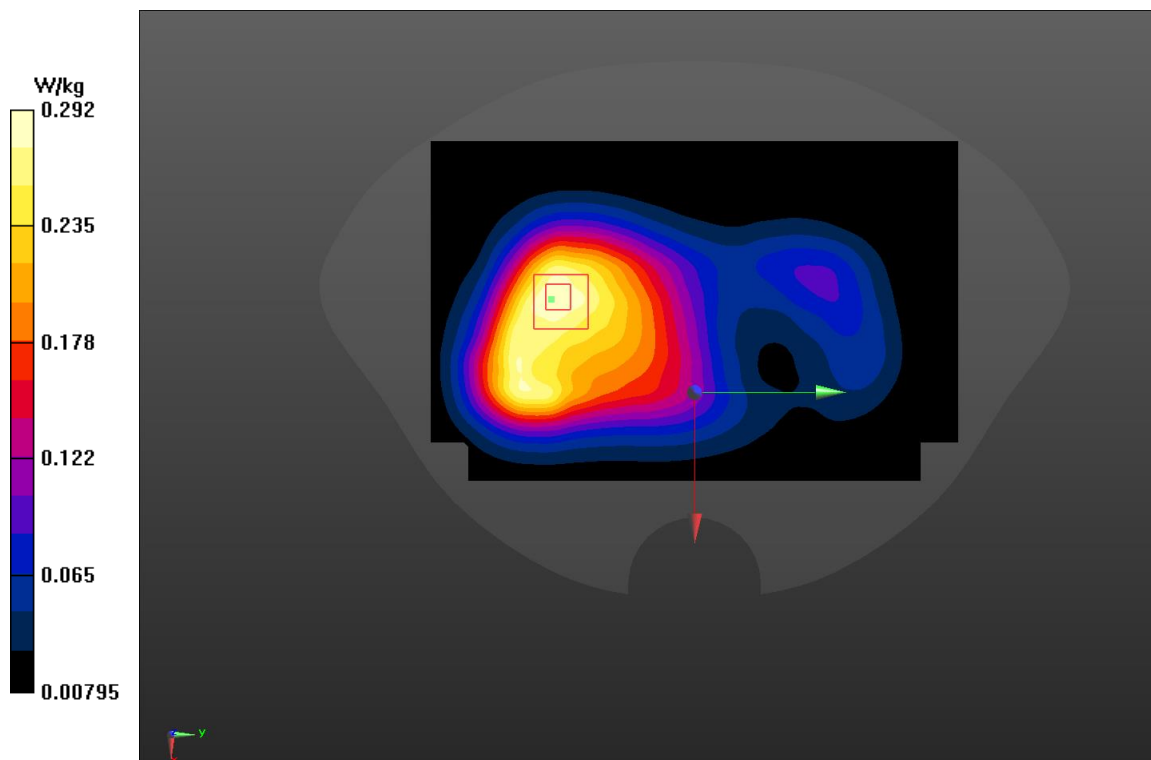
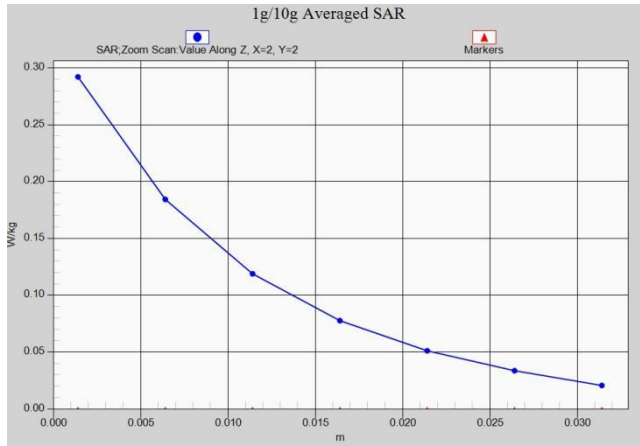


Fig A.38



LTE1700-FDD66 ANT1_CH123572 Rear 1RB-Middle 15mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1770$ MHz; $\sigma = 1.405$ mho/m; $\epsilon_r = 38.905$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66ANT1 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.319 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.348 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.358 W/kg

