SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2013

For
Radio Module
(Tested inside of Panasonic Detachable PC CF-20)

FCC ID: ACJ9TGWW18B
Model Name: WW18A

Report Number: 13054825H-A
Issue Date: December 12, 2019

Prepared for
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NVLAP TESTING NVLAP LAB CODE 200572-0

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☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.
☒ There is no testing item of "Non-accreditation".

Revision History

Rev.	Date	Revisions	Revised By
-	12/12/2019	Initial Issue	T. Shimada

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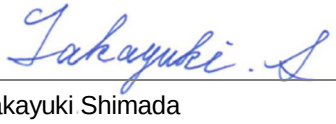
1. Attestation of Test Results

Applicant Name	PANASONIC CORPORATION OF NORTH AMERICA
FCC ID	ACJ9TGWW18B
Model Name	WW18A
Applicable Standards	FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013
Exposure Category	SAR Limits (W/Kg) Peak spatial-average (1g of tissue)
General population / Uncontrolled exposure	1.6
RF Exposure Conditions	Equipment Class - Highest Reported SAR (W/kg) WWAN
Standalone	1.243
Simultaneous TX	1.563 W/kg (refer to Section 12 of this report.) (The highest SAR across exposure conditions)
Date Tested	11/7/2019 to 11/27/2019
Test Results	Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government (NIST Handbook 150, Annex A). This report is written to support regulatory compliance of the applicable standards stated above.

Approved & Released By:	Prepared By:
	
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2. Test Specification, Methods and Procedures

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

- o 447498 D01 General RF Exposure Guidance v06
- o 447498 D03 Supplement C Cross-Reference v01
- o 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- o 865664 D02 RF Exposure Reporting v01r02
- o 941225 D01 SAR test for 3G devices v03r01
- o 941225 D05 SAR for LTE Devices v02r05
- o 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- o 616217 D04 SAR for laptop and tablets v01r02

Additional Guidance: TCB workshop

- o TCB workshop

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3. Facilities and Accreditation

*Shielded room for SAR testing

The test sites and measurement facilities used to collect data are located at 4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN.

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The full scope of accreditation can be viewed at http://japan.ul.com/resources/emc_accredited/

FCC Test Firm Registration Number: 199967

ISED: SAR Lab Company Number: 2973C

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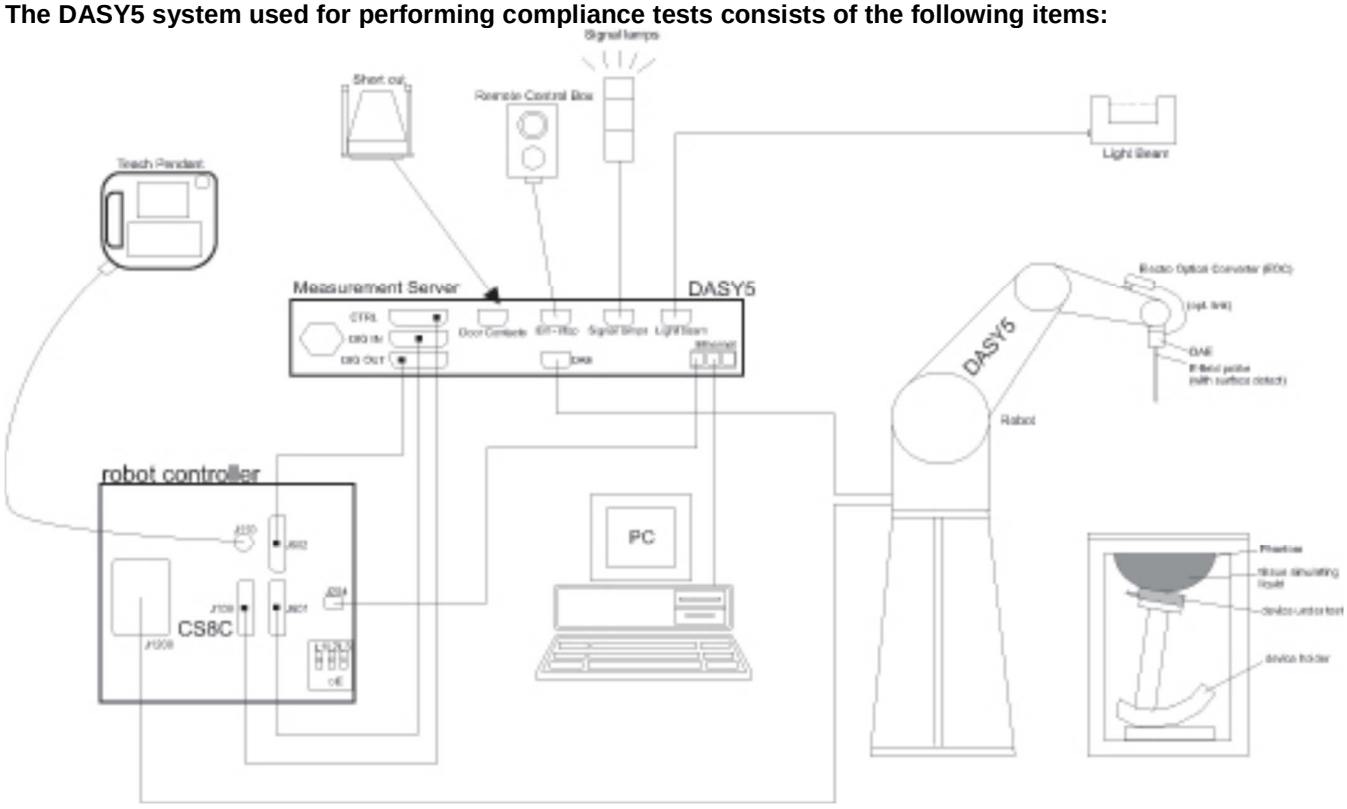
4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

The DASY5 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

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4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: 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 ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

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Step 3: Zoom Scan

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

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

			≤ 3 GHz	> 3 GHz
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 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
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 *reported* 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.

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan (FCC only)

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be larger than the step size in Z-direction.

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4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

Dielectric Property Measurements

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MNA-03	Vector Reflectometer	Copper Mountain Technologies	PLANAR R140	0030913	SAR	2019/04/01 * 12
MDPK-03	Dielectric assessment kit	Schmid&Partner Engineering AG	DAK-3.5	0008	SAR	2019/04/09 * 12
MOS-37	Digital thermometer	LKM electronic	DTM3000	-	SAR	2019/07/3 * 12
COTS-MSAR-04	Dielectric assessment software	Schmid&Partner Engineering AG	DAK	-	SAR	-

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Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SSDA-06	Dipole Antenna	Schmid&Partner Engineering AG	D1750V2	1089	SAR(D1750)	2019/03/12 * 12
SSDA-08	Dipole Antenna	Schmid&Partner Engineering AG	D1900V2	5d169	SAR(D1900)	2019/03/12 * 12
MDA-19	Dipole Antenna	Schmid&Partner Engineering AG	D2600V2	1030	SAR	2019/03/14 * 12
MDA-20	Dipole Antenna	Schmid&Partner Engineering AG	D750V3	1058	SAR(D750)	2018/05/18 * 24
SSDA-04	Dipole Antenna	Schmid&Partner Engineering AG	D835V2	4d149	SAR(D835)	2019/03/13 * 12
COTS-MSAR-03	Dasy5	Schmid&Partner Engineering AG	DASY5	-	SAR	-
MMBBL600-6000	Body Simulating Liquid	Schmid&Partner Engineering AG	SL AAB U16 BC	-	SAR	Pre Check
MMSL1950	Tissue simulation liquid (Body)	Schmid&Partner Engineering AG	MSL1950V2	SL AAM 195 BA	SAR	Pre Check
MDAE-02	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	1369	SAR	2019/05/08 * 12
MPB-08	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3917	SAR	2019/05/15 * 12
MPF-03	2mm Oval Flat Phantom	Schmid&Partner Engineering AG	QDOVA001BB	1203	SAR	2019/05/14 * 12
MDH-04	Device holder	Schmid&Partner Engineering AG	Mounting device for transmitter	-	SAR	Pre Check
MOS-35	Digital thermometer	HANNA	Checktemp 4	-	SAR	2019/07/03 * 12
MRBT-03	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F13/5PPLD1/A/01	SAR	2019/04/26 * 12
MDAE-03	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	1372	SAR	2019/06/14 * 12
MPF-04	2mm Oval Flat Phantom	Schmid&Partner Engineering AG	QDOVA001BB	1207	SAR	2019/05/13 * 12
MDH-03	Device holder	Schmid&Partner Engineering AG	Mounting device for transmitter	-	SAR	Pre Check
MOS-31	Thermo-Hygrometer	CUSTOM	CTH-201	3101	SAR	2019/07/03 * 12
MRBT-04	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F13/5PPLA1/A/01	SAR	2019/04/26 * 12
MPM-11	Dual Power Meter	Agilent	E4419B	MY45102060	SAR	2019/08/02 * 12
MPSE-15	Power sensor	Agilent	E9301A	MY41498311	SAR	2019/08/02 * 12
MPSE-16	Power sensor	Agilent	E9301A	MY41498313	SAR	2019/08/02 * 12
MRFA-24	Pre Amplifier	R&K	R&K CGA020M602-2633R	B30550	SAR	2019/06/17 * 12
MSG-10	Signal Generator	Agilent	N5181A	MY47421098	SAR	2018/11/14 * 12
MAT-78	Attenuator	Telegrartner	J01156A0011	0042294119	SAR	Pre Check
MAT-81	Attenuator	Weinschel Associates	WA1-20-33	100131	SAR	2019/04/02 * 12
MPSE-24	Power sensor	Anritsu Limited	MA24106A	1026164	SAR	2019/08/02 * 12
COTS-MPSE-02	Software for MA24106A	Anritsu Limited	Anritsu PowerXpert	-	SAR	-
MHDC-21	Dual Directional Coupler	Agilent	778D	MY52180243	SAR (0.1-2GHz)	Pre Check
MHDC-12	Dual Directional Coupler	Hewlett Packard	772D	2839A0016	SAR (2-18GHz)	Pre Check
MRENT-S05	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	7372	SAR	2019/04/15 * 12

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Other

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MURC-10	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	165750	SAR	2019/07/30 *12
MURC-08	Radio Communication Analyzer	ANRITSU	MT8821C	6201547850	SAR	Pre Check
MURC-11	Radio Communication Analyzer	Anritsu	MT8821C	6261879781	SAR	Pre Check
MOS-14	Thermo-Hygrometer	CUSTOM	CTH-201	1401	SAR	2019/01/11 *12
MCC-92	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	30813/2	SAR	2019/05/17 *12

The expiration date of the calibration is the end of the expired month.
All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

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5. Measurement Uncertainty

This measurement uncertainty budget is suggested by IEEE Std 1528(2013) and IEC62209-2:2010, and determined by Schmid & Partner Engineering AG (DASY5/6 Uncertainty Budget). Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz Section 2.8.1., when the highest measured SAR(1g) within a frequency band is < 1.5W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std.1528 (2013) is not required in SAR reports submitted for equipment approval.

<Body>

Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std.Unc. (10g)
Measurement System							
Probe Calibration	± 6.55 %	N	1	1	1	±6.55%	±6.55%
Axial Isotropy	± 4.7 %	R	√3	0.7	0.7	±1.9%	±1.9%
Hemispherical Isotropy	± 9.6 %	R	√3	0.7	0.7	±3.9%	±3.9%
Linearity	± 4.7 %	R	√3	1	1	±2.7%	±2.7%
Modulation Response	± 2.4 %	R	√3	1	1	±1.4%	±1.4%
System Detection Limits	± 1.0 %	R	√3	1	1	±0.6%	±0.6%
Boundary Effects	± 2.0 %	R	√3	1	1	±1.2%	±1.2%
Readout Electronics	± 0.3 %	N	1	1	1	±0.3%	±0.3%
Response Time	± 0.8 %	R	√3	1	1	±0.5%	±0.5%
Integration Time	± 2.6 %	R	√3	1	1	±1.5%	±1.5%
RF Ambient Noise	± 3.0 %	R	√3	1	1	±1.7%	±1.7%
RF Ambient Reflections	± 3.0 %	R	√3	1	1	±1.7%	±1.7%
Probe Positioner	± 0.04 %	R	√3	1	1	±0.0%	±0.0%
Probe Positioning	± 0.8 %	R	√3	1	1	±0.5%	±0.5%
Post-processing	± 4.0 %	R	√3	1	1	±2.3%	±2.3%
Test Sample Related							
Device Holder	± 3.6 %	N	1	1	1	±3.6%	±3.6%
Test sample Positioning	± 2.9 %	N	1	1	1	±2.9%	±2.9%
Power Scaling	± 0.0 %	R	√3	1	1	±0.0%	±0.0%
Power Drift	± 5.0 %	R	√3	1	1	±2.9%	±2.9%
Phantom and Setup							
Phantom Uncertainty	± 7.6 %	R	√3	1	1	±4.4%	±4.4%
SAR correction	± 1.9 %	N	1	1	0.84	±1.9%	±1.6%
Liquid Conductivity (mea.)	+ 4.8 %	N	1	0.78	0.71	±3.8%	±3.4%
Liquid Permittivity (mea.)	- 4.4 %	N	1	0.23	0.26	±1.0%	±1.2%
Temp. unc. - Conductivity	± 3.4 %	R	√3	0.78	0.71	±1.5%	±1.4%
Temp. unc. - Permittivity	± 0.4 %	R	√3	0.23	0.26	±0.1%	±0.1%
Combined Std. Uncertainty						±12.5%	±12.4%
Expanded STD Uncertainty (κ=2)						±25.1%	±24.8%

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6. Device Under Test (DUT) Information

6.1. DUT Description

Radio Module (Tested inside of Panasonic Detachable PC CF-20) Model: WW18A	
Operating Configuration(s)	• Tablet mode and Convertible mode
Exposure Condition(s)	• The device is used in close proximity to the body. Specific details of the required test positions are provided in Section 6.7. Power Reduction by Proximity Sensing and 7.2. Required Test Configurations.
Accessory	• None

6.2. Wireless Technologies

Wireless Mode and Frequency Bands	• WCDMA Band 2: 1850 - 1910 MHz • WCDMA Band 4: 1710 - 1755 MHz • WCDMA Band 5: 824 - 849 MHz • LTE Band 2: 1850 - 1910 MHz • LTE Band 4: 1710 - 1755 MHz • LTE Band 5: 824 - 849 MHz • LTE Band 7: 2500 - 2570 MHz • LTE Band 12: 699 - 716 MHz • LTE Band 13: 777 - 787 MHz • LTE Band 14: 788 - 798 MHz • LTE Band 26: 814 - 849 MHz • LTE Band 41: 2496 - 2690 MHz • LTE Banc 66: 1710 – 1780 MHz Simultaneous transmission with WW18B Wireless Module(Tested inside of Panasonic Detachable PC CF-20) Model: WL16A • 802.11a/b/g/n/ac: 2412 - 2472 MHz, b / g / HT20 / HT40 5150 - 5250 MHz, a / HT20 / HT40 / HT80 5250 - 5350 MHz, a / HT20 / HT40 / HT80 5500 - 5700 MHz, a / HT20 / HT40 / HT80 5725 - 5850 MHz, a / HT20 / HT40 / HT80 • Bluetooth: 2402 - 2480 MHz
Duty Cycle	• WCDMA: 100% • LTE(FDD): 100% • LTE(TDD): 63.3%

6.3. Hotspot (Wireless Router) Exposure Condition

N/A

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6.4. General LTE SAR Test and Reporting Considerations

Item	Description						
Identify the high, middle and low (H, M, L) channel numbers and channel frequencies for each LTE bandwidth and frequency band	Band 2	Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	18700 /1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5	18607/ 1850.7
	Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
	High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19184/ 1908.4	19192/ 1909.2
	Band 4	Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5	19957/ 1710.7
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
	High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20384/ 1753.4	20392/ 1754.2
	Band 5	Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			20450/ 829	20425/ 826.5	20415/ 825.5	20407/ 824.7
	Mid			20525/ 836.5	20525/ 836.5	20525/ 836.5	20525/ 836.5
	High			20600/ 844	20625/ 846.5	20635/ 847.5	20643/ 848.3
	Band 7	Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20850 2510	20825 2507.5	20800 2505	20775 2502.5		
	Mid	21100 2535	21100 2535	21100 2535	21100 2535		
	High	21350 2560	21375 2562.5	21400 2565	21425 2567.5		
	Band 12	Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			23060/ 704	23035/ 701.5	23025/ 700.5	23017/ 699.7
	Mid			23095/ 707.5	23095/ 707.5	23095/ 707.5	23095/ 707.5
	High			23130/ 711	23155/ 713.5	23165/ 714.5	23173/ 715.3
	Band 13	Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23205/ 779.5		
	Mid			23230/ 782	23230/ 782		
	High				23255/ 784.5		
	Band 14	Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low						
	Mid			23330/ 793			
	High						

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General LTE SAR Test and Reporting Considerations (Continued)

Identify the high, middle and low (H, M, L) channel numbers and channel frequencies for each LTE bandwidth and frequency band

Band 26	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low		26765/ 821.5	26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7
Mid		26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5
High		26965/ 841.5	26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3

Band 41	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	39750/ 2506	39725/ 2503.5	39700/ 2501	39675/ 2498.5		
Low-Mid	40185/ 2549.5	40173/ 2548.3	40160/ 2547.0	40148/ 2545.8		
Mid	40620/ 2593	40620/ 2593	40620/ 2593	40620/ 2593		
Mid-High	41055/ 2636.5	41068/ 2637.8	41080/ 2639.0	41093/ 2640.3		
High	41490/ 2680	41515/ 2682.5	41540/ 2685	41565/ 2687.5		

Band 66	Frequency range: 1710 - 1780 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	132072/ 1720	132047/ 1717.5	132022/ 1715	131997/ 1712.5	131987/ 1711.5	131979/ 1710.7
Mid	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745
High	132572/ 1770	132597/ 1772.5	132622/ 1775	132647/ 1777.5	132657/ 1778.5	132665/ 1779.3

Descriptions of the LTE transmitter and antenna implementation, and identify if the transmitter operates independently of the other wireless transmitters in the device; i.e., whether the LTE hardware, components and/or antenna(s) are shared with other transmitters.	A single antenna (Main) is used for LTE and other wireless modes (WCDMA) for both transmit and receive.
Identify the voice and data transmission requirements for all LTE operating modes and exposure conditions, for standalone and simultaneous transmission, with respect to the required head and body test configurations, antenna locations, handset flip or slide cover positions, antenna diversity requirements, etc.	Data Only Device Exposure Conditions: ▪ Proximity Sensor disabled (Full Power) Edge 2, Edge 3 and Edge 4 of the host device at 0 mm from the phantom, and Edge1(tablet) of the host device at 28 mm, Rear of the host device at 20 mm and Edge1(convertible) of the host device at 25 mm. • Proximity Sensor enabled (Reduced Power) Edge1 and Rear of the DUT at 0 mm from the phantom.

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Identify if Maximum Power Reduction (MPR) is implemented as an optional or permanent feature, i.e., built-in by design: MPR may be considered during SAR testing only when the maximum output power is permanently limited by the MPR implemented within the device, according to the RB (resource block) configurations specified in 3GPP/LTE standards. Regardless of network requirements, only those RB configurations allowed (see 3GPP standards) for the channel bandwidth and modulation combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR. A-MPR (additional MPR) must be disabled during SAR testing.	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3** MPR Built-in by design The manufacturer MPR values are always within the 3GPP maximum MPR allowance but may not follow the default MPR values. A-MPR (additional MPR) was disabled during SAR testing
When power reduction is required for one or more LTE modes to satisfy SAR compliance for simultaneous transmission or other equipment certification and operating requirements, maximum average conducted output power measurement results for each power reduction mode applicable to the simultaneous voice/data transmission configurations for such wireless configurations and frequency bands are required.	Yes. A proximity sensor for WWAN power reduction is implemented in the device to address RF exposure compliance when the cellular antenna is positioned close to the user's body or other objects.
Carrier Aggregation	This module has only downlink carrier aggregation function. (CA configurations and bandwidth combination sets are described in Section11) According with KDB941225D05A, KDB inquiry and any other SAR measurement is not needed in below conditions. # Uplink maximum output power is measured with downlink carrier aggregation active, only for the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

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

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6.5. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices v02r02, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

LTE TDD Bands support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: 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	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle = Extended cyclic prefix in uplink x (T_s) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%
where
T_s = 1/(15000 x 2048) seconds

Note(s):
This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% duty cycle and Special Subframe 7.

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6.6. LTE Carrier Aggregation

Table 5.6A.1-1: E-UTRA CA configurations and bandwidth combination sets defined for intra-band contiguous CA

	E-UTRA CA configuration / Bandwidth combination set						
E-UTRA CA configuration	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_2C	5	20				40	0
	10	15, 20					
	15	10, 15, 20					
	20	5, 10, 15, 20					
CA_7B	15	5				20	0
CA_7C	15	15				40	0
	20	20					
	10	20				40	1
	15	15, 20					
	20	10, 15, 20					
	15	10, 15				40	2
	20	15, 20					
CA_41C	10	20				40	0
	15	15, 20					
	20	10, 15, 20					
	5, 10	20				40	1
	15	15, 20					
	20	5, 10, 15, 20					
	10	15, 20				40	2
	15	10, 15, 20					
	20	10, 15, 20					
	10	20				40	3
	20	20					
CA_41D	10	20	15			60	0
	10	15, 20	20				
	15	20	10, 15				
	15	10, 15, 20	20				
	20	15, 20	10				
	20	10, 15, 20	15, 20				
CA_66B	5	5, 10, 15				20	0
	10	5, 10					
	15	5					
CA_66C	5	20				40	0
	10	15, 20					
	15	10, 15, 20					
	20	5, 10, 15, 20					

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Table 5.6A.1-3: E-UTRA CA configurations and bandwidth combination sets defined for non-contiguous intra-band CA (with two sub-blocks)

E-UTRACA configuration	E-UTRA CA configuration / Bandwidth combination set						
	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_4A-4A	5, 10, 15, 20	5, 10, 15, 20				40	0
	5, 10	5, 10				20	1
CA_7A-7A	5	15				40	0
	10	10, 15					
	15	15, 20					
	20	20					
	5, 10, 15, 20	5, 10, 15, 20				40	1
	5, 10, 15, 20	5, 10				30	2
	10, 15, 20	10, 15, 20				40	3
CA_66A-66A	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_66A-66B	5, 10, 15, 20	See CA_66B Bandwidth Combination Set 0 in Table 5.6A.1-1				40	0
	See CA_66B Bandwidth Combination Set 0 in Table 5.6A.1-1		5, 10, 15, 20				
CA_66A-66C	5, 10, 15, 20	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1				60	0
	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1		5, 10, 15, 20				

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Table 5.6A.1-2: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA (two bands)

E-UTRA CA configuration / Bandwidth combination set									
E-UTRA CA Configuration	E-UTRA Bands	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Maximum aggregated bandwidth [MHz]	Bandwidth combination set
CA_2A-4A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
	4			Yes	Yes	Yes	Yes		
	2			Yes	Yes			20	1
	4			Yes	Yes				
	2			Yes	Yes	Yes	Yes	40	2
	4			Yes	Yes	Yes	Yes		
CA_2A-5A	2			Yes	Yes	Yes	Yes	30	0
	5			Yes	Yes				
	2			Yes	Yes			20	1
	5			Yes	Yes				
CA_2A-2A-5A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
	5			Yes	Yes				
CA_2A-7A	2			Yes	Yes	Yes	Yes	40	0
	7			Yes	Yes	Yes	Yes		
CA_2A-7A-7A	2			Yes	Yes	Yes	Yes	60	0
	7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
CA_2A-12A	2			Yes	Yes	Yes	Yes	30	0
	12			Yes	Yes				
	2			Yes	Yes	Yes	Yes	30	1
	12		Yes	Yes	Yes				
	2			Yes	Yes			20	2
	12			Yes	Yes				
CA_2A-2A-12A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
	12			Yes	Yes				
CA_2A-13A	2			Yes	Yes	Yes	Yes	30	0
	13				Yes				
	2			Yes	Yes			20	1
	13				Yes				
CA_2A-2A-13A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
	13				Yes				
CA_2A-66A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
	66			Yes	Yes	Yes	Yes		
	2			Yes	Yes			20	1
	66			Yes	Yes				
	2			Yes	Yes	Yes	Yes	40	2
	66			Yes	Yes	Yes	Yes		
CA_2A-66B	2			Yes	Yes	Yes	Yes	40	0
	66	See CA_66B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-66C	2			Yes	Yes	Yes	Yes	60	0
	66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-66A-66A	2			Yes	Yes	Yes	Yes	60	0
	66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_4A-5A	4			Yes	Yes			20	0
	5			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	1
	5			Yes	Yes				
CA_4A-4A-5A	4	See CA_4A-4A Bandwidth Combination Set 0 in table 5.6A.1-3						50	0
	5			Yes	Yes				
CA_4A-7A	4			Yes	Yes			30	0
	7			Yes	Yes	Yes	Yes		
	4			Yes	Yes	Yes	Yes	40	1
	7			Yes	Yes	Yes	Yes		
CA_4A-7A-7A	4			Yes	Yes	Yes	Yes	60	0
	7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
CA_4A-12A	4	Yes	Yes	Yes	Yes			20	0
	12			Yes	Yes				
	4	Yes	Yes	Yes	Yes	Yes	Yes	30	1
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	2
	12		Yes	Yes	Yes				
	4			Yes	Yes			20	3
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	4
	12			Yes	Yes				
	4			Yes	Yes	Yes		20	5
	12			Yes					
CA_4A-4A-12A	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
	12			Yes	Yes				

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Continued

CA_4A-13A	4			Yes	Yes	Yes	Yes	30	0
	13				Yes				
	4			Yes	Yes			20	1
	13				Yes				
CA_4A-4A-13A	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
	13				Yes				
CA_5A-66A	5			Yes	Yes			30	0
	66			Yes	Yes	Yes	Yes		
CA_5A-66A-66A	5			Yes	Yes			50	0
	66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5A-66C	5			Yes	Yes			50	0
	66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_7A-12A	7			Yes	Yes	Yes	Yes	30	0
	12			Yes	Yes				
CA_12A-66A	12			Yes	Yes			20	0
	66	unsupported	unsupported	Yes	Yes				
	12			Yes	Yes			30	1
	66	unsupported	unsupported	Yes	Yes	Yes	Yes		
	12		Yes	Yes	Yes			30	2
	66			Yes	Yes	Yes	Yes		
	12			Yes	Yes			20	3
	66			Yes	Yes				
	12			Yes	Yes			30	4
	66			Yes	Yes	Yes	Yes		
	12			Yes				20	5
	66			Yes	Yes	Yes			
CA_13A-66A	13			Yes	Yes			30	0
	66			Yes	Yes	Yes	Yes		
CA_13A-66A-66A	13			Yes	Yes			50	0
	66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_13A-66B	13			Yes	Yes			30	0
	66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							

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Table 5.6A.1-2a: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA (three bands)

E-UTRA CA configuration / Bandwidth combination set									
E-UTRA CA Configuration	**E-UTRA Bands**	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
CA_2A-4A-5A	2			Yes	Yes	Yes	Yes	50	0
	4			Yes	Yes	Yes	Yes		
	5			Yes	Yes				
CA_2A-4A-7A	2			Yes	Yes	Yes	Yes	60	0
	4			Yes	Yes	Yes	Yes		
	7			Yes	Yes	Yes	Yes		
CA_2A-4A-12A	2			Yes	Yes	Yes	Yes	50	0
	4			Yes	Yes	Yes	Yes		
	12			Yes	Yes				
CA_2A-4A-13A	2			Yes	Yes	Yes	Yes	50	0
	4			Yes	Yes	Yes	Yes		
	13				Yes				
CA_2A-5A-66A	2			Yes	Yes	Yes	Yes	50	0
	5			Yes	Yes				
	66			Yes	Yes	Yes	Yes		
CA_2A-7A-12A	2			Yes	Yes	Yes	Yes	50	0
	7			Yes	Yes	Yes	Yes		
	12			Yes	Yes				
CA_2A-13A-66A	2			Yes	Yes	Yes	Yes	50	0
	13			Yes	Yes				
	66			Yes	Yes	Yes	Yes		
CA_4A-7A-12A	4			Yes	Yes			40	0
	7			Yes	Yes	Yes	Yes		
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	50	1
	7			Yes	Yes	Yes	Yes		
	12			Yes	Yes				

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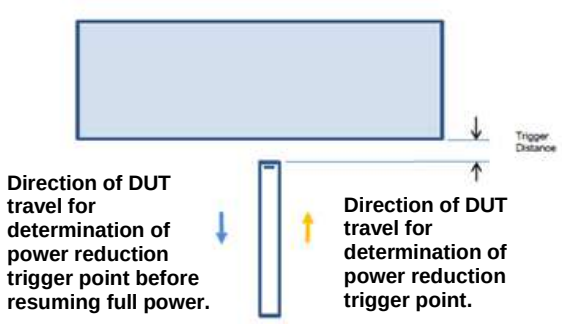
6.7. Power Reduction by Proximity Sensing

The DUT has a proximity sensors to reduce the output power. The position of the sensors and antenna are as shown in the graphic.

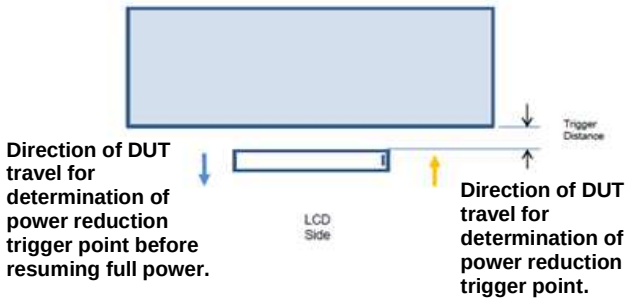
6.7.1. Proximity Sensor Triggering distance (KDB 616217 §6.2)

Edge 1 of the DUT was placed directly below the flat phantom. The DUT was moved toward the phantom in accordance with the steps outlined in KDB 616217 §6.2 to determine the trigger distance for enabling power reduction. The DUT was moved away from the phantom to determine the trigger distance for resuming full power.

The measurement was then repeated for the Rear surface.



Proximity Sensor Trigger Distance Assessment
KDB 616217 §6.2, **Edge 1**



Proximity Sensor Trigger Distance Assessment
KDB 616217 §6.2, **Rear**

Tissue simulating liquid	Trigger distance - Edge 1		Trigger distance - Rear	
	Moving toward phantom	Moving from phantom	Moving toward phantom	Moving from phantom
750/900 muscle	29	29	21	21
1750/1900/2400 muscle	29	29	21	21

Unit : mm

【Test distance】

Edge 1 : 750/900 muscle 28 mm

1750/1900/2400 muscle 28 mm

Rear : 750/900 muscle 20 mm

1750/1900/2400 muscle 20 mm

SAR measurements were performed at the most conservative distance.

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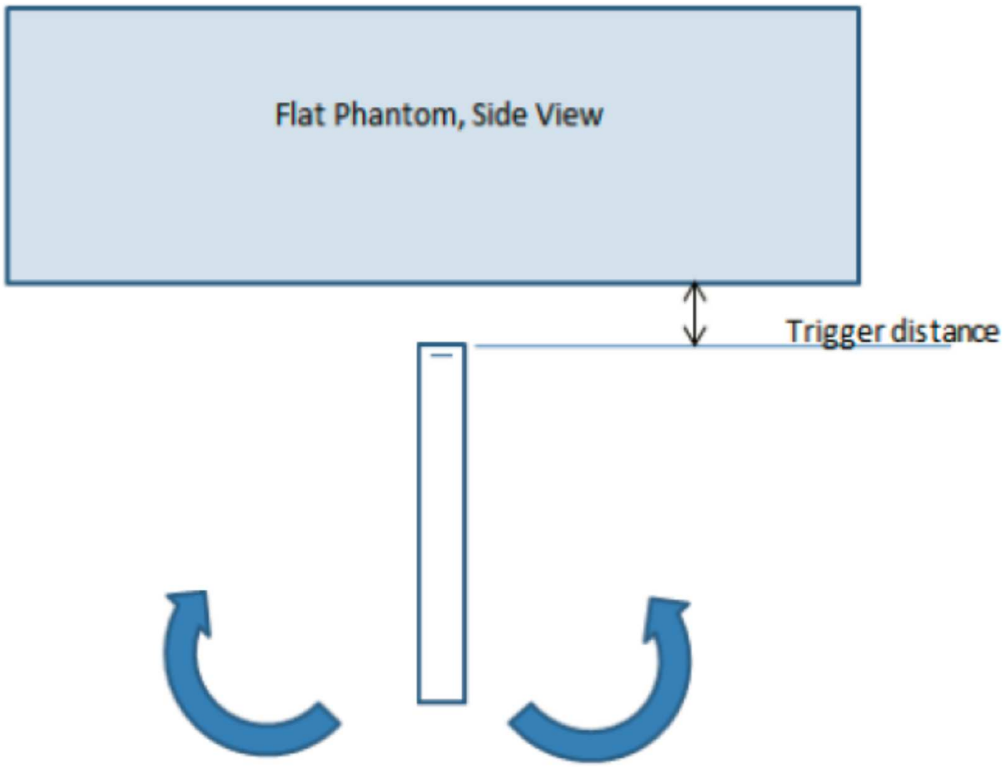
6.7.2. Proximity Sensor Coverage (KDB 616217 §6.3)

As there is no spatial offset between the antenna and the proximity element, except on the display side of the antenna, proximity sensor coverage did not need to be assessed.

6.7.3. Proximity Sensor Tilt Angle (KDB 616217 §6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with edge 1 parallel to the base of the flat phantom. The DUT was rotated in both directions about edge 1.

The proximity sensor remained triggered with the DUT positioned at the minimum measured trigger distance from the phantom for all angles up to 45°.



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6.8. Operation modes for Proximity Sensor

Tablet mode is enabled proximity sensor detection.

Laptop mode is disabled proximity sensor detection.

Convertible mode is enabled only Edge1. The Rear side of Convertible mode doesn't work proximity sensor since rear side of CF-20 combines the base unit when this mode.