SAR(1 g) = 0.228 W/kg; SAR(10 g) = 0.146 W/kg

Maximum value of SAR (measured) = 0.310 W/kg

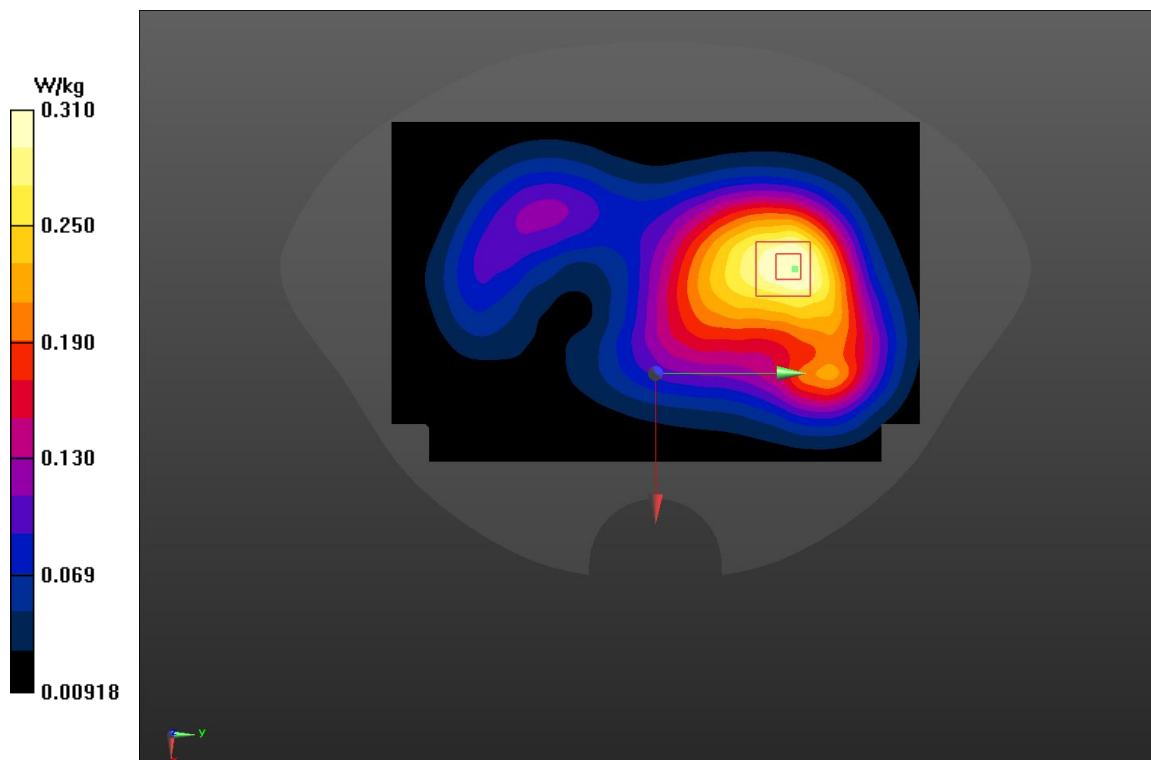
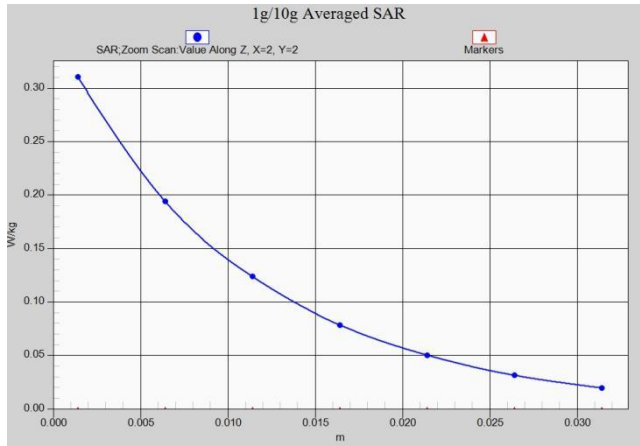


Fig A.39



LTE1700-FDD66 ANT3_CH132572 Right Tilt 1RB-Middle

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1770$ MHz; $\sigma = 1.405$ mho/m; $\epsilon_r = 38.905$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66ANT3 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.713 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.46 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.853 W/kg

SAR(1 g) = 0.416 W/kg; SAR(10 g) = 0.195 W/kg

Maximum value of SAR (measured) = 0.435 W/kg

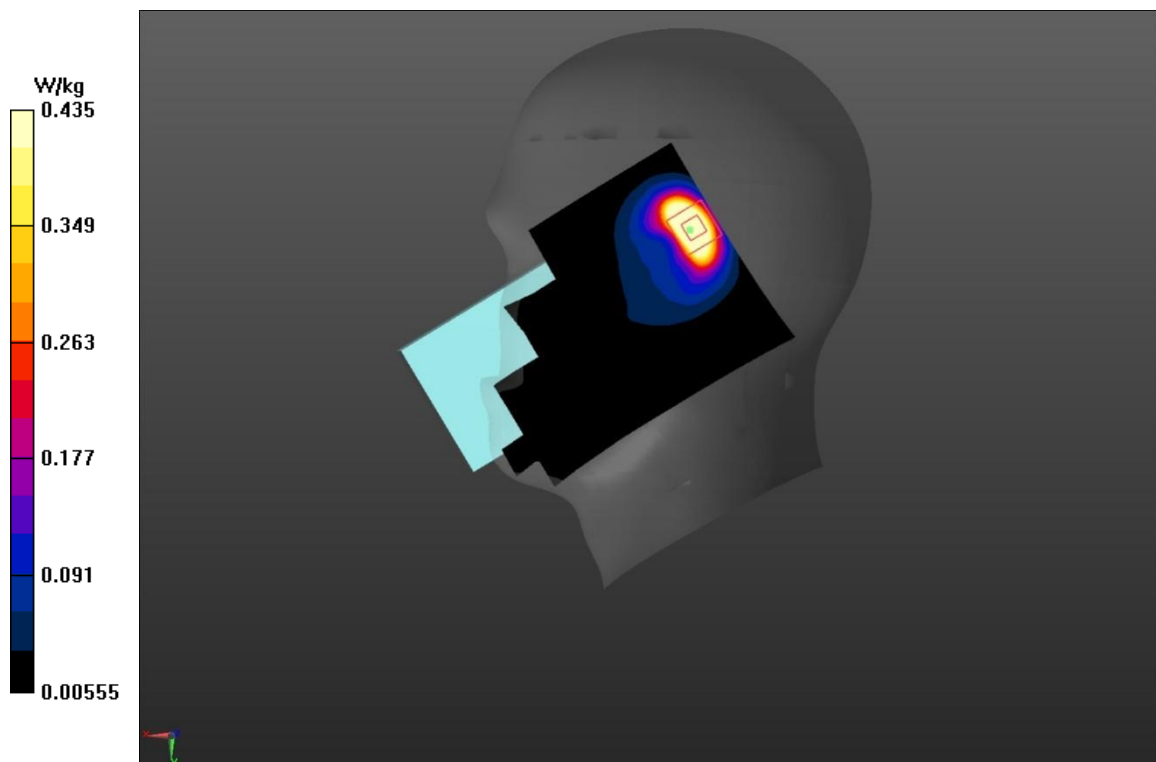
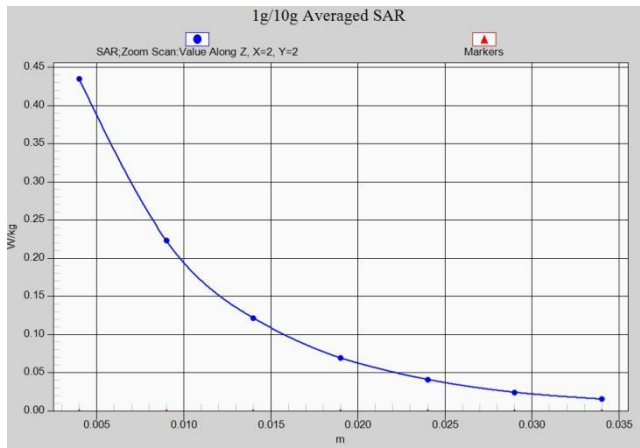