Detail of operation modes for Proximity Sensor

Operation Modes		Proximity sensor detection	
		Edge1	Rear
1	Tablet	Yes	Yes
2	Laptop	No	No
3	Convertible	Yes	No

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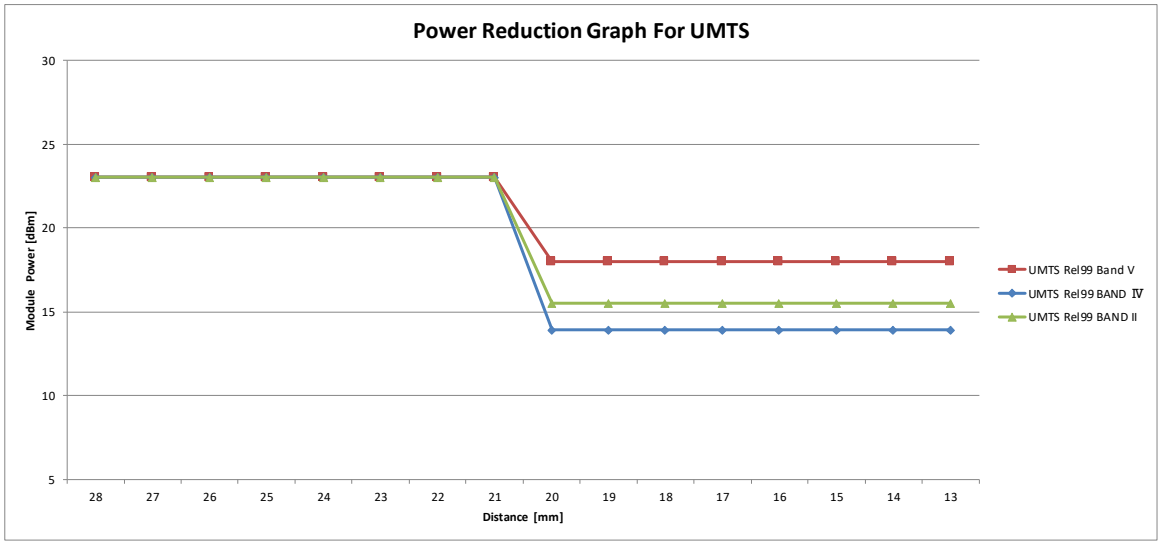
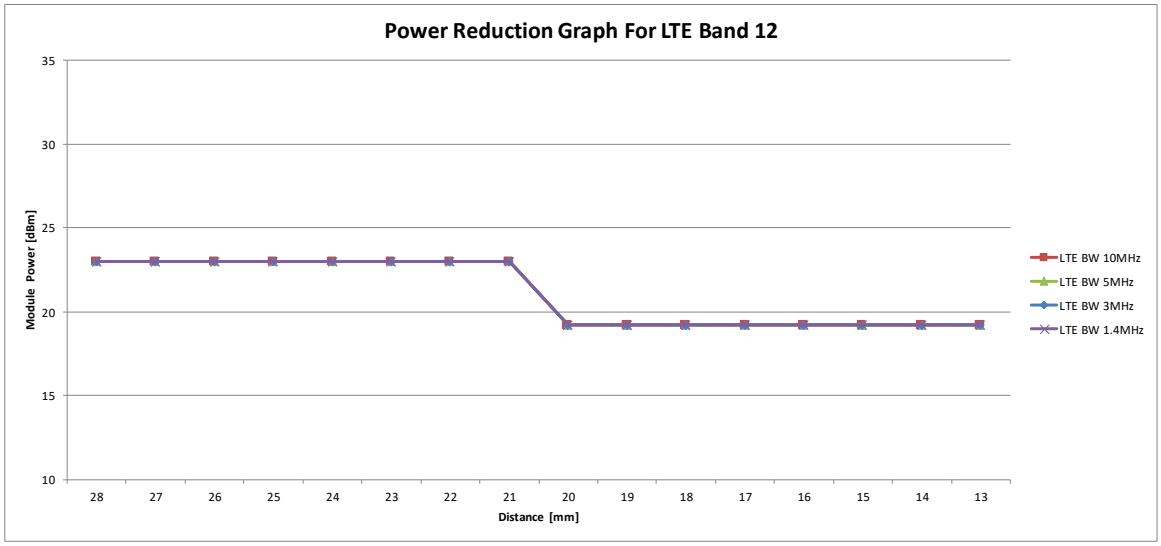
6.9. Triggering distances and power levels

6.9.1. DUT moving toward the phantom

[Rear]



	Coverage Step UMTS															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
UMTS Rel99 Band V	23	23	23	23	23	23	23	23	18	18	18	18	18	18	18	18
UMTS Rel99 BAND Ⅳ	23	23	23	23	23	23	23	23	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
UMTS Rel99 BAND Ⅱ	23	23	23	23	23	23	23	23	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5



	Coverage Step LTE Band 12															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
LTE BW 5MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
LTE BW 3MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2

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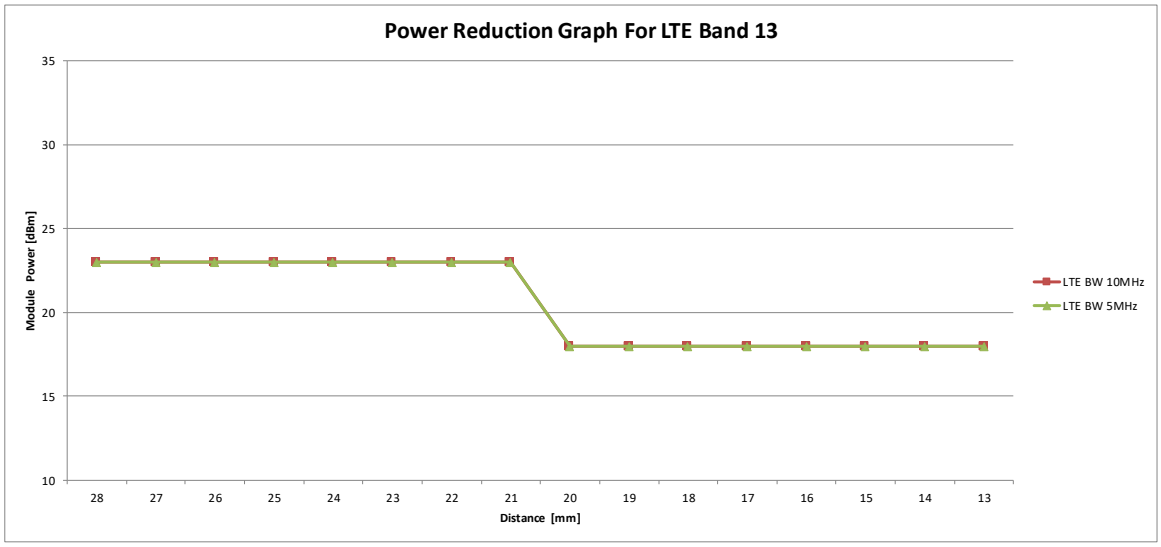
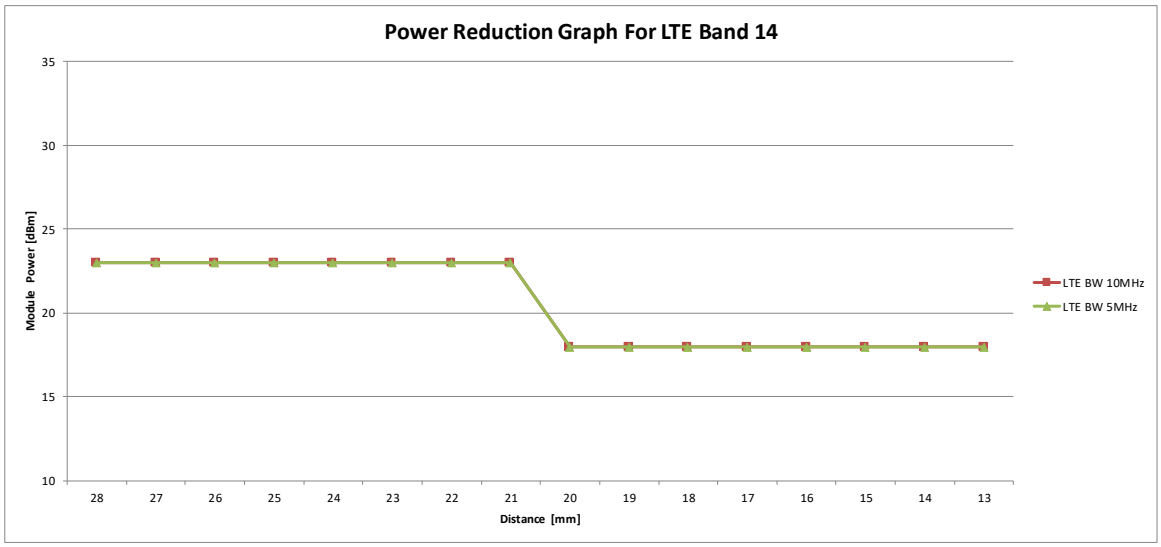


	Coverage Step LTE Band 13															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	18	18	18	18	18	18	18	18
LTE BW 5MHz	23	23	23	23	23	23	23	23	18	18	18	18	18	18	18	18



	Coverage Step LTE Band 14															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
LTE BW 5MHz	23	23	23	23	23	23	23	23	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6

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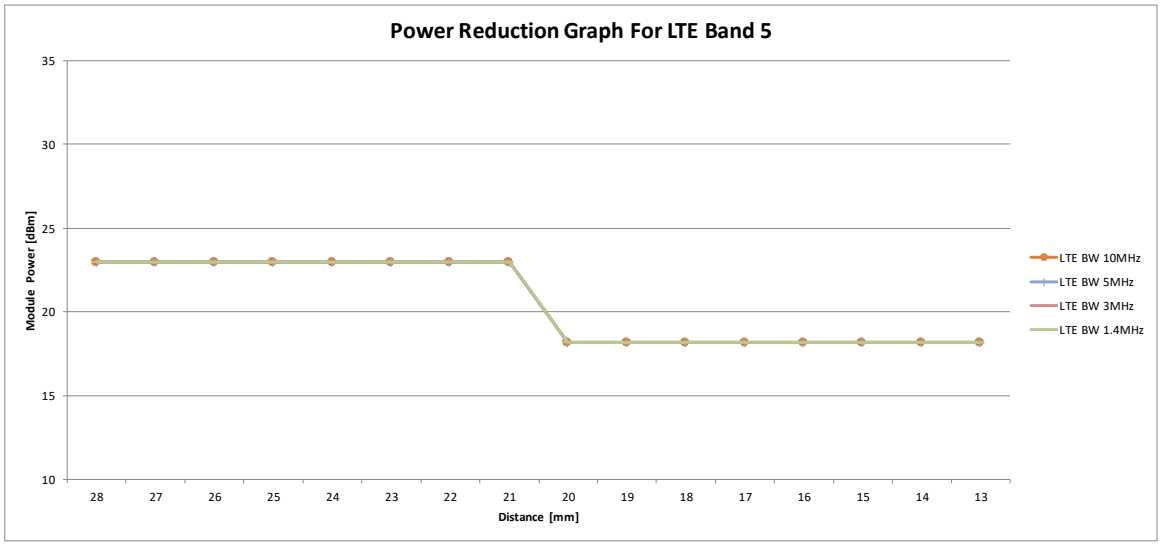
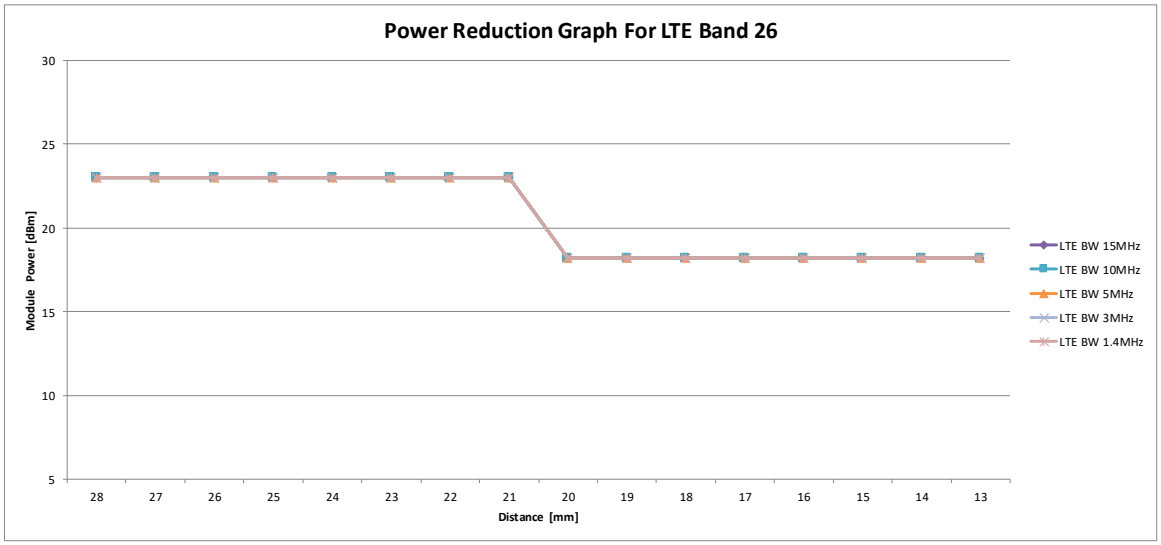


	Coverage Step LTE Band 5															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 5MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 3MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2



	Coverage Step LTE Band 26															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 15MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 10MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 5MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 3MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2

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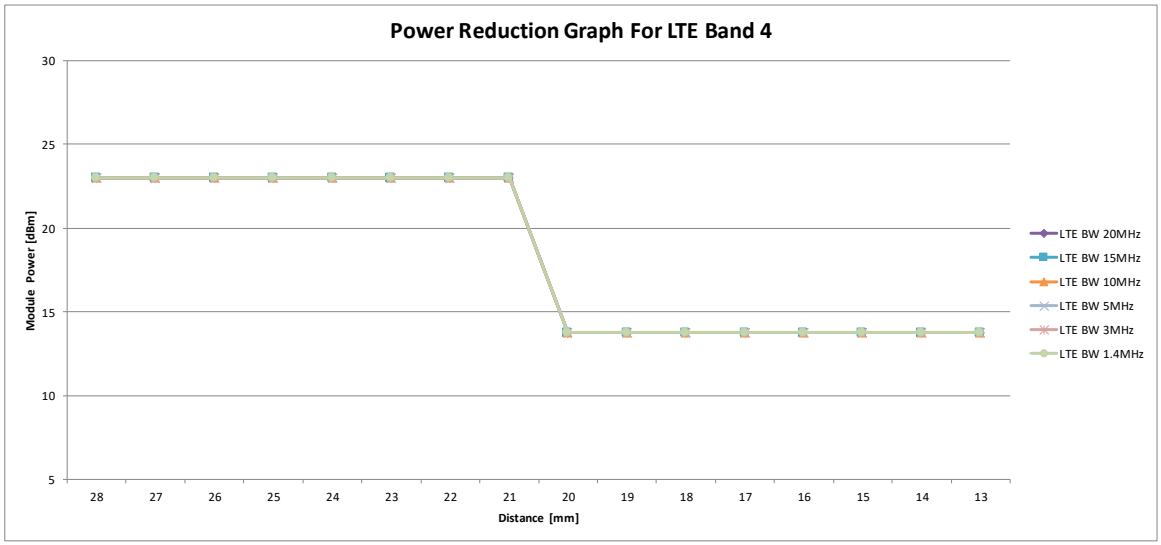
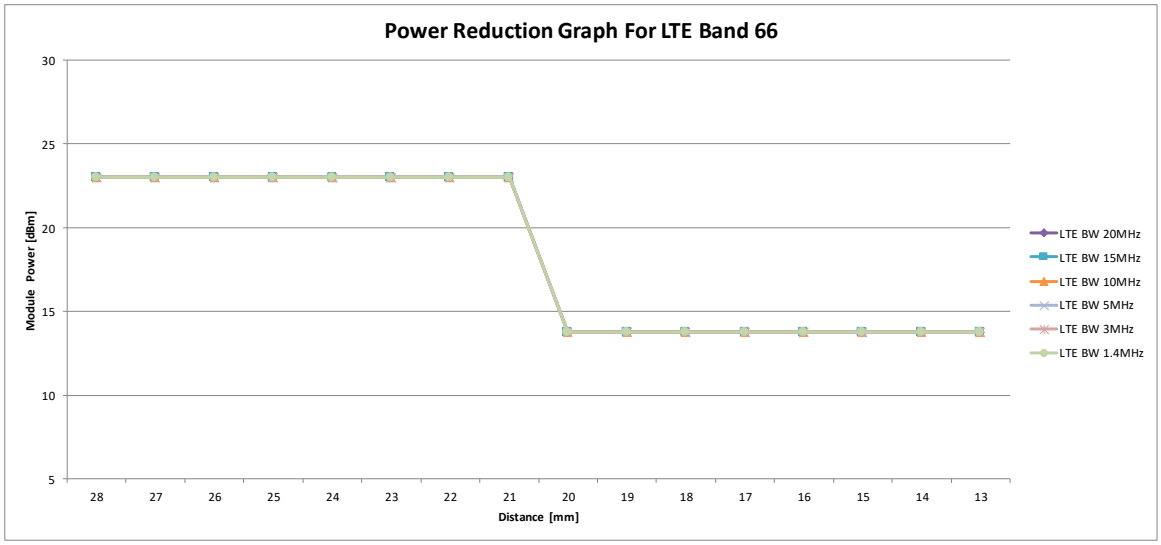


	Coverage Step LTE Band 4															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 15MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 10MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 5MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 3MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8



	Coverage Step LTE Band 66															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 15MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 10MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 5MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 3MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14

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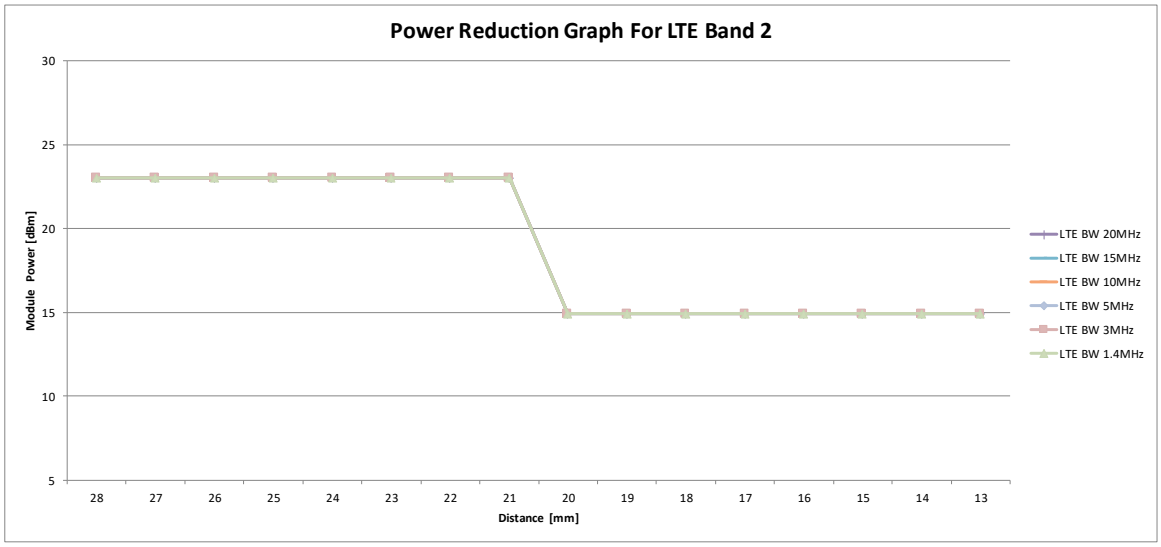
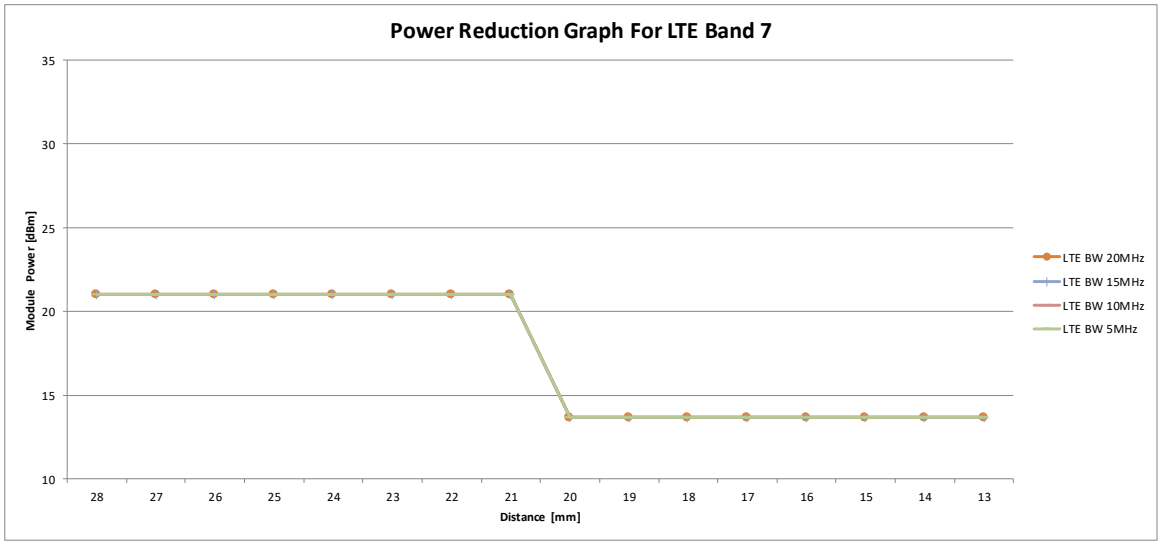


	Coverage Step LTE Band 2															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 15MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 10MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 5MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 3MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9



	Coverage Step LTE Band 7															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
LTE BW 15MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
LTE BW 10MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
LTE BW 5MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7

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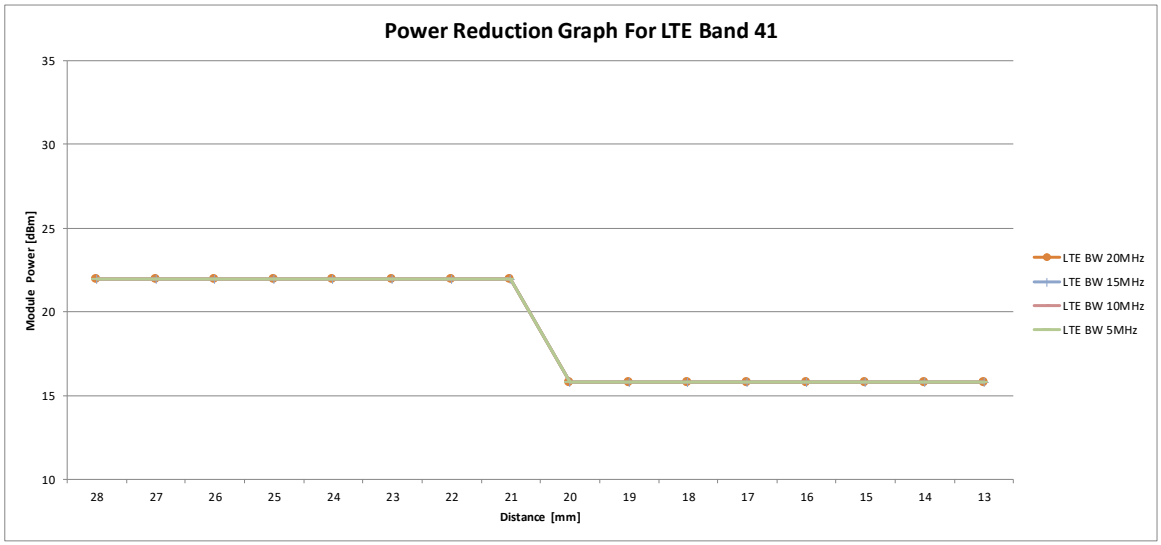

	Coverage Step LTE Band 41															
Didtance	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
LTE BW 15MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
LTE BW 10MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
LTE BW 5MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8

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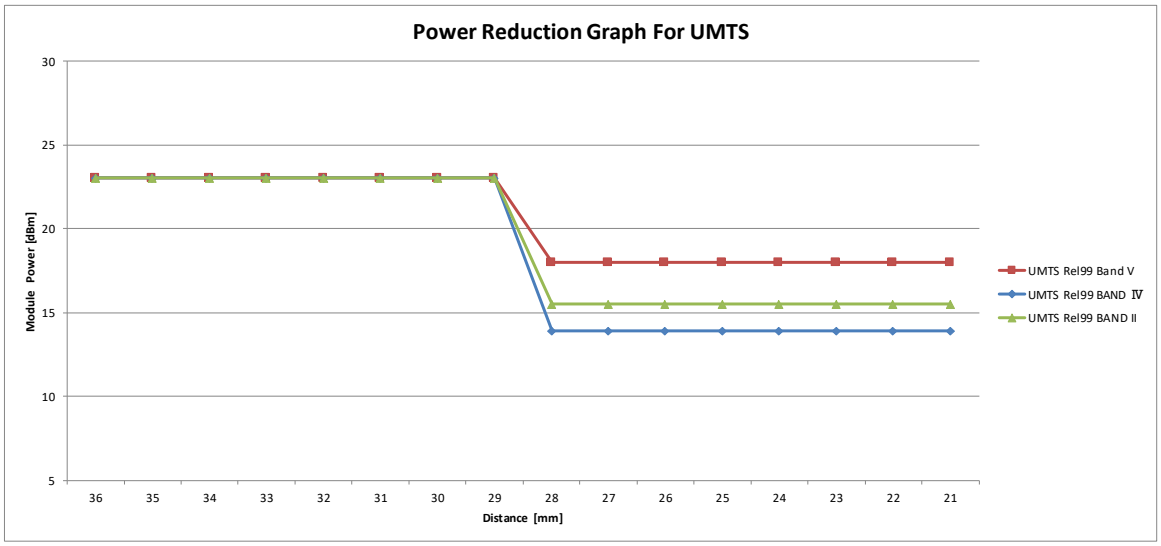
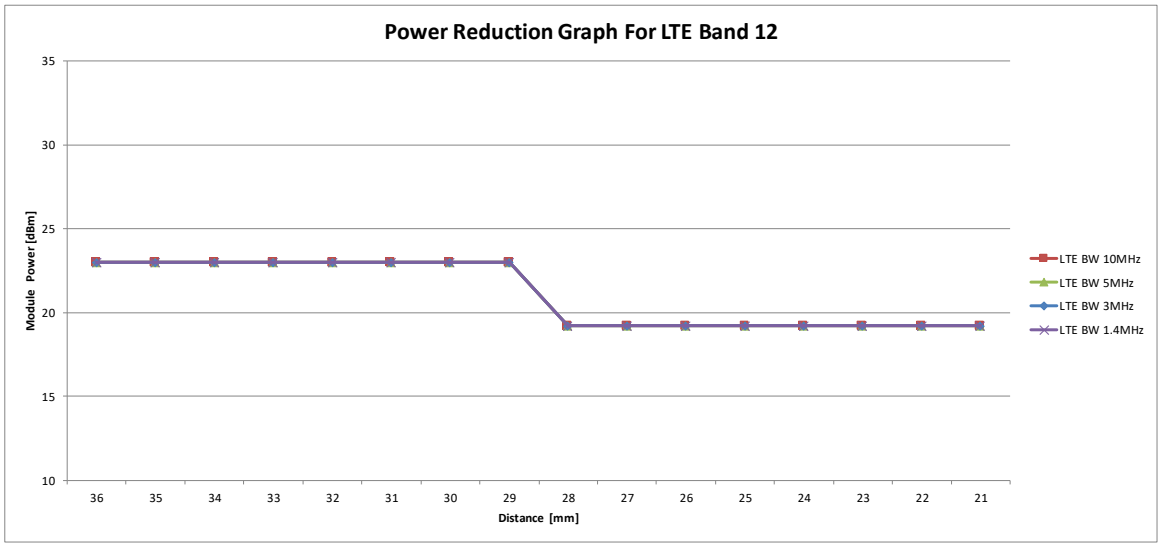
[Edge1]



	Coverage Step UMTS															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
UMTS Rel99 Band V	23	23	23	23	23	23	23	23	18	18	18	18	18	18	18	18
UMTS Rel99 BAND Ⅳ	23	23	23	23	23	23	23	23	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
UMTS Rel99 BAND Ⅱ	23	23	23	23	23	23	23	23	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5



	Coverage Step LTE Band 12															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
LTE BW 5MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
LTE BW 3MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2

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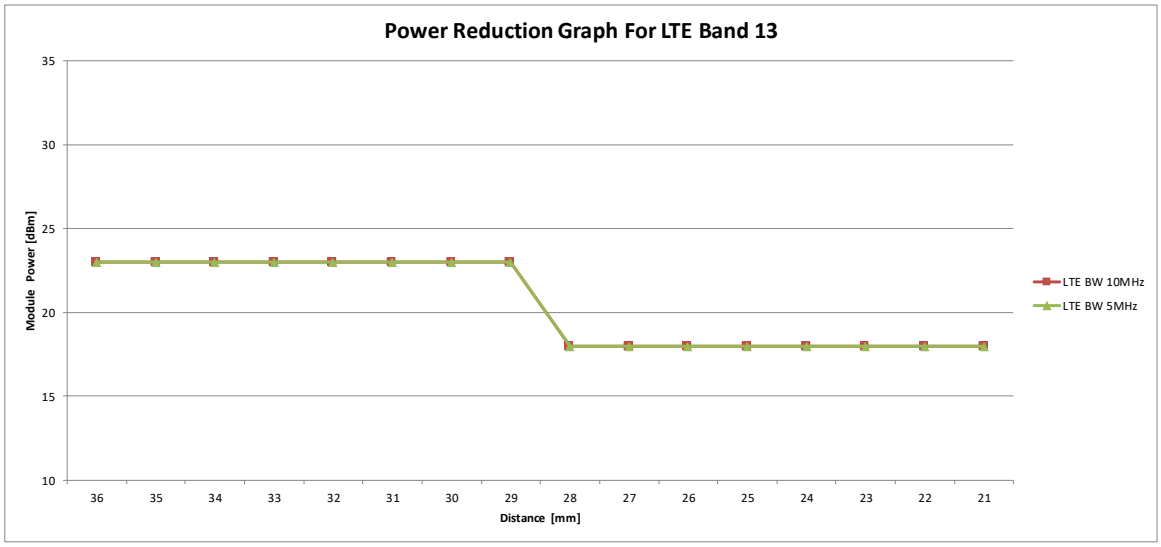
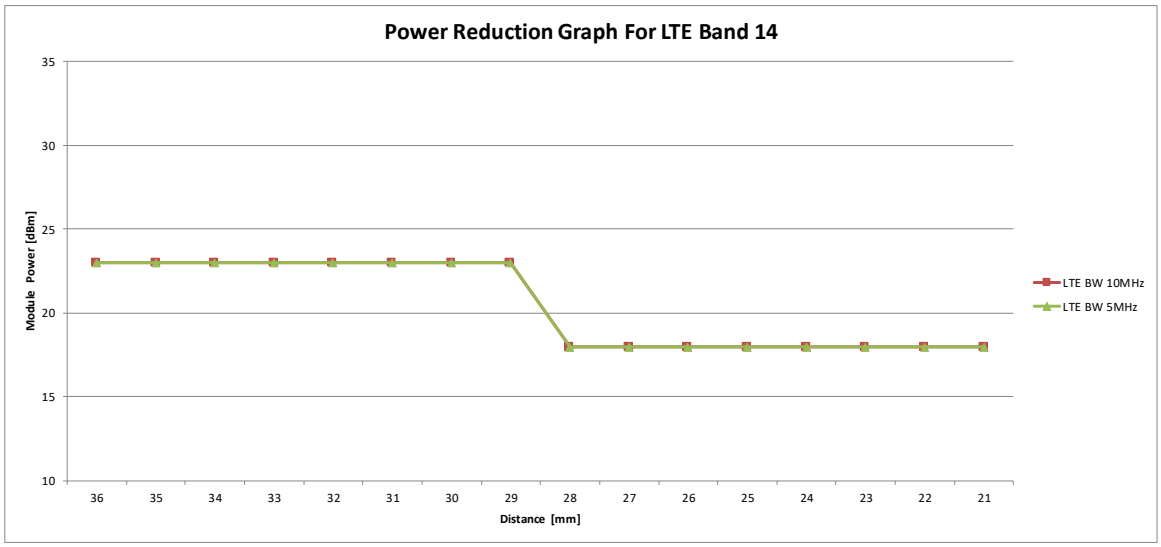


	Coverage Step LTE Band 13															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	18	18	18	18	18	18	18	18
LTE BW 5MHz	23	23	23	23	23	23	23	23	18	18	18	18	18	18	18	18



	Coverage Step LTE Band 14															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
LTE BW 5MHz	23	23	23	23	23	23	23	23	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6

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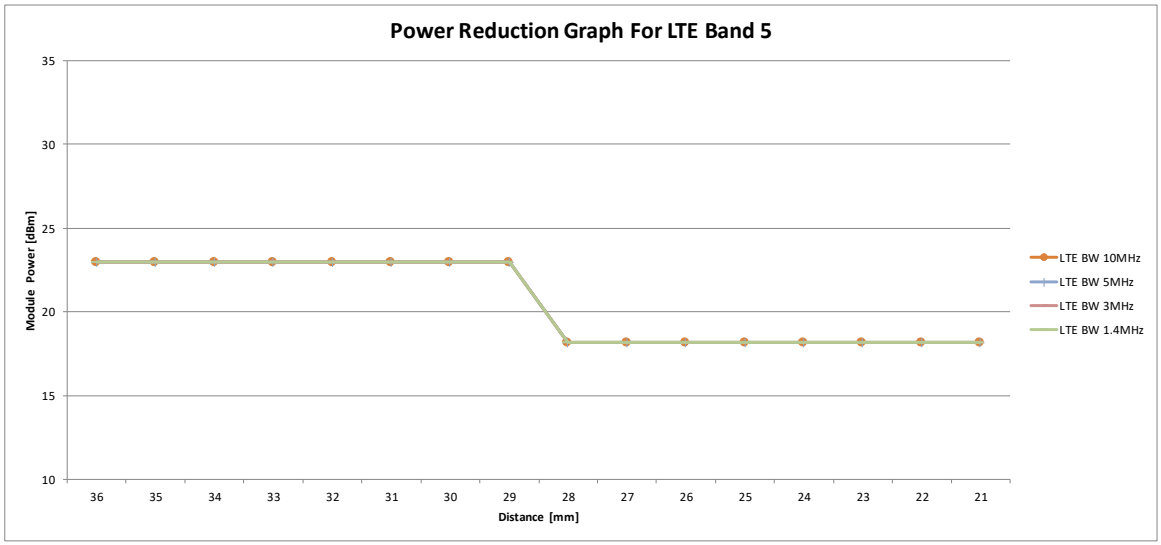
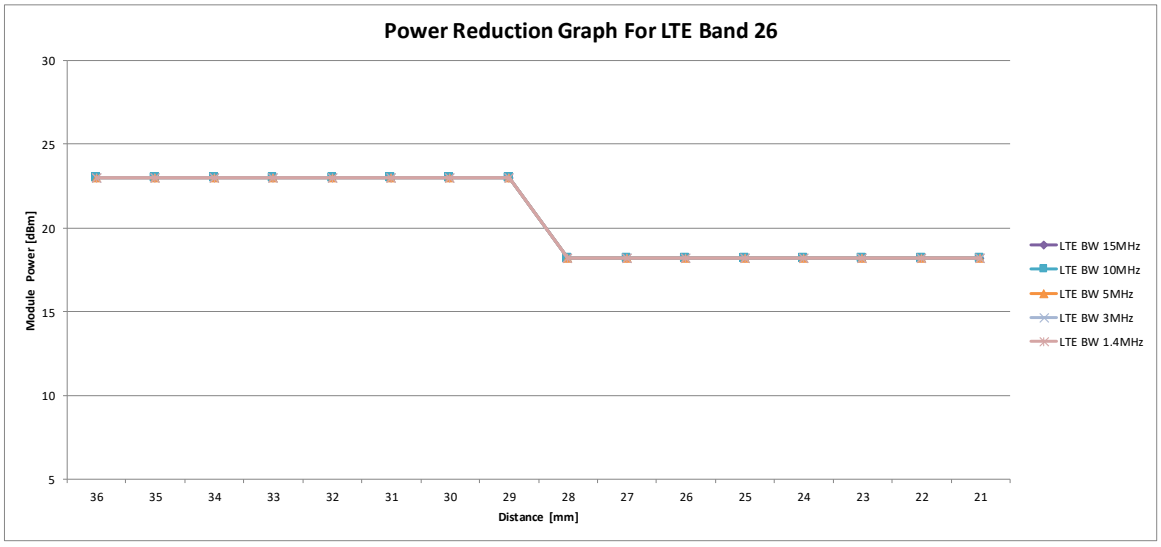


	Coverage Step LTE Band 5															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 10MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 5MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 3MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2



	Coverage Step LTE Band 26															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 15MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 10MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 5MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 3MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2

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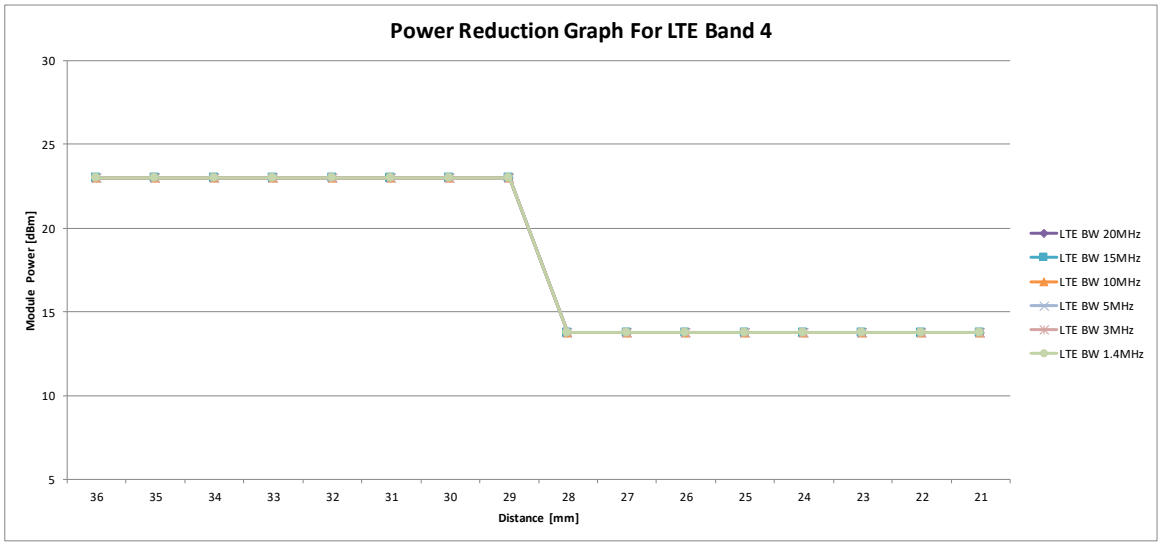
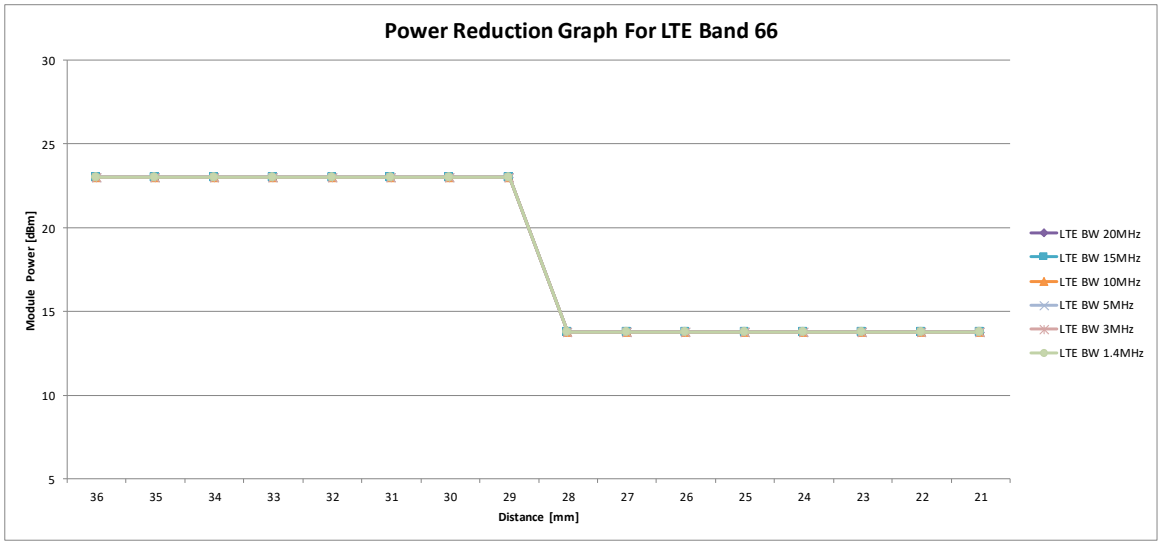


	Coverage Step LTE Band 4															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 15MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 10MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 5MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 3MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8



	Coverage Step LTE Band 66															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 15MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 10MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 5MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 3MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	14	14	14	14	14	14	14	14

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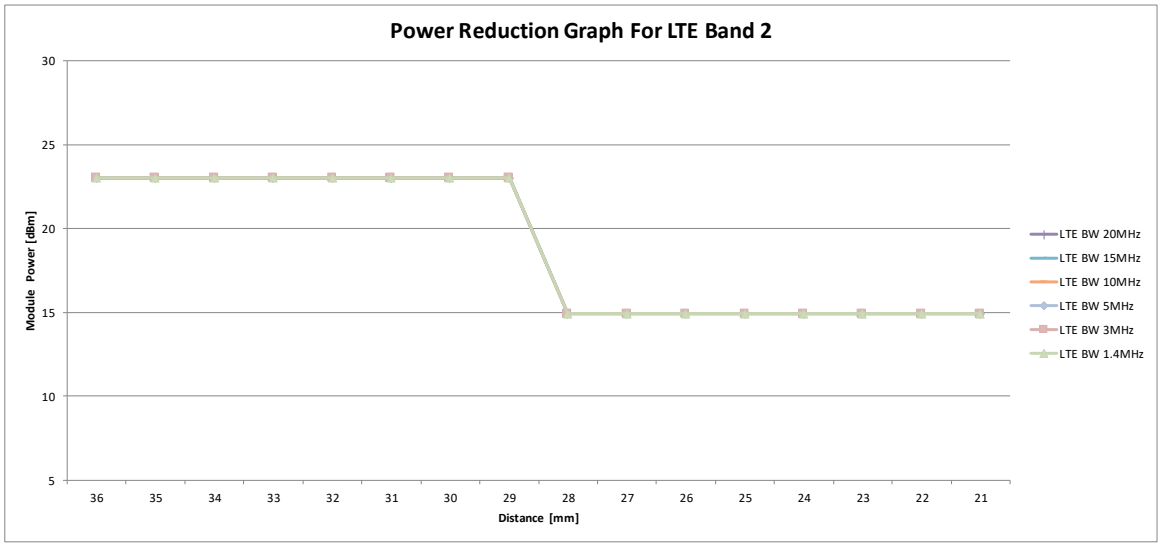
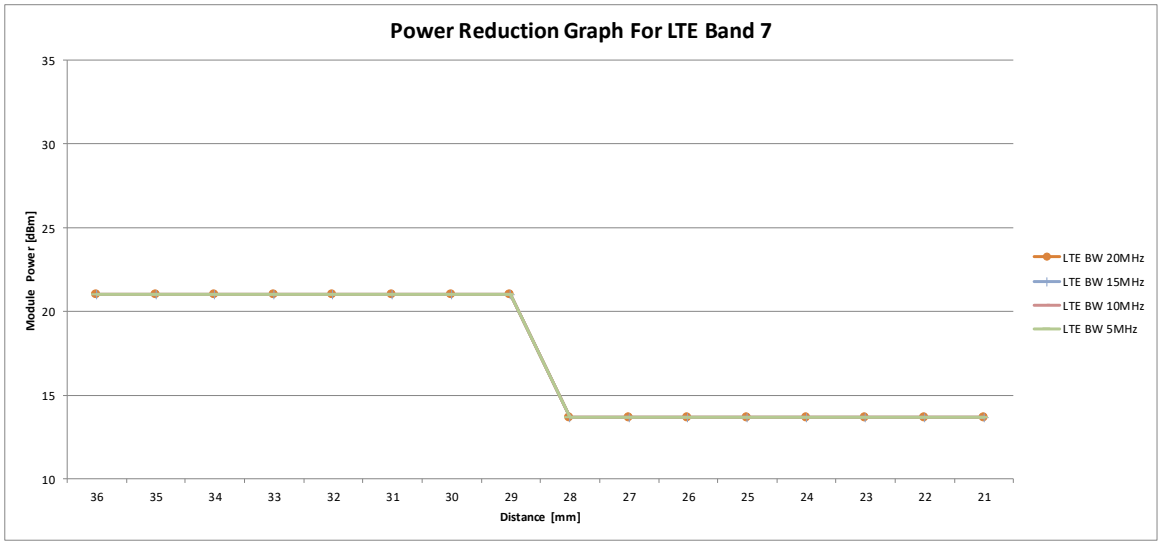