Fig A.40



LTE1700-FDD66 ANT3_CH132572 Top Edge 50RB-Middle 10mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1770$ MHz; $\sigma = 1.405$ mho/m; $\epsilon_r = 38.905$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66ANT3 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.447 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.72 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.563 W/kg

SAR(1 g) = 0.295 W/kg; SAR(10 g) = 0.152 W/kg

Maximum value of SAR (measured) = 0.451 W/kg

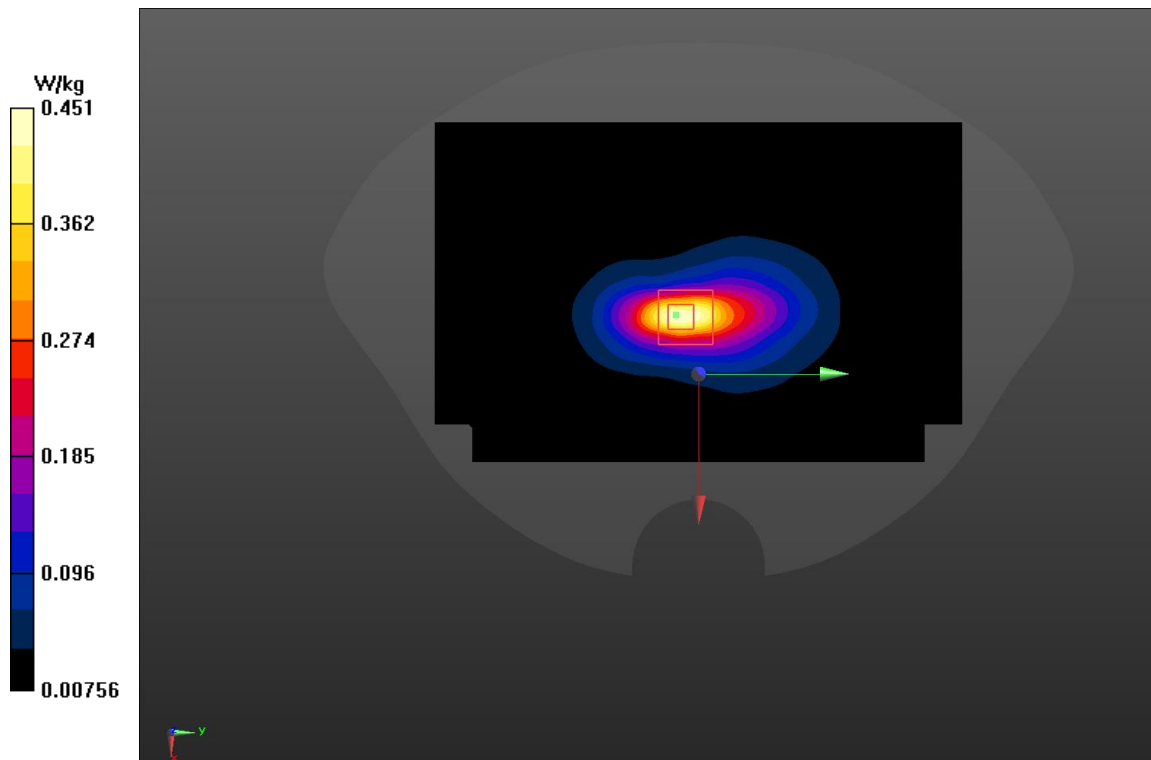
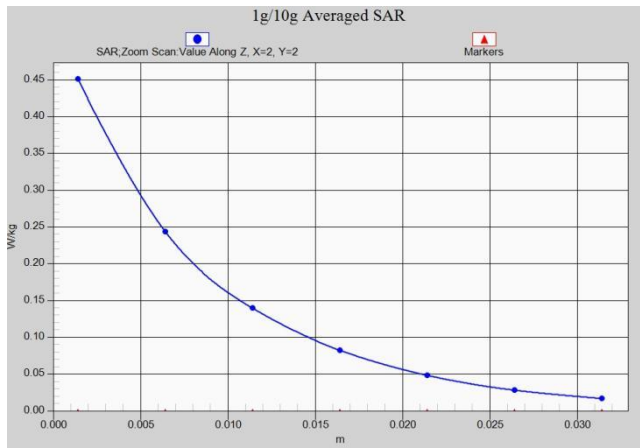