	Coverage Step LTE Band 2															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 15MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 10MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 5MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 3MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
LTE BW 1.4MHz	23	23	23	23	23	23	23	23	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9



	Coverage Step LTE Band 7															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
LTE BW 15MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
LTE BW 10MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
LTE BW 5MHz	21	21	21	21	21	21	21	21	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7

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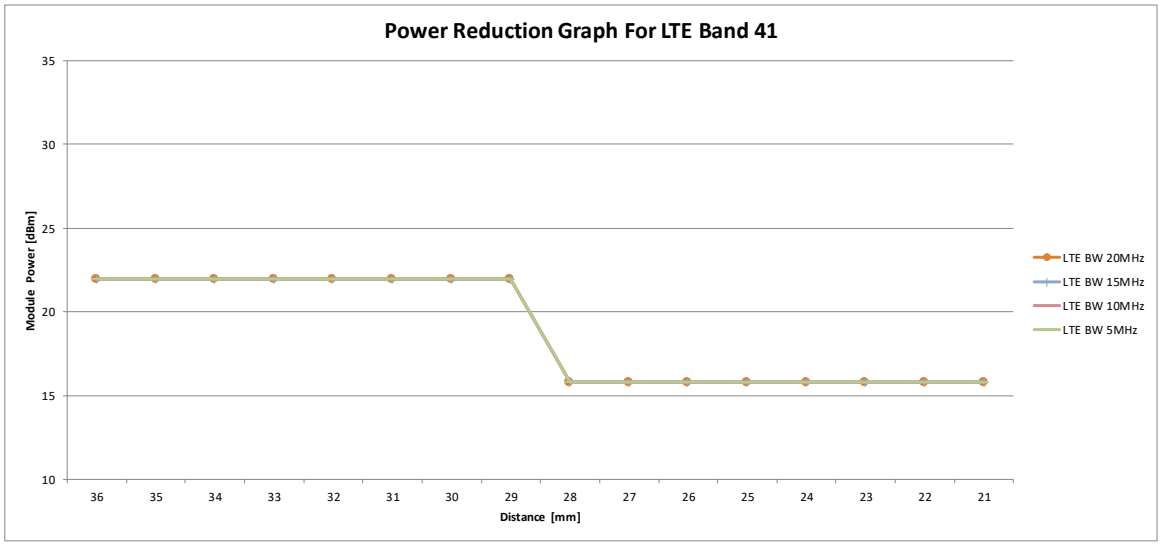

	Coverage Step LTE Band 41															
Didtance	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
DPR	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
LTE BW 20MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
LTE BW 15MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
LTE BW 10MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
LTE BW 5MHz	22	22	22	22	22	22	22	22	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8

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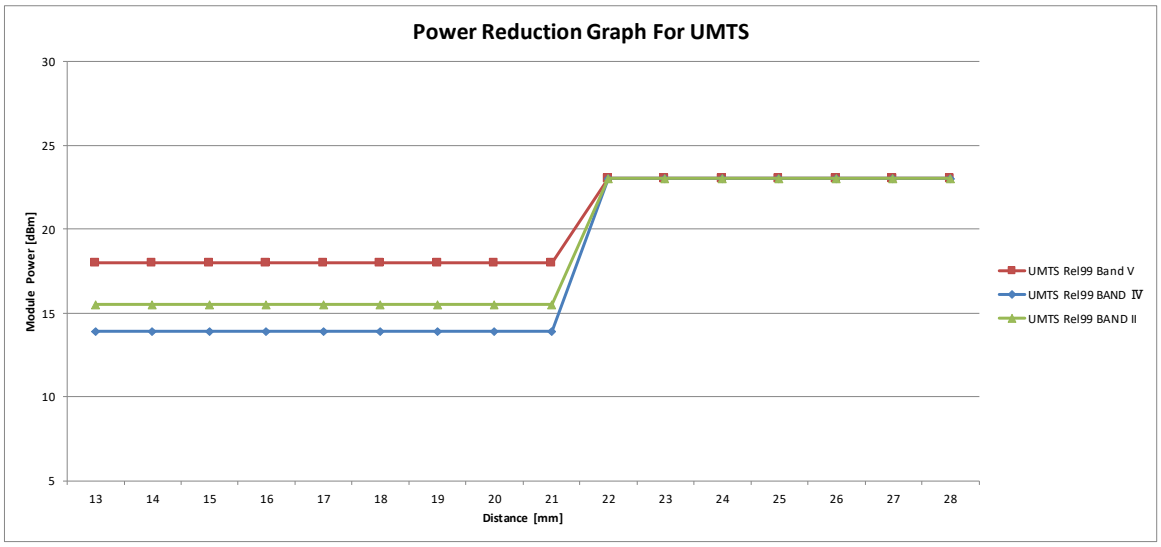
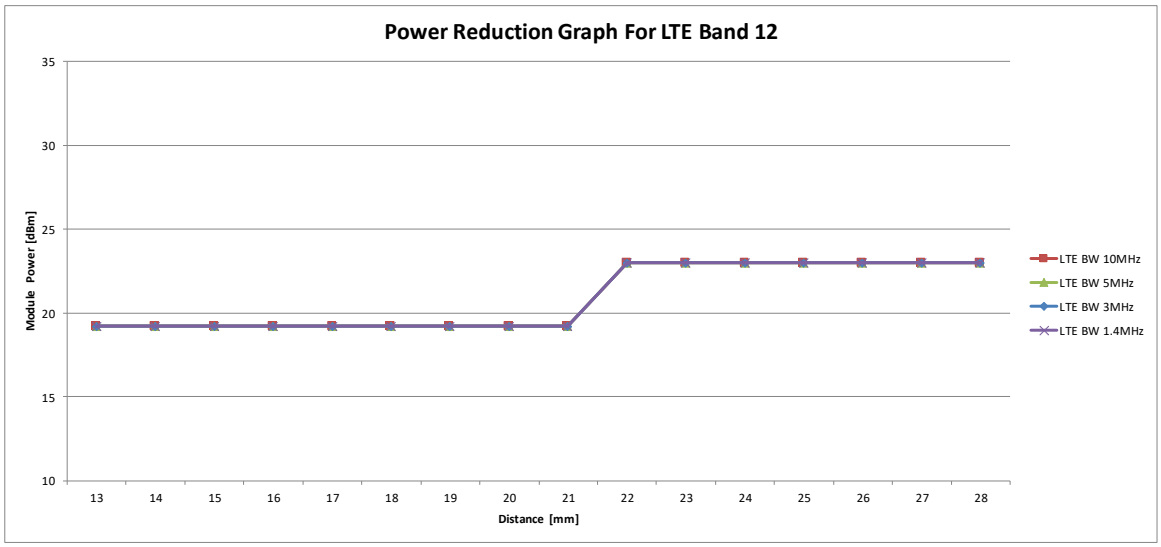
6.9.2. DUT moving from the phantom

[Rear]



	Coverage Step UMTS															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
UMTS Rel99 Band V	18	18	18	18	18	18	18	18	18	23	23	23	23	23	23	23
UMTS Rel99 BAND Ⅳ	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	23	23	23	23	23	23	23
UMTS Rel99 BAND Ⅱ	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	23	23	23	23	23	23	23



	Coverage Step LTE Band 12															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23
LTE BW 5MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23
LTE BW 3MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23
LTE BW 1.4MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23

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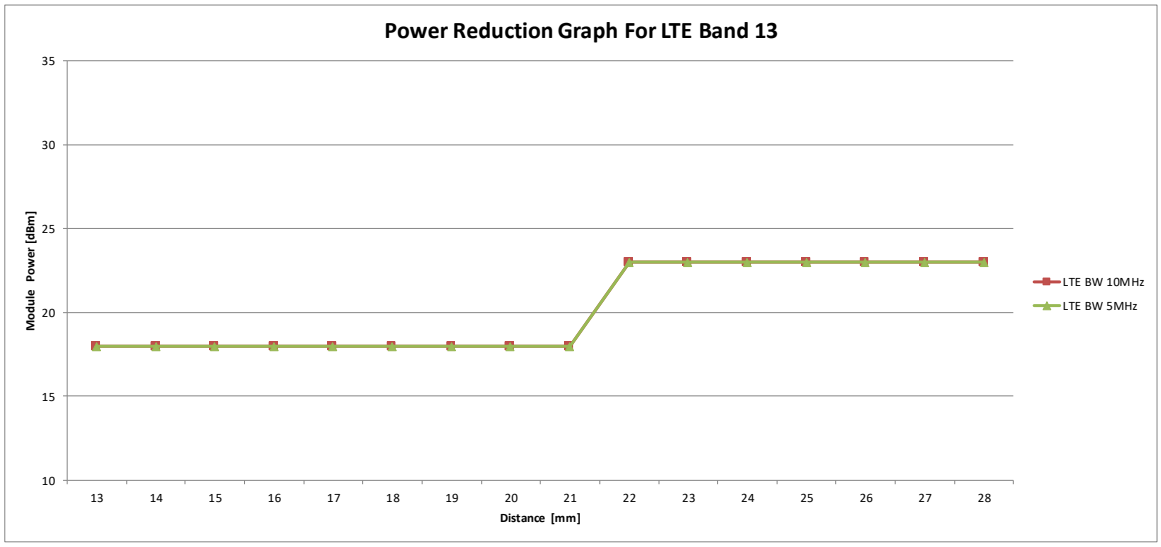
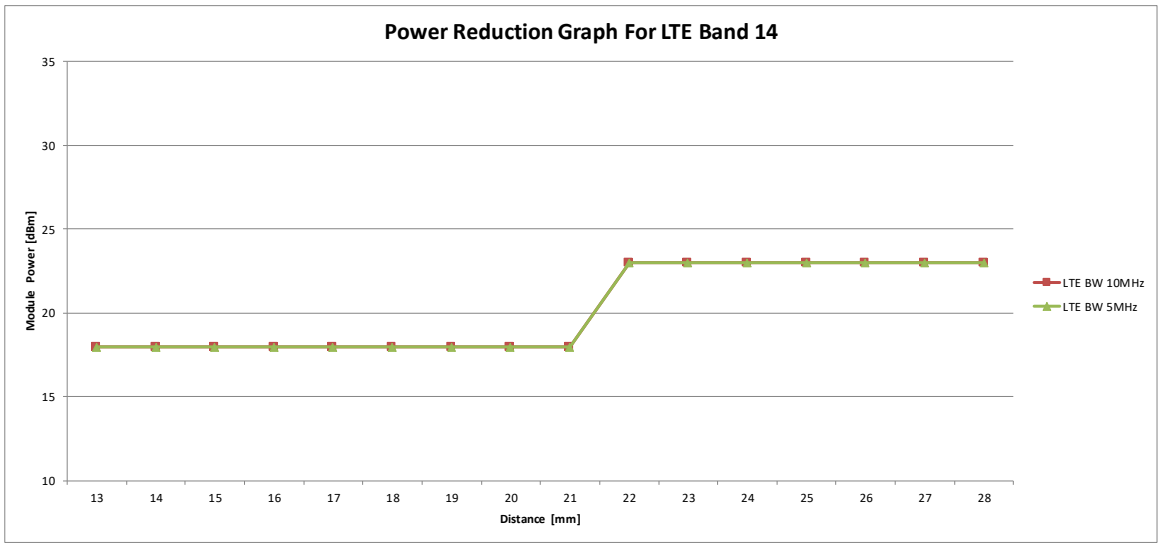


	Coverage Step LTE Band 13															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	18	18	18	18	18	18	18	18	18	23	23	23	23	23	23	23
LTE BW 5MHz	18	18	18	18	18	18	18	18	18	23	23	23	23	23	23	23



	Coverage Step LTE Band 14															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	23	23	23	23	23	23	23
LTE BW 5MHz	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	23	23	23	23	23	23	23

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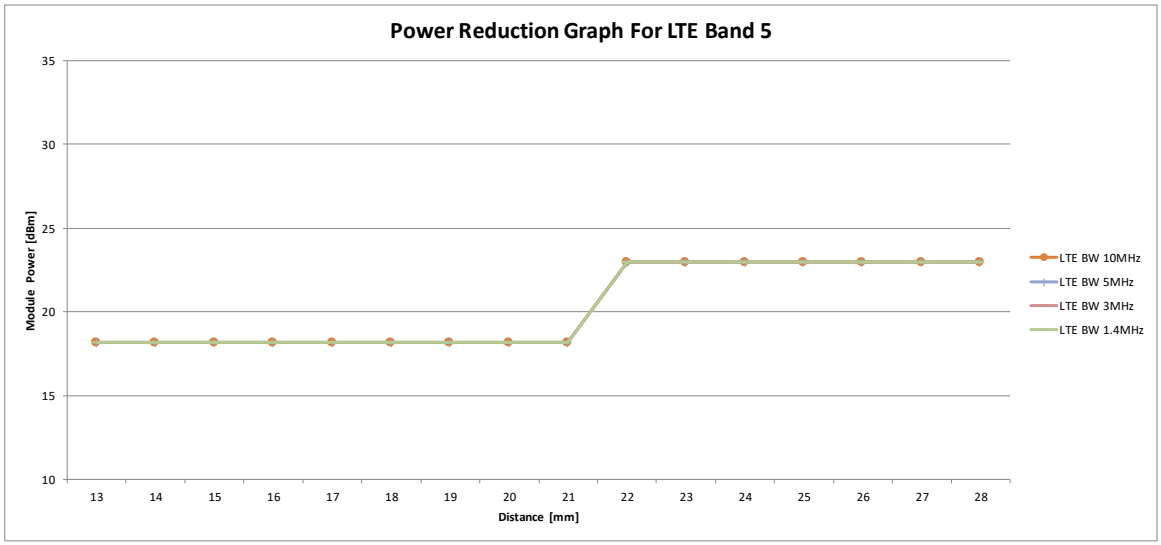
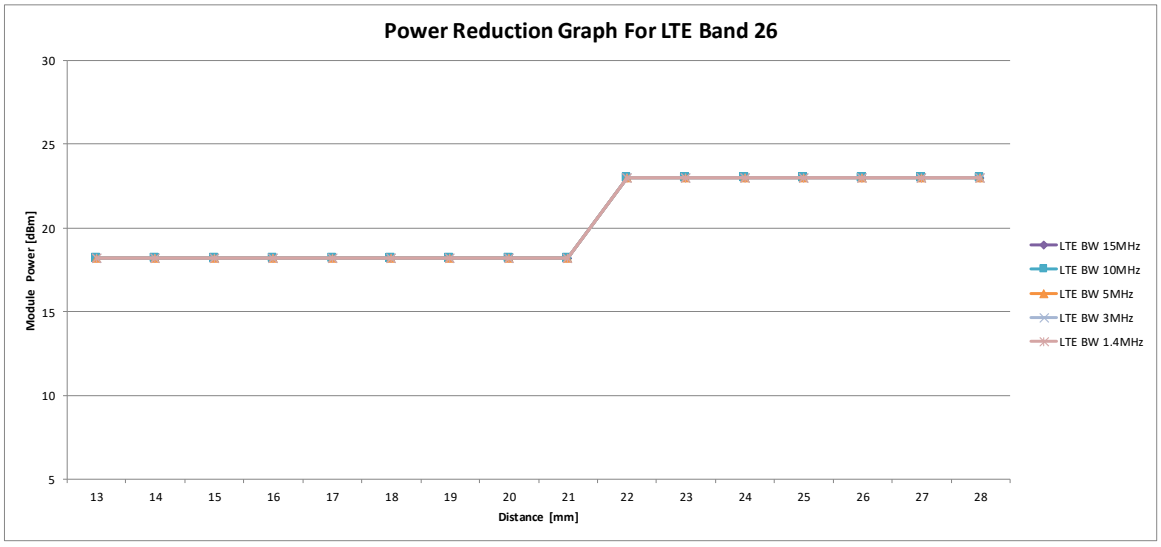


	Coverage Step LTE Band 5															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 5MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 3MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 1.4MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23



	Coverage Step LTE Band 26															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 15MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23
LTE BW 10MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 5MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 3MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 1.4MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23

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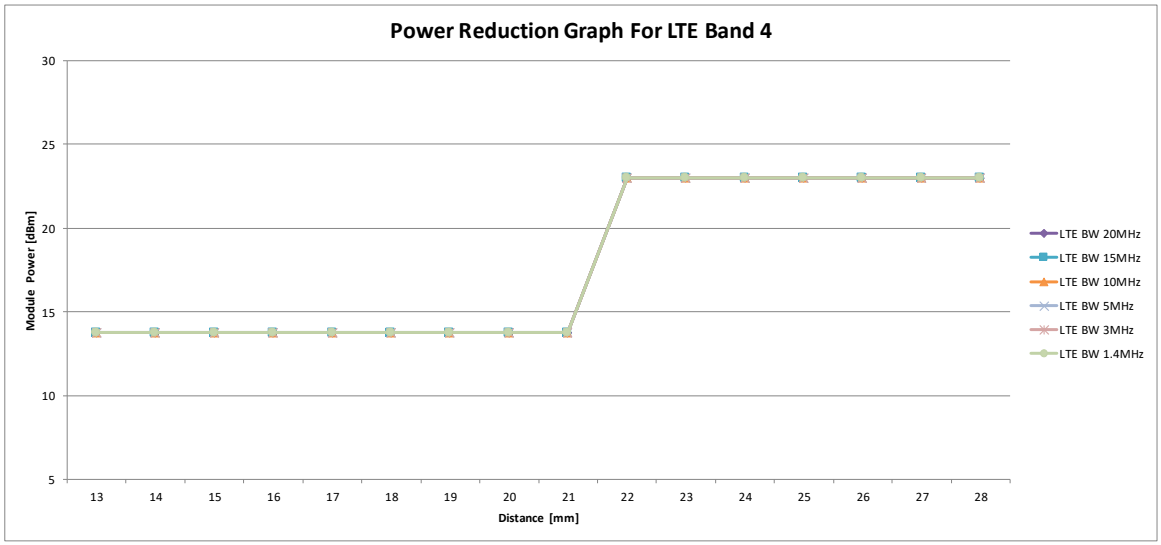
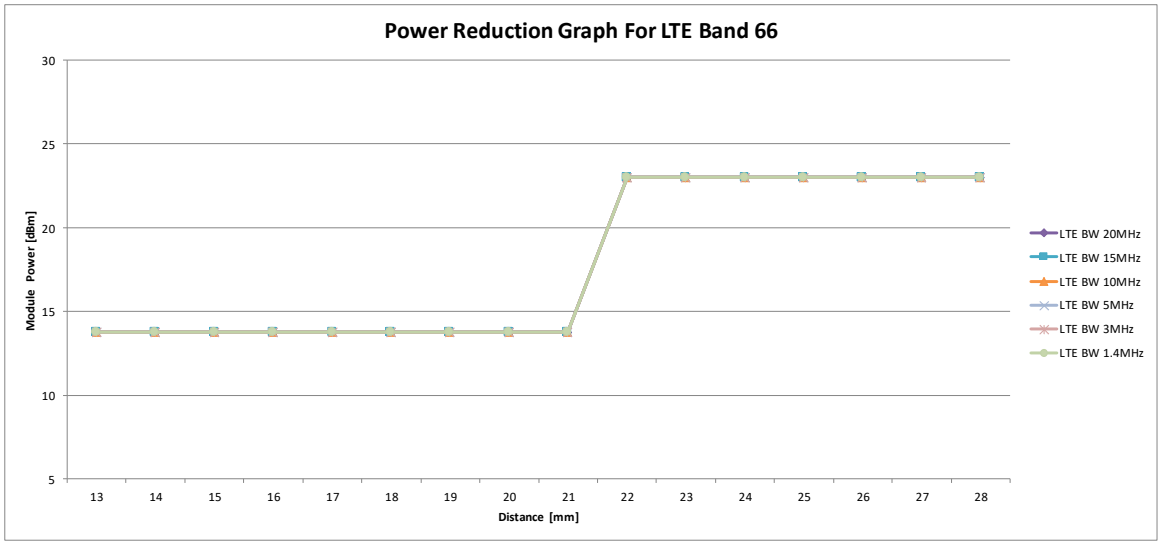


	Coverage Step LTE Band 4															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 15MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 10MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 5MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 3MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 1.4MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23



	Coverage Step LTE Band 66															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 15MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 10MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 5MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 3MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 1.4MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23

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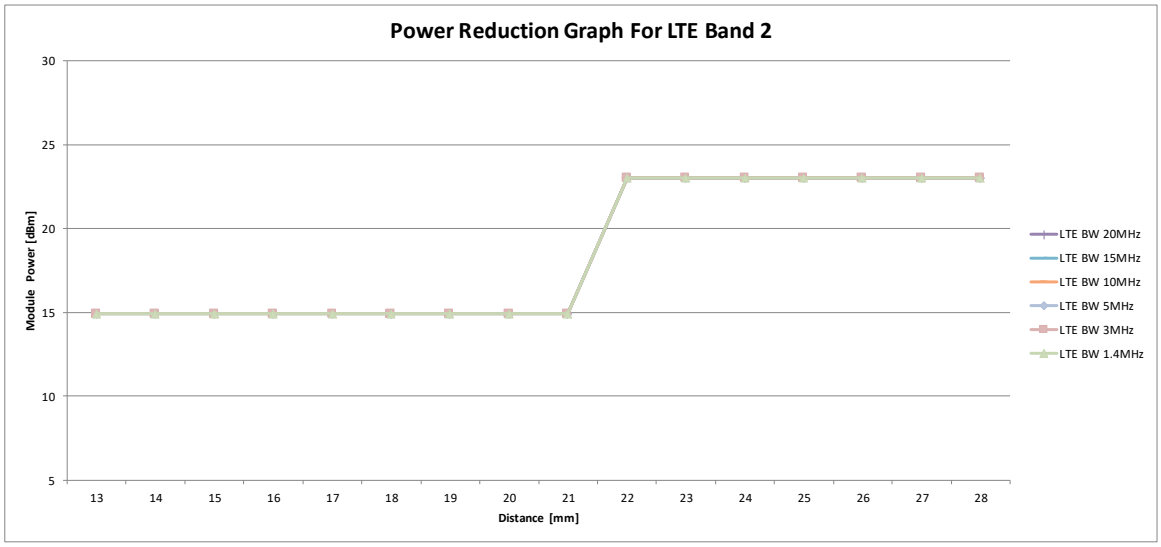
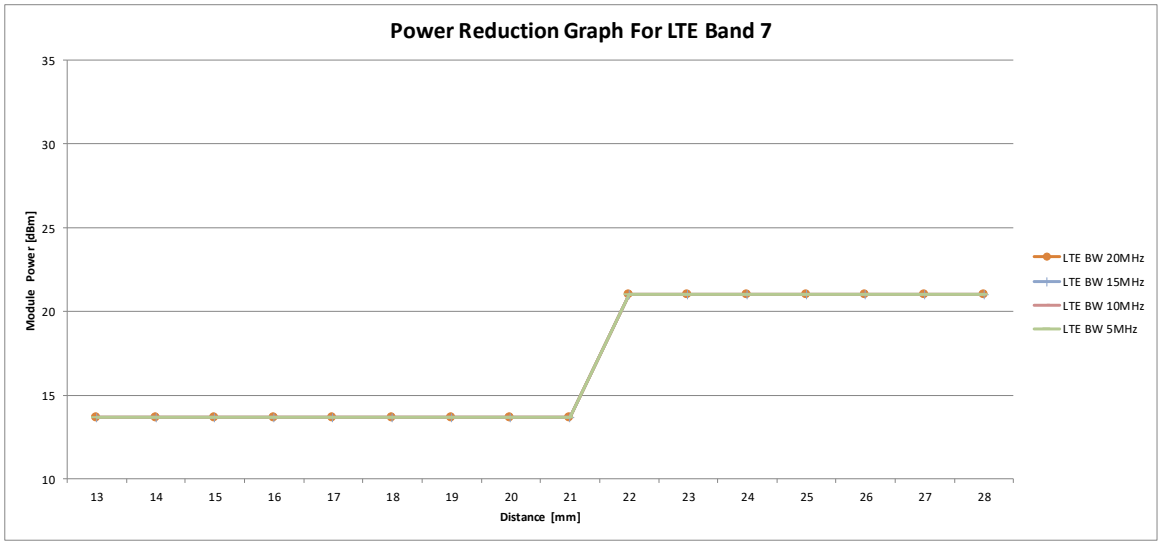


	Coverage Step LTE Band 2															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 15MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 10MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 5MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 3MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 1.4MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23



	Coverage Step LTE Band 7															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21
LTE BW 15MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21
LTE BW 10MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21
LTE BW 5MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21

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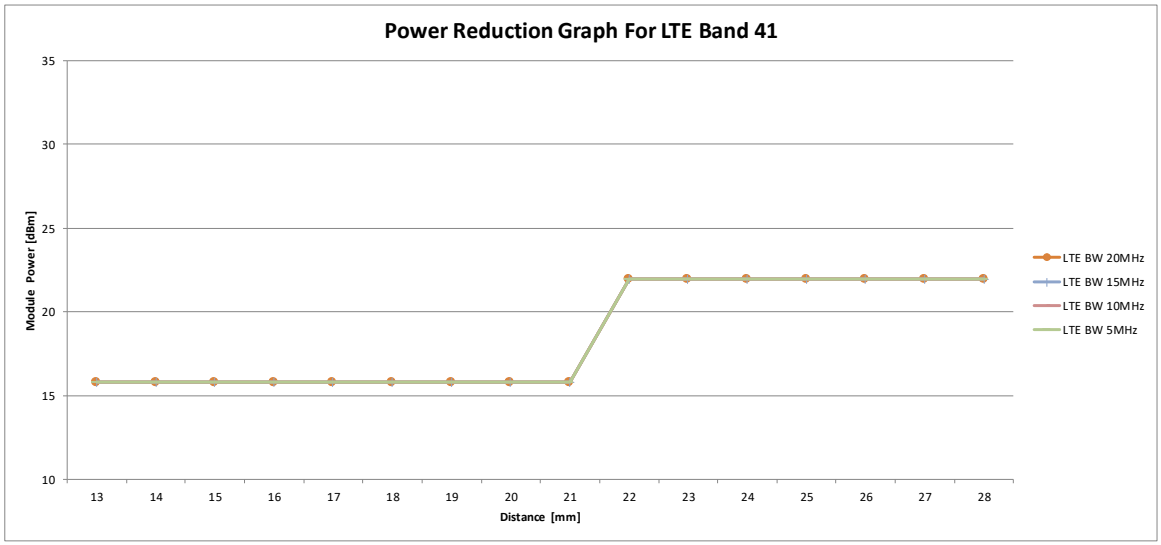

	Coverage Step LTE Band 41															
Didtance	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22
LTE BW 15MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22
LTE BW 10MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22
LTE BW 5MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22

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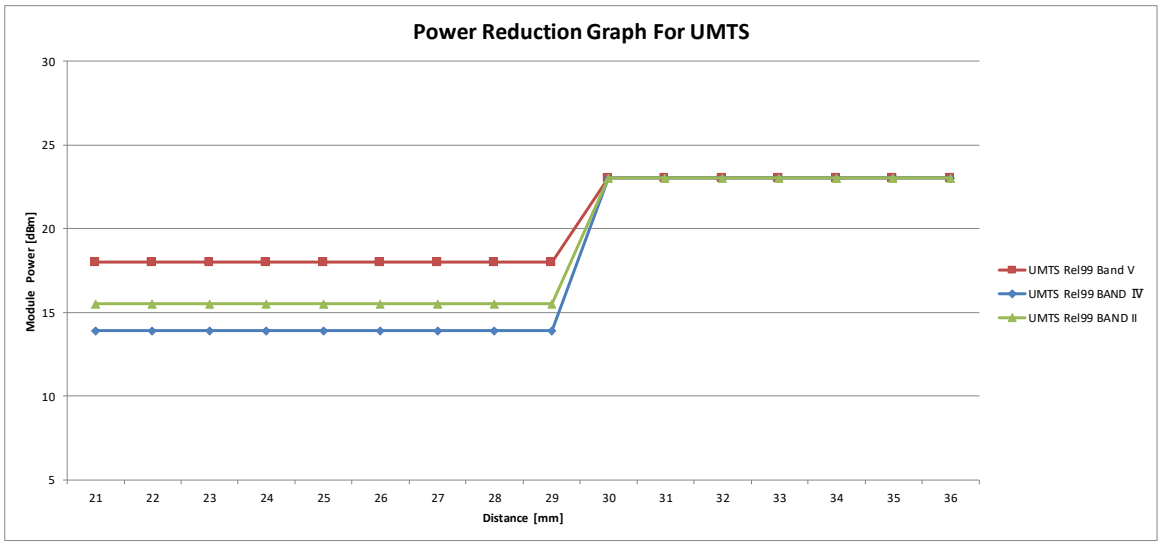
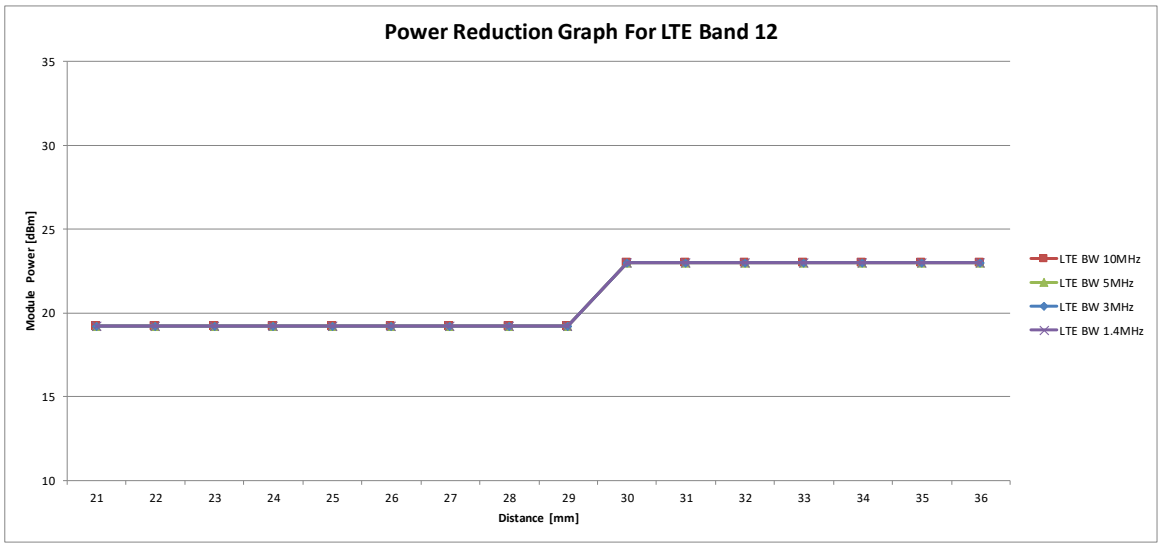
[Edge1]



	Coverage Step UMTS															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
UMTS Rel99 Band V	18	18	18	18	18	18	18	18	18	23	23	23	23	23	23	23
UMTS Rel99 BAND Ⅳ	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	23	23	23	23	23	23	23
UMTS Rel99 BAND Ⅱ	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	23	23	23	23	23	23	23



	Coverage Step LTE Band 12															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23
LTE BW 5MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23
LTE BW 3MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23
LTE BW 1.4MHz	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	23	23	23	23	23	23	23

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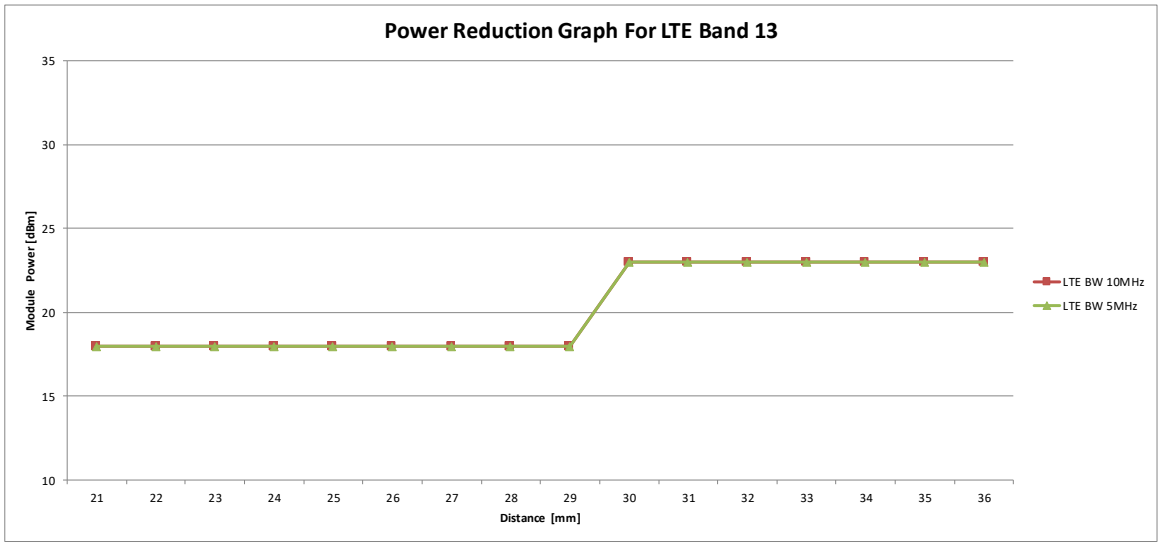
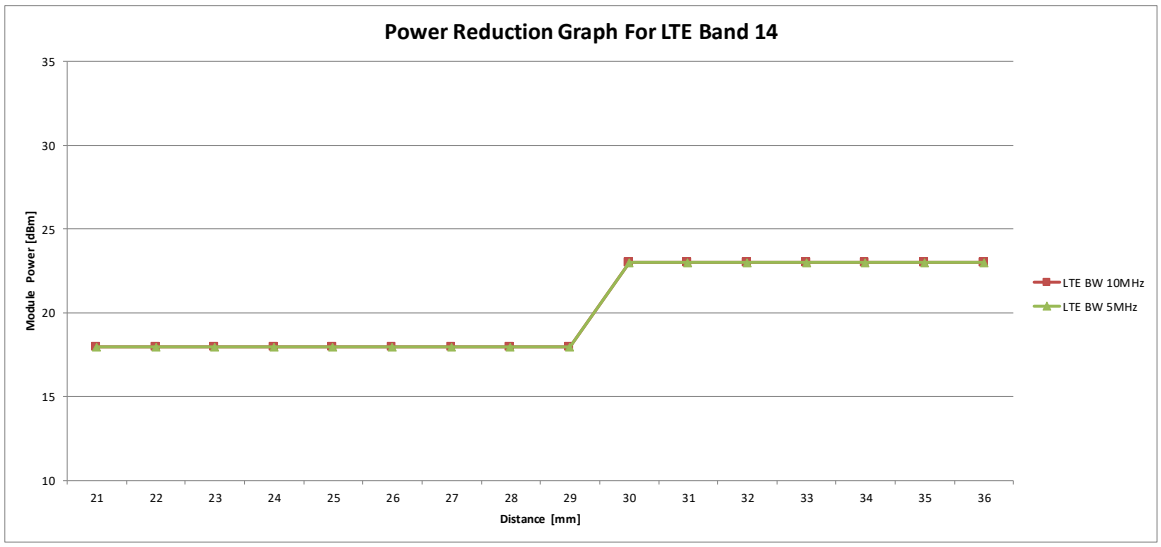


	Coverage Step LTE Band 13															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	18	18	18	18	18	18	18	18	18	23	23	23	23	23	23	23
LTE BW 5MHz	18	18	18	18	18	18	18	18	18	23	23	23	23	23	23	23



	Coverage Step LTE Band 14															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	23	23	23	23	23	23	23
LTE BW 5MHz	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	23	23	23	23	23	23	23

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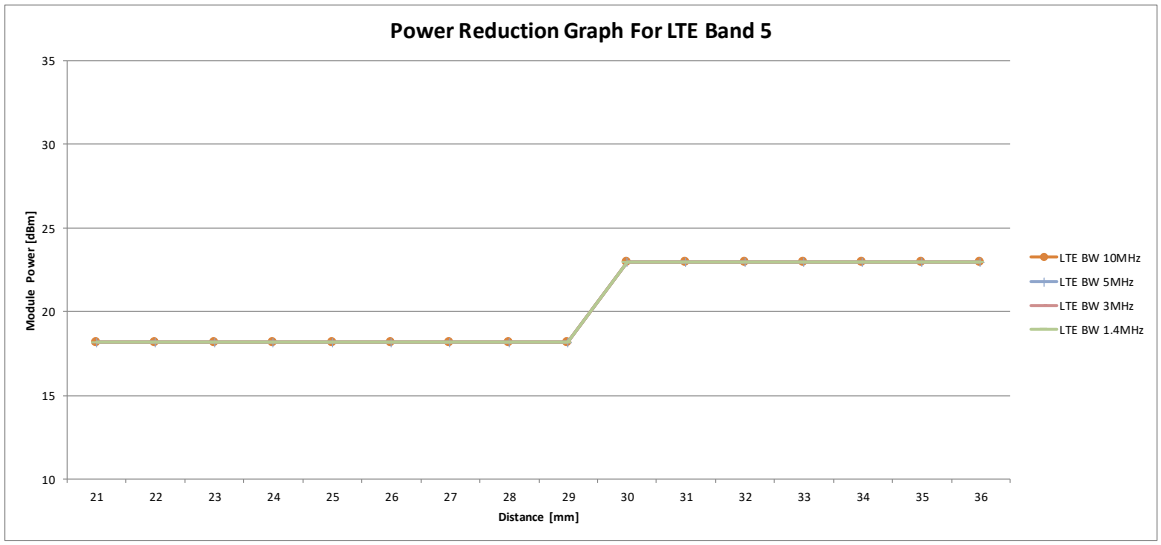
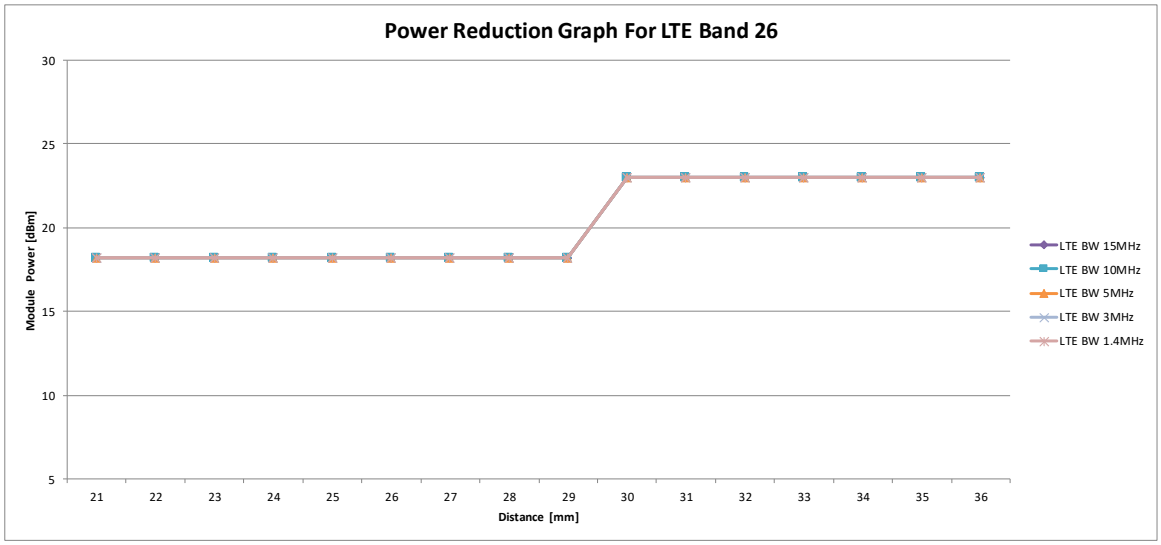