Fig A.41



LTE1700-FDD66 ANT3_CH132572 Front 1RB-Middle 15mm

Date: 6/6/2022

Electronics: DAE4 Sn549

Medium: head 1750 MHz

Medium parameters used: $f = 1770$ MHz; $\sigma = 1.405$ mho/m; $\epsilon_r = 38.905$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD66ANT3 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(8.52,8.52,8.52)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.281 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.056 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.337 W/kg

SAR(1 g) = 0.198 W/kg; SAR(10 g) = 0.114 W/kg

Maximum value of SAR (measured) = 0.285 W/kg

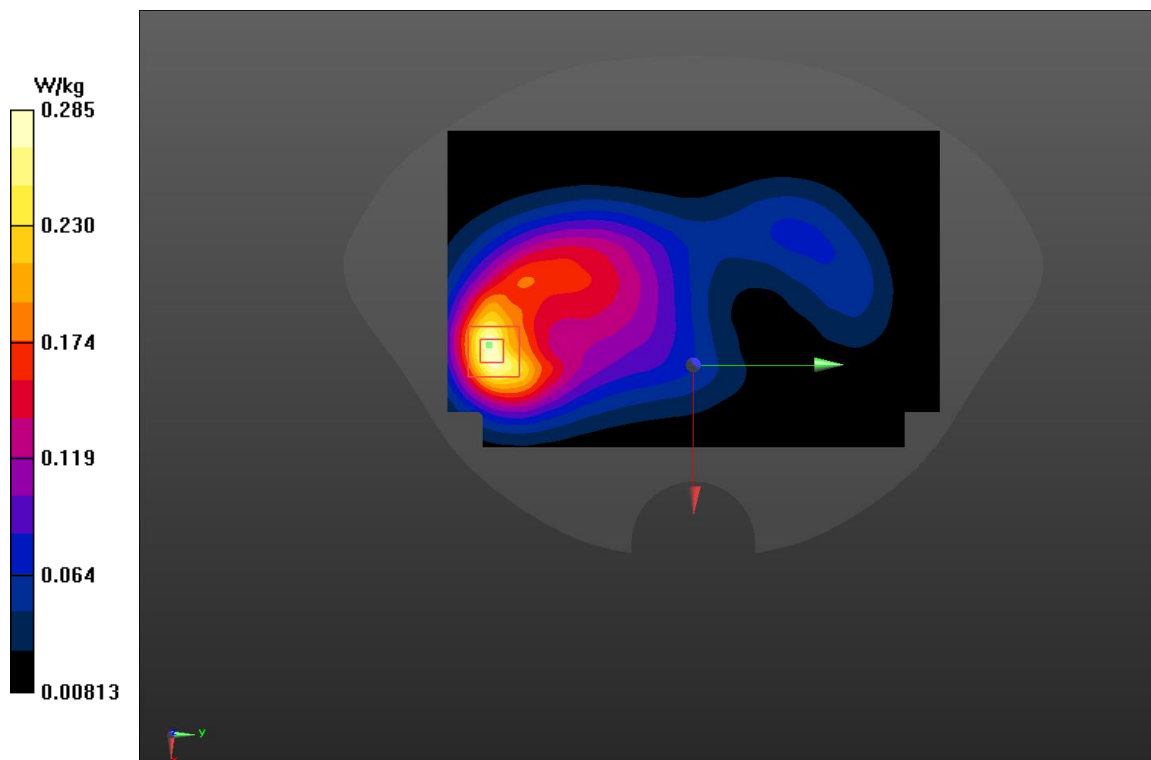
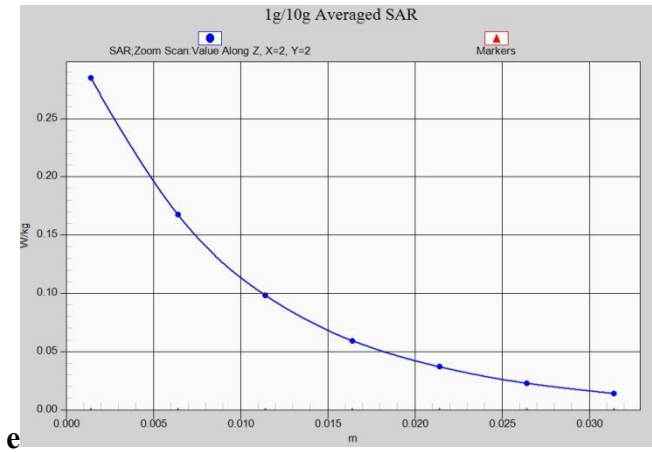