	Coverage Step LTE Band 5															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 10MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 5MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 3MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 1.4MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23



	Coverage Step LTE Band 26															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 15MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 10MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 5MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 3MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23
LTE BW 1.4MHz	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	23	23	23	23	23	23	23

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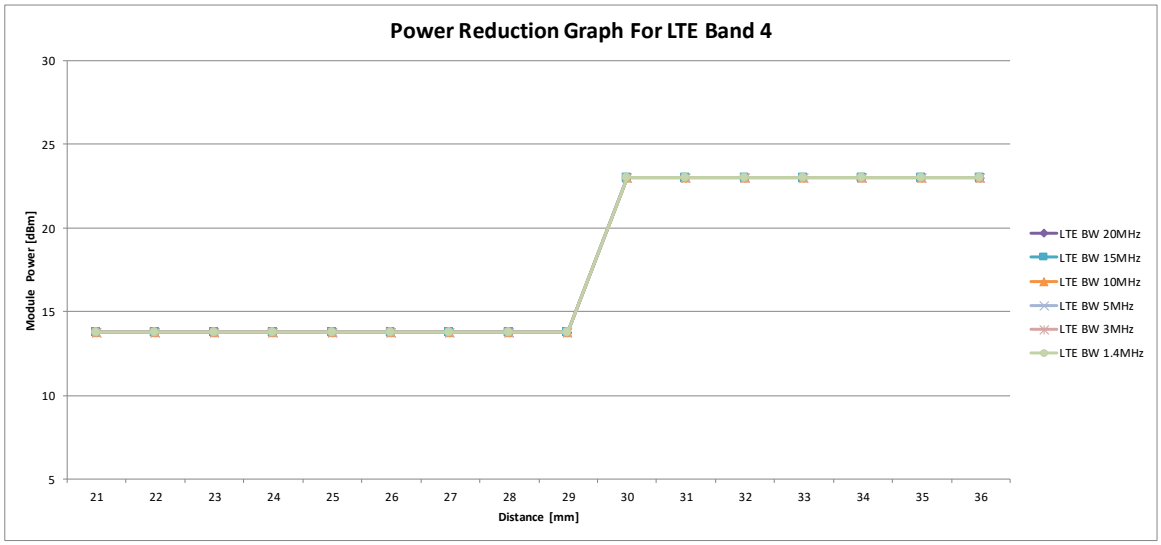
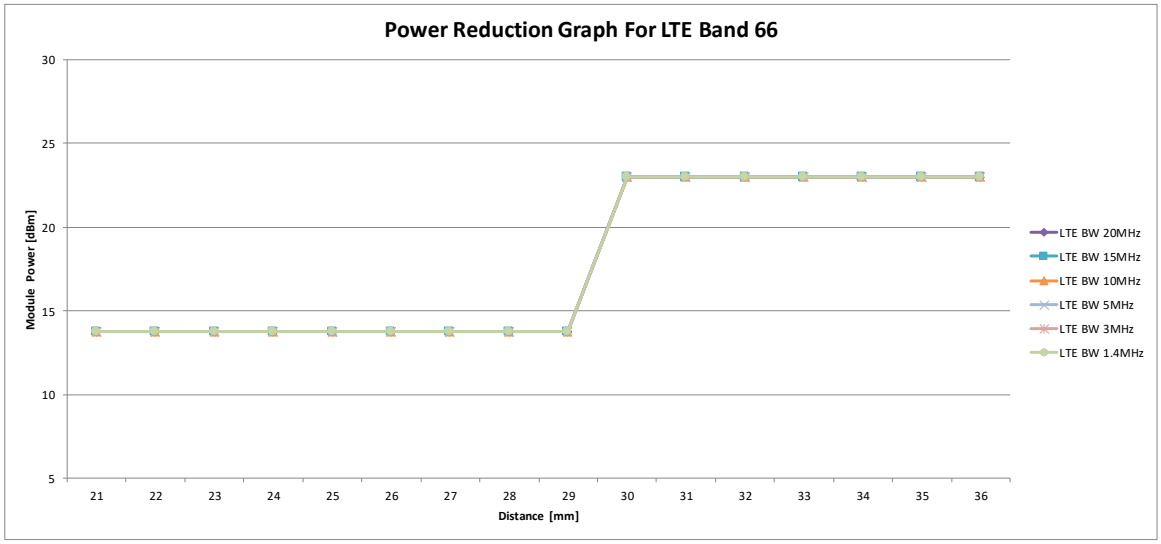


	Coverage Step LTE Band 4															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 15MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 10MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 5MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 3MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23
LTE BW 1.4MHz	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	23	23	23	23	23	23	23



	Coverage Step LTE Band 66															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 15MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 10MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 5MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 3MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23
LTE BW 1.4MHz	14	14	14	14	14	14	14	14	14	23	23	23	23	23	23	23

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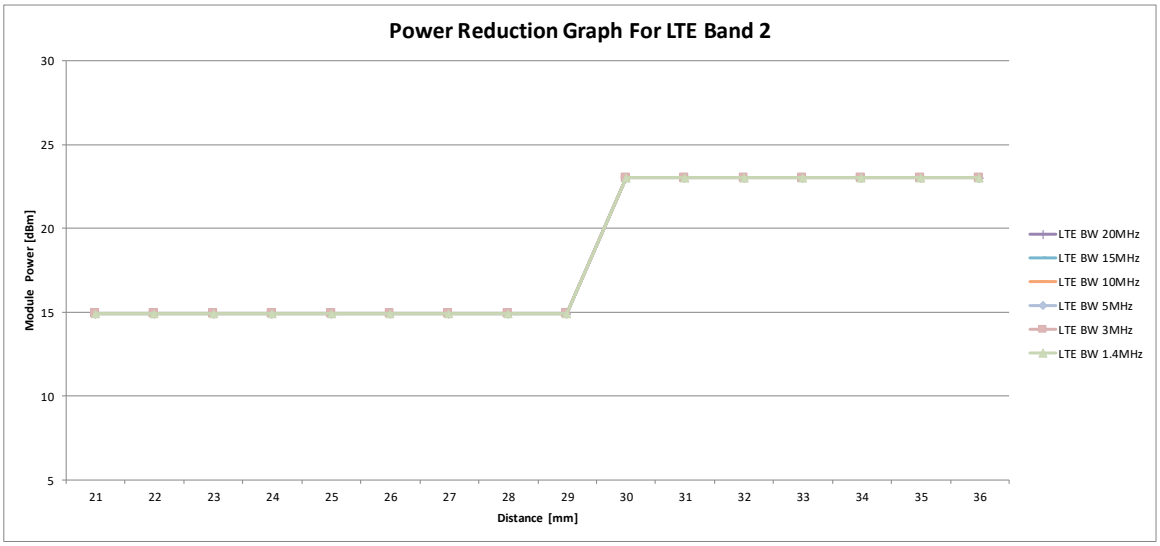
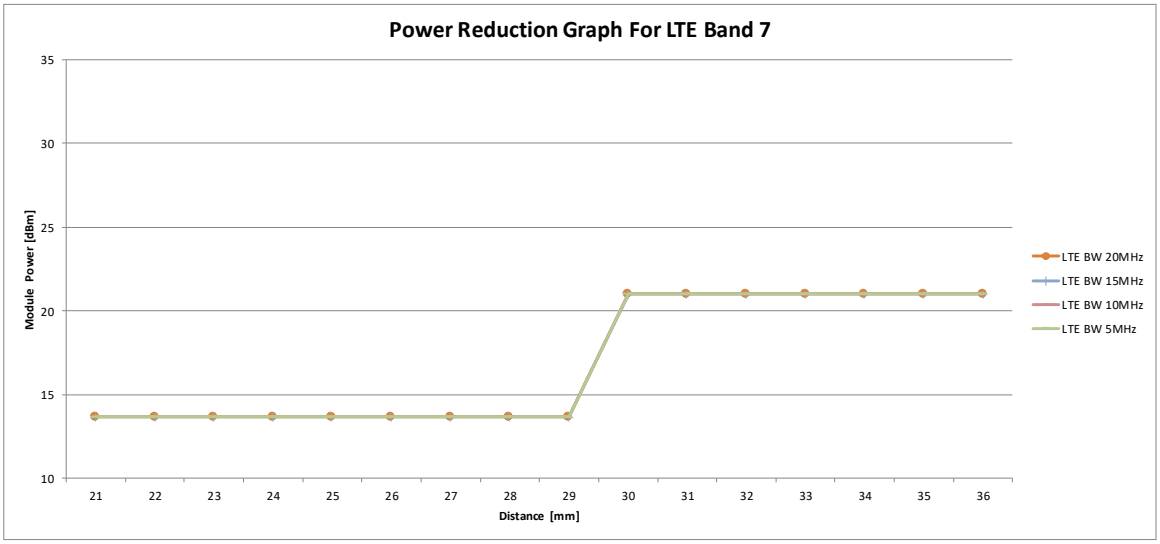


	Coverage Step LTE Band 2															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 15MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 10MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 5MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 3MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23
LTE BW 1.4MHz	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	23	23	23	23	23	23	23



	Coverage Step LTE Band 7															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21
LTE BW 15MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21
LTE BW 10MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21
LTE BW 5MHz	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	21	21	21	21	21	21	21

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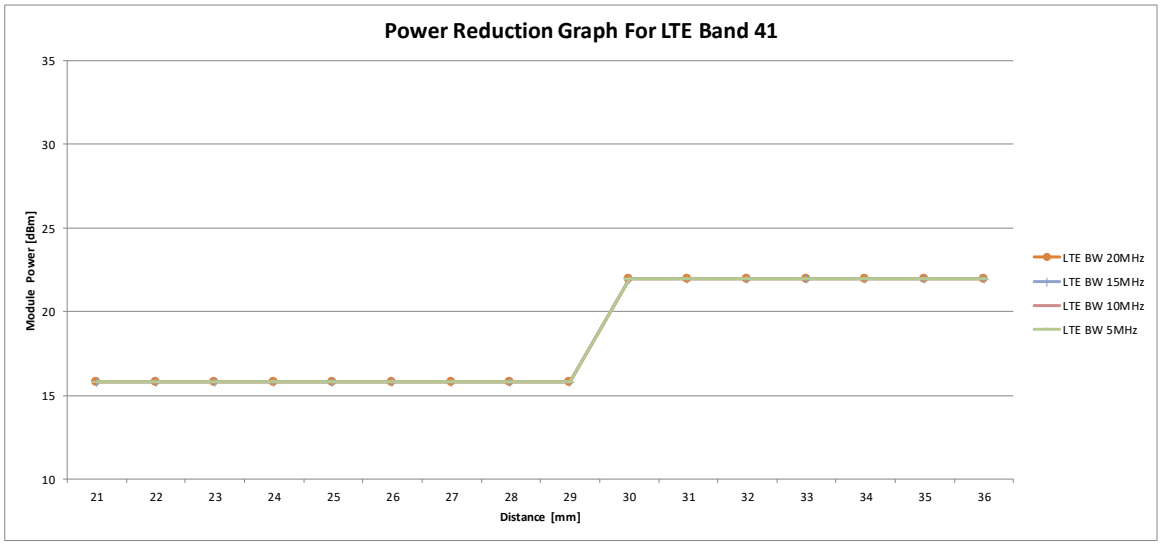

	Coverage Step LTE Band 41															
Didtance	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DPR	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LTE BW 20MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22
LTE BW 15MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22
LTE BW 10MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22
LTE BW 5MHz	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	22	22	22	22	22	22	22

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7. RF Exposure Conditions (Test Configurations)

Refer to Appendix A for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

7.1. Standalone SAR Test Exclusion Considerations

Since the *Dedicated Host Approach* is applied, the standalone SAR test exclusion procedure in KDB 447498 § 4.3.1 (RSS-102 Issue 5 § 2.5.1) is applied in conjunction with KDB 616217 § 4.3 to determine the minimum test separation distance:

- When the separation distance from the antenna to an adjacent edge is ≤ 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
- When the separation distance from the antenna to an adjacent edge is > 5 mm, the actual antenna-to-edge separation distance is applied to determine SAR test exclusion.

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SAR Test Exclusion Calculations for WWAN

Antennas < 50mm to adjacent edges

Antenna	Tx Interface	Frequency (MHz)	Output Power		Separation Distances (mm)						Calculated Threshold Value					
			dBm	mW	Rear	Edge 1	Edge 2	Edge 3	Edge 4	Front	Rear	Edge 1	Edge 2	Edge 3	Edge 4	Front
Full Power WWAN																
WWAN	WCDMA2	1907.6	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		69.3 -MEASURE-	69.3 -MEASURE-	> 50 mm	> 50 mm	69.3 -MEASURE-	
WWAN	WCDMA4	1752.6	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		66.5 -MEASURE-	66.5 -MEASURE-	> 50 mm	> 50 mm	66.5 -MEASURE-	
WWAN	WCDMA5	846.6	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		46.2 -MEASURE-	46.2 -MEASURE-	> 50 mm	> 50 mm	46.2 -MEASURE-	
WWAN	LTE2	1900	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		69.2 -MEASURE-	69.2 -MEASURE-	> 50 mm	> 50 mm	69.2 -MEASURE-	
WWAN	LTE4	1745	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		66.3 -MEASURE-	66.3 -MEASURE-	> 50 mm	> 50 mm	66.3 -MEASURE-	
WWAN	LTE5	844	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		46.1 -MEASURE-	46.1 -MEASURE-	> 50 mm	> 50 mm	46.1 -MEASURE-	
WWAN	LTE7	2560	23.0	200	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		64 -MEASURE-	64 -MEASURE-	> 50 mm	> 50 mm	64 -MEASURE-	
WWAN	LTE12	711	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		42.3 -MEASURE-	42.3 -MEASURE-	> 50 mm	> 50 mm	42.3 -MEASURE-	
WWAN	LTE13	782	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		44.4 -MEASURE-	44.4 -MEASURE-	> 50 mm	> 50 mm	44.4 -MEASURE-	
WWAN	LTE14	798	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		44.8 -MEASURE-	44.8 -MEASURE-	> 50 mm	> 50 mm	44.8 -MEASURE-	
WWAN	LTE26	841.5	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		46.1 -MEASURE-	46.1 -MEASURE-	> 50 mm	> 50 mm	46.1 -MEASURE-	
WWAN	LTE41	2680	23.0	200	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		65.5 -MEASURE-	65.5 -MEASURE-	> 50 mm	> 50 mm	65.5 -MEASURE-	
WWAN	LTE66	1780	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		67 -MEASURE-	67 -MEASURE-	> 50 mm	> 50 mm	67 -MEASURE-	
Reduction Power WWAN																
WWAN	WCDMA2	1907.6	19.0	79	3.4	2.2					21.8 -MEASURE-	21.8 -MEASURE-				
WWAN	WCDMA4	1752.6	14.9	31	3.4	2.2					8.2 -MEASURE-	8.2 -MEASURE-				
WWAN	WCDMA5	846.6	16.5	45	3.4	2.2					8.3 -MEASURE-	8.3 -MEASURE-				
WWAN	LTE2	1900	15.9	39	3.4	2.2					10.8 -MEASURE-	10.8 -MEASURE-				
WWAN	LTE4	1745	14.8	30	3.4	2.2					7.9 -MEASURE-	7.9 -MEASURE-				
WWAN	LTE5	844	19.2	83	3.4	2.2					15.3 -MEASURE-	15.3 -MEASURE-				
WWAN	LTE7	2560	14.7	30	3.4	2.2					9.6 -MEASURE-	9.6 -MEASURE-				
WWAN	LTE12	711	20.2	105	3.4	2.2					17.7 -MEASURE-	17.7 -MEASURE-				
WWAN	LTE13	782	19.0	79	3.4	2.2					14 -MEASURE-	14 -MEASURE-				
WWAN	LTE14	798	19.6	91	3.4	2.2					16.3 -MEASURE-	16.3 -MEASURE-				
WWAN	LTE26	841.5	19.2	83	3.4	2.2					15.2 -MEASURE-	15.2 -MEASURE-				
WWAN	LTE41	2680	16.8	48	3.4	2.2					15.7 -MEASURE-	15.7 -MEASURE-				
WWAN	LTE66	1780	15.0	32	3.4	2.2					8.5 -MEASURE-	8.5 -MEASURE-				

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Note(s):

According to KDB 447498, if the calculated threshold value is >3 then SAR testing is required.

1. The separation distances from antennas to the Rear or the Edge were input. For antennas <50 mm from the Rear or edge the separation distance used for the SAR exclusion calculations is 5 mm.
2. The separation distances from antennas to the Rear or the edge were input (shaded pink frame in above table). A number in the parenthesis is "(proximity sensor trigger distance – 1) mm". The separation distance used for the SAR exclusion calculations is 20 mm (Rear) and 28 mm (Edge1 (most conservative distance)).

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Antennas > 50mm to adjacent edges

Antenna	Tx Interface	Frequency (MHz)	Output Power		Separation Distances (mm)						Calculated Threshold Value					
			dBm	mW	Rear	Edge 1	Edge 2	Edge 3	Edge 4	Front	Rear	Edge 1	Edge 2	Edge 3	Edge 4	Front
Full Power WWAN																
WWAN	WCDMA2	1907.6	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	1134.6 mW -EXEMPT-	1422.1 mW -EXEMPT-	< 50 mm	
WWAN	WCDMA4	1752.6	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	1139.3 mW -EXEMPT-	1426.8 mW -EXEMPT-	< 50 mm	
WWAN	WCDMA5	846.6	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	742.1 mW -EXEMPT-	904.4 mW -EXEMPT-	< 50 mm	
WWAN	LTE2	1900	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	1134.8 mW -EXEMPT-	1422.3 mW -EXEMPT-	< 50 mm	
WWAN	LTE4	1745	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	1139.6 mW -EXEMPT-	1427.1 mW -EXEMPT-	< 50 mm	
WWAN	LTE5	844	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	740.6 mW -EXEMPT-	902.3 mW -EXEMPT-	< 50 mm	
WWAN	LTE7	2560	23.0	200	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	1119.8 mW -EXEMPT-	1407.3 mW -EXEMPT-	< 50 mm	
WWAN	LTE12	711	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	664.2 mW -EXEMPT-	800.5 mW -EXEMPT-	< 50 mm	
WWAN	LTE13	782	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	704.5 mW -EXEMPT-	854.4 mW -EXEMPT-	< 50 mm	
WWAN	LTE14	798	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	713.7 mW -EXEMPT-	866.7 mW -EXEMPT-	< 50 mm	
WWAN	LTE26	841.5	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	739.1 mW -EXEMPT-	900.4 mW -EXEMPT-	< 50 mm	
WWAN	LTE41	2680	23.0	200	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	1117.6 mW -EXEMPT-	1405.1 mW -EXEMPT-	< 50 mm	
WWAN	LTE66	1780	24.0	251	3.4 (20.00)	2.2 (28.00)	152.6	181.35	26.45		< 50 mm	< 50 mm	1138.4 mW -EXEMPT-	1425.9 mW -EXEMPT-	< 50 mm	
Reduction Power WWAN																
WWAN	WCDMA2	1907.6	19.0	79	3.4	2.2					< 50 mm	< 50 mm				
WWAN	WCDMA4	1752.6	14.9	31	3.4	2.2					< 50 mm	< 50 mm				
WWAN	WCDMA5	846.6	16.5	45	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE2	1909.2	15.9	39	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE4	1754.2	14.8	30	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE5	848.2	19.2	83	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE7	2567.5	14.7	30	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE12	715.3	20.2	105	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE13	784.5	19.0	79	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE14	1914.3	19.6	91	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE26	1914.3	19.2	83	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE41	848.3	16.8	48	3.4	2.2					< 50 mm	< 50 mm				
WWAN	LTE66	2680	15.0	32	3.4	2.2					< 50 mm	< 50 mm				

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Note(s):

According to KDB 447498, if the calculated Power threshold is less than the output power then SAR testing is required.

1. The separation distances from antennas to the Rear or the Edge were input. For antennas <50 mm from the Rear or edge the separation distance used for the SAR exclusion calculations is 5 mm.
2. The separation distances from antennas to the Rear or the edge were input (shaded pink frame in above table). A number in the parenthesis is "(proximity sensor trigger distance – 1) mm". The separation distance used for the SAR exclusion calculations is 20 mm (Rear) and 28 mm (Edge1 (most conservative distance)).

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7.2. Required Test Configurations

The table below identifies the standalone test configurations required for this device according to the findings in Section 7.1:

Test Configurations	Rear	Edge 1 (Top Edge)	Edge 2 (Left Edge)	Edge 3 (Bottom Edge)	Edge 4 (Right Edge)
W-CDMA Band 2 Full Power	Yes	Yes	Yes	Yes	Yes
W-CDMA Band 2 w/ Power Reduction	Yes	Yes	No	No	No
W-CDMA Band 4 Full Power	Yes	Yes	Yes	Yes	Yes
W-CDMA Band 4 w/ Power Reduction	Yes	Yes	No	No	No
W-CDMA Band 5 Full Power	Yes	Yes	Yes	Yes	Yes
W-CDMA Band 5 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 2 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 2 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 4 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 4 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 5 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 5 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 7 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 7 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 12 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 12 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 13 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 13 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 14 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 14 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 26 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 26 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 41 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 41 w/ Power Reduction	Yes	Yes	No	No	No
LTE Band 66 Full Power	Yes	Yes	Yes	Yes	Yes
LTE Band 66 w/ Power Reduction	Yes	Yes	No	No	No

Note(s):
Yes = Testing is required.
No = Testing is not required.
SAR test of Edge 2 and Edge 3 was measured for Section 12 Simultaneous transmission SAR test exclusion considerations.

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8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.
The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.
Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.
The dielectric constant (εr) and conductivity (σ) of typical tissue-equivalent media recipes are expected to be within ± 5% of the required target values; but for SAR measurement systems that have implemented the SAR error compensation algorithms documented in IEEE Std 1528-2013, to automatically compensate the measured SAR results for deviations between the measured and required tissue dielectric parameters, the tolerance for εr and σ may be relaxed to ± 10%. This is limited to frequencies ≤ 3 GHz.

Tissue Dielectric Parameters
FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head		Body	
	ε_r	σ (S/m)	ε_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5000	36.2	4.45	49.3	5.07
5100	36.1	4.55	49.1	5.18
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5400	35.8	4.86	48.7	5.53
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5700	35.4	5.17	48.3	5.88
5800	35.3	5.27	48.2	6.00

IEEE Std 1528-2013
Refer to Table 3 within the IEEE Std 1528-2013

IC RSS-102 Issue 5
Refer to Annex D - Body Tissue Equivalent Liquid

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Dielectric Property Measurements Results:

Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
				Measured	Target	Delta (%)	Measured	Target	Delta (%)
2019/11/8	1750	Body	1710	51.20	53.54	-4.36	1.50	1.46	2.81
			1750	51.20	53.43	-4.18	1.53	1.49	3.07
			1800	51.16	53.30	-4.02	1.58	1.52	3.63
2019/11/12	2600	Body	2500	50.57	52.64	-3.93	2.09	2.02	3.43
			2600	50.45	52.51	-3.92	2.19	2.16	1.40
			2700	50.43	52.38	-3.73	2.29	2.30	-0.63
2019/11/18	2600	Body	2500	51.59	52.64	-1.99	2.07	2.02	2.29
			2600	51.59	52.51	-1.74	2.13	2.16	-1.70
			2700	51.54	52.38	-1.61	2.20	2.30	-4.48
2019/11/18	835	Body	790	54.23	55.38	-2.07	0.99	0.97	2.18
			835	54.12	55.20	-1.98	1.01	0.97	2.43
			900	53.96	55.00	-1.89	1.03	1.05	-1.60
2019/11/19	1750	Body	1710	51.91	53.54	-3.04	1.49	1.46	1.98
			1750	51.92	53.43	-2.82	1.51	1.49	1.60
			1800	52.00	53.30	-2.44	1.54	1.52	1.56
2019/11/20	1900	Body	1840	53.23	53.30	-0.13	1.45	1.52	-4.36
			1900	52.99	53.30	-0.59	1.52	1.52	-0.24
			1960	52.73	53.30	-1.08	1.58	1.52	3.72
2019/11/25	1900	Body	1840	53.48	53.30	0.35	1.45	1.52	-4.39
			1900	53.18	53.30	-0.23	1.53	1.52	0.66
			1960	52.87	53.30	-0.81	1.59	1.52	4.47
2019/11/25	835	Body	770	52.92	55.38	-4.44	1.00	0.96	3.95
			800	52.85	55.20	-4.26	1.01	0.97	4.80
			835	52.75	55.00	-4.09	1.03	0.98	4.63
2019/11/27	750	Body	690	55.41	55.76	-0.63	0.95	0.96	-1.13
			720	55.44	55.66	-0.39	0.95	0.96	-0.57
			750	55.50	55.55	-0.08	0.96	0.96	0.09

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8.2. System Check

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 same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are re-measured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

System Performance Check Measurement Conditions:

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ±0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 15 mm was aligned with the dipole.
  For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- Distance between probe sensors and phantom surface was set to 3 mm.
  For 5 GHz band - Distance between probe sensors and phantom surface was set to 2.5 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

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System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within ±10% of the manufacturer calibrated dipole SAR target. Refer to Appendix B for the SAR System Check Plots.

Date Tested	Test Freq	Model,S/N	T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %
					Zoom Scan	Normalize to 1 W		
2019/11/8	1750	D1750,1089	Body	1g	9.73	38.9	36.64	6.2
				10g	5.15	20.6	19.48	5.7
2019/11/12	2600	D2600,1030	Body	1g	13.20	52.8	54.80	-3.6
				10g	5.84	23.36	24.24	-3.6
2019/11/18	2600	D2600,1030	Body	1g	12.80	51.2	54.80	-6.6
				10g	5.68	22.72	24.24	-6.3
2019/11/18	835	D835,4d149	Body	1g	2.40	9.60	9.84	-2.4
				10g	1.58	6.32	6.44	-1.9
2019/11/19	1750	D1750,1089	Body	1g	9.32	37.28	36.64	1.7
				10g	4.91	19.64	19.48	0.8
2019/11/20	1900	D1900,5d169	Body	1g	10.40	41.60	39.48	5.4
				10g	5.48	21.92	20.88	5.0
2019/11/25	1900	D1900,5d169	Body	1g	10.30	41.20	39.48	4.4
				10g	5.35	21.40	20.88	2.5
2019/11/25	835	D835,4d149	Body	1g	2.51	10.04	9.84	2.0
				10g	1.64	6.56	6.44	1.9
2019/11/27	750	D750,1058	Body	1g	2.19	8.76	8.60	1.9
				10g	1.43	5.72	5.72	0.0

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9. Conducted Output Power Measurements

9.1. W-CDMA

Release 99 Setup Procedures used to establish the test signals

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The DUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

Mode	Subtest	Rel99
WCDMA General Settings	Loopback Mode	Test Mode 2
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc/βd	8/15

HSDPA Setup Procedures used to establish the test signals

The following 4 Sub-tests were completed according to Release 5 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

Table C.10.2.4: β values for transmitter characteristics tests with HS-DPCCH

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
W-CDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 1			
	Power Control Algorithm	Algorithm 2			
	βc	2/15	11/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	βc/βd	2/15	11/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
HSDPA Specific Settings	D_{ACK}	8			
	D_{NAK}	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	Ahs=βhs/βc	30/15			

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HSPA (HSDPA & HSUPA) Setup Procedures used to establish the test signals

The following 5 Sub-tests were completed according to Release 6 procedures in table C,11.1.3 of 3GPP TS 34.121-1
A summary of these settings are illustrated below:

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

	Mode	HSPA				
	Subtest	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2 kbps RMC				
	HSDPA FRC	H-Set 1				
	HSUPA Test	HSPA				
	Power Control Algorithm	Algorithm 2				Algorithm 1
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βec	209/225	12/15	30/15	2/15	5/15
	βc/βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	βed	1309/225	94/75	47/15	56/75	47/15
	CM (dB)	1	3	2	3	1
	MPR (dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				0
	DNAK	8				0
	DCQI	8				0
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = βhs/βc	30/15				
HSUPA Specific Settings	E-DPDCCH	6	8	8	5	0
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	12
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	67
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E-TFCIs	5	5	2	5	1
	Reference E-TFCI	11	11	11	11	67
	Reference E-TFCI PO	4	4	4	4	18
	Reference E-TFCI	67	67	92	67	67
	Reference E-TFCI PO	18	18	18	18	18
	Reference E-TFCI	71	71	71	71	71
	Reference E-TFCI PO	23	23	23	23	23
	Reference E-TFCI	75	75	75	75	75
	Reference E-TFCI PO	26	26	26	26	26
	Reference E-TFCI	81	81	81	81	81
	Reference E-TFCI PO	27	27	27	27	27
	Maximum Channelization Codes	2xSF2				SF4

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DC-HSDPA Setup Procedures used to establish the test signals

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1

Table E.5.0: Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH _Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

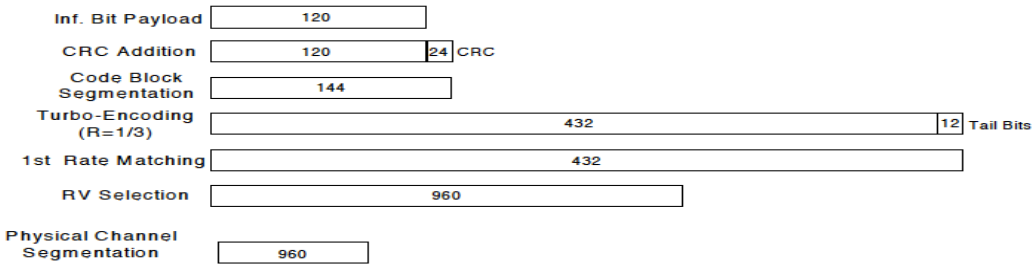

Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 8 procedures in section 5.2 of 3GPP TS34.121.
A summary of subtest settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 1			
	Power Control Algorithm	Algorithm2			
	βc	2/15	11/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs = βhs/ βc	30/15			

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HSPA+

The following 1 Sub-test was completed according to Release 7 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

Table C.11.1.4: **β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM**

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	$\beta_{ed}1$: 30/15 $\beta_{ed}2$: 30/15	$\beta_{ed}3$: 24/15 $\beta_{ed}4$: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

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W-CDMA Band II Measured Results

R99

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band II	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	23.04	16.03
		9400	1880.0	23.15	16.20
		9538	1907.6	23.29	16.30

HSDPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band II	Subtest 1	9262	1852.4	22.11	15.15
		9400	1880.0	22.25	15.19
		9538	1907.6	22.27	15.24
	Subtest 2	9262	1852.4	22.14	15.10
		9400	1880.0	22.15	15.18
		9538	1907.6	22.16	15.24
	Subtest 3	9262	1852.4	21.47	14.62
		9400	1880.0	21.77	14.78
		9538	1907.6	21.72	14.65
	Subtest 4	9262	1852.4	21.49	14.55
		9400	1880.0	21.70	14.74
		9538	1907.6	21.70	14.68

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DC-HSDPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band II	Subtest 1	9262	1852.4	22.09	15.09
		9400	1880.0	22.23	15.10
		9538	1907.6	22.25	15.19
	Subtest 2	9262	1852.4	22.09	15.08
		9400	1880.0	22.10	15.09
		9538	1907.6	22.11	15.20
	Subtest 3	9262	1852.4	21.41	14.59
		9400	1880.0	21.69	14.69
		9538	1907.6	21.67	14.60
	Subtest 4	9262	1852.4	21.46	14.51
		9400	1880.0	21.65	14.71
		9538	1907.6	21.65	14.64

HSUPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
WCDMA (UMTS) Band II	Subtest 1	9262	1852.4	21.98	15.01
		9400	1880.0	22.13	15.16
		9538	1907.6	22.16	15.17
	Subtest 2	9262	1852.4	20.06	13.09
		9400	1880.0	20.19	13.22
		9538	1907.6	20.26	13.21
	Subtest 3	9262	1852.4	21.05	14.03
		9400	1880.0	21.19	14.22
		9538	1907.6	21.18	14.17
	Subtest 4	9262	1852.4	20.01	13.08
		9400	1880.0	20.18	13.21
		9538	1907.6	20.16	13.28
	Subtest 5	9262	1852.4	21.69	15.09
		9400	1880.0	22.09	15.19
		9538	1907.6	21.99	15.19

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W-CDMA Band IV Measured Results

R99

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band IV	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	22.92	14.64
		1413	1732.6	23.18	14.66
		1513	1752.6	23.13	14.42

HSDPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band IV	Subtest 1	1312	1712.4	21.99	13.57
		1413	1732.6	22.18	13.66
		1513	1752.6	22.20	13.53
	Subtest 2	1312	1712.4	21.98	13.58
		1413	1732.6	22.13	13.68
		1513	1752.6	22.10	13.64
	Subtest 3	1312	1712.4	21.51	13.09
		1413	1732.6	21.63	13.15
		1513	1752.6	21.69	13.05
	Subtest 4	1312	1712.4	21.39	13.07
		1413	1732.6	21.65	13.14
		1513	1752.6	21.67	12.96

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DC-HSDPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band IV	Subtest 1	1312	1712.4	21.97	13.54
		1413	1732.6	22.12	13.62
		1513	1752.6	22.14	13.50
	Subtest 2	1312	1712.4	21.92	13.52
		1413	1732.6	22.11	13.63
		1513	1752.6	22.09	13.62
	Subtest 3	1312	1712.4	21.47	13.02
		1413	1732.6	21.60	13.12
		1513	1752.6	21.62	13.02
	Subtest 4	1312	1712.4	21.34	13.03
		1413	1732.6	21.62	13.12
		1513	1752.6	21.61	12.92

HSUPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
WCDMA (UMTS) Band IV	Subtest 1	1312	1712.4	21.95	13.51
		1413	1732.6	22.12	13.71
		1513	1752.6	22.17	13.49
	Subtest 2	1312	1712.4	19.96	11.63
		1413	1732.6	20.16	11.67
		1513	1752.6	20.06	11.51
	Subtest 3	1312	1712.4	20.99	12.54
		1413	1732.6	21.13	12.67
		1513	1752.6	21.10	12.55
	Subtest 4	1312	1712.4	19.90	11.56
		1413	1732.6	20.08	11.71
		1513	1752.6	20.14	11.54
	Subtest 5	1312	1712.4	21.92	13.52
		1413	1732.6	22.02	13.52
		1513	1752.6	22.02	13.32

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W-CDMA Band V Measured Results

R99

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band V	Rel 99 (RMC, 12.2 kbps)	4132	826.4	23.33	18.80
		4183	836.6	23.28	18.61
		4233	846.6	23.16	18.88

HSDPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band V	Subtest 1	4132	826.4	22.30	17.76
		4183	836.6	22.31	17.89
		4233	846.6	22.28	17.75
	Subtest 2	4132	826.4	22.28	17.80
		4183	836.6	22.27	17.83
		4233	846.6	22.25	17.74
	Subtest 3	4132	826.4	21.76	17.34
		4183	836.6	21.79	17.30
		4233	846.6	21.75	17.30
	Subtest 4	4132	826.4	21.75	17.28
		4183	836.6	21.84	17.31
		4233	846.6	21.72	17.26

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DC-HSDPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
W-CDMA (UMTS) Band V	Subtest 1	4132	826.4	22.28	17.74
		4183	836.6	22.30	17.78
		4233	846.6	22.27	17.73
	Subtest 2	4132	826.4	22.27	17.78
		4183	836.6	22.25	17.78
		4233	846.6	22.26	17.71
	Subtest 3	4132	826.4	21.75	17.33
		4183	836.6	21.78	17.28
		4233	846.6	21.75	17.27
	Subtest 4	4132	826.4	21.73	17.27
		4183	836.6	21.72	17.28
		4233	846.6	21.70	17.24

HSUPA

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)	
				Full Power	Reduced Power
WCDMA (UMTS) Band V	Subtest 1	4132	826.4	22.26	17.82
		4183	836.6	22.22	17.85
		4233	846.6	22.18	17.72
	Subtest 2	4132	826.4	20.22	15.78
		4183	836.6	20.26	15.79
		4233	846.6	20.07	15.70
	Subtest 3	4132	826.4	21.16	16.84
		4183	836.6	21.34	16.83
		4233	846.6	21.21	16.81
	Subtest 4	4132	826.4	20.29	15.84
		4183	836.6	20.23	15.83
		4233	846.6	20.23	15.78
	Subtest 5	4132	826.4	22.23	17.79
		4183	836.6	22.33	17.82
		4233	846.6	22.23	17.77

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9.2. LTE

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

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

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3

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

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The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_01”.

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (subclause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	N/A
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36, 66, 70	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2, 6.6.3.3.19	41	5, 10, 15, 20	Table 6.2.4-4, Table 6.2.4-4a	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50 (NOTE1)	≤ 1 (NOTE1)
			15, 20	Table 6.2.4-18 (NOTE2)	
		65 (NOTE 3)	10,15,20	≥ 50	≤ 1 (NOTE 1)
			15,20	Table 6.2.4-18 (NOTE 2)	
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	N/A
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	
NS_11	6.6.2.2.1 6.6.3.3.13	23	1.4, 3, 5, 10, 15, 20	Table 6.2.4-5	
NS_12	6.6.3.3.5	26	1.4, 3, 5, 10, 15	Table 6.2.4-6	
NS_13	6.6.3.3.6	26	5	Table 6.2.4-7	
NS_14	6.6.3.3.7	26	10, 15	Table 6.2.4-8	
NS_15	6.6.3.3.8	26	1.4, 3, 5, 10, 15	Table 6.2.4-9 Table 6.2.4-10	
NS_16	6.6.3.3.9	27	3, 5, 10	Table 6.2.4-11, Table 6.2.4-12, Table 6.2.4-13	
NS_17	6.6.3.3.10	28	5, 10	Table 5.6-1	N/A
NS_18	6.6.3.3.11	28	5	≥ 2	≤ 1
			10, 15, 20	≥ 1	≤ 4
NS_19	6.6.3.3.12	44	10, 15, 20	Table 6.2.4-14	
NS_20	6.2.2 6.6.2.2.1 6.6.3.3.14	23	5, 10, 15, 20	Table 6.2.4-15	
NS_21	6.6.2.2.1 6.6.3.3.15	30	5, 10	Table 6.2.4-16	
NS_22	6.6.3.3.16	42, 43	5, 10, 15, 20	Table 6.2.4-17	
NS_23	6.6.3.3.17	42, 43	5, 10, 15, 20	N/A	
NS_24	6.6.3.3.20	65 (NOTE 4)	5, 10, 15, 20	Table 6.2.4-19	
NS_25	6.6.3.3.21	65 (NOTE 4)	5, 10, 15, 20	Table 6.2.4-20	
NS_26	6.6.3.3.22	68	10, 15	Table 6.2.4-21	
NS_27	6.6.2.2.5, 6.6.3.3.23	48	5, 10, 15, 20	Table 6.2.4-22	
NS_28	6.2.2A, 6.6.3.3.24	46 (NOTE 5)	20	Table 6.2.4-23	
NS_29	6.2.2A, 6.6.2.3.1a, 6.6.3.3.25	46 (NOTE 5)	20	Table 6.2.4-24	
NS_30	6.2.2A, 6.6.3.3.26	46 (NOTE 5)	20	Table 6.2.4-25	
NS_31	6.2.2A, 6.6.3.3.27	46 (NOTE 5)	20	Table 6.2.4-26	
NS_32	-	-	-	-	-

NOTE 1: Applicable when the lower edge of the assigned E-UTRA UL channel bandwidth frequency is larger than or equal to the upper edge of PHS band (1915.7 MHz) + 4 MHz + the channel BW assigned, where channel BW is as defined in subclause 5.6. A-MPR for

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LTE Band 2 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	18700	1860	QPSK	1	0	0	0	24.0	23.11
				1	49	0	0	24.0	22.86
				1	99	0	0	24.0	23.15
				50	0	1	1	23.0	21.89
				50	24	1	1	23.0	21.93
				50	49	1	1	23.0	21.91
				100	0	1	1	23.0	21.92
			16QAM	1	0	1	1	23.0	22.45
				1	49	1	1	23.0	22.27
				1	99	1	1	23.0	22.53
				50	0	2	2	22.0	20.92
				50	24	2	2	22.0	20.94
				50	49	2	2	22.0	20.93
				100	0	2	2	22.0	20.91
	18900	1880	QPSK	1	0	0	0	24.0	23.32
				1	49	0	0	24.0	23.01
				1	99	0	0	24.0	23.26
				50	0	1	1	23.0	22.10
				50	24	1	1	23.0	22.04
				50	49	1	1	23.0	22.13
				100	0	1	1	23.0	22.09
			16QAM	1	0	1	1	23.0	22.68
				1	49	1	1	23.0	22.39
				1	99	1	1	23.0	22.59
				50	0	2	2	22.0	21.08
				50	24	2	2	22.0	21.06
				50	49	2	2	22.0	21.11
				100	0	2	2	22.0	21.07
	19100	1900	QPSK	1	0	0	0	24.0	23.49
				1	49	0	0	24.0	23.19
				1	99	0	0	24.0	23.23
				50	0	1	1	23.0	22.28
				50	24	1	1	23.0	22.25
				50	49	1	1	23.0	22.17
				100	0	1	1	23.0	22.23
			16QAM	1	0	1	1	23.0	22.83
				1	49	1	1	23.0	22.53
				1	99	1	1	23.0	22.51
				50	0	2	2	22.0	21.28
				50	24	2	2	22.0	21.19
				50	49	2	2	22.0	21.18
				100	0	2	2	22.0	21.24

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	18675	1857.5	QPSK	1	0	0	0	24.0	22.95
				1	37	0	0	24.0	22.85
				1	74	0	0	24.0	22.93
				36	0	1	1	23.0	21.88
				36	19	1	1	23.0	21.92
				36	39	1	1	23.0	21.91
				75	0	1	1	23.0	21.93
			16QAM	1	0	1	1	23.0	22.11
				1	37	1	1	23.0	21.99
				1	74	1	1	23.0	22.10
				36	0	2	2	22.0	20.94
				36	19	2	2	22.0	20.92
				36	39	2	2	22.0	20.93
				75	0	2	2	22.0	20.87
	18900	1880	QPSK	1	0	0	0	24.0	23.13
				1	37	0	0	24.0	23.00
				1	74	0	0	24.0	23.16
				36	0	1	1	23.0	22.10
				36	19	1	1	23.0	22.08
				36	39	1	1	23.0	22.11
				75	0	1	1	23.0	22.06
			16QAM	1	0	1	1	23.0	22.28
				1	37	1	1	23.0	22.16
				1	74	1	1	23.0	22.30
				36	0	2	2	22.0	21.13
				36	19	2	2	22.0	21.11
				36	39	2	2	22.0	21.17
				75	0	2	2	22.0	20.99
	19125	1902.5	QPSK	1	0	0	0	24.0	23.37
				1	37	0	0	24.0	23.16
				1	74	0	0	24.0	23.14
				36	0	1	1	23.0	22.26
				36	19	1	1	23.0	22.18
				36	39	1	1	23.0	22.13
				75	0	1	1	23.0	22.22
			16QAM	1	0	1	1	23.0	22.51
				1	37	1	1	23.0	22.31
				1	74	1	1	23.0	22.30
				36	0	2	2	22.0	21.29
				36	19	2	2	22.0	21.26
				36	39	2	2	22.0	21.20
				75	0	2	2	22.0	21.17

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	18650	1855	QPSK	1	0	0	0	24.0	22.88
				1	24	0	0	24.0	22.62
				1	49	0	0	24.0	22.92
				25	0	1	1	23.0	21.83
				25	12	1	1	23.0	21.86
				25	24	1	1	23.0	21.85
				50	0	1	1	23.0	21.83
			16QAM	1	0	1	1	23.0	22.17
				1	24	1	1	23.0	22.00
				1	49	1	1	23.0	22.23
				25	0	2	2	22.0	20.87
				25	12	2	2	22.0	20.85
				25	24	2	2	22.0	20.82
				50	0	2	2	22.0	20.84
	18900	1880	QPSK	1	0	0	0	24.0	23.09
				1	24	0	0	24.0	22.81
				1	49	0	0	24.0	23.15
				25	0	1	1	23.0	22.03
				25	12	1	1	23.0	22.04
				25	24	1	1	23.0	22.11
				50	0	1	1	23.0	21.99
			16QAM	1	0	1	1	23.0	22.44
				1	24	1	1	23.0	22.17
				1	49	1	1	23.0	22.46
				25	0	2	2	22.0	21.04
				25	12	2	2	22.0	21.07
				25	24	2	2	22.0	21.12
				50	0	2	2	22.0	21.02
	19150	1905	QPSK	1	0	0	0	24.0	23.10
				1	24	0	0	24.0	23.02
				1	49	0	0	24.0	23.09
				25	0	1	1	23.0	22.20
				25	12	1	1	23.0	22.19
				25	24	1	1	23.0	22.13
				50	0	1	1	23.0	22.14
			16QAM	1	0	1	1	23.0	22.39
				1	24	1	1	23.0	22.32
				1	49	1	1	23.0	22.25
				25	0	2	2	22.0	21.22
				25	12	2	2	22.0	21.19
				25	24	2	2	22.0	21.17
				50	0	2	2	22.0	21.15

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	18625	1852.5	QPSK	1	0	0	0	24.0	22.83
				1	12	0	0	24.0	22.78
				1	24	0	0	24.0	22.88
				12	0	1	1	23.0	21.78
				12	6	1	1	23.0	21.84
				12	11	1	1	23.0	21.80
				25	0	1	1	23.0	21.75
			16QAM	1	0	1	1	23.0	22.17
				1	12	1	1	23.0	22.10
				1	24	1	1	23.0	22.18
				12	0	2	2	22.0	20.85
				12	6	2	2	22.0	20.87
				12	11	2	2	22.0	20.88
				25	0	2	2	22.0	20.78
	18900	1880	QPSK	1	0	0	0	24.0	23.03
				1	12	0	0	24.0	23.00
				1	24	0	0	24.0	23.12
				12	0	1	1	23.0	22.01
				12	6	1	1	23.0	21.98
				12	11	1	1	23.0	21.99
				25	0	1	1	23.0	22.02
			16QAM	1	0	1	1	23.0	22.38
				1	12	1	1	23.0	22.34
				1	24	1	1	23.0	22.54
				12	0	2	2	22.0	21.12
				12	6	2	2	22.0	21.13
				12	11	2	2	22.0	21.11
				25	0	2	2	22.0	21.04
	19175	1907.5	QPSK	1	0	0	0	24.0	23.13
				1	12	0	0	24.0	23.05
				1	24	0	0	24.0	23.09
				12	0	1	1	23.0	22.16
				12	6	1	1	23.0	22.13
				12	11	1	1	23.0	22.12
				25	0	1	1	23.0	22.11
			16QAM	1	0	1	1	23.0	22.36
				1	12	1	1	23.0	22.33
				1	24	1	1	23.0	22.29
				12	0	2	2	22.0	21.19
				12	6	2	2	22.0	21.21
				12	11	2	2	22.0	21.16
				25	0	2	2	22.0	21.15

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	18615	1851.5	QPSK	1	0	0	0	24.0	22.61
				1	7	0	0	24.0	22.72
				1	14	0	0	24.0	22.63
				8	0	1	1	23.0	21.76
				8	4	1	1	23.0	21.80
				8	7	1	1	23.0	21.79
				15	0	1	1	23.0	21.76
			16QAM	1	0	1	1	23.0	21.84
				1	7	1	1	23.0	22.00
				1	14	1	1	23.0	21.87
				8	0	2	2	22.0	20.67
				8	4	2	2	22.0	20.72
				8	7	2	2	22.0	20.68
				15	0	2	2	22.0	20.73
	18900	1880	QPSK	1	0	0	0	24.0	22.92
				1	7	0	0	24.0	23.03
				1	14	0	0	24.0	22.90
				8	0	1	1	23.0	21.98
				8	4	1	1	23.0	22.01
				8	7	1	1	23.0	21.97
				15	0	1	1	23.0	21.96
			16QAM	1	0	1	1	23.0	22.18
				1	7	1	1	23.0	22.37
				1	14	1	1	23.0	22.23
				8	0	2	2	22.0	21.01
				8	4	2	2	22.0	21.03
				8	7	2	2	22.0	21.00
				15	0	2	2	22.0	20.94
	19185	1908.5	QPSK	1	0	0	0	24.0	23.07
				1	7	0	0	24.0	23.13
				1	14	0	0	24.0	23.06
				8	0	1	1	23.0	22.08
				8	4	1	1	23.0	22.12
				8	7	1	1	23.0	22.13
				15	0	1	1	23.0	22.13
			16QAM	1	0	1	1	23.0	22.21
				1	7	1	1	23.0	22.28
				1	14	1	1	23.0	22.14
				8	0	2	2	22.0	21.10
				8	4	2	2	22.0	21.09
				8	7	2	2	22.0	21.05
				15	0	2	2	22.0	21.11

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	18607	1850.7	QPSK	1	0	0	0	24.0	22.62
				1	2	0	0	24.0	22.72
				1	5	0	0	24.0	22.64
				3	0	0	0	24.0	22.71
				3	1	0	0	24.0	22.72
				3	3	0	0	24.0	22.66
				6	0	1	1	23.0	21.64
			16QAM	1	0	1	1	23.0	21.71
				1	2	1	1	23.0	21.79
				1	5	1	1	23.0	21.69
				3	0	1	1	23.0	21.63
				3	1	1	1	23.0	21.68
				3	3	1	1	23.0	21.59
				6	0	2	2	22.0	20.76
	18900	1880	QPSK	1	0	0	0	24.0	22.85
				1	2	0	0	24.0	22.91
				1	5	0	0	24.0	22.84
				3	0	0	0	24.0	22.96
				3	1	0	0	24.0	22.99
				3	3	0	0	24.0	22.90
				6	0	1	1	23.0	21.90
			16QAM	1	0	1	1	23.0	22.13
				1	2	1	1	23.0	22.25
				1	5	1	1	23.0	22.19
				3	0	1	1	23.0	22.01
				3	1	1	1	23.0	22.03
				3	3	1	1	23.0	22.00
				6	0	2	2	22.0	20.98
	19193	1909.3	QPSK	1	0	0	0	24.0	22.99
				1	2	0	0	24.0	23.02
				1	5	0	0	24.0	22.96
				3	0	0	0	24.0	22.98
				3	1	0	0	24.0	23.04
				3	3	0	0	24.0	23.01
				6	0	1	1	23.0	22.03
			16QAM	1	0	1	1	23.0	22.11
				1	2	1	1	23.0	22.21
				1	5	1	1	23.0	22.08
				3	0	1	1	23.0	22.20
				3	1	1	1	23.0	22.23
				3	3	1	1	23.0	22.18
				6	0	2	2	22.0	21.02

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LTE Band 2 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	18700	1860	QPSK	1	0			15.9	15.13
				1	49			15.9	14.89
				1	99			15.9	15.17
				50	0			15.9	14.91
				50	24			15.9	14.93
				50	49			15.9	14.92
				100	0			15.9	14.90
			16QAM	1	0			15.9	15.41
				1	49			15.9	15.16
				1	99			15.9	15.45
				50	0			15.9	14.92
				50	24			15.9	14.94
				50	49			15.9	14.93
				100	0			15.9	14.90
	18900	1880	QPSK	1	0			15.9	15.31
				1	49			15.9	15.03
				1	99			15.9	15.27
				50	0			15.9	15.09
				50	24			15.9	15.06
				50	49			15.9	15.11
				100	0	**MPR is disabled when power reduction is enabled**		15.9	15.05
			16QAM	1	0			15.9	15.61
				1	49			15.9	15.29
				1	99			15.9	15.53
				50	0			15.9	15.08
				50	24			15.9	15.05
				50	49			15.9	15.12
				100	0			15.9	15.06
	19100	1900	QPSK	1	0			15.9	15.49
				1	49			15.9	15.22
				1	99			15.9	15.26
				50	0			15.9	15.25
				50	24			15.9	15.18
				50	49			15.9	15.20
				100	0			15.9	15.23
			16QAM	1	0			15.9	15.80
				1	49			15.9	15.46
				1	99			15.9	15.53
				50	0			15.9	15.24
				50	24			15.9	15.22
				50	49			15.9	15.18
				100	0			15.9	15.21

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	18675	1857.5	QPSK	1	0			15.9	14.93
				1	37			15.9	14.80
				1	74			15.9	14.89
				36	0			15.9	14.85
				36	19			15.9	14.90
				36	39			15.9	14.89
				75	0			15.9	14.87
			16QAM	1	0			15.9	15.14
				1	37			15.9	15.09
				1	74			15.9	15.15
				36	0			15.9	14.92
				36	19			15.9	14.92
				36	39			15.9	14.92
				75	0			15.9	14.89
	18900	1880	QPSK	1	0			15.9	15.07
				1	37			15.9	14.91
				1	74			15.9	15.05
				36	0			15.9	15.05
				36	19			15.9	15.00
				36	39			15.9	15.12
				75	0	**MPR is disabled when power reduction is enabled**		15.9	15.03
			16QAM	1	0			15.9	15.31
				1	37			15.9	15.22
				1	74			15.9	15.37
				36	0			15.9	15.08
				36	19			15.9	15.07
				36	39			15.9	15.14
				75	0			15.9	15.00
	19125	1902.5	QPSK	1	0			15.9	15.33
				1	37			15.9	15.11
				1	74			15.9	15.18
				36	0			15.9	15.20
				36	19			15.9	15.17
				36	39			15.9	15.11
				75	0			15.9	15.18
			16QAM	1	0			15.9	15.47
				1	37			15.9	15.28
				1	74			15.9	15.30
				36	0			15.9	15.21
				36	19			15.9	15.19
				36	39			15.9	15.13
				75	0			15.9	15.13

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	18650	1855	QPSK	1	0			15.9	15.03
				1	24			15.9	14.76
				1	49			15.9	15.04
				25	0			15.9	14.83
				25	12			15.9	14.82
				25	24			15.9	14.84
				50	0			15.9	14.83
			16QAM	1	0			15.9	15.24
				1	24			15.9	15.01
				1	49			15.9	15.29
				25	0			15.9	14.84
				25	12			15.9	14.86
				25	24			15.9	14.87
				50	0			15.9	14.83
	18900	1880	QPSK	1	0			15.9	15.20
				1	24			15.9	14.92
				1	49			15.9	15.25
				25	0			15.9	15.03
				25	12			15.9	15.01
				25	24			15.9	15.07
				50	0			15.9	14.97
			16QAM	1	0			15.9	15.50
				1	24			15.9	15.23
				1	49			15.9	15.55
				25	0			15.9	14.98
				25	12			15.9	14.94
				25	24			15.9	15.07
				50	0			15.9	15.01
	19150	1905	QPSK	1	0			15.9	15.21
				1	24			15.9	15.15
				1	49			15.9	15.14
				25	0			15.9	15.17
				25	12			15.9	15.14
				25	24			15.9	15.11
				50	0			15.9	15.16
			16QAM	1	0			15.9	15.42
				1	24			15.9	15.36
				1	49			15.9	15.34
				25	0			15.9	15.19
				25	12			15.9	15.14
				25	24			15.9	15.16
				50	0			15.9	15.15

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	18625	1852.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		15.9	14.72
				1	12			15.9	14.66
				1	24			15.9	14.76
				12	0			15.9	14.76
				12	6			15.9	14.78
				12	11			15.9	14.77
				25	0			15.9	14.77
			16QAM	1	0			15.9	15.00
				1	12			15.9	14.96
				1	24			15.9	15.04
				12	0			15.9	14.84
				12	6			15.9	14.85
				12	11			15.9	14.84
				25	0			15.9	14.77
	18900	1880	QPSK	1	0			15.9	14.95
				1	12			15.9	14.89
				1	24			15.9	15.05
				12	0			15.9	15.00
				12	6			15.9	14.99
				12	11			15.9	14.97
				25	0			15.9	14.98
			16QAM	1	0			15.9	15.22
				1	12			15.9	15.18
				1	24			15.9	15.33
				12	0			15.9	15.05
				12	6			15.9	15.04
				12	11			15.9	15.04
				25	0			15.9	14.99
	19175	1907.5	QPSK	1	0			15.9	15.09
				1	12			15.9	15.05
				1	24			15.9	15.10
				12	0			15.9	15.14
				12	6			15.9	15.16
				12	11			15.9	15.10
				25	0			15.9	15.11
			16QAM	1	0			15.9	15.39
				1	12			15.9	15.33
				1	24			15.9	15.35
				12	0			15.9	15.20
				12	6			15.9	15.19
				12	11			15.9	15.18
				25	0			15.9	15.10

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	18615	1851.5	QPSK	1	0			15.9	14.74
				1	7			15.9	14.82
				1	14			15.9	14.79
				8	0			15.9	14.73
				8	4			15.9	14.78
				8	7			15.9	14.75
				15	0			15.9	14.71
			16QAM	1	0			15.9	14.99
				1	7			15.9	15.11
				1	14			15.9	15.00
				8	0			15.9	14.86
				8	4			15.9	14.85
				8	7			15.9	14.87
				15	0			15.9	14.79
	18900	1880	QPSK	1	0			15.9	14.92
				1	7			15.9	14.95
				1	14			15.9	14.91
				8	0			15.9	14.98
				8	4			15.9	14.96
				8	7			15.9	14.96
				15	0			15.9	14.93
			16QAM	1	0			15.9	15.10
				1	7			15.9	15.20
				1	14			15.9	15.08
				8	0			15.9	14.93
				8	4			15.9	14.91
				8	7			15.9	14.91
				15	0			15.9	14.93
	19185	1908.5	QPSK	1	0			15.9	15.03
				1	7			15.9	15.11
				1	14			15.9	15.01
				8	0			15.9	15.08
				8	4			15.9	15.11
				8	7			15.9	15.05
				15	0			15.9	15.09
			16QAM	1	0			15.9	15.22
				1	7			15.9	15.35
				1	14			15.9	15.18
				8	0			15.9	15.05
				8	4			15.9	15.07
				8	7			15.9	15.03
				15	0			15.9	15.06

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	18607	1850.7	QPSK	1	0			15.9	14.68
				1	2			15.9	14.74
				1	5			15.9	14.66
				3	0			15.9	14.71
				3	1			15.9	14.73
				3	3			15.9	14.66
				6	0			15.9	14.64
			16QAM	1	0			15.9	14.69
				1	2			15.9	14.78
				1	5			15.9	14.69
				3	0			15.9	14.65
				3	1			15.9	14.69
				3	3			15.9	14.62
				6	0			15.9	14.73
	18900	1880	QPSK	1	0			15.9	14.80
				1	2			15.9	14.87
				1	5			15.9	14.82
				3	0			15.9	14.90
				3	1			15.9	14.94
				3	3			15.9	14.89
				6	0			15.9	14.87
			16QAM	1	0			15.9	15.09
				1	2			15.9	15.17
				1	5			15.9	15.09
				3	0			15.9	15.03
				3	1			15.9	15.07
				3	3			15.9	15.03
				6	0			15.9	14.92
	19193	1909.3	QPSK	1	0			15.9	14.95
				1	2			15.9	15.00
				1	5			15.9	14.96
				3	0			15.9	15.05
				3	1			15.9	15.04
				3	3			15.9	15.01
				6	0			15.9	15.01
			16QAM	1	0			15.9	15.13
				1	2			15.9	15.22
				1	5			15.9	15.15
				3	0			15.9	15.22
				3	1			15.9	15.25
				3	3			15.9	15.17
				6	0			15.9	15.00

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	20050	1720	QPSK	1	0	0	0	24.0	23.39
				1	49	0	0	24.0	23.21
				1	99	0	0	24.0	23.35
				50	0	1	1	23.0	22.34
				50	24	1	1	23.0	22.26
				50	49	1	1	23.0	22.28
				100	0	1	1	23.0	22.24
			16QAM	1	0	1	1	23.0	22.74
				1	49	1	1	23.0	22.52
				1	99	1	1	23.0	22.67
				50	0	2	2	22.0	21.34
				50	24	2	2	22.0	21.28
				50	49	2	2	22.0	21.30
				100	0	2	2	22.0	21.26
	20175	1732.5	QPSK	1	0	0	0	24.0	23.37
				1	49	0	0	24.0	23.27
				1	99	0	0	24.0	23.28
				50	0	1	1	23.0	22.32
				50	24	1	1	23.0	22.34
				50	49	1	1	23.0	22.35
				100	0	1	1	23.0	22.30
			16QAM	1	0	1	1	23.0	22.81
				1	49	1	1	23.0	22.63
				1	99	1	1	23.0	22.63
				50	0	2	2	22.0	21.39
				50	24	2	2	22.0	21.35
				50	49	2	2	22.0	21.33
				100	0	2	2	22.0	21.35
	20300	1745	QPSK	1	0	0	0	24.0	23.47
				1	49	0	0	24.0	23.19
				1	99	0	0	24.0	23.17
				50	0	1	1	23.0	22.27
				50	24	1	1	23.0	22.23
				50	49	1	1	23.0	22.11
				100	0	1	1	23.0	22.25
			16QAM	1	0	1	1	23.0	22.80
				1	49	1	1	23.0	22.53
				1	99	1	1	23.0	22.57
				50	0	2	2	22.0	21.28
				50	24	2	2	22.0	21.26
				50	49	2	2	22.0	21.14
				100	0	2	2	22.0	21.28

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15	20025	1717.5	QPSK	1	0	0	0	24.0	23.36
				1	37	0	0	24.0	23.23
				1	74	0	0	24.0	23.29
				36	0	1	1	23.0	22.32
				36	19	1	1	23.0	22.34
				36	39	1	1	23.0	22.23
				75	0	1	1	23.0	22.30
			16QAM	1	0	1	1	23.0	22.66
				1	37	1	1	23.0	22.60
				1	74	1	1	23.0	22.57
				36	0	2	2	22.0	21.31
				36	19	2	2	22.0	21.32
				36	39	2	2	22.0	21.25
				75	0	2	2	22.0	21.32
	20175	1732.5	QPSK	1	0	0	0	24.0	23.30
				1	37	0	0	24.0	23.17
				1	74	0	0	24.0	23.14
				36	0	1	1	23.0	22.33
				36	19	1	1	23.0	22.27
				36	39	1	1	23.0	22.30
				75	0	1	1	23.0	22.24
			16QAM	1	0	1	1	23.0	22.63
				1	37	1	1	23.0	22.53
				1	74	1	1	23.0	22.46
				36	0	2	2	22.0	21.29
				36	19	2	2	22.0	21.32
				36	39	2	2	22.0	21.28
				75	0	2	2	22.0	21.27
	20325	1747.5	QPSK	1	0	0	0	24.0	23.28
				1	37	0	0	24.0	23.13
				1	74	0	0	24.0	23.10
				36	0	1	1	23.0	22.22
				36	19	1	1	23.0	22.18
				36	39	1	1	23.0	22.05
				75	0	1	1	23.0	22.18
			16QAM	1	0	1	1	23.0	22.48
				1	37	1	1	23.0	22.32
				1	74	1	1	23.0	22.25
				36	0	2	2	22.0	21.25
				36	19	2	2	22.0	21.24
				36	39	2	2	22.0	21.10
				75	0	2	2	22.0	21.12

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10	20000	1715	QPSK	1	0	0	0	24.0	23.22
				1	24	0	0	24.0	23.24
				1	49	0	0	24.0	23.18
				25	0	1	1	23.0	22.24
				25	12	1	1	23.0	22.23
				25	24	1	1	23.0	22.26
				50	0	1	1	23.0	22.20
			16QAM	1	0	1	1	23.0	22.54
				1	24	1	1	23.0	22.53
				1	49	1	1	23.0	22.51
				25	0	2	2	22.0	21.24
				25	12	2	2	22.0	21.24
				25	24	2	2	22.0	21.22
				50	0	2	2	22.0	21.26
	20175	1732.5	QPSK	1	0	0	0	24.0	23.16
				1	24	0	0	24.0	23.13
				1	49	0	0	24.0	23.18
				25	0	1	1	23.0	22.25
				25	12	1	1	23.0	22.27
				25	24	1	1	23.0	22.26
				50	0	1	1	23.0	22.25
			16QAM	1	0	1	1	23.0	22.45
				1	24	1	1	23.0	22.42
				1	49	1	1	23.0	22.44
				25	0	2	2	22.0	21.28
				25	12	2	2	22.0	21.29
				25	24	2	2	22.0	21.27
				50	0	2	2	22.0	21.24
	20350	1750	QPSK	1	0	0	0	24.0	23.20
				1	24	0	0	24.0	23.03
				1	49	0	0	24.0	23.08
				25	0	1	1	23.0	22.17
				25	12	1	1	23.0	22.04
				25	24	1	1	23.0	22.06
				50	0	1	1	23.0	22.05
			16QAM	1	0	1	1	23.0	22.52
				1	24	1	1	23.0	22.33
				1	49	1	1	23.0	22.35
				25	0	2	2	22.0	21.19
				25	12	2	2	22.0	21.05
				25	24	2	2	22.0	21.03
				50	0	2	2	22.0	21.05

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5	19975	1712.5	QPSK	1	0	0	0	24.0	23.25
				1	12	0	0	24.0	23.23
				1	24	0	0	24.0	23.28
				12	0	1	1	23.0	22.21
				12	6	1	1	23.0	22.24
				12	11	1	1	23.0	22.19
				25	0	1	1	23.0	22.19
			16QAM	1	0	1	1	23.0	22.53
				1	12	1	1	23.0	22.52
				1	24	1	1	23.0	22.61
				12	0	2	2	22.0	21.27
				12	6	2	2	22.0	21.27
				12	11	2	2	22.0	21.24
				25	0	2	2	22.0	21.24
	20175	1732.5	QPSK	1	0	0	0	24.0	23.19
				1	12	0	0	24.0	23.15
				1	24	0	0	24.0	23.21
				12	0	1	1	23.0	22.23
				12	6	1	1	23.0	22.27
				12	11	1	1	23.0	22.24
				25	0	1	1	23.0	22.25
			16QAM	1	0	1	1	23.0	22.47
				1	12	1	1	23.0	22.45
				1	24	1	1	23.0	22.49
				12	0	2	2	22.0	21.27
				12	6	2	2	22.0	21.31
				12	11	2	2	22.0	21.29
				25	0	2	2	22.0	21.20
	20375	1752.5	QPSK	1	0	0	0	24.0	23.03
				1	12	0	0	24.0	22.97
				1	24	0	0	24.0	23.02
				12	0	1	1	23.0	22.08
				12	6	1	1	23.0	22.07
				12	11	1	1	23.0	22.03
				25	0	1	1	23.0	22.06
			16QAM	1	0	1	1	23.0	22.31
				1	12	1	1	23.0	22.27
				1	24	1	1	23.0	22.30
				12	0	2	2	22.0	21.11
				12	6	2	2	22.0	21.11
				12	11	2	2	22.0	21.07
				25	0	2	2	22.0	21.02

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	19965	1711.5	QPSK	1	0	0	0	24.0	23.18
				1	7	0	0	24.0	23.27
				1	14	0	0	24.0	23.16
				8	0	1	1	23.0	22.18
				8	4	1	1	23.0	22.27
				8	7	1	1	23.0	22.20
				15	0	1	1	23.0	22.19
			16QAM	1	0	1	1	23.0	22.40
				1	7	1	1	23.0	22.57
				1	14	1	1	23.0	22.42
				8	0	2	2	22.0	21.25
				8	4	2	2	22.0	21.25
				8	7	2	2	22.0	21.28
				15	0	2	2	22.0	21.20
	20175	1732.5	QPSK	1	0	0	0	24.0	23.13
				1	7	0	0	24.0	23.19
				1	14	0	0	24.0	23.12
				8	0	1	1	23.0	22.23
				8	4	1	1	23.0	22.26
				8	7	1	1	23.0	22.20
				15	0	1	1	23.0	22.18
			16QAM	1	0	1	1	23.0	22.31
				1	7	1	1	23.0	22.45
				1	14	1	1	23.0	22.33
				8	0	2	2	22.0	21.14
				8	4	2	2	22.0	21.17
				8	7	2	2	22.0	21.17
				15	0	2	2	22.0	21.18
	20385	1753.5	QPSK	1	0	0	0	24.0	23.00
				1	7	0	0	24.0	23.05
				1	14	0	0	24.0	22.99
				8	0	1	1	23.0	21.93
				8	4	1	1	23.0	22.00
				8	7	1	1	23.0	21.92
				15	0	1	1	23.0	21.93
			16QAM	1	0	1	1	23.0	22.22
				1	7	1	1	23.0	22.34
				1	14	1	1	23.0	22.21
				8	0	2	2	22.0	21.01
				8	4	2	2	22.0	21.02
				8	7	2	2	22.0	21.00
				15	0	2	2	22.0	20.97

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1.4	19957	1710.7	QPSK	1	0	0	0	24.0	23.07
				1	2	0	0	24.0	23.12
				1	5	0	0	24.0	23.06
				3	0	0	0	24.0	23.11
				3	1	0	0	24.0	23.13
				3	3	0	0	24.0	23.12
				6	0	1	1	23.0	22.05
			16QAM	1	0	1	1	23.0	22.07
				1	2	1	1	23.0	22.20
				1	5	1	1	23.0	22.11
				3	0	1	1	23.0	22.05
				3	1	1	1	23.0	22.10
				3	3	1	1	23.0	22.01
				6	0	2	2	22.0	21.13
	20175	1732.5	QPSK	1	0	0	0	24.0	23.09
				1	2	0	0	24.0	23.19
				1	5	0	0	24.0	23.12
				3	0	0	0	24.0	23.15
				3	1	0	0	24.0	23.22
				3	3	0	0	24.0	23.18
				6	0	1	1	23.0	22.11
			16QAM	1	0	1	1	23.0	22.14
				1	2	1	1	23.0	22.27
				1	5	1	1	23.0	22.13
				3	0	1	1	23.0	22.09
				3	1	1	1	23.0	22.14
				3	3	1	1	23.0	22.08
				6	0	2	2	22.0	21.18
	20393	1754.3	QPSK	1	0	0	0	24.0	22.82
				1	2	0	0	24.0	22.87
				1	5	0	0	24.0	22.81
				3	0	0	0	24.0	22.85
				3	1	0	0	24.0	22.89
				3	3	0	0	24.0	22.84
				6	0	1	1	23.0	21.86
			16QAM	1	0	1	1	23.0	22.00
				1	2	1	1	23.0	22.12
				1	5	1	1	23.0	22.01
				3	0	1	1	23.0	22.02
				3	1	1	1	23.0	22.08
				3	3	1	1	23.0	22.02
				6	0	2	2	22.0	20.83

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LTE Band 4 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	20050	1720	QPSK	1	0			14.8	14.39
				1	49			14.8	14.19
				1	99			14.8	14.37
				50	0			14.8	14.34
				50	24			14.8	14.21
				50	49			14.8	14.20
				100	0			14.8	14.19
			16QAM	1	0			14.8	14.69
				1	49			14.8	14.48
				1	99			14.8	14.61
				50	0			14.8	14.32
				50	24			14.8	14.23
				50	49			14.8	14.24
				100	0			14.8	14.25
	20175	1732.5	QPSK	1	0			14.8	14.35
				1	49			14.8	14.22
				1	99			14.8	14.24
				50	0			14.8	14.29
				50	24			14.8	14.26
				50	49			14.8	14.25
				100	0	**MPR is disabled when power reduction is enabled**		14.8	14.25
			16QAM	1	0			14.8	14.65
				1	49			14.8	14.57
				1	99			14.8	14.58
				50	0			14.8	14.35
				50	24			14.8	14.33
				50	49			14.8	14.32
				100	0			14.8	14.31
	20300	1745	QPSK	1	0			14.8	14.45
				1	49			14.8	14.20
				1	99			14.8	14.18
				50	0			14.8	14.24
				50	24			14.8	14.15
				50	49			14.8	14.01
				100	0			14.8	14.16
			16QAM	1	0			14.8	14.71
				1	49			14.8	14.47
				1	99			14.8	14.43
				50	0			14.8	14.24
				50	24			14.8	14.23
				50	49			14.8	14.11
				100	0			14.8	14.21

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	20025	1717.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		14.8	14.29
				1	37			14.8	14.19
				1	74			14.8	14.22
				36	0			14.8	14.27
				36	19			14.8	14.26
				36	39			14.8	14.13
				75	0			14.8	14.23
			16QAM	1	0			14.8	14.57
				1	37			14.8	14.45
				1	74			14.8	14.42
				36	0			14.8	14.28
				36	19			14.8	14.27
				36	39			14.8	14.18
				75	0			14.8	14.28
	20175	1732.5	QPSK	1	0			14.8	14.27
				1	37			14.8	14.17
				1	74			14.8	14.15
				36	0			14.8	14.25
				36	19			14.8	14.21
				36	39			14.8	14.20
				75	0			14.8	14.24
			16QAM	1	0			14.8	14.47
				1	37			14.8	14.36
				1	74			14.8	14.31
				36	0			14.8	14.27
				36	19			14.8	14.25
				36	39			14.8	14.23
				75	0			14.8	14.21
	20325	1747.5	QPSK	1	0			14.8	14.25
				1	37			14.8	14.10
				1	74			14.8	14.09
				36	0			14.8	14.15
				36	19			14.8	14.14
				36	39			14.8	14.03
				75	0			14.8	14.10
			16QAM	1	0			14.8	14.56
				1	37			14.8	14.37
				1	74			14.8	14.32
				36	0			14.8	14.18
				36	19			14.8	14.17
				36	39			14.8	14.04
				75	0			14.8	14.14

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	20000	1715	QPSK	1	0			14.8	14.25
				1	24			14.8	14.16
				1	49			14.8	14.13
				25	0			14.8	14.21
				25	12			14.8	14.20
				25	24			14.8	14.23
				50	0			14.8	14.19
			16QAM	1	0			14.8	14.47
				1	24			14.8	14.43
				1	49			14.8	14.36
				25	0			14.8	14.23
				25	12			14.8	14.24
				25	24			14.8	14.27
				50	0			14.8	14.23
	20175	1732.5	QPSK	1	0			14.8	14.13
				1	24			14.8	14.09
				1	49			14.8	14.14
				25	0			14.8	14.20
				25	12			14.8	14.19
				25	24			14.8	14.19
				50	0			14.8	14.22
			16QAM	1	0			14.8	14.42
				1	24			14.8	14.38
				1	49			14.8	14.43
				25	0			14.8	14.24
				25	12			14.8	14.23
				25	24			14.8	14.26
				50	0			14.8	14.24
	20350	1750	QPSK	1	0			14.8	14.20
				1	24			14.8	14.03
				1	49			14.8	14.05
				25	0			14.8	14.15
				25	12			14.8	13.99
				25	24			14.8	13.97
				50	0			14.8	14.01
			16QAM	1	0			14.8	14.43
				1	24			14.8	14.26
				1	49			14.8	14.27
				25	0			14.8	14.23
				25	12			14.8	14.07
				25	24			14.8	14.04
				50	0			14.8	14.03

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	19975	1712.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		14.8	14.22
				1	12			14.8	14.20
				1	24			14.8	14.24
				12	0			14.8	14.18
				12	6			14.8	14.17
				12	11			14.8	14.19
				25	0			14.8	14.15
			16QAM	1	0			14.8	14.55
				1	12			14.8	14.48
				1	24			14.8	14.57
				12	0			14.8	14.23
				12	6			14.8	14.25
				12	11			14.8	14.23
				25	0			14.8	14.23
	20175	1732.5	QPSK	1	0			14.8	14.14
				1	12			14.8	14.10
				1	24			14.8	14.15
				12	0			14.8	14.20
				12	6			14.8	14.21
				12	11			14.8	14.20
				25	0			14.8	14.16
			16QAM	1	0			14.8	14.41
				1	12			14.8	14.39
				1	24			14.8	14.44
				12	0			14.8	14.22
				12	6			14.8	14.25
				12	11			14.8	14.25
				25	0			14.8	14.16
	20375	1752.5	QPSK	1	0			14.8	14.12
				1	12			14.8	14.05
				1	24			14.8	14.08
				12	0			14.8	14.00
				12	6			14.8	13.99
				12	11			14.8	13.96
				25	0			14.8	13.99
			16QAM	1	0			14.8	14.43
				1	12			14.8	14.35
				1	24			14.8	14.40
				12	0			14.8	14.09
				12	6			14.8	14.09
				12	11			14.8	14.06
				25	0			14.8	14.04

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	19965	1711.5	QPSK	1	0			14.8	14.20
				1	7			14.8	14.25
				1	14			14.8	14.19
				8	0			14.8	14.15
				8	4			14.8	14.21
				8	7			14.8	14.14
				15	0			14.8	14.16
			16QAM	1	0			14.8	14.40
				1	7			14.8	14.53
				1	14			14.8	14.40
				8	0			14.8	14.30
				8	4			14.8	14.32
				8	7			14.8	14.26
				15	0			14.8	14.20
	20175	1732.5	QPSK	1	0			14.8	14.10
				1	7			14.8	14.24
				1	14			14.8	14.08
				8	0			14.8	14.19
				8	4			14.8	14.16
				8	7			14.8	14.19
				15	0			14.8	14.13
			16QAM	1	0			14.8	14.39
				1	7			14.8	14.51
				1	14			14.8	14.38
				8	0			14.8	14.29
				8	4			14.8	14.27
				8	7			14.8	14.28
				15	0			14.8	14.11
	20385	1753.5	QPSK	1	0			14.8	13.81
				1	7			14.8	13.90
				1	14			14.8	13.83
				8	0			14.8	13.95
				8	4			14.8	13.92
				8	7			14.8	13.90
				15	0			14.8	13.87
			16QAM	1	0			14.8	14.04
				1	7			14.8	14.15
				1	14			14.8	14.03
				8	0			14.8	13.86
				8	4			14.8	13.85
				8	7			14.8	13.81
				15	0			14.8	13.90