Fig A.42



LTE700-FDD71_CH133372 Right Cheek 1RB-Middle

Date: 6/4/2022

Electronics: DAE4 Sn549

Medium: head 750 MHz

Medium parameters used: $f = 841.5$ MHz; $\sigma = 0.984$ mho/m; $\epsilon_r = 41.96$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD71 841.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.26,10.26,10.26)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.291 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.26 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.318 W/kg

SAR(1 g) = 0.233 W/kg; SAR(10 g) = 0.173 W/kg

Maximum value of SAR (measured) = 0.246 W/kg

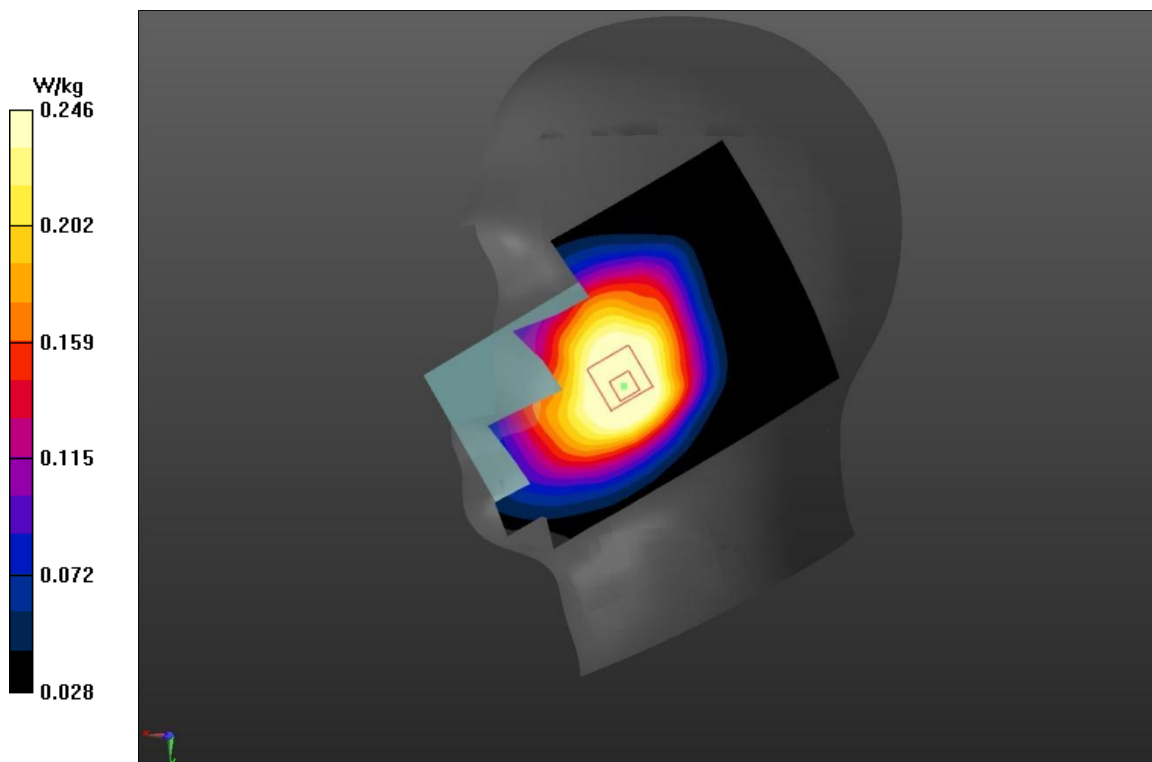
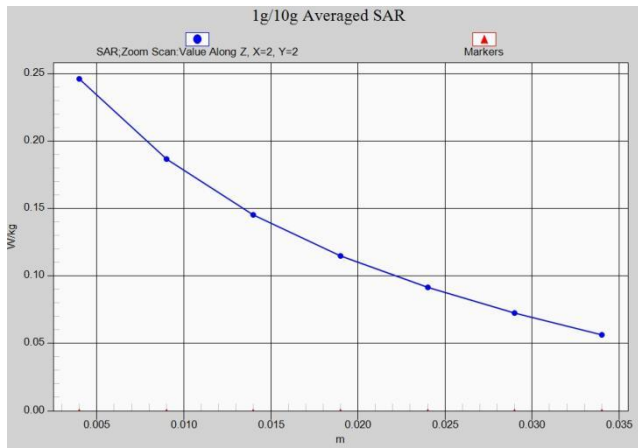


Fig A.43



LTE700-FDD71_CH133372 Right Edge 1RB-Middle 10mm

Date: 6/4/2022

Electronics: DAE4 Sn549

Medium: head 750 MHz

Medium parameters used: $f = 841.5$ MHz; $\sigma = 0.978$ mho/m; $\epsilon_r = 41.48$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD71 841.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7464 ConvF(10.26,10.26,10.26)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.594 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.45 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.661 W/kg

SAR(1 g) = 0.444 W/kg; SAR(10 g) = 0.303 W/kg

Maximum value of SAR (measured) = 0.584 W/kg

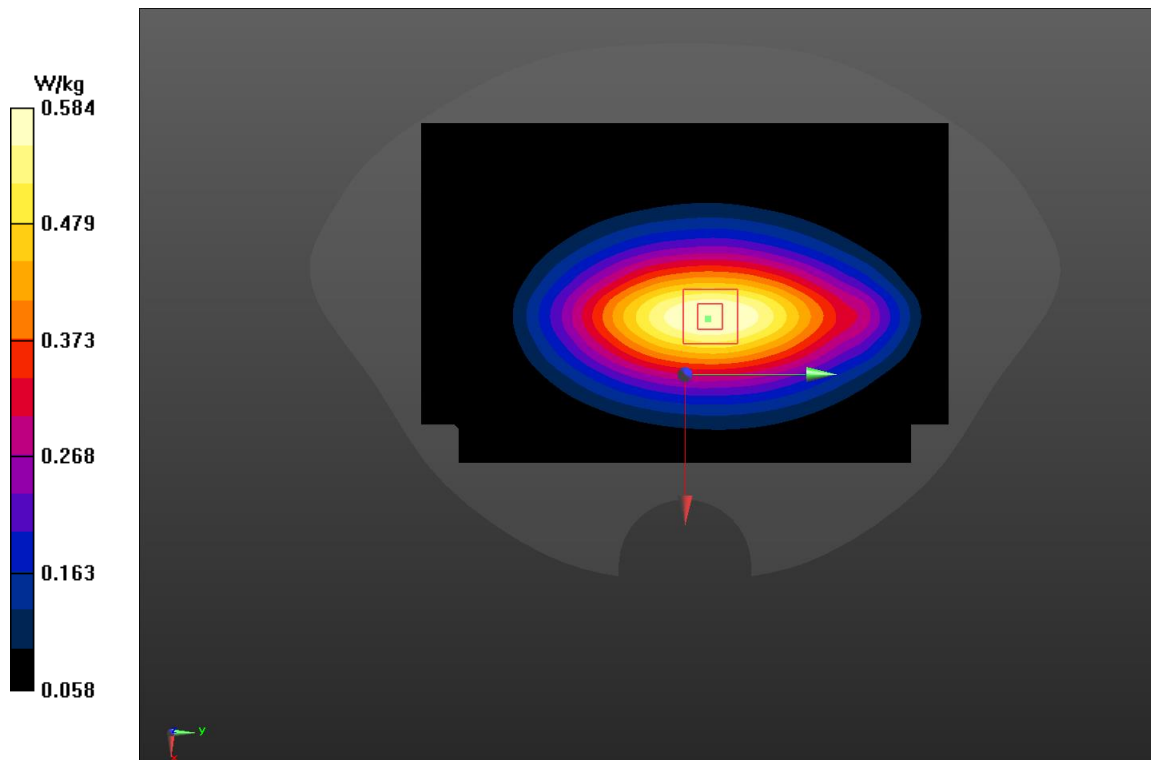


Fig A.44