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	19957	1710.7	QPSK	1	0			14.8	14.07
				1	2			14.8	14.13
				1	5			14.8	14.06
				3	0			14.8	14.08
				3	1			14.8	14.09
				3	3			14.8	14.07
				6	0			14.8	14.00
			16QAM	1	0			14.8	14.09
				1	2			14.8	14.20
				1	5			14.8	14.09
				3	0			14.8	14.04
				3	1			14.8	14.05
				3	3			14.8	13.99
				6	0			14.8	14.12
	20175	1732.5	QPSK	1	0			14.8	14.06
				1	2			14.8	14.12
				1	5			14.8	14.01
				3	0			14.8	14.09
				3	1			14.8	14.13
				3	3			14.8	14.08
				6	0			14.8	14.09
			16QAM	1	0			14.8	14.25
				1	2			14.8	14.35
				1	5			14.8	14.20
				3	0			14.8	14.29
				3	1			14.8	14.33
				3	3			14.8	14.25
				6	0			14.8	14.08
	20393	1754.3	QPSK	1	0			14.8	13.83
				1	2			14.8	13.88
				1	5			14.8	13.82
				3	0			14.8	13.84
				3	1			14.8	13.86
				3	3			14.8	13.83
				6	0			14.8	13.80
			16QAM	1	0			14.8	13.83
				1	2			14.8	13.98
				1	5			14.8	13.85
				3	0			14.8	13.81
				3	1			14.8	13.83
				3	3			14.8	13.78
				6	0			14.8	13.88

MPR is disabled when power reduction is enabled

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LTE Band 5 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	20450	829	QPSK	1	0	0	0	24.0	23.01
				1	24	0	0	24.0	23.03
				1	49	0	0	24.0	22.99
				25	0	1	1	23.0	22.12
				25	12	1	1	23.0	22.17
				25	24	1	1	23.0	22.09
				50	0	1	1	23.0	22.12
			16QAM	1	0	1	1	23.0	22.36
				1	24	1	1	23.0	22.39
				1	49	1	1	23.0	22.35
				25	0	2	2	22.0	21.01
				25	12	2	2	22.0	21.12
				25	24	2	2	22.0	21.09
				50	0	2	2	22.0	21.08
	20525	836.5	QPSK	1	0	0	0	24.0	23.21
				1	24	0	0	24.0	23.26
				1	49	0	0	24.0	23.10
				25	0	1	1	23.0	22.37
				25	12	1	1	23.0	22.37
				25	24	1	1	23.0	22.34
				50	0	1	1	23.0	22.36
			16QAM	1	0	1	1	23.0	22.50
				1	24	1	1	23.0	22.61
				1	49	1	1	23.0	22.43
				25	0	2	2	22.0	21.30
				25	12	2	2	22.0	21.30
				25	24	2	2	22.0	21.26
				50	0	2	2	22.0	21.33
	20600	844	QPSK	1	0	0	0	24.0	23.02
				1	24	0	0	24.0	23.01
				1	49	0	0	24.0	22.98
				25	0	1	1	23.0	22.14
				25	12	1	1	23.0	22.12
				25	24	1	1	23.0	22.11
				50	0	1	1	23.0	22.08
			16QAM	1	0	1	1	23.0	22.26
				1	24	1	1	23.0	22.18
				1	49	1	1	23.0	22.19
				25	0	2	2	22.0	21.11
				25	12	2	2	22.0	21.14
				25	24	2	2	22.0	21.11
				50	0	2	2	22.0	21.08

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	20425	826.5	QPSK	1	0	0	0	24.0	23.13
				1	12	0	0	24.0	23.08
				1	24	0	0	24.0	23.19
				12	0	1	1	23.0	22.10
				12	6	1	1	23.0	22.06
				12	11	1	1	23.0	22.03
				25	0	1	1	23.0	22.07
			16QAM	1	0	1	1	23.0	22.51
				1	12	1	1	23.0	22.47
				1	24	1	1	23.0	22.54
				12	0	2	2	22.0	21.18
				12	6	2	2	22.0	21.20
				12	11	2	2	22.0	21.14
				25	0	2	2	22.0	21.14
	20525	836.5	QPSK	1	0	0	0	24.0	23.32
				1	12	0	0	24.0	23.25
				1	24	0	0	24.0	23.27
				12	0	1	1	23.0	22.30
				12	6	1	1	23.0	22.32
				12	11	1	1	23.0	22.30
				25	0	1	1	23.0	22.31
			16QAM	1	0	1	1	23.0	22.57
				1	12	1	1	23.0	22.55
				1	24	1	1	23.0	22.53
				12	0	2	2	22.0	21.40
				12	6	2	2	22.0	21.41
				12	11	2	2	22.0	21.36
				25	0	2	2	22.0	21.35
	20625	846.5	QPSK	1	0	0	0	24.0	23.04
				1	12	0	0	24.0	23.03
				1	24	0	0	24.0	23.06
				12	0	1	1	23.0	22.06
				12	6	1	1	23.0	22.07
				12	11	1	1	23.0	22.04
				25	0	1	1	23.0	22.04
			16QAM	1	0	1	1	23.0	22.47
				1	12	1	1	23.0	22.42
				1	24	1	1	23.0	22.43
				12	0	2	2	22.0	21.15
				12	6	2	2	22.0	21.14
				12	11	2	2	22.0	21.14
				25	0	2	2	22.0	21.07

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	20415	825.5	QPSK	1	0	0	0	24.0	22.96
				1	7	0	0	24.0	23.00
				1	14	0	0	24.0	22.90
				8	0	1	1	23.0	22.13
				8	4	1	1	23.0	22.12
				8	7	1	1	23.0	22.10
				15	0	1	1	23.0	22.05
			16QAM	1	0	1	1	23.0	22.30
				1	7	1	1	23.0	22.42
				1	14	1	1	23.0	22.18
				8	0	2	2	22.0	21.09
				8	4	2	2	22.0	21.07
				8	7	2	2	22.0	21.05
				15	0	2	2	22.0	21.02
	20525	836.5	QPSK	1	0	0	0	24.0	23.24
				1	7	0	0	24.0	23.31
				1	14	0	0	24.0	23.20
				8	0	1	1	23.0	22.33
				8	4	1	1	23.0	22.34
				8	7	1	1	23.0	22.28
				15	0	1	1	23.0	22.28
			16QAM	1	0	1	1	23.0	22.58
				1	7	1	1	23.0	22.64
				1	14	1	1	23.0	22.50
				8	0	2	2	22.0	21.40
				8	4	2	2	22.0	21.40
				8	7	2	2	22.0	21.37
				15	0	2	2	22.0	21.26
	20635	847.5	QPSK	1	0	0	0	24.0	23.00
				1	7	0	0	24.0	23.04
				1	14	0	0	24.0	22.96
				8	0	1	1	23.0	22.05
				8	4	1	1	23.0	22.07
				8	7	1	1	23.0	22.04
				15	0	1	1	23.0	22.01
			16QAM	1	0	1	1	23.0	22.11
				1	7	1	1	23.0	22.24
				1	14	1	1	23.0	22.07
				8	0	2	2	22.0	20.97
				8	4	2	2	22.0	21.01
				8	7	2	2	22.0	20.98
				15	0	2	2	22.0	20.99

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	20407	824.7	QPSK	1	0	0	0	24.0	22.89
				1	2	0	0	24.0	22.94
				1	5	0	0	24.0	22.88
				3	0	0	0	24.0	22.89
				3	1	0	0	24.0	22.90
				3	3	0	0	24.0	22.88
				6	0	1	1	23.0	21.89
			16QAM	1	0	1	1	23.0	21.89
				1	2	1	1	23.0	21.97
				1	5	1	1	23.0	21.92
				3	0	1	1	23.0	21.93
				3	1	1	1	23.0	21.96
				3	3	1	1	23.0	21.85
				6	0	2	2	22.0	21.00
	20525	836.5	QPSK	1	0	0	0	24.0	23.17
				1	2	0	0	24.0	23.23
				1	5	0	0	24.0	23.14
				3	0	0	0	24.0	23.21
				3	1	0	0	24.0	23.27
				3	3	0	0	24.0	23.25
				6	0	1	1	23.0	22.27
			16QAM	1	0	1	1	23.0	22.34
				1	2	1	1	23.0	22.46
				1	5	1	1	23.0	22.33
				3	0	1	1	23.0	22.42
				3	1	1	1	23.0	22.44
				3	3	1	1	23.0	22.38
				6	0	2	2	22.0	21.25
	20643	848.3	QPSK	1	0	0	0	24.0	22.89
				1	2	0	0	24.0	22.95
				1	5	0	0	24.0	22.91
				3	0	0	0	24.0	22.88
				3	1	0	0	24.0	22.93
				3	3	0	0	24.0	22.90
				6	0	1	1	23.0	21.96
			16QAM	1	0	1	1	23.0	22.05
				1	2	1	1	23.0	22.13
				1	5	1	1	23.0	22.00
				3	0	1	1	23.0	22.17
				3	1	1	1	23.0	22.18
				3	3	1	1	23.0	22.13
				6	0	2	2	22.0	20.97

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LTE Band 5 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	20450	829	QPSK	1	0			19.2	18.51
				1	24			19.2	18.61
				1	49			19.2	18.55
				25	0			19.2	18.63
				25	12			19.2	18.70
				25	24			19.2	18.67
				50	0			19.2	18.71
			16QAM	1	0			19.2	18.92
				1	24			19.2	18.92
				1	49			19.2	18.92
				25	0			19.2	18.45
				25	12			19.2	18.59
				25	24			19.2	18.55
				50	0			19.2	18.58
	20525	836.5	QPSK	1	0			19.2	18.82
				1	24			19.2	18.86
				1	49			19.2	18.71
				25	0			19.2	18.85
				25	12			19.2	18.85
				25	24			19.2	18.81
				50	0	**MPR is disabled when power reduction is enabled**		19.2	18.82
			16QAM	1	0			19.2	19.09
				1	24			19.2	19.10
				1	49			19.2	19.03
				25	0			19.2	18.84
				25	12			19.2	18.82
				25	24			19.2	18.79
				50	0			19.2	18.80
	20600	844	QPSK	1	0			19.2	18.69
				1	24			19.2	18.61
				1	49			19.2	18.60
				25	0			19.2	18.61
				25	12			19.2	18.62
				25	24			19.2	18.59
				50	0			19.2	18.61
			16QAM	1	0			19.2	18.93
				1	24			19.2	18.82
				1	49			19.2	18.86
				25	0			19.2	18.59
				25	12			19.2	18.58
				25	24			19.2	18.54
				50	0			19.2	18.55

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	20425	826.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		19.2	18.70
				1	12			19.2	18.66
				1	24			19.2	18.76
				12	0			19.2	18.65
				12	6			19.2	18.63
				12	11			19.2	18.62
				25	0			19.2	18.61
			16QAM	1	0			19.2	18.95
				1	12			19.2	18.91
				1	24			19.2	19.01
				12	0			19.2	18.69
				12	6			19.2	18.64
				12	11			19.2	18.65
				25	0			19.2	18.61
	20525	836.5	QPSK	1	0			19.2	18.87
				1	12			19.2	18.82
				1	24			19.2	18.85
				12	0			19.2	18.85
				12	6			19.2	18.86
				12	11			19.2	18.83
				25	0			19.2	18.84
			16QAM	1	0			19.2	19.19
				1	12			19.2	19.18
				1	24			19.2	19.15
				12	0			19.2	18.94
				12	6			19.2	18.99
				12	11			19.2	18.96
				25	0			19.2	18.83
	20625	846.5	QPSK	1	0			19.2	18.67
				1	12			19.2	18.61
				1	24			19.2	18.60
				12	0			19.2	18.57
				12	6			19.2	18.59
				12	11			19.2	18.58
				25	0			19.2	18.56
			16QAM	1	0			19.2	18.91
				1	12			19.2	18.87
				1	24			19.2	18.86
				12	0			19.2	18.60
				12	6			19.2	18.64
				12	11			19.2	18.59
				25	0			19.2	18.56

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	20415	825.5	QPSK	1	0			19.2	18.45
				1	7			19.2	18.54
				1	14			19.2	18.44
				8	0			19.2	18.62
				8	4			19.2	18.67
				8	7			19.2	18.64
				15	0			19.2	18.56
			16QAM	1	0			19.2	18.70
				1	7			19.2	18.83
				1	14			19.2	18.68
				8	0			19.2	18.54
				8	4			19.2	18.57
				8	7			19.2	18.54
				15	0			19.2	18.50
	20525	836.5	QPSK	1	0			19.2	18.77
				1	7			19.2	18.82
				1	14			19.2	18.73
				8	0			19.2	18.87
				8	4			19.2	18.87
				8	7			19.2	18.82
				15	0			19.2	18.80
			16QAM	1	0			19.2	18.89
				1	7			19.2	19.04
				1	14			19.2	18.90
				8	0			19.2	18.76
				8	4			19.2	18.76
				8	7			19.2	18.74
				15	0			19.2	18.76
	20635	847.5	QPSK	1	0			19.2	18.58
				1	7			19.2	18.66
				1	14			19.2	18.57
				8	0			19.2	18.55
				8	4			19.2	18.56
				8	7			19.2	18.57
				15	0			19.2	18.54
			16QAM	1	0			19.2	18.79
				1	7			19.2	18.88
				1	14			19.2	18.78
				8	0			19.2	18.60
				8	4			19.2	18.62
				8	7			19.2	18.61
				15	0			19.2	18.54

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	20407	824.7	QPSK	1	0			19.2	18.26
				1	2			19.2	18.35
				1	5			19.2	18.29
				3	0			19.2	18.58
				3	1			19.2	18.62
				3	3			19.2	18.55
				6	0			19.2	18.52
			16QAM	1	0			19.2	18.51
				1	2			19.2	18.46
				1	5			19.2	18.36
				3	0			19.2	18.35
				3	1			19.2	18.41
				3	3			19.2	18.33
				6	0			19.2	18.46
	20525	836.5	QPSK	1	0			19.2	18.68
				1	2			19.2	18.74
				1	5			19.2	18.67
				3	0			19.2	18.72
				3	1			19.2	18.77
				3	3			19.2	18.73
				6	0			19.2	18.75
			16QAM	1	0			19.2	18.86
				1	2			19.2	18.94
				1	5			19.2	18.82
				3	0			19.2	18.90
				3	1			19.2	18.92
				3	3			19.2	18.88
				6	0			19.2	18.71
	20643	848.3	QPSK	1	0			19.2	18.42
				1	2			19.2	18.48
				1	5			19.2	18.41
				3	0			19.2	18.50
				3	1			19.2	18.53
				3	3			19.2	18.49
				6	0			19.2	18.43
			16QAM	1	0			19.2	18.45
				1	2			19.2	18.57
				1	5			19.2	18.44
				3	0			19.2	18.39
				3	1			19.2	18.42
				3	3			19.2	18.35
				6	0			19.2	18.45

MPR is disabled when power reduction is enabled

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LTE Band 7 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	20850	2510	QPSK	1	0	0	0	23.0	22.55
				1	49	0	0	23.0	22.50
				1	99	0	0	23.0	22.65
				50	0	1	1	22.0	21.44
				50	24	1	1	22.0	21.53
				50	49	1	1	22.0	21.62
				100	0	1	1	22.0	21.61
			16QAM	1	0	1	1	22.0	21.91
				1	49	1	1	22.0	21.88
				1	99	1	1	22.0	21.99
				50	0	2	2	21.0	20.58
				50	24	2	2	21.0	20.56
				50	49	2	2	21.0	20.64
				100	0	2	2	21.0	20.66
	21100	2535	QPSK	1	0	0	0	23.0	22.60
				1	49	0	0	23.0	22.51
				1	99	0	0	23.0	22.52
				50	0	1	1	22.0	21.50
				50	24	1	1	22.0	21.50
				50	49	1	1	22.0	21.53
				100	0	1	1	22.0	21.56
			16QAM	1	0	1	1	22.0	21.94
				1	49	1	1	22.0	21.84
				1	99	1	1	22.0	21.87
				50	0	2	2	21.0	20.53
				50	24	2	2	21.0	20.54
				50	49	2	2	21.0	20.55
				100	0	2	2	21.0	20.57
	21350	2560	QPSK	1	0	0	0	23.0	22.70
				1	49	0	0	23.0	22.66
				1	99	0	0	23.0	22.50
				50	0	1	1	22.0	21.61
				50	24	1	1	22.0	21.59
				50	49	1	1	22.0	21.60
				100	0	1	1	22.0	21.60
			16QAM	1	0	1	1	22.0	21.99
				1	49	1	1	22.0	21.98
				1	99	1	1	22.0	21.85
				50	0	2	2	21.0	20.64
				50	24	2	2	21.0	20.63
				50	49	2	2	21.0	20.62
				100	0	2	2	21.0	20.61

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	20825	2507.5	QPSK	1	0	0	0	23.0	22.51
				1	37	0	0	23.0	22.48
				1	74	0	0	23.0	22.63
				36	0	1	1	22.0	21.48
				36	19	1	1	22.0	21.57
				36	39	1	1	22.0	21.51
				75	0	1	1	22.0	21.52
			16QAM	1	0	1	1	22.0	21.88
				1	37	1	1	22.0	21.85
				1	74	1	1	22.0	21.93
				36	0	2	2	21.0	20.48
				36	19	2	2	21.0	20.56
				36	39	2	2	21.0	20.57
				75	0	2	2	21.0	20.56
	21100	2535	QPSK	1	0	0	0	23.0	22.58
				1	37	0	0	23.0	22.54
				1	74	0	0	23.0	22.51
				36	0	1	1	22.0	21.51
				36	19	1	1	22.0	21.56
				36	39	1	1	22.0	21.54
				75	0	1	1	22.0	21.53
			16QAM	1	0	1	1	22.0	21.80
				1	37	1	1	22.0	21.73
				1	74	1	1	22.0	21.70
				36	0	2	2	21.0	20.58
				36	19	2	2	21.0	20.61
				36	39	2	2	21.0	20.58
				75	0	2	2	21.0	20.50
	21375	2562.5	QPSK	1	0	0	0	23.0	22.67
				1	37	0	0	23.0	22.60
				1	74	0	0	23.0	22.43
				36	0	1	1	22.0	21.65
				36	19	1	1	22.0	21.68
				36	39	1	1	22.0	21.53
				75	0	1	1	22.0	21.66
			16QAM	1	0	1	1	22.0	21.98
				1	37	1	1	22.0	21.99
				1	74	1	1	22.0	21.79
				36	0	2	2	21.0	20.71
				36	19	2	2	21.0	20.73
				36	39	2	2	21.0	20.58
				75	0	2	2	21.0	20.70

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	20800	2505	QPSK	1	0	0	0	23.0	22.44
				1	24	0	0	23.0	22.49
				1	49	0	0	23.0	22.53
				25	0	1	1	22.0	21.44
				25	12	1	1	22.0	21.53
				25	24	1	1	22.0	21.52
				50	0	1	1	22.0	21.40
			16QAM	1	0	1	1	22.0	21.83
				1	24	1	1	22.0	21.85
				1	49	1	1	22.0	21.82
				25	0	2	2	21.0	20.47
				25	12	2	2	21.0	20.56
				25	24	2	2	21.0	20.54
				50	0	2	2	21.0	20.44
	21100	2535	QPSK	1	0	0	0	23.0	22.51
				1	24	0	0	23.0	22.49
				1	49	0	0	23.0	22.50
				25	0	1	1	22.0	21.52
				25	12	1	1	22.0	21.57
				25	24	1	1	22.0	21.55
				50	0	1	1	22.0	21.53
			16QAM	1	0	1	1	22.0	21.84
				1	24	1	1	22.0	21.85
				1	49	1	1	22.0	21.83
				25	0	2	2	21.0	20.45
				25	12	2	2	21.0	20.49
				25	24	2	2	21.0	20.48
				50	0	2	2	21.0	20.52
	21400	2565	QPSK	1	0	0	0	23.0	22.67
				1	24	0	0	23.0	22.53
				1	49	0	0	23.0	22.45
				25	0	1	1	22.0	21.65
				25	12	1	1	22.0	21.58
				25	24	1	1	22.0	21.45
				50	0	1	1	22.0	21.57
			16QAM	1	0	1	1	22.0	21.98
				1	24	1	1	22.0	21.86
				1	49	1	1	22.0	21.78
				25	0	2	2	21.0	20.71
				25	12	2	2	21.0	20.63
				25	24	2	2	21.0	20.46
				50	0	2	2	21.0	20.59

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	20775	2502.5	QPSK	1	0	0	0	23.0	22.47
				1	12	0	0	23.0	22.48
				1	24	0	0	23.0	22.56
				12	0	1	1	22.0	21.46
				12	6	1	1	22.0	21.49
				12	13	1	1	22.0	21.45
				25	0	1	1	22.0	21.44
			16QAM	1	0	1	1	22.0	21.87
				1	12	1	1	22.0	21.91
				1	24	1	1	22.0	21.94
				12	0	2	2	21.0	20.53
				12	6	2	2	21.0	20.54
				12	13	2	2	21.0	20.50
				25	0	2	2	21.0	20.50
	21100	2535	QPSK	1	0	0	0	23.0	22.57
				1	12	0	0	23.0	22.58
				1	24	0	0	23.0	22.59
				12	0	1	1	22.0	21.53
				12	6	1	1	22.0	21.56
				12	13	1	1	22.0	21.53
				25	0	1	1	22.0	21.54
			16QAM	1	0	1	1	22.0	21.99
				1	12	1	1	22.0	22.00
				1	24	1	1	22.0	22.00
				12	0	2	2	21.0	20.70
				12	6	2	2	21.0	20.72
				12	13	2	2	21.0	20.69
				25	0	2	2	21.0	20.59
	21425	2567.5	QPSK	1	0	0	0	23.0	22.69
				1	12	0	0	23.0	22.58
				1	24	0	0	23.0	22.57
				12	0	1	1	22.0	21.65
				12	6	1	1	22.0	21.56
				12	13	1	1	22.0	21.58
				25	0	1	1	22.0	21.58
			16QAM	1	0	1	1	22.0	22.00
				1	12	1	1	22.0	21.98
				1	24	1	1	22.0	21.96
				12	0	2	2	21.0	20.82
				12	6	2	2	21.0	20.72
				12	13	2	2	21.0	20.73
				25	0	2	2	21.0	20.60

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LTE Band 7 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	20850	2510	QPSK	1	0			14.7	14.17
				1	49			14.7	14.14
				1	99			14.7	14.24
				50	0			14.7	14.10
				50	24			14.7	14.09
				50	49			14.7	14.16
				100	0			14.7	14.21
			16QAM	1	0			14.7	14.51
				1	49			14.7	14.42
				1	99			14.7	14.57
				50	0			14.7	14.21
				50	24			14.7	14.19
				50	49			14.7	14.25
				100	0			14.7	14.23
	21100	2535	QPSK	1	0			14.7	14.20
				1	49			14.7	14.13
				1	99			14.7	14.12
				50	0			14.7	14.07
				50	24			14.7	14.11
				50	49			14.7	14.11
				100	0	**MPR is disabled when power reduction is enabled**		14.7	14.11
			16QAM	1	0			14.7	14.53
				1	49			14.7	14.43
				1	99			14.7	14.44
				50	0			14.7	14.17
				50	24			14.7	14.18
				50	49			14.7	14.17
				100	0			14.7	14.13
	21035	2560	QPSK	1	0			14.7	14.29
				1	49			14.7	14.18
				1	99			14.7	14.08
				50	0			14.7	14.18
				50	24			14.7	14.19
				50	49			14.7	14.16
				100	0			14.7	14.15
			16QAM	1	0			14.7	14.53
				1	49			14.7	14.51
				1	99			14.7	14.38
				50	0			14.7	14.19
				50	24			14.7	14.21
				50	49			14.7	14.18
				100	0			14.7	14.19

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	20825	2507.5	QPSK	1	0			14.7	14.15
				1	37			14.7	14.08
				1	74			14.7	14.20
				36	0			14.7	14.02
				36	19			14.7	14.10
				36	39			14.7	14.06
				75	0			14.7	14.09
			16QAM	1	0			14.7	14.42
				1	37			14.7	14.34
				1	74			14.7	14.41
				36	0			14.7	14.08
				36	19			14.7	14.15
				36	39			14.7	14.03
				75	0			14.7	14.07
	21100	2535	QPSK	1	0			14.7	14.16
				1	37			14.7	14.09
				1	74			14.7	14.01
				36	0			14.7	14.08
				36	19			14.7	14.11
				36	39			14.7	14.08
				75	0	**MPR is disabled when power reduction is enabled**		14.7	14.05
			16QAM	1	0			14.7	14.31
				1	37			14.7	14.24
				1	74			14.7	14.17
				36	0			14.7	14.11
				36	19			14.7	14.09
				36	39			14.7	14.07
				75	0			14.7	14.03
	21375	2562.5	QPSK	1	0			14.7	14.22
				1	37			14.7	14.18
				1	74			14.7	14.01
				36	0			14.7	14.17
				36	19			14.7	14.19
				36	39			14.7	14.07
				75	0			14.7	14.18
			16QAM	1	0			14.7	14.38
				1	37			14.7	14.31
				1	74			14.7	14.15
				36	0			14.7	14.20
				36	19			14.7	14.19
				36	39			14.7	14.06
				75	0			14.7	14.18

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	20800	2505	QPSK	1	0			14.7	14.07
				1	24			14.7	14.12
				1	49			14.7	14.08
				25	0			14.7	13.98
				25	12			14.7	14.08
				25	24			14.7	14.06
				50	0			14.7	14.00
			16QAM	1	0			14.7	14.33
				1	24			14.7	14.35
				1	49			14.7	14.31
				25	0			14.7	14.03
				25	12			14.7	14.11
				25	24			14.7	14.10
				50	0			14.7	13.98
	21100	2535	QPSK	1	0			14.7	14.03
				1	24			14.7	14.01
				1	49			14.7	14.00
				25	0			14.7	14.09
				25	12			14.7	14.07
				25	24			14.7	14.07
				50	0			14.7	14.10
			16QAM	1	0			14.7	14.26
				1	24			14.7	14.27
				1	49			14.7	14.27
				25	0			14.7	14.07
				25	12			14.7	14.15
				25	24			14.7	14.11
				50	0			14.7	14.07
	21400	2565	QPSK	1	0			14.7	14.15
				1	24			14.7	14.07
				1	49			14.7	13.97
				25	0			14.7	14.19
				25	12			14.7	14.11
				25	24			14.7	14.00
				50	0			14.7	14.15
			16QAM	1	0			14.7	14.45
				1	24			14.7	14.34
				1	49			14.7	14.25
				25	0			14.7	14.17
				25	12			14.7	14.06
				25	24			14.7	13.98
				50	0			14.7	14.07

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	20800	2502.5	QPSK	1	0			14.7	14.06
				1	12			14.7	14.05
				1	24			14.7	14.12
				12	0			14.7	14.00
				12	6			14.7	14.01
				12	11			14.7	13.98
				25	0			14.7	13.99
			16QAM	1	0			14.7	14.35
				1	12			14.7	14.34
				1	24			14.7	14.39
				12	0			14.7	14.04
				12	6			14.7	14.03
				12	11			14.7	14.01
				25	0			14.7	14.01
	21100	2535	QPSK	1	0			14.7	14.12
				1	12			14.7	14.08
				1	24			14.7	14.11
				12	0			14.7	14.07
				12	6			14.7	14.08
				12	11			14.7	14.09
				25	0			14.7	14.07
			16QAM	1	0			14.7	14.41
				1	12			14.7	14.43
				1	24			14.7	14.42
				12	0			14.7	14.18
				12	6			14.7	14.19
				12	11			14.7	14.20
				25	0			14.7	14.09
	21400	2567.5	QPSK	1	0			14.7	14.26
				1	12			14.7	14.16
				1	24			14.7	14.14
				12	0			14.7	14.16
				12	6			14.7	14.10
				12	11			14.7	14.08
				25	0			14.7	14.11
			16QAM	1	0			14.7	14.55
				1	12			14.7	14.44
				1	24			14.7	14.45
				12	0			14.7	14.25
				12	6			14.7	14.17
				12	11			14.7	14.11
				25	0			14.7	14.13

MPR is disabled when power reduction is enabled

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LTE Band 12 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	23060	704	QPSK	1	0	0	0	24.0	23.07
				1	24	0	0	24.0	23.00
				1	49	0	0	24.0	23.08
				25	0	1	1	23.0	22.11
				25	12	1	1	23.0	22.10
				25	24	1	1	23.0	22.06
				50	0	1	1	23.0	22.10
			16QAM	1	0	1	1	23.0	22.38
				1	24	1	1	23.0	22.36
				1	49	1	1	23.0	22.42
				25	0	2	2	22.0	21.13
				25	12	2	2	22.0	21.10
				25	24	2	2	22.0	21.06
				50	0	2	2	22.0	21.10
	23095	707.5	QPSK	1	0	0	0	24.0	23.06
				1	24	0	0	24.0	23.07
				1	49	0	0	24.0	23.04
				25	0	1	1	23.0	22.10
				25	12	1	1	23.0	22.17
				25	24	1	1	23.0	22.11
				50	0	1	1	23.0	22.15
			16QAM	1	0	1	1	23.0	22.20
				1	24	1	1	23.0	22.28
				1	49	1	1	23.0	22.21
				25	0	2	2	22.0	21.10
				25	12	2	2	22.0	21.19
				25	24	2	2	22.0	21.15
				50	0	2	2	22.0	21.20
	23130	711	QPSK	1	0	0	0	24.0	23.01
				1	24	0	0	24.0	22.95
				1	49	0	0	24.0	23.03
				25	0	1	1	23.0	22.05
				25	12	1	1	23.0	22.00
				25	24	1	1	23.0	21.99
				50	0	1	1	23.0	22.05
			16QAM	1	0	1	1	23.0	22.24
				1	24	1	1	23.0	22.14
				1	49	1	1	23.0	22.17
				25	0	2	2	22.0	21.07
				25	12	2	2	22.0	21.09
				25	24	2	2	22.0	21.00
				50	0	2	2	22.0	21.04

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	23035	701.5	QPSK	1	0	0	0	24.0	23.13
				1	12	0	0	24.0	23.10
				1	24	0	0	24.0	23.08
				12	0	1	1	23.0	22.15
				12	6	1	1	23.0	22.16
				12	11	1	1	23.0	22.09
				25	0	1	1	23.0	22.13
			16QAM	1	0	1	1	23.0	22.52
				1	12	1	1	23.0	22.48
				1	24	1	1	23.0	22.47
				12	0	2	2	22.0	21.21
				12	6	2	2	22.0	21.22
				12	11	2	2	22.0	21.18
				25	0	2	2	22.0	21.18
	23095	707.5	QPSK	1	0	0	0	24.0	23.05
				1	12	0	0	24.0	23.06
				1	24	0	0	24.0	23.08
				12	0	1	1	23.0	22.17
				12	6	1	1	23.0	22.18
				12	11	1	1	23.0	22.12
				25	0	1	1	23.0	22.16
			16QAM	1	0	1	1	23.0	22.29
				1	12	1	1	23.0	22.33
				1	24	1	1	23.0	22.33
				12	0	2	2	22.0	21.23
				12	6	2	2	22.0	21.24
				12	11	2	2	22.0	21.20
				25	0	2	2	22.0	21.14
	23155	713.5	QPSK	1	0	0	0	24.0	23.06
				1	12	0	0	24.0	23.01
				1	24	0	0	24.0	23.14
				12	0	1	1	23.0	22.09
				12	6	1	1	23.0	22.10
				12	11	1	1	23.0	22.16
				25	0	1	1	23.0	22.12
			16QAM	1	0	1	1	23.0	22.29
				1	12	1	1	23.0	22.29
				1	24	1	1	23.0	22.35
				12	0	2	2	22.0	21.15
				12	6	2	2	22.0	21.19
				12	11	2	2	22.0	21.26
				25	0	2	2	22.0	21.14

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	23025	700.5	QPSK	1	0	0	0	24.0	23.03
				1	7	0	0	24.0	23.11
				1	14	0	0	24.0	23.01
				8	0	1	1	23.0	22.16
				8	4	1	1	23.0	22.17
				8	7	1	1	23.0	22.09
				15	0	1	1	23.0	22.20
			16QAM	1	0	1	1	23.0	22.36
				1	7	1	1	23.0	22.46
				1	14	1	1	23.0	22.31
				8	0	2	2	22.0	21.26
				8	4	2	2	22.0	21.23
				8	7	2	2	22.0	21.20
				15	0	2	2	22.0	21.21
	23095	707.5	QPSK	1	0	0	0	24.0	22.99
				1	7	0	0	24.0	23.16
				1	14	0	0	24.0	23.04
				8	0	1	1	23.0	22.16
				8	4	1	1	23.0	22.18
				8	7	1	1	23.0	22.10
				15	0	1	1	23.0	22.16
			16QAM	1	0	1	1	23.0	22.15
				1	7	1	1	23.0	22.36
				1	14	1	1	23.0	22.20
				8	0	2	2	22.0	21.08
				8	4	2	2	22.0	21.11
				8	7	2	2	22.0	21.06
				15	0	2	2	22.0	21.15
	23165	714.5	QPSK	1	0	0	0	24.0	23.14
				1	7	0	0	24.0	23.34
				1	14	0	0	24.0	23.21
				8	0	1	1	23.0	22.27
				8	4	1	1	23.0	22.30
				8	7	1	1	23.0	22.26
				15	0	1	1	23.0	22.26
			16QAM	1	0	1	1	23.0	22.21
				1	7	1	1	23.0	22.42
				1	14	1	1	23.0	22.32
				8	0	2	2	22.0	21.23
				8	4	2	2	22.0	21.24
				8	7	2	2	22.0	21.17
				15	0	2	2	22.0	21.29

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	23017	699.7	QPSK	1	0	0	0	24.0	23.06
				1	2	0	0	24.0	23.11
				1	5	0	0	24.0	23.02
				3	0	0	0	24.0	23.08
				3	1	0	0	24.0	23.10
				3	3	0	0	24.0	23.03
				6	0	1	1	23.0	21.98
			16QAM	1	0	1	1	23.0	22.06
				1	2	1	1	23.0	22.17
				1	5	1	1	23.0	22.06
				3	0	1	1	23.0	22.03
				3	1	1	1	23.0	22.05
				3	3	1	1	23.0	21.97
				6	0	2	2	22.0	21.12
	23095	707.5	QPSK	1	0	0	0	24.0	23.03
				1	2	0	0	24.0	23.07
				1	5	0	0	24.0	23.00
				3	0	0	0	24.0	23.05
				3	1	0	0	24.0	23.07
				3	3	0	0	24.0	23.06
				6	0	1	1	23.0	22.09
			16QAM	1	0	1	1	23.0	22.17
				1	2	1	1	23.0	22.28
				1	5	1	1	23.0	22.15
				3	0	1	1	23.0	22.24
				3	1	1	1	23.0	22.27
				3	3	1	1	23.0	22.22
				6	0	2	2	22.0	21.11
	23173	715.3	QPSK	1	0	0	0	24.0	23.05
				1	2	0	0	24.0	23.10
				1	5	0	0	24.0	23.03
				3	0	0	0	24.0	23.07
				3	1	0	0	24.0	23.12
				3	3	0	0	24.0	23.09
				6	0	1	1	23.0	22.08
			16QAM	1	0	1	1	23.0	22.15
				1	2	1	1	23.0	22.27
				1	5	1	1	23.0	22.17
				3	0	1	1	23.0	22.26
				3	1	1	1	23.0	22.29
				3	3	1	1	23.0	22.26
				6	0	2	2	22.0	21.11

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LTE Band 12 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	23060	704	QPSK	1	0			20.2	19.67
				1	24			20.2	19.57
				1	49			20.2	19.63
				25	0			20.2	19.63
				25	12			20.2	19.64
				25	24			20.2	19.58
				50	0			20.2	19.59
			16QAM	1	0			20.2	19.94
				1	24			20.2	19.89
				1	49			20.2	19.92
				25	0			20.2	19.68
				25	12			20.2	19.61
				25	24			20.2	19.57
				50	0			20.2	19.58
	23095	707.5	QPSK	1	0			20.2	19.61
				1	24			20.2	19.66
				1	49			20.2	19.62
				25	0			20.2	19.61
				25	12			20.2	19.69
				25	24			20.2	19.64
				50	0	**MPR is disabled when power reduction is enabled**		20.2	19.68
			16QAM	1	0			20.2	19.95
				1	24			20.2	19.95
				1	49			20.2	19.90
				25	0			20.2	19.61
				25	12			20.2	19.68
				25	24			20.2	19.67
				50	0			20.2	19.66
	23130	711	QPSK	1	0			20.2	19.61
				1	24			20.2	19.55
				1	49			20.2	19.54
				25	0			20.2	19.56
				25	12			20.2	19.55
				25	24			20.2	19.51
				50	0			20.2	19.50
			16QAM	1	0			20.2	19.93
				1	24			20.2	19.80
				1	49			20.2	19.85
				25	0			20.2	19.58
				25	12			20.2	19.56
				25	24			20.2	19.49
				50	0			20.2	19.55

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	23035	701.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		20.2	19.73
				1	12			20.2	19.66
				1	24			20.2	19.64
				12	0			20.2	19.70
				12	6			20.2	19.68
				12	11			20.2	19.62
				25	0			20.2	19.64
			16QAM	1	0			20.2	19.98
				1	12			20.2	19.92
				1	24			20.2	19.93
				12	0			20.2	19.72
				12	6			20.2	19.72
				12	11			20.2	19.71
				25	0			20.2	19.64
	23095	707.5	QPSK	1	0			20.2	19.65
				1	12			20.2	19.66
				1	24			20.2	19.69
				12	0			20.2	19.67
				12	6			20.2	19.68
				12	11			20.2	19.68
				25	0			20.2	19.69
			16QAM	1	0			20.2	19.98
				1	12			20.2	20.07
				1	24			20.2	20.01
				12	0			20.2	19.80
				12	6			20.2	19.83
				12	11			20.2	19.76
				25	0			20.2	19.71
	23155	713.5	QPSK	1	0			20.2	19.71
				1	12			20.2	19.66
				1	24			20.2	19.72
				12	0			20.2	19.67
				12	6			20.2	19.66
				12	11			20.2	19.72
				25	0			20.2	19.60
			16QAM	1	0			20.2	19.99
				1	12			20.2	19.95
				1	24			20.2	20.09
				12	0			20.2	19.67
				12	6			20.2	19.69
				12	11			20.2	19.78
				25	0			20.2	19.62

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	23025	700.5	QPSK	1	0			20.2	19.67
				1	7			20.2	19.73
				1	14			20.2	19.66
				8	0			20.2	19.71
				8	4			20.2	19.72
				8	7			20.2	19.65
				15	0			20.2	19.65
			16QAM	1	0			20.2	19.90
				1	7			20.2	20.05
				1	14			20.2	19.88
				8	0			20.2	19.76
				8	4			20.2	19.74
				8	7			20.2	19.70
				15	0			20.2	19.67
	23095	707.5	QPSK	1	0			20.2	19.53
				1	7			20.2	19.72
				1	14			20.2	19.59
				8	0			20.2	19.67
				8	4			20.2	19.68
				8	7			20.2	19.63
				15	0	**MPR is disabled when power reduction is enabled**		20.2	19.68
			16QAM	1	0			20.2	19.83
				1	7			20.2	19.98
				1	14			20.2	19.88
				8	0			20.2	19.72
				8	4			20.2	19.73
				8	7			20.2	19.70
				15	0			20.2	19.60
	23165	714.5	QPSK	1	0			20.2	19.72
				1	7			20.2	19.85
				1	14			20.2	19.79
				8	0			20.2	19.79
				8	4			20.2	19.80
				8	7			20.2	19.78
				15	0			20.2	19.76
			16QAM	1	0			20.2	19.99
				1	7			20.2	20.16
				1	14			20.2	20.06
				8	0			20.2	19.88
				8	4			20.2	19.86
				8	7			20.2	19.84
				15	0			20.2	19.79

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	23017	699.7	QPSK	1	0			20.2	19.53
				1	2			20.2	19.61
				1	5			20.2	19.52
				3	0			20.2	19.60
				3	1			20.2	19.61
				3	3			20.2	19.57
				6	0			20.2	19.46
			16QAM	1	0			20.2	19.54
				1	2			20.2	19.68
				1	5			20.2	19.57
				3	0			20.2	19.51
				3	1			20.2	19.56
				3	3			20.2	19.43
				6	0			20.2	19.65
	23095	707.5	QPSK	1	0			20.2	19.50
				1	2			20.2	19.52
				1	5			20.2	19.48
				3	0			20.2	19.56
				3	1			20.2	19.60
				3	3			20.2	19.54
				6	0	**MPR is disabled when power reduction is enabled**		20.2	19.57
			16QAM	1	0			20.2	19.66
				1	2			20.2	19.77
				1	5			20.2	19.67
				3	0			20.2	19.76
				3	1			20.2	19.80
				3	3			20.2	19.72
				6	0			20.2	19.55
	23173	715.3	QPSK	1	0			20.2	19.55
				1	2			20.2	19.63
				1	5			20.2	19.53
				3	0			20.2	19.61
				3	1			20.2	19.62
				3	3			20.2	19.58
				6	0			20.2	19.62
			16QAM	1	0			20.2	19.58
				1	2			20.2	19.71
				1	5			20.2	19.59
				3	0			20.2	19.55
				3	1			20.2	19.61
				3	3			20.2	19.54
				6	0			20.2	19.64

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LTE Band 13 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	23230	782	QPSK	1	0	0	0	24.0	23.13
				1	24	0	0	24.0	23.12
				1	49	0	0	24.0	23.01
				25	0	1	1	23.0	22.08
				25	12	1	1	23.0	22.11
				25	24	1	1	23.0	22.05
				50	0	1	1	23.0	22.10
			16QAM	1	0	1	1	23.0	22.51
				1	24	1	1	23.0	22.42
				1	49	1	1	23.0	22.41
				25	0	2	2	22.0	21.19
				25	12	2	2	22.0	21.15
				25	24	2	2	22.0	21.09
				50	0	2	2	22.0	21.12

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	23205	779.5	QPSK	1	0	0	0	24.0	23.16
				1	12	0	0	24.0	23.15
				1	24	0	0	24.0	23.17
				12	0	1	1	23.0	22.09
				12	6	1	1	23.0	22.13
				12	11	1	1	23.0	22.10
				25	0	1	1	23.0	22.09
			16QAM	1	0	1	1	23.0	22.56
				1	12	1	1	23.0	22.48
				1	24	1	1	23.0	22.49
				12	0	2	2	22.0	21.22
				12	6	2	2	22.0	21.20
				12	11	2	2	22.0	21.19
				25	0	2	2	22.0	21.17
	23230	782	QPSK	1	0	0	0	24.0	23.15
				1	12	0	0	24.0	23.12
				1	24	0	0	24.0	23.13
				12	0	1	1	23.0	22.10
				12	6	1	1	23.0	22.08
				12	11	1	1	23.0	22.04
				25	0	1	1	23.0	22.12
			16QAM	1	0	1	1	23.0	22.55
				1	12	1	1	23.0	22.50
				1	24	1	1	23.0	22.49
				12	0	2	2	22.0	21.29
				12	6	2	2	22.0	21.28
				12	11	2	2	22.0	21.26
				25	0	2	2	22.0	21.14
	23255	784.5	QPSK	1	0	0	0	24.0	23.07
				1	12	0	0	24.0	23.02
				1	24	0	0	24.0	23.04
				12	0	1	1	23.0	22.07
				12	6	1	1	23.0	22.09
				12	11	1	1	23.0	22.05
				25	0	1	1	23.0	22.06
			16QAM	1	0	1	1	23.0	22.33
				1	12	1	1	23.0	22.32
				1	24	1	1	23.0	22.32
				12	0	2	2	22.0	21.19
				12	6	2	2	22.0	21.20
				12	11	2	2	22.0	21.16
				25	0	2	2	22.0	21.03

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LTE Band 13 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	23230	782	QPSK	1	0	**MPR is disabled when power reduction is enabled**		19.0	18.69
				1	24			19.0	18.63
				1	49			19.0	18.56
				25	0			19.0	18.66
				25	12			19.0	18.64
				25	24			19.0	18.65
				50	0			19.0	18.61
			16QAM	1	0			19.0	18.99
				1	24			19.0	18.88
				1	49			19.0	18.82
				25	0			19.0	18.63
				25	12			19.0	18.61
				25	24			19.0	18.59
				50	0			19.0	18.57

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	23205	779.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		19.0	18.71
				1	12			19.0	18.69
				1	24			19.0	18.66
				12	0			19.0	18.64
				12	6			19.0	18.67
				12	11			19.0	18.66
				25	0			19.0	18.61
			16QAM	1	0			19.0	18.99
				1	12			19.0	18.93
				1	24			19.0	18.96
				12	0			19.0	18.72
				12	6			19.0	18.69
				12	11			19.0	18.65
				25	0			19.0	18.67
	23230	782	QPSK	1	0			19.0	18.60
				1	12			19.0	18.53
				1	24			19.0	18.55
				12	0			19.0	18.61
				12	6			19.0	18.64
				12	11			19.0	18.64
				25	0			19.0	18.62
			16QAM	1	0			19.0	18.82
				1	12			19.0	18.80
				1	24			19.0	18.79
				12	0			19.0	18.67
				12	6			19.0	18.67
				12	11			19.0	18.66
				25	0			19.0	18.56
	23255	784.5	QPSK	1	0			19.0	18.66
				1	12			19.0	18.63
				1	24			19.0	18.62
				12	0			19.0	18.58
				12	6			19.0	18.59
				12	11			19.0	18.57
				25	0			19.0	18.55
			16QAM	1	0			19.0	18.98
				1	12			19.0	18.91
				1	24			19.0	18.92
				12	0			19.0	18.65
				12	6			19.0	18.66
				12	11			19.0	18.63
				25	0			19.0	18.61

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LTE Band 14 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	23330	793	QPSK	1	0	0	0	24.0	23.14
				1	24	0	0	24.0	23.11
				1	49	0	0	24.0	23.20
				25	0	1	1	23.0	22.04
				25	12	1	1	23.0	22.05
				25	24	1	1	23.0	22.03
				50	0	1	1	23.0	22.04
			16QAM	1	0	1	1	23.0	22.33
				1	24	1	1	23.0	22.39
				1	49	1	1	23.0	22.49
				25	0	2	2	22.0	21.19
				25	12	2	2	22.0	21.20
				25	24	2	2	22.0	21.16
				50	0	2	2	22.0	21.16

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	23305	790.5	QPSK	1	0	0	0	24.0	23.11
				1	12	0	0	24.0	23.10
				1	24	0	0	24.0	23.09
				12	0	1	1	23.0	22.03
				12	6	1	1	23.0	22.05
				12	11	1	1	23.0	22.04
				25	0	1	1	23.0	22.06
			16QAM	1	0	1	1	23.0	22.46
				1	12	1	1	23.0	22.44
				1	24	1	1	23.0	22.44
				12	0	2	2	22.0	21.15
				12	6	2	2	22.0	21.18
				12	11	2	2	22.0	21.12
				25	0	2	2	22.0	21.13
	23330	793	QPSK	1	0	0	0	24.0	23.15
				1	12	0	0	24.0	23.09
				1	24	0	0	24.0	23.13
				12	0	1	1	23.0	22.10
				12	6	1	1	23.0	22.15
				12	11	1	1	23.0	22.13
				25	0	1	1	23.0	22.13
			16QAM	1	0	1	1	23.0	22.40
				1	12	1	1	23.0	22.40
				1	24	1	1	23.0	22.38
				12	0	2	2	22.0	21.20
				12	6	2	2	22.0	21.24
				12	11	2	2	22.0	21.25
				25	0	2	2	22.0	21.14
	23355	795.5	QPSK	1	0	0	0	24.0	23.06
				1	12	0	0	24.0	23.09
				1	24	0	0	24.0	23.14
				12	0	1	1	23.0	22.02
				12	6	1	1	23.0	22.10
				12	11	1	1	23.0	22.12
				25	0	1	1	23.0	22.14
			16QAM	1	0	1	1	23.0	22.30
				1	12	1	1	23.0	22.41
				1	24	1	1	23.0	22.39
				12	0	2	2	22.0	21.14
				12	6	2	2	22.0	21.26
				12	11	2	2	22.0	21.22
				25	0	2	2	22.0	21.15

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LTE Band 14 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	23330	793	QPSK	1	0	**MPR is disabled when power reduction is enabled**		19.6	19.16
				1	24			19.6	19.12
				1	49			19.6	19.21
				25	0			19.6	19.08
				25	12			19.6	19.07
				25	24			19.6	19.06
				50	0			19.6	19.16
			16QAM	1	0			19.6	19.43
				1	24			19.6	19.46
				1	49			19.6	19.53
				25	0			19.6	19.21
				25	12			19.6	19.19
				25	24			19.6	19.19
				50	0			19.6	19.18

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	23305	790.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		19.6	19.13
				1	12			19.6	19.09
				1	24			19.6	19.08
				12	0			19.6	19.09
				12	6			19.6	19.11
				12	11			19.6	19.04
				25	0			19.6	19.07
			16QAM	1	0			19.6	19.44
				1	12			19.6	19.40
				1	24			19.6	19.40
				12	0			19.6	19.12
				12	6			19.6	19.14
				12	11			19.6	19.13
				25	0			19.6	19.12
	23330	793	QPSK	1	0			19.6	19.19
				1	12			19.6	19.11
				1	24			19.6	19.18
				12	0			19.6	19.14
				12	6			19.6	19.17
				12	11			19.6	19.13
				25	0			19.6	19.13
			16QAM	1	0			19.6	19.52
				1	12			19.6	19.51
				1	24			19.6	19.50
				12	0			19.6	19.33
				12	6			19.6	19.32
				12	11			19.6	19.32
				25	0			19.6	19.21
	23355	795.5	QPSK	1	0			19.6	19.09
				1	12			19.6	19.18
				1	24			19.6	19.17
				12	0			19.6	19.08
				12	6			19.6	19.18
				12	11			19.6	19.13
				25	0			19.6	19.14
			16QAM	1	0			19.6	19.43
				1	12			19.6	19.47
				1	24			19.6	19.49
				12	0			19.6	19.14
				12	6			19.6	19.28
				12	11			19.6	19.25
				25	0			19.6	19.22

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LTE Band 26 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	26765	821.5	QPSK	1	0	0	0	24.0	23.16
				1	37	0	0	24.0	23.17
				1	74	0	0	24.0	23.22
				36	0	1	1	23.0	22.13
				36	19	1	1	23.0	22.21
				36	39	1	1	23.0	22.12
				75	0	1	1	23.0	22.18
			16QAM	1	0	1	1	23.0	22.57
				1	37	1	1	23.0	22.64
				1	74	1	1	23.0	22.56
				36	0	2	2	22.0	21.17
				36	19	2	2	22.0	21.27
				36	39	2	2	22.0	21.21
				75	0	2	2	22.0	21.23
	26865	831.5	QPSK	1	0	0	0	24.0	23.18
				1	37	0	0	24.0	23.20
				1	74	0	0	24.0	23.13
				36	0	1	1	23.0	22.25
				36	19	1	1	23.0	22.24
				36	39	1	1	23.0	22.18
				75	0	1	1	23.0	22.23
			16QAM	1	0	1	1	23.0	22.53
				1	37	1	1	23.0	22.57
				1	74	1	1	23.0	22.55
				36	0	2	2	22.0	21.33
				36	19	2	2	22.0	21.34
				36	39	2	2	22.0	21.21
				75	0	2	2	22.0	21.27
	26965	841.5	QPSK	1	0	0	0	24.0	23.27
				1	37	0	0	24.0	23.04
				1	74	0	0	24.0	22.95
				36	0	1	1	23.0	22.21
				36	19	1	1	23.0	22.20
				36	39	1	1	23.0	22.15
				75	0	1	1	23.0	22.20
			16QAM	1	0	1	1	23.0	22.62
				1	37	1	1	23.0	22.41
				1	74	1	1	23.0	22.31
				36	0	2	2	22.0	21.27
				36	19	2	2	22.0	21.25
				36	39	2	2	22.0	21.23
				75	0	2	2	22.0	21.24

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	26740	819	QPSK	1	0	0	0	24.0	23.21
				1	24	0	0	24.0	23.15
				1	49	0	0	24.0	23.24
				25	0	1	1	23.0	22.18
				25	12	1	1	23.0	22.17
				25	24	1	1	23.0	22.21
				50	0	1	1	23.0	22.18
			16QAM	1	0	1	1	23.0	22.57
				1	24	1	1	23.0	22.54
				1	49	1	1	23.0	22.58
				25	0	2	2	22.0	21.24
				25	12	2	2	22.0	21.25
				25	24	2	2	22.0	21.31
				50	0	2	2	22.0	21.21
	26865	831.5	QPSK	1	0	0	0	24.0	23.09
				1	24	0	0	24.0	23.15
				1	49	0	0	24.0	23.10
				25	0	1	1	23.0	22.25
				25	12	1	1	23.0	22.28
				25	24	1	1	23.0	22.24
				50	0	1	1	23.0	22.27
			16QAM	1	0	1	1	23.0	22.41
				1	24	1	1	23.0	22.49
				1	49	1	1	23.0	22.43
				25	0	2	2	22.0	21.22
				25	12	2	2	22.0	21.21
				25	24	2	2	22.0	21.20
				50	0	2	2	22.0	21.19
	26990	844	QPSK	1	0	0	0	24.0	23.28
				1	24	0	0	24.0	23.16
				1	49	0	0	24.0	23.09
				25	0	1	1	23.0	22.32
				25	12	1	1	23.0	22.31
				25	24	1	1	23.0	22.27
				50	0	1	1	23.0	22.31
			16QAM	1	0	1	1	23.0	22.70
				1	24	1	1	23.0	22.51
				1	49	1	1	23.0	22.41
				25	0	2	2	22.0	21.30
				25	12	2	2	22.0	21.31
				25	24	2	2	22.0	21.27
				50	0	2	2	22.0	21.27

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	26715	816.5	QPSK	1	0	0	0	24.0	23.09
				1	12	0	0	24.0	23.03
				1	24	0	0	24.0	23.05
				12	0	1	1	23.0	22.08
				12	6	1	1	23.0	22.10
				12	11	1	1	23.0	22.01
				25	0	1	1	23.0	22.04
			16QAM	1	0	1	1	23.0	22.43
				1	12	1	1	23.0	22.34
				1	24	1	1	23.0	22.34
				12	0	2	2	22.0	21.11
				12	6	2	2	22.0	21.13
				12	11	2	2	22.0	21.10
				25	0	2	2	22.0	21.05
	26865	831.5	QPSK	1	0	0	0	24.0	23.30
				1	12	0	0	24.0	23.21
				1	24	0	0	24.0	23.26
				12	0	1	1	23.0	22.20
				12	6	1	1	23.0	22.22
				12	11	1	1	23.0	22.18
				25	0	1	1	23.0	22.21
			16QAM	1	0	1	1	23.0	22.68
				1	12	1	1	23.0	22.64
				1	24	1	1	23.0	22.64
				12	0	2	2	22.0	21.40
				12	6	2	2	22.0	21.42
				12	11	2	2	22.0	21.39
				25	0	2	2	22.0	21.26
	27015	846.5	QPSK	1	0	0	0	24.0	23.14
				1	12	0	0	24.0	23.13
				1	24	0	0	24.0	23.02
				12	0	1	1	23.0	22.15
				12	6	1	1	23.0	22.13
				12	11	1	1	23.0	22.14
				25	0	1	1	23.0	22.12
			16QAM	1	0	1	1	23.0	22.56
				1	12	1	1	23.0	22.50
				1	24	1	1	23.0	22.39
				12	0	2	2	22.0	21.23
				12	6	2	2	22.0	21.23
				12	11	2	2	22.0	21.22
				25	0	2	2	22.0	21.19

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	26705	815.5	QPSK	1	0	0	0	24.0	23.08
				1	7	0	0	24.0	23.15
				1	14	0	0	24.0	23.07
				8	0	1	1	23.0	22.15
				8	4	1	1	23.0	22.21
				8	7	1	1	23.0	22.14
				15	0	1	1	23.0	22.09
			16QAM	1	0	1	1	23.0	22.38
				1	7	1	1	23.0	22.52
				1	14	1	1	23.0	22.38
				8	0	2	2	22.0	21.22
				8	4	2	2	22.0	21.25
				8	7	2	2	22.0	21.24
				15	0	2	2	22.0	21.18
	26865	831.5	QPSK	1	0	0	0	24.0	23.15
				1	7	0	0	24.0	23.21
				1	14	0	0	24.0	23.12
				8	0	1	1	23.0	22.23
				8	4	1	1	23.0	22.28
				8	7	1	1	23.0	22.20
				15	0	1	1	23.0	22.20
			16QAM	1	0	1	1	23.0	22.29
				1	7	1	1	23.0	22.43
				1	14	1	1	23.0	22.27
				8	0	2	2	22.0	21.16
				8	4	2	2	22.0	21.19
				8	7	2	2	22.0	21.15
				15	0	2	2	22.0	21.19
	27025	847.5	QPSK	1	0	0	0	24.0	23.18
				1	7	0	0	24.0	23.17
				1	14	0	0	24.0	23.03
				8	0	1	1	23.0	22.23
				8	4	1	1	23.0	22.15
				8	7	1	1	23.0	22.10
				15	0	1	1	23.0	22.10
			16QAM	1	0	1	1	23.0	22.46
				1	7	1	1	23.0	22.49
				1	14	1	1	23.0	22.35
				8	0	2	2	22.0	21.31
				8	4	2	2	22.0	21.23
				8	7	2	2	22.0	21.19
				15	0	2	2	22.0	21.15

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1.4	26697	814.7	QPSK	1	0	0	0	24.0	22.98
				1	2	0	0	24.0	23.06
				1	5	0	0	24.0	22.99
				3	0	0	0	24.0	23.03
				3	1	0	0	24.0	23.04
				3	3	0	0	24.0	22.97
				6	0	1	1	23.0	22.05
			16QAM	1	0	1	1	23.0	22.03
				1	2	1	1	23.0	22.19
				1	5	1	1	23.0	22.08
				3	0	1	1	23.0	21.98
				3	1	1	1	23.0	22.02
				3	3	1	1	23.0	21.92
				6	0	2	2	22.0	21.12
	26865	831.5	QPSK	1	0	0	0	24.0	23.04
				1	2	0	0	24.0	23.13
				1	5	0	0	24.0	23.03
				3	0	0	0	24.0	23.13
				3	1	0	0	24.0	23.16
				3	3	0	0	24.0	23.13
				6	0	1	1	23.0	22.14
			16QAM	1	0	1	1	23.0	22.35
				1	2	1	1	23.0	22.42
				1	5	1	1	23.0	22.35
				3	0	1	1	23.0	22.23
				3	1	1	1	23.0	22.28
				3	3	1	1	23.0	22.22
				6	0	2	2	22.0	21.19
	27033	848.3	QPSK	1	0	0	0	24.0	23.01
				1	2	0	0	24.0	23.06
				1	5	0	0	24.0	23.00
				3	0	0	0	24.0	23.02
				3	1	0	0	24.0	23.05
				3	3	0	0	24.0	23.01
				6	0	1	1	23.0	22.00
			16QAM	1	0	1	1	23.0	22.07
				1	2	1	1	23.0	22.14
				1	5	1	1	23.0	22.03
				3	0	1	1	23.0	22.02
				3	1	1	1	23.0	22.06
				3	3	1	1	23.0	21.98
				6	0	2	2	22.0	21.08

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LTE Band 26 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	26765	821.5	QPSK	1	0			19.2	18.77
				1	37			19.2	18.74
				1	74			19.2	18.78
				36	0			19.2	18.73
				36	19			19.2	18.84
				36	39			19.2	18.75
				75	0			19.2	18.77
			16QAM	1	0			19.2	19.08
				1	37			19.2	19.10
				1	74			19.2	19.03
				36	0			19.2	18.73
				36	19			19.2	18.80
				36	39			19.2	18.75
				75	0			19.2	18.77
	26865	831.5	QPSK	1	0			19.2	18.77
				1	37			19.2	18.75
				1	74			19.2	18.71
				36	0			19.2	18.83
				36	19			19.2	18.83
				36	39	**MPR is disabled when power reduction is enabled**		19.2	18.77
				75	0			19.2	18.78
			16QAM	1	0			19.2	19.02
				1	37			19.2	19.06
				1	74			19.2	19.03
				36	0			19.2	18.82
				36	19			19.2	18.83
				36	39			19.2	18.74
				75	0			19.2	18.77
	26965	841.5	QPSK	1	0			19.2	18.81
				1	37			19.2	18.64
				1	74			19.2	18.53
				36	0			19.2	18.74
				36	19			19.2	18.76
				36	39			19.2	18.68
				75	0			19.2	18.66
			16QAM	1	0			19.2	18.89
				1	37			19.2	18.75
				1	74			19.2	18.64
				36	0			19.2	18.81
				36	19			19.2	18.77
				36	39			19.2	18.67
				75	0			19.2	18.64

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	26740	819	QPSK	1	0			19.2	18.77
				1	24			19.2	18.74
				1	49			19.2	18.79
				25	0			19.2	18.63
				25	12			19.2	18.64
				25	24			19.2	18.77
				50	0			19.2	18.70
			16QAM	1	0			19.2	19.05
				1	24			19.2	19.04
				1	49			19.2	19.06
				25	0			19.2	18.73
				25	12			19.2	18.74
				25	24			19.2	18.77
				50	0			19.2	18.71
	26865	831.5	QPSK	1	0			19.2	18.59
				1	24			19.2	18.68
				1	49			19.2	18.63
				25	0			19.2	18.75
				25	12			19.2	18.76
				25	24			19.2	18.73
				50	0			19.2	18.74
			16QAM	1	0			19.2	18.92
				1	24			19.2	18.96
				1	49			19.2	18.91
				25	0			19.2	18.67
				25	12			19.2	18.68
				25	24			19.2	18.65
				50	0			19.2	18.67
	26990	844	QPSK	1	0			19.2	18.84
				1	24			19.2	18.76
				1	49			19.2	18.63
				25	0			19.2	18.77
				25	12			19.2	18.76
				25	24			19.2	18.75
				50	0			19.2	18.78
			16QAM	1	0			19.2	19.12
				1	24			19.2	19.06
				1	49			19.2	18.93
				25	0			19.2	18.79
				25	12			19.2	18.81
				25	24			19.2	18.77
				50	0			19.2	18.76

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	26715	816.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		19.2	18.61
				1	12			19.2	18.57
				1	24			19.2	18.56
				12	0			19.2	18.56
				12	6			19.2	18.58
				12	11			19.2	18.54
				25	0			19.2	18.48
			16QAM	1	0			19.2	18.87
				1	12			19.2	18.80
				1	24			19.2	18.84
				12	0			19.2	18.61
				12	6			19.2	18.59
				12	11			19.2	18.56
				25	0			19.2	18.55
	26865	831.5	QPSK	1	0			19.2	18.70
				1	12			19.2	18.64
				1	24			19.2	18.66
				12	0			19.2	18.76
				12	6			19.2	18.76
				12	11			19.2	18.72
				25	0			19.2	18.72
			16QAM	1	0			19.2	18.92
				1	12			19.2	18.92
				1	24			19.2	18.89
				12	0			19.2	18.78
				12	6			19.2	18.78
				12	11			19.2	18.75
				25	0			19.2	18.66
	27015	846.5	QPSK	1	0			19.2	18.71
				1	12			19.2	18.64
				1	24			19.2	18.57
				12	0			19.2	18.64
				12	6			19.2	18.65
				12	11			19.2	18.62
				25	0			19.2	18.61
			16QAM	1	0			19.2	18.99
				1	12			19.2	18.97
				1	24			19.2	18.86
				12	0			19.2	18.68
				12	6			19.2	18.70
				12	11			19.2	18.67
				25	0			19.2	18.63

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	26705	815.5	QPSK	1	0			19.2	18.62
				1	7			19.2	18.72
				1	14			19.2	18.63
				8	0			19.2	18.66
				8	4			19.2	18.67
				8	7			19.2	18.60
				15	0			19.2	18.62
			16QAM	1	0			19.2	18.91
				1	7			19.2	18.99
				1	14			19.2	18.87
				8	0			19.2	18.75
				8	4			19.2	18.74
				8	7			19.2	18.72
				15	0			19.2	18.65
	26865	831.5	QPSK	1	0			19.2	18.60
				1	7			19.2	18.65
				1	14			19.2	18.57
				8	0			19.2	18.72
				8	4			19.2	18.75
				8	7			19.2	18.69
				15	0			19.2	18.70
			16QAM	1	0	**MPR is disabled when power reduction is enabled**		19.2	18.80
				1	7			19.2	18.93
				1	14			19.2	18.75
				8	0			19.2	18.65
				8	4			19.2	18.66
				8	7			19.2	18.64
				15	0			19.2	18.68
	27025	847.5	QPSK	1	0			19.2	18.71
				1	7			19.2	18.68
				1	14			19.2	18.61
				8	0			19.2	18.71
				8	4			19.2	18.66
				8	7			19.2	18.60
				15	0			19.2	18.59
			16QAM	1	0			19.2	18.99
				1	7			19.2	18.95
				1	14			19.2	18.84
				8	0			19.2	18.83
				8	4			19.2	18.66
				8	7			19.2	18.67
				15	0			19.2	18.60

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	26697	814.7	QPSK	1	0			19.2	18.47
				1	2			19.2	18.53
				1	5			19.2	18.49
				3	0			19.2	18.60
				3	1			19.2	18.61
				3	3			19.2	18.57
				6	0			19.2	18.51
			16QAM	1	0			19.2	18.59
				1	2			19.2	18.67
				1	5			19.2	18.58
				3	0			19.2	18.52
				3	1			19.2	18.56
				3	3			19.2	18.48
				6	0			19.2	18.59
	26865	831.5	QPSK	1	0			19.2	18.54
				1	2			19.2	18.60
				1	5			19.2	18.53
				3	0			19.2	18.67
				3	1			19.2	18.72
				3	3			19.2	18.65
				6	0			19.2	18.67
			16QAM	1	0			19.2	18.81
				1	2			19.2	18.88
				1	5			19.2	18.84
				3	0			19.2	18.74
				3	1			19.2	18.78
				3	3			19.2	18.73
				6	0			19.2	18.66
	27033	848.3	QPSK	1	0			19.2	18.44
				1	2			19.2	18.54
				1	5			19.2	18.43
				3	0			19.2	18.54
				3	1			19.2	18.59
				3	3			19.2	18.53
				6	0			19.2	18.48
			16QAM	1	0			19.2	18.50
				1	2			19.2	18.61
				1	5			19.2	18.55
				3	0			19.2	18.45
				3	1			19.2	18.50
				3	3			19.2	18.41
				6	0			19.2	18.53

MPR is disabled when power reduction is enabled

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LTE Band 41 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	39750 Low	2506	QPSK	1	0	0	0	23.0	22.47
				1	49	0	0	23.0	22.35
				1	99	0	0	23.0	22.30
				50	0	1	1	22.0	21.53
				50	24	1	1	22.0	21.54
				50	49	1	1	22.0	21.51
				100	0	1	1	22.0	21.54
			16QAM	1	0	1	1	22.0	21.84
				1	49	1	1	22.0	21.75
				1	99	1	1	22.0	21.78
				50	0	2	2	21.0	20.55
				50	24	2	2	21.0	20.53
				50	49	2	2	21.0	20.52
				100	0	2	2	21.0	20.57
	40185 Low-Mid	2549.5	QPSK	1	0	0	0	23.0	22.18
				1	49	0	0	23.0	22.28
				1	99	0	0	23.0	22.25
				50	0	1	1	22.0	21.40
				50	24	1	1	22.0	21.48
				50	49	1	1	22.0	21.45
				100	0	1	1	22.0	21.49
			16QAM	1	0	1	1	22.0	21.69
				1	49	1	1	22.0	21.75
				1	99	1	1	22.0	21.71
				50	0	2	2	21.0	20.39
				50	24	2	2	21.0	20.45
				50	49	2	2	21.0	20.42
				100	0	2	2	21.0	20.54

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	40620 Mid	2593	QPSK	1	0	0	0	23.0	22.33
				1	49	0	0	23.0	22.10
				1	99	0	0	23.0	22.12
				50	0	1	1	22.0	21.41
				50	24	1	1	22.0	21.34
				50	49	1	1	22.0	21.35
				100	0	1	1	22.0	21.38
			16QAM	1	0	1	1	22.0	21.78
				1	49	1	1	22.0	21.64
				1	99	1	1	22.0	21.65
				50	0	2	2	21.0	20.37
				50	24	2	2	21.0	20.33
				50	49	2	2	21.0	20.28
				100	0	2	2	21.0	20.38
	41055 Mid-High	2636.5	QPSK	1	0	0	0	23.0	22.21
				1	49	0	0	23.0	22.19
				1	99	0	0	23.0	22.09
				50	0	1	1	22.0	21.33
				50	24	1	1	22.0	21.34
				50	49	1	1	22.0	21.35
				100	0	1	1	22.0	21.33
			16QAM	1	0	1	1	22.0	21.69
				1	49	1	1	22.0	21.62
				1	99	1	1	22.0	21.56
				50	0	2	2	21.0	20.33
				50	24	2	2	21.0	20.31
				50	49	2	2	21.0	20.28
				100	0	2	2	21.0	20.38
	41490 High	2680	QPSK	1	0	0	0	23.0	22.99
				1	49	0	0	23.0	22.57
				1	99	0	0	23.0	22.98
				50	0	1	1	22.0	21.99
				50	24	1	1	22.0	21.75
				50	49	1	1	22.0	21.78
				100	0	1	1	22.0	21.78
			16QAM	1	0	1	1	22.0	21.99
				1	49	1	1	22.0	21.58
				1	99	1	1	22.0	21.95
				50	0	2	2	21.0	20.94
				50	24	2	2	21.0	20.75
				50	49	2	2	21.0	20.80
				100	0	2	2	21.0	20.85

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	39725 Low	2503.5	QPSK	1	0	0	0	23.0	22.51
				1	37	0	0	23.0	22.44
				1	74	0	0	23.0	22.49
				36	0	1	1	22.0	21.54
				36	19	1	1	22.0	21.55
				36	39	1	1	22.0	21.56
				75	0	1	1	22.0	21.50
			16QAM	1	0	1	1	22.0	21.95
				1	37	1	1	22.0	21.99
				1	74	1	1	22.0	21.91
				36	0	2	2	21.0	20.54
				36	19	2	2	21.0	20.58
				36	39	2	2	21.0	20.55
				75	0	2	2	21.0	20.54
	40173 Low-Mid	2548.3	QPSK	1	0	0	0	23.0	22.62
				1	37	0	0	23.0	22.63
				1	74	0	0	23.0	22.55
				36	0	1	1	22.0	21.40
				36	19	1	1	22.0	21.50
				36	39	1	1	22.0	21.47
				75	0	1	1	22.0	21.46
			16QAM	1	0	1	1	22.0	21.56
				1	37	1	1	22.0	21.49
				1	74	1	1	22.0	21.60
				36	0	2	2	21.0	20.46
				36	19	2	2	21.0	20.56
				36	39	2	2	21.0	20.53
				75	0	2	2	21.0	20.47
	40620 Mid	2593	QPSK	1	0	0	0	23.0	22.54
				1	37	0	0	23.0	22.43
				1	74	0	0	23.0	22.50
				36	0	1	1	22.0	21.40
				36	19	1	1	22.0	21.36
				36	39	1	1	22.0	21.34
				75	0	1	1	22.0	21.34
			16QAM	1	0	1	1	22.0	21.98
				1	37	1	1	22.0	21.92
				1	74	1	1	22.0	21.94
				36	0	2	2	21.0	20.38
				36	19	2	2	21.0	20.41
				36	39	2	2	21.0	20.37
				75	0	2	2	21.0	20.39

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	41068 Mid-High	2637.8	QPSK	1	0	0	0	23.0	22.48
				1	37	0	0	23.0	22.39
				1	74	0	0	23.0	22.32
				36	0	1	1	22.0	21.33
				36	19	1	1	22.0	21.39
				36	39	1	1	22.0	21.26
				75	0	1	1	22.0	21.30
			16QAM	1	0	1	1	22.0	21.90
				1	37	1	1	22.0	21.85
				1	74	1	1	22.0	21.74
				36	0	2	2	21.0	20.33
				36	19	2	2	21.0	20.42
				36	39	2	2	21.0	20.29
				75	0	2	2	21.0	20.36
	41515 High	2682.5	QPSK	1	0	0	0	23.0	22.47
				1	37	0	0	23.0	22.22
				1	74	0	0	23.0	22.20
				36	0	1	1	22.0	21.37
				36	19	1	1	22.0	21.21
				36	39	1	1	22.0	21.24
				75	0	1	1	22.0	21.22
			16QAM	1	0	1	1	22.0	21.55
				1	37	1	1	22.0	21.19
				1	74	1	1	22.0	21.24
				36	0	2	2	21.0	20.44
				36	19	2	2	21.0	20.29
				36	39	2	2	21.0	20.32
				75	0	2	2	21.0	20.24

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	39700 Low	2501	QPSK	1	0	0	0	23.0	22.40
				1	24	0	0	23.0	22.36
				1	49	0	0	23.0	22.39
				25	0	1	1	22.0	21.42
				25	12	1	1	22.0	21.57
				25	24	1	1	22.0	21.46
				50	0	1	1	22.0	21.54
			16QAM	1	0	1	1	22.0	21.83
				1	24	1	1	22.0	21.80
				1	49	1	1	22.0	21.84
				25	0	2	2	21.0	20.55
				25	12	2	2	21.0	20.56
				25	24	2	2	21.0	20.52
				50	0	2	2	21.0	20.49
	40160 Low-Mid	2547	QPSK	1	0	0	0	23.0	22.40
				1	24	0	0	23.0	22.35
				1	49	0	0	23.0	22.45
				25	0	1	1	22.0	21.36
				25	12	1	1	22.0	21.35
				25	24	1	1	22.0	21.42
				50	0	1	1	22.0	21.41
			16QAM	1	0	1	1	22.0	21.79
				1	24	1	1	22.0	21.80
				1	49	1	1	22.0	21.87
				25	0	2	2	21.0	20.45
				25	12	2	2	21.0	20.45
				25	24	2	2	21.0	20.51
				50	0	2	2	21.0	20.42
	40620 Mid	2593	QPSK	1	0	0	0	23.0	22.28
				1	24	0	0	23.0	22.25
				1	49	0	0	23.0	22.21
				25	0	1	1	22.0	21.33
				25	12	1	1	22.0	21.32
				25	24	1	1	22.0	21.31
				50	0	1	1	22.0	21.36
			16QAM	1	0	1	1	22.0	21.78
				1	24	1	1	22.0	21.78
				1	49	1	1	22.0	21.76
				25	0	2	2	21.0	20.42
				25	12	2	2	21.0	20.41
				25	24	2	2	21.0	20.35
				50	0	2	2	21.0	20.39

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10	41080 Mid-High	2639	QPSK	1	0	0	0	23.0	22.22
				1	24	0	0	23.0	22.24
				1	49	0	0	23.0	22.04
				25	0	1	1	22.0	21.31
				25	12	1	1	22.0	21.32
				25	24	1	1	22.0	21.33
				50	0	1	1	22.0	21.39
			16QAM	1	0	1	1	22.0	21.71
				1	24	1	1	22.0	21.68
				1	49	1	1	22.0	21.56
				25	0	2	2	21.0	20.38
				25	12	2	2	21.0	20.40
				25	24	2	2	21.0	20.32
				50	0	2	2	21.0	20.36
	41540 High	2685	QPSK	1	0	0	0	23.0	22.62
				1	24	0	0	23.0	22.21
				1	49	0	0	23.0	22.54
				25	0	1	1	22.0	21.25
				25	12	1	1	22.0	21.15
				25	24	1	1	22.0	21.27
				50	0	1	1	22.0	21.28
			16QAM	1	0	1	1	22.0	21.98
				1	24	1	1	22.0	21.55
				1	49	1	1	22.0	21.92
				25	0	2	2	21.0	20.31
				25	12	2	2	21.0	20.23
				25	24	2	2	21.0	20.27
				50	0	2	2	21.0	20.31

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	39675 Low	2498.5	QPSK	1	0	0	0	23.0	22.48
				1	12	0	0	23.0	22.47
				1	24	0	0	23.0	22.46
				12	0	1	1	22.0	21.44
				12	6	1	1	22.0	21.46
				12	11	1	1	22.0	21.47
				25	0	1	1	22.0	21.46
			16QAM	1	0	1	1	22.0	21.80
				1	12	1	1	22.0	21.73
				1	24	1	1	22.0	21.74
				12	0	2	2	21.0	20.60
				12	6	2	2	21.0	20.56
				12	11	2	2	21.0	20.53
				25	0	2	2	21.0	20.53
	40148 Low-Mid	2545.8	QPSK	1	0	0	0	23.0	22.39
				1	12	0	0	23.0	22.37
				1	24	0	0	23.0	22.32
				12	0	1	1	22.0	21.38
				12	6	1	1	22.0	21.40
				12	11	1	1	22.0	21.41
				25	0	1	1	22.0	21.38
			16QAM	1	0	1	1	22.0	21.62
				1	12	1	1	22.0	21.60
				1	24	1	1	22.0	21.56
				12	0	2	2	21.0	20.48
				12	6	2	2	21.0	20.47
				12	11	2	2	21.0	20.44
				25	0	2	2	21.0	20.44
	40620 Mid	2593	QPSK	1	0	0	0	23.0	22.28
				1	12	0	0	23.0	22.26
				1	24	0	0	23.0	22.25
				12	0	1	1	22.0	21.33
				12	6	1	1	22.0	21.32
				12	11	1	1	22.0	21.34
				25	0	1	1	22.0	21.34
			16QAM	1	0	1	1	22.0	21.50
				1	12	1	1	22.0	21.50
				1	24	1	1	22.0	21.48
				12	0	2	2	21.0	20.41
				12	6	2	2	21.0	20.42
				12	11	2	2	21.0	20.36
				25	0	2	2	21.0	20.34

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	41093 Mid-High	2640.3	QPSK	1	0	0	0	23.0	22.29
				1	12	0	0	23.0	22.33
				1	24	0	0	23.0	22.15
				12	0	1	1	22.0	21.30
				12	6	1	1	22.0	21.32
				12	11	1	1	22.0	21.33
				25	0	1	1	22.0	21.35
			16QAM	1	0	1	1	22.0	21.58
				1	12	1	1	22.0	21.54
				1	24	1	1	22.0	21.45
				12	0	2	2	21.0	20.42
				12	6	2	2	21.0	20.41
				12	11	2	2	21.0	20.37
				25	0	2	2	21.0	20.34
	41565 High	2687.5	QPSK	1	0	0	0	23.0	22.05
				1	12	0	0	23.0	22.03
				1	24	0	0	23.0	22.04
				12	0	1	1	22.0	21.11
				12	6	1	1	22.0	21.10
				12	11	1	1	22.0	21.12
				25	0	1	1	22.0	21.09
			16QAM	1	0	1	1	22.0	21.33
				1	12	1	1	22.0	21.33
				1	24	1	1	22.0	21.26
				12	0	2	2	21.0	20.17
				12	6	2	2	21.0	20.19
				12	11	2	2	21.0	20.16
				25	0	2	2	21.0	20.09

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LTE Band 41 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	39750 Low	2506	QPSK	1	0	MPR is disabled when power reduction is enabled		16.8	15.68
				1	49			16.8	15.62
				1	99			16.8	15.53
				50	0			16.8	15.65
				50	24			16.8	15.64
				50	49			16.8	15.66
				100	0			16.8	15.62
			16QAM	1	0			16.8	16.18
				1	49			16.8	16.07
				1	99			16.8	16.00
				50	0			16.8	15.60
				50	24			16.8	15.59
				50	49			16.8	15.63
				100	0			16.8	15.65
	40185 Low-Mid	2549.5	QPSK	1	0			16.8	15.45
				1	49			16.8	15.60
				1	99			16.8	15.59
				50	0			16.8	15.49
				50	24			16.8	15.59
				50	49			16.8	15.56
				100	0			16.8	15.53
			16QAM	1	0			16.8	15.90
				1	49			16.8	16.02
				1	99			16.8	16.01
				50	0			16.8	15.48
				50	24			16.8	15.59
				50	49			16.8	15.51
				100	0			16.8	15.62

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	40620 Mid	2593	QPSK	1	0	**MPR is disabled when power reduction is enabled**		16.8	15.58
				1	49			16.8	15.41
				1	99			16.8	15.36
				50	0			16.8	15.42
				50	24			16.8	15.40
				50	49			16.8	15.39
				100	0			16.8	15.37
			16QAM	1	0			16.8	16.04
				1	49			16.8	15.85
				1	99			16.8	15.80
				50	0			16.8	15.41
				50	24			16.8	15.39
				50	49			16.8	15.37
				100	0			16.8	15.40
	41055 Mid-High	2636.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		16.8	15.41
				1	49			16.8	15.33
				1	99			16.8	15.30
				50	0			16.8	15.35
				50	24			16.8	15.34
				50	49			16.8	15.33
				100	0			16.8	15.33
			16QAM	1	0			16.8	15.83
				1	49			16.8	15.76
				1	99			16.8	15.71
				50	0			16.8	15.35
				50	24			16.8	15.38
				50	49			16.8	15.38
				100	0			16.8	15.40
	41490 High	2680	QPSK	1	0			16.8	16.48
				1	49			16.8	15.73
				1	99			16.8	16.22
				50	0			16.8	15.49
				50	24			16.8	15.34
				50	49			16.8	15.40
				100	0			16.8	15.44
			16QAM	1	0			16.8	16.70
				1	49			16.8	15.27
				1	99			16.8	16.71
				50	0			16.8	15.58
				50	24			16.8	15.37
				50	49			16.8	15.38
				100	0			16.8	15.43

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	39725 Low	2503.5	QPSK	1	0			16.8	15.73
				1	37			16.8	15.58
				1	74			16.8	15.63
				36	0			16.8	15.66
				36	19			16.8	15.63
				36	39			16.8	15.58
				75	0			16.8	15.61
			16QAM	1	0			16.8	16.20
				1	37			16.8	16.03
				1	74			16.8	16.04
				36	0			16.8	15.62
				36	19			16.8	15.67
				36	39			16.8	15.65
				75	0			16.8	15.59
	40173 Low-Mid	2548.3	QPSK	1	0			16.8	15.56
				1	37			16.8	15.36
				1	74			16.8	15.53
				36	0			16.8	15.49
				36	19			16.8	15.46
				36	39			16.8	15.54
				75	0			16.8	15.52
			16QAM	1	0			16.8	15.88
				1	37			16.8	15.73
				1	74			16.8	15.80
				36	0			16.8	15.51
				36	19			16.8	15.48
				36	39			16.8	15.58
				75	0			16.8	15.55
	40620 Mid	2593	QPSK	1	0			16.8	15.51
				1	37			16.8	15.33
				1	74			16.8	15.36
				36	0			16.8	15.40
				36	19			16.8	15.39
				36	39			16.8	15.34
				75	0			16.8	15.36
			16QAM	1	0			16.8	15.73
				1	37			16.8	15.62
				1	74			16.8	15.64
				36	0			16.8	15.43
				36	19			16.8	15.44
				36	39			16.8	15.38
				75	0			16.8	15.41

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	41068 Mid-High	2637.8	QPSK	1	0	**MPR is disabled when power reduction is enabled**		16.8	15.41
				1	37			16.8	15.30
				1	74			16.8	15.22
				36	0			16.8	15.34
				36	19			16.8	15.33
				36	39			16.8	15.21
				75	0			16.8	15.34
			16QAM	1	0			16.8	15.59
				1	37			16.8	15.47
				1	74			16.8	15.40
				36	0			16.8	15.33
				36	19			16.8	15.37
				36	39			16.8	15.26
				75	0			16.8	15.34
	41515 High	2682.5	QPSK	1	0			16.8	15.45
				1	37			16.8	15.23
				1	74			16.8	15.30
				36	0			16.8	15.42
				36	19			16.8	15.29
				36	39			16.8	15.27
				75	0			16.8	15.30
			16QAM	1	0			16.8	15.77
				1	37			16.8	15.63
				1	74			16.8	15.63
				36	0			16.8	15.42
				36	19			16.8	15.34
				36	39			16.8	15.33
				75	0			16.8	15.33

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	39700 Low	2501	QPSK	1	0			16.8	15.57
				1	24			16.8	15.59
				1	49			16.8	15.55
				25	0			16.8	15.55
				25	12			16.8	15.57
				25	24			16.8	15.56
				50	0			16.8	15.60
			16QAM	1	0			16.8	16.01
				1	24			16.8	15.97
				1	49			16.8	15.95
				25	0			16.8	15.64
				25	12			16.8	15.65
				25	24			16.8	15.58
				50	0			16.8	15.59
	40160 Low-Mid	2547	QPSK	1	0			16.8	15.55
				1	24			16.8	15.49
				1	49			16.8	15.51
				25	0			16.8	15.46
				25	12			16.8	15.45
				25	24			16.8	15.57
				50	0			16.8	15.46
			16QAM	1	0			16.8	15.83
				1	24			16.8	15.81
				1	49			16.8	15.83
				25	0			16.8	15.51
				25	12			16.8	15.49
				25	24			16.8	15.54
				50	0			16.8	15.48
	40620 Mid	2593	QPSK	1	0			16.8	15.46
				1	24			16.8	15.39
				1	49			16.8	15.38
				25	0			16.8	15.35
				25	12			16.8	15.41
				25	24			16.8	15.39
				50	0			16.8	15.40
			16QAM	1	0			16.8	15.68
				1	24			16.8	15.71
				1	49			16.8	15.62
				25	0			16.8	15.44
				25	12			16.8	15.43
				25	24			16.8	15.39
				50	0			16.8	15.44

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	41080 Mid-High	2639	QPSK	1	0	**MPR is disabled when power reduction is enabled**		16.8	15.35
				1	24			16.8	15.37
				1	49			16.8	15.21
				25	0			16.8	15.34
				25	12			16.8	15.35
				25	24			16.8	15.37
				50	0			16.8	15.35
			16QAM	1	0			16.8	15.61
				1	24			16.8	15.60
				1	49			16.8	15.48
				25	0			16.8	15.34
				25	12			16.8	15.37
				25	24			16.8	15.37
				50	0			16.8	15.38
	41540 High	2685	QPSK	1	0			16.8	15.82
				1	24			16.8	15.17
				1	49			16.8	15.75
				25	0			16.8	15.32
				25	12			16.8	15.20
				25	24			16.8	15.30
				50	0			16.8	15.39
			16QAM	1	0			16.8	16.15
				1	24			16.8	15.49
				1	49			16.8	16.10
				25	0			16.8	15.38
				25	12			16.8	15.28
				25	24			16.8	15.28
				50	0			16.8	15.36

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	39675 Low	2498.5	QPSK	1	0			16.8	15.56
				1	12			16.8	15.52
				1	24			16.8	15.54
				12	0			16.8	15.58
				12	6			16.8	15.56
				12	11			16.8	15.57
				25	0			16.8	15.53
			16QAM	1	0			16.8	15.79
				1	12			16.8	15.72
				1	24			16.8	15.73
				12	0			16.8	15.59
				12	6			16.8	15.63
				12	11			16.8	15.58
				25	0			16.8	15.55
	40148 Low-Mid	2545.8	QPSK	1	0			16.8	15.47
				1	12			16.8	15.46
				1	24			16.8	15.41
				12	0			16.8	15.44
				12	6			16.8	15.48
				12	11			16.8	15.47
				25	0			16.8	15.43
			16QAM	1	0			16.8	15.67
				1	12			16.8	15.65
				1	24			16.8	15.67
				12	0			16.8	15.50
				12	6			16.8	15.51
				12	11			16.8	15.45
				25	0			16.8	15.46
	40620 Mid	2593	QPSK	1	0			16.8	15.41
				1	12			16.8	15.40
				1	24			16.8	15.36
				12	0			16.8	15.37
				12	6			16.8	15.39
				12	11			16.8	15.36
				25	0			16.8	15.36
			16QAM	1	0			16.8	15.59
				1	12			16.8	15.65
				1	24			16.8	15.62
				12	0			16.8	15.42
				12	6			16.8	15.46
				12	11			16.8	15.43
				25	0			16.8	15.40

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	41093 Mid-High	2640.3	QPSK	1	0	**MPR is disabled when power reduction is enabled**		16.8	15.38
				1	12			16.8	15.40
				1	24			16.8	15.29
				12	0			16.8	15.31
				12	6			16.8	15.33
				12	11			16.8	15.36
				25	0			16.8	15.34
			16QAM	1	0			16.8	15.60
				1	12			16.8	15.59
				1	24			16.8	15.47
				12	0			16.8	15.39
				12	6			16.8	15.41
				12	11			16.8	15.39
				25	0			16.8	15.33
	41565 High	2687.5	QPSK	1	0			16.8	15.16
				1	12			16.8	15.12
				1	24			16.8	15.11
				12	0			16.8	15.18
				12	6			16.8	15.16
				12	11			16.8	15.17
				25	0			16.8	15.11
			16QAM	1	0			16.8	15.37
				1	12			16.8	15.35
				1	24			16.8	15.35
				12	0			16.8	15.18
				12	6			16.8	15.19
				12	11			16.8	15.19
				25	0			16.8	15.17

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LTE Band 66 Measured Results

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	132072	1720	QPSK	1	0	0	0	24.0	23.19
				1	49	0	0	24.0	23.02
				1	99	0	0	24.0	23.00
				50	0	1	1	23.0	22.10
				50	24	1	1	23.0	22.11
				50	49	1	1	23.0	22.04
				100	0	1	1	23.0	22.10
			16QAM	1	0	1	1	23.0	22.69
				1	49	1	1	23.0	22.51
				1	99	1	1	23.0	22.53
				50	0	2	2	22.0	21.15
				50	24	2	2	22.0	21.11
				50	49	2	2	22.0	21.05
				100	0	2	2	22.0	21.12
	132322	1745	QPSK	1	0	0	0	24.0	23.28
				1	49	0	0	24.0	22.98
				1	99	0	0	24.0	23.04
				50	0	1	1	23.0	22.05
				50	24	1	1	23.0	22.02
				50	49	1	1	23.0	21.98
				100	0	1	1	23.0	22.01
			16QAM	1	0	1	1	23.0	22.63
				1	49	1	1	23.0	22.35
				1	99	1	1	23.0	22.39
				50	0	2	2	22.0	21.06
				50	24	2	2	22.0	21.00
				50	49	2	2	22.0	20.97
				100	0	2	2	22.0	21.04
	132572	1770	QPSK	1	0	0	0	24.0	23.14
				1	49	0	0	24.0	22.93
				1	99	0	0	24.0	22.87
				50	0	1	1	23.0	22.00
				50	24	1	1	23.0	21.94
				50	49	1	1	23.0	21.92
				100	0	1	1	23.0	21.97
			16QAM	1	0	1	1	23.0	22.49
				1	49	1	1	23.0	22.27
				1	99	1	1	23.0	22.20
				50	0	2	2	22.0	21.03
				50	24	2	2	22.0	20.97
				50	49	2	2	22.0	20.90
				100	0	2	2	22.0	20.95

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	132047	1717.5	QPSK	1	0	0	0	24.0	23.30
				1	37	0	0	24.0	23.17
				1	74	0	0	24.0	23.19
				36	0	1	1	23.0	22.24
				36	19	1	1	23.0	22.23
				36	39	1	1	23.0	22.15
				75	0	1	1	23.0	22.22
			16QAM	1	0	1	1	23.0	22.60
				1	37	1	1	23.0	22.51
				1	74	1	1	23.0	22.46
				36	0	2	2	22.0	21.22
				36	19	2	2	22.0	21.25
				36	39	2	2	22.0	21.15
				75	0	2	2	22.0	21.24
	132322	1745	QPSK	1	0	0	0	24.0	23.17
				1	37	0	0	24.0	23.00
				1	74	0	0	24.0	23.05
				36	0	1	1	23.0	22.04
				36	19	1	1	23.0	22.04
				36	39	1	1	23.0	21.99
				75	0	1	1	23.0	22.03
			16QAM	1	0	1	1	23.0	22.28
				1	37	1	1	23.0	22.12
				1	74	1	1	23.0	22.18
				36	0	2	2	22.0	21.09
				36	19	2	2	22.0	21.10
				36	39	2	2	22.0	21.05
				75	0	2	2	22.0	21.00
	132597	1772.5	QPSK	1	0	0	0	24.0	23.15
				1	37	0	0	24.0	22.94
				1	74	0	0	24.0	22.88
				36	0	1	1	23.0	22.07
				36	19	1	1	23.0	22.01
				36	39	1	1	23.0	21.96
				75	0	1	1	23.0	22.00
			16QAM	1	0	1	1	23.0	22.33
				1	37	1	1	23.0	22.10
				1	74	1	1	23.0	22.04
				36	0	2	2	22.0	21.10
				36	19	2	2	22.0	21.04
				36	39	2	2	22.0	20.97
				75	0	2	2	22.0	20.94

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	132022	1715	QPSK	1	0	0	0	24.0	23.07
				1	24	0	0	24.0	23.03
				1	49	0	0	24.0	22.97
				25	0	1	1	23.0	22.16
				25	12	1	1	23.0	22.15
				25	24	1	1	23.0	22.14
				50	0	1	1	23.0	22.14
			16QAM	1	0	1	1	23.0	22.35
				1	24	1	1	23.0	22.32
				1	49	1	1	23.0	22.28
				25	0	2	2	22.0	21.17
				25	12	2	2	22.0	21.20
				25	24	2	2	22.0	21.17
				50	0	2	2	22.0	21.17
	132322	1745	QPSK	1	0	0	0	24.0	22.99
				1	24	0	0	24.0	22.93
				1	49	0	0	24.0	22.92
				25	0	1	1	23.0	22.06
				25	12	1	1	23.0	22.02
				25	24	1	1	23.0	22.01
				50	0	1	1	23.0	22.00
			16QAM	1	0	1	1	23.0	22.31
				1	24	1	1	23.0	22.24
				1	49	1	1	23.0	22.27
				25	0	2	2	22.0	20.95
				25	12	2	2	22.0	20.89
				25	24	2	2	22.0	20.92
				50	0	2	2	22.0	20.97
	132622	1775	QPSK	1	0	0	0	24.0	23.05
				1	24	0	0	24.0	22.95
				1	49	0	0	24.0	22.83
				25	0	1	1	23.0	22.06
				25	12	1	1	23.0	22.08
				25	24	1	1	23.0	22.05
				50	0	1	1	23.0	22.07
			16QAM	1	0	1	1	23.0	22.34
				1	24	1	1	23.0	22.30
				1	49	1	1	23.0	22.14
				25	0	2	2	22.0	21.02
				25	12	2	2	22.0	20.99
				25	24	2	2	22.0	20.96
				50	0	2	2	22.0	21.02

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	131997	1712.5	QPSK	1	0	0	0	24.0	22.99
				1	12	0	0	24.0	22.96
				1	24	0	0	24.0	23.03
				12	0	1	1	23.0	22.03
				12	6	1	1	23.0	22.05
				12	11	1	1	23.0	22.04
				25	0	1	1	23.0	22.04
			16QAM	1	0	1	1	23.0	22.23
				1	12	1	1	23.0	22.22
				1	24	1	1	23.0	22.25
				12	0	2	2	22.0	21.04
				12	6	2	2	22.0	21.07
				12	11	2	2	22.0	21.07
				25	0	2	2	22.0	21.04
	132322	1745	QPSK	1	0	0	0	24.0	23.00
				1	12	0	0	24.0	22.92
				1	24	0	0	24.0	22.95
				12	0	1	1	23.0	21.99
				12	6	1	1	23.0	22.02
				12	11	1	1	23.0	21.96
				25	0	1	1	23.0	21.97
			16QAM	1	0	1	1	23.0	22.22
				1	12	1	1	23.0	22.22
				1	24	1	1	23.0	22.21
				12	0	2	2	22.0	21.04
				12	6	2	2	22.0	21.07
				12	11	2	2	22.0	21.04
				25	0	2	2	22.0	21.00
	132647	1777.5	QPSK	1	0	0	0	24.0	22.95
				1	12	0	0	24.0	22.78
				1	24	0	0	24.0	22.79
				12	0	1	1	23.0	21.94
				12	6	1	1	23.0	21.86
				12	11	1	1	23.0	21.84
				25	0	1	1	23.0	21.86
			16QAM	1	0	1	1	23.0	22.21
				1	12	1	1	23.0	22.08
				1	24	1	1	23.0	22.07
				12	0	2	2	22.0	21.00
				12	6	2	2	22.0	20.92
				12	11	2	2	22.0	20.91
				25	0	2	2	22.0	20.84

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	131987	1711.5	QPSK	1	0	0	0	24.0	22.94
				1	7	0	0	24.0	23.00
				1	14	0	0	24.0	22.90
				8	0	1	1	23.0	22.04
				8	4	1	1	23.0	22.06
				8	7	1	1	23.0	22.05
				15	0	1	1	23.0	22.02
			16QAM	1	0	1	1	23.0	22.11
				1	7	1	1	23.0	22.25
				1	14	1	1	23.0	22.13
				8	0	2	2	22.0	20.97
				8	4	2	2	22.0	20.98
				8	7	2	2	22.0	20.99
				15	0	2	2	22.0	20.97
	132322	1745	QPSK	1	0	0	0	24.0	22.91
				1	7	0	0	24.0	23.02
				1	14	0	0	24.0	22.90
				8	0	1	1	23.0	22.00
				8	4	1	1	23.0	21.96
				8	7	1	1	23.0	21.97
				15	0	1	1	23.0	21.98
			16QAM	1	0	1	1	23.0	22.22
				1	7	1	1	23.0	22.34
				1	14	1	1	23.0	22.19
				8	0	2	2	22.0	21.05
				8	4	2	2	22.0	21.04
				8	7	2	2	22.0	21.02
				15	0	2	2	22.0	20.95
	132657	1778.5	QPSK	1	0	0	0	24.0	22.75
				1	7	0	0	24.0	22.83
				1	14	0	0	24.0	22.74
				8	0	1	1	23.0	21.82
				8	4	1	1	23.0	21.81
				8	7	1	1	23.0	21.80
				15	0	1	1	23.0	21.81
			16QAM	1	0	1	1	23.0	21.96
				1	7	1	1	23.0	22.06
				1	14	1	1	23.0	21.91
				8	0	2	2	22.0	20.75
				8	4	2	2	22.0	20.75
				8	7	2	2	22.0	20.76
				15	0	2	2	22.0	20.77

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	131979	1710.7	QPSK	1	0	0	0	24.0	22.86
				1	2	0	0	24.0	22.95
				1	5	0	0	24.0	22.89
				3	0	0	0	24.0	22.93
				3	1	0	0	24.0	22.98
				3	3	0	0	24.0	22.94
				6	0	1	1	23.0	21.93
			16QAM	1	0	1	1	23.0	22.07
				1	2	1	1	23.0	22.27
				1	5	1	1	23.0	22.05
				3	0	1	1	23.0	22.13
				3	1	1	1	23.0	22.16
				3	3	1	1	23.0	22.09
				6	0	2	2	22.0	20.93
	132322	1745	QPSK	1	0	0	0	24.0	22.86
				1	2	0	0	24.0	22.93
				1	5	0	0	24.0	22.84
				3	0	0	0	24.0	22.92
				3	1	0	0	24.0	22.95
				3	3	0	0	24.0	22.91
				6	0	1	1	23.0	21.92
			16QAM	1	0	1	1	23.0	22.03
				1	2	1	1	23.0	22.13
				1	5	1	1	23.0	22.01
				3	0	1	1	23.0	22.11
				3	1	1	1	23.0	22.12
				3	3	1	1	23.0	22.10
				6	0	2	2	22.0	20.91
	132665	1779.3	QPSK	1	0	0	0	24.0	22.69
				1	2	0	0	24.0	22.76
				1	5	0	0	24.0	22.71
				3	0	0	0	24.0	22.74
				3	1	0	0	24.0	22.78
				3	3	0	0	24.0	22.73
				6	0	1	1	23.0	21.75
			16QAM	1	0	1	1	23.0	21.87
				1	2	1	1	23.0	21.97
				1	5	1	1	23.0	21.84
				3	0	1	1	23.0	21.95
				3	1	1	1	23.0	21.98
				3	3	1	1	23.0	21.94
				6	0	2	2	22.0	20.72

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LTE Band 66 Measured Results (Reduction)

BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
20	132072	1720	QPSK	1	0			15.0	14.75
				1	49			15.0	14.59
				1	99			15.0	14.62
				50	0			15.0	14.68
				50	24			15.0	14.66
				50	49			15.0	14.60
				100	0			15.0	14.66
			16QAM	1	0			15.0	14.98
				1	49			15.0	14.85
				1	99			15.0	14.88
				50	0			15.0	14.68
				50	24			15.0	14.71
				50	49			15.0	14.62
				100	0			15.0	14.68
	132322	1745	QPSK	1	0			15.0	14.85
				1	49			15.0	14.60
				1	99			15.0	14.68
				50	0			15.0	14.62
				50	24			15.0	14.59
				50	49			15.0	14.56
				100	0			15.0	14.59
			16QAM	1	0			15.0	14.99
				1	49			15.0	14.86
				1	99			15.0	14.92
				50	0			15.0	14.58
				50	24			15.0	14.54
				50	49			15.0	14.52
				100	0			15.0	14.58
	132572	1770	QPSK	1	0			15.0	14.81
				1	49			15.0	14.57
				1	99			15.0	14.50
				50	0			15.0	14.62
				50	24			15.0	14.51
				50	49			15.0	14.52
				100	0			15.0	14.55
			16QAM	1	0			15.0	14.98
				1	49			15.0	14.81
				1	99			15.0	14.74
				50	0			15.0	14.55
				50	24			15.0	14.52
				50	49			15.0	14.46
				100	0			15.0	14.50

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
15	132047	1717.5	QPSK	1	0	**MPR is disabled when power reduction is enabled**		15.0	14.81
				1	37			15.0	14.68
				1	74			15.0	14.69
				36	0			15.0	14.74
				36	19			15.0	14.73
				36	39			15.0	14.63
				75	0			15.0	14.72
			16QAM	1	0			15.0	14.98
				1	37			15.0	14.91
				1	74			15.0	14.91
				36	0			15.0	14.72
				36	19			15.0	14.74
				36	39			15.0	14.68
				75	0			15.0	14.74
	132322	1745	QPSK	1	0			15.0	14.64
				1	37			15.0	14.49
				1	74			15.0	14.52
				36	0			15.0	14.57
				36	19			15.0	14.57
				36	39			15.0	14.56
				75	0			15.0	14.56
			16QAM	1	0			15.0	14.86
				1	37			15.0	14.71
				1	74			15.0	14.76
				36	0			15.0	14.59
				36	19			15.0	14.54
				36	39			15.0	14.53
				75	0			15.0	14.52
	132597	1772.5	QPSK	1	0			15.0	14.72
				1	37			15.0	14.50
				1	74			15.0	14.45
				36	0			15.0	14.59
				36	19			15.0	14.55
				36	39			15.0	14.49
				75	0			15.0	14.52
			16QAM	1	0			15.0	14.83
				1	37			15.0	14.65
				1	74			15.0	14.55
				36	0			15.0	14.61
				36	19			15.0	14.56
				36	39			15.0	14.51
				75	0			15.0	14.48

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
10	132022	1715	QPSK	1	0	**MPR is disabled when power reduction is enabled**		15.0	14.70
				1	24			15.0	14.67
				1	49			15.0	14.64
				25	0			15.0	14.66
				25	12			15.0	14.70
				25	24			15.0	14.69
				50	0			15.0	14.65
			16QAM	1	0			15.0	14.94
				1	24			15.0	14.92
				1	49			15.0	14.85
				25	0			15.0	14.68
				25	12			15.0	14.68
				25	24			15.0	14.71
				50	0			15.0	14.67
	132322	1745	QPSK	1	0			15.0	14.50
				1	24			15.0	14.42
				1	49			15.0	14.45
				25	0			15.0	14.56
				25	12			15.0	14.54
				25	24			15.0	14.54
				50	0			15.0	14.51
			16QAM	1	0			15.0	14.73
				1	24			15.0	14.69
				1	49			15.0	14.70
				25	0			15.0	14.53
				25	12			15.0	14.52
				25	24			15.0	14.54
				50	0			15.0	14.53
	132622	1775	QPSK	1	0			15.0	14.55
				1	24			15.0	14.43
				1	49			15.0	14.34
				25	0			15.0	14.54
				25	12			15.0	14.49
				25	24			15.0	14.47
				50	0			15.0	14.48
			16QAM	1	0			15.0	14.77
				1	24			15.0	14.68
				1	49			15.0	14.59
				25	0			15.0	14.44
				25	12			15.0	14.40
				25	24			15.0	14.41
				50	0			15.0	14.46

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
5	131997	1712.5	QPSK	1	0			15.0	14.61
				1	12			15.0	14.56
				1	24			15.0	14.63
				12	0			15.0	14.56
				12	6			15.0	14.57
				12	11			15.0	14.58
				25	0			15.0	14.55
			16QAM	1	0			15.0	14.87
				1	12			15.0	14.84
				1	24			15.0	14.89
				12	0			15.0	14.60
				12	6			15.0	14.64
				12	11			15.0	14.60
				25	0			15.0	14.56
	132322	1745	QPSK	1	0			15.0	14.54
				1	12			15.0	14.45
				1	24			15.0	14.50
				12	0			15.0	14.55
				12	6			15.0	14.55
				12	11			15.0	14.51
				25	0			15.0	14.51
			16QAM	1	0			15.0	14.75
				1	12			15.0	14.72
				1	24			15.0	14.74
				12	0			15.0	14.55
				12	6			15.0	14.57
				12	11			15.0	14.53
				25	0			15.0	14.46
	132647	1777.5	QPSK	1	0			15.0	14.48
				1	12			15.0	14.29
				1	24			15.0	14.35
				12	0			15.0	14.52
				12	6			15.0	14.42
				12	11			15.0	14.39
				25	0			15.0	14.35
			16QAM	1	0			15.0	14.68
				1	12			15.0	14.55
				1	24			15.0	14.56
				12	0			15.0	14.49
				12	6			15.0	14.43
				12	11			15.0	14.37
				25	0			15.0	14.32

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
3	131987	1711.5	QPSK	1	0			15.0	14.53
				1	7			15.0	14.64
				1	14			15.0	14.54
				8	0			15.0	14.52
				8	4			15.0	14.60
				8	7			15.0	14.56
				15	0			15.0	14.54
			16QAM	1	0			15.0	14.76
				1	7			15.0	14.85
				1	14			15.0	14.78
				8	0			15.0	14.61
				8	4			15.0	14.62
				8	7			15.0	14.58
				15	0			15.0	14.54
	132322	1745	QPSK	1	0			15.0	14.46
				1	7			15.0	14.53
				1	14			15.0	14.41
				8	0			15.0	14.52
				8	4			15.0	14.54
				8	7			15.0	14.50
				15	0			15.0	14.53
			16QAM	1	0			15.0	14.63
				1	7			15.0	14.76
				1	14			15.0	14.62
				8	0			15.0	14.42
				8	4			15.0	14.48
				8	7			15.0	14.41
				15	0			15.0	14.45
	132657	1778.5	QPSK	1	0			15.0	14.37
				1	7			15.0	14.48
				1	14			15.0	14.38
				8	0			15.0	14.37
				8	4			15.0	14.38
				8	7			15.0	14.33
				15	0			15.0	14.32
			16QAM	1	0			15.0	14.59
				1	7			15.0	14.68
				1	14			15.0	14.57
				8	0			15.0	14.42
				8	4			15.0	14.47
				8	7			15.0	14.40
				15	0			15.0	14.36

MPR is disabled when power reduction is enabled

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BW (MHz)	UL Ch #	Freq. (MHz)	Modu-lation	UL RB Allocation	UL RB Start	Target MPR	Meas. MPR	Tune-up Limit (dBm)	Meas. Pwr Avg (dBm)
1.4	131979	1710.7	QPSK	1	0			15.0	14.48
				1	2			15.0	14.53
				1	5			15.0	14.46
				3	0			15.0	14.46
				3	1			15.0	14.50
				3	3			15.0	14.48
				6	0			15.0	14.42
			16QAM	1	0			15.0	14.48
				1	2			15.0	14.56
				1	5			15.0	14.48
				3	0			15.0	14.39
				3	1			15.0	14.43
				3	3			15.0	14.40
				6	0			15.0	14.48
	132322	1745	QPSK	1	0			15.0	14.37
				1	2			15.0	14.48
				1	5			15.0	14.36
				3	0			15.0	14.46
				3	1			15.0	14.51
				3	3			15.0	14.43
				6	0			15.0	14.45
			16QAM	1	0			15.0	14.60
				1	2			15.0	14.70
				1	5			15.0	14.59
				3	0			15.0	14.52
				3	1			15.0	14.58
				3	3			15.0	14.54
				6	0			15.0	14.45
	132665	1779.3	QPSK	1	0			15.0	14.22
				1	2			15.0	14.28
				1	5			15.0	14.18
				3	0			15.0	14.26
				3	1			15.0	14.30
				3	3			15.0	14.27
				6	0			15.0	14.26
			16QAM	1	0			15.0	14.39
				1	2			15.0	14.49
				1	5			15.0	14.37
				3	0			15.0	14.40
				3	1			15.0	14.45
				3	3			15.0	14.41
				6	0			15.0	14.22

MPR is disabled when power reduction is enabled

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9.3. LTE Carrier Aggregation

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

For inter-band carrier aggregation with uplink assigned to one E-UTRA band (Table 5.6A-1), the requirements in subclause 6.2.3 apply.

For inter-band carrier aggregation with one component carrier per operating band and the uplink active in two E-UTRA bands, the requirements in subclause 6.2.3 apply for each uplink component carrier.

For intra-band contiguous carrier aggregation the allowed Maximum Power Reduction (MPR) for the maximum output power applicable to the DUT in table below. In case the modulation format is different on different component carriers then the MPR is determined by the rules applied to higher order of those modulations.

Modulation	CA bandwidth Class B and C / Smallest Component Carrier Transmission Bandwidth Configuration				MPR (dB)
	25 RB	50 RB	75 RB	100 RB	
QPSK	> 8 and ≤ 25	> 12 and ≤ 50	> 16 and ≤ 75	> 18 and ≤ 100	≤ 1
QPSK	> 25	> 50	> 75	> 100	≤ 2
16 QAM	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 8 and ≤ 25	> 12 and ≤ 50	> 16 and ≤ 75	> 18 and ≤ 100	≤ 2
16 QAM	> 25	> 50	> 75	> 100	≤ 3
64 QAM	≤ 8 and allocation wholly contained within a single CC	≤ 12 and allocation wholly contained within a single CC	≤ 16 and allocation wholly contained within a single CC	≤ 18 and allocation wholly contained within a single CC	≤ 2
64 QAM	> 8 or allocation extends across two CC's	> 12 or allocation extends across two CC's	> 16 or allocation extends across two CC's	> 18 or allocation extends across two CC's	≤ 3

For PUCCH and SRS transmissions, the allowed MPR is according to that specified for PUSCH WPDK modulation for the corresponding transmission bandwidth.

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For intra-band contiguous carrier aggregation bandwidth class C with non-contiguous resource allocation, the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2A-1 is specified as follows

$$MPR = CEIL\ \{\min(M_A, M_{IM5}), 0.5\}$$

Where M_A is defined as follows

$$M_A = \begin{cases} 8.2 & ;0 \le A < 0.025 \\ 9.2 - 40A & ;0.025 \le A < 0.05 \\ 8 - 16A & ;0.05 \le A < 0.25 \\ 4.83 - 3.33A & ;0.25 \le A \le 0.4 \\ 3.83 - 0.83A & ;0.4 \le A \le 1 \end{cases}$$

and M_{IM5} is defined as follows

$$M_{IM5} = \begin{cases} 4.5 & ; \Delta_{IM5} < 1.5 * BW_{Channel_CA} \\ 6.0 & ; 1.5 * BW_{Channel_CA} \le \Delta_{IM5} < BW_{Channel_CA}/2 + \Delta f_{ooB} \\ M_A & ; \Delta_{IM5} \ge BW_{Channel_CA}/2 + \Delta f_{ooB} \end{cases}$$

Where

$A = N_{RB_alloc} / N_{RB_agg}$

$\Delta_{IM5} = \max(\left| F_{C_agg} - (3*F_{agg_alloc_low} - 2*F_{agg_alloc_high}) \right|, \left| F_{C_agg} - (3*F_{agg_alloc_high} - 2*F_{agg_alloc_low}) \right|)$

CEIL{M_A, 0.5} means rounding upwards to closest 0.5dB, i.e. MPR ∈ [3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5]

For intra-band carrier aggregation, the MPR is evaluated per slot and given by the maximum value taken over the transmission(s) on all component carriers within the slot; the maximum MPR over the two slots is then applied for the entire subframe.

For intra-band non-contiguous carrier aggregation with one uplink carrier on the PCC, the requirements in the subclause 6.2.3 apply. For intra-band non-contiguous aggregation with two uplink carriers the MPR is defined tfor those E-UTRA bands where maximum possible $W_{GAP} \le 42.2$ MHz as follows

$$MPR = CEIL\{M_A, 0.5\}$$

Where M_N is defined as follows

$$M_N = \begin{cases} -0.125N + 18.25 & ; 2 \le N \le 50 \\ -0.0333\ N + 13.67 & ; 50 < N \le 200 \end{cases}$$

Where $N = N_{RB_alloc}$ is the number of allocated resource blocks.

For the UE maximum output power modified by MPR, the power limits specified in subclause 6.2.5A apply.

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9.4. Uplink maximum output power measurement for the supported combinations with downlink carrier aggregation

Uplink maximum output power is measured with Downlink CA active, only for the channel with highest measured maximum output power when Downlink CA is inactive, to confirm Uplink Power difference between Downlink CA inactive and Downlink CA active

9.4.1. Power measurement combination for DL CA

Index	2CC	Completely Covered by Measurement Superset
2CC#1	CA_2C	No
2CC#2	CA_7B	No
2CC#3	CA_7C	No
2CC#4	CA_41C	No
2CC#5	CA_66B	3CC#2, 3CC#11, 3CC#18
2CC#6	CA_66C	3CC#3, 3CC#12, 3CC#16
2CC#7	CA_2A-2A	3CC#4, 3CC#5, 3CC#6
2CC#8	CA_4A-4A	3CC#7, 3CC#8, 3CC#9
2CC#9	CA_7A-7A	3CC#10, 3CC#14
2CC#10	CA_66A-66A	3CC#13, 3CC#15, 3CC#17
2CC#11	CA_2A-4A	3CC#19, 3CC#20, 3CC#21, 3CC#22
2CC#12	CA_2A-5A	3CC#4, 3CC#25
2CC#13	CA_2A-7A	3CC#10, 3CC#23
2CC#14	CA_2A-12A	3CC#5
2CC#15	CA_2A-13A	3CC#6, 3CC#26
2CC#16	CA_4A-5A	3CC#7, 3CC#19
2CC#17	CA_4A-7A	3CC#14, 3CC#20, 3CC#24
2CC#18	CA_4A-12A	3CC#8, 3CC#21
2CC#19	CA_4A-13A	3CC#9, 3CC#22
2CC#20	CA_7A-12A	3CC#23, 3CC#24
2CC#21	CA_2A-66A	3CC#13
2CC#22	CA_5A-66A	3CC#15, 3CC#25
2CC#23	CA_12A-66A	No
2CC#24	CA_13A-66A	3CC#17, 3CC#26

Index	3CC	Completely Covered by Measurement Superset
3CC#1	CA_41D	No
3CC#2	CA_66A-66B	No
3CC#3	CA_66A-66C	No
3CC#4	CA_2A-2A-5A	No
3CC#5	CA_2A-2A-12A	No
3CC#6	CA_2A-2A-13A	No
3CC#7	CA_4A-4A-5A	No
3CC#8	CA_4A-4A-12A	No
3CC#9	CA_4A-4A-13A	No
3CC#10	CA_2A-7A-7A	No
3CC#11	CA_2A-66B	No
3CC#12	CA_2A-66C	No
3CC#13	CA_2A-66A-66A	No
3CC#14	CA_4A-7A-7A	No
3CC#15	CA_5A-66A-66A	No
3CC#16	CA_5A-66C	No
3CC#17	CA_13A-66A-66A	No
3CC#18	CA_13A-66B	No
3CC#19	CA_2A-4A-5A	No
3CC#20	CA_2A-4A-7A	No
3CC#21	CA_2A-4A-12A	No
3CC#22	CA_2A-4A-13A	No
3CC#23	CA_2A-7A-12A	No
3CC#24	CA_4A-7A-12A	No
3CC#25	CA_2A-5A-66A	No

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<Intra-band Contiguous CA (Downlink CA only)>

E-UTRA CA Configuration	Uplink *1							
	PCC							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	2	20	19100	1900	1-0		QPSK	
	SCC1							-
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	-	-	-	-	-	-	-	
	Downlink							
CA_2C	PCC *2							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	2	20	1100	1980	100-0		QPSK	
	SCC1 *4							19.8
	Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation	
	2	20	902	1960.2	100-0		QPSK	

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
23.49	23.59	0.10

E-UTRA CA Configuration	Uplink *1							
	PCC							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	7	5	21425	2567.5	1-0		QPSK	
	SCC1							-
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	-	-	-	-	-	-	-	
	Downlink							
CA_7B	PCC *2							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	7	5	3425	2687.5	25-0		QPSK	
	SCC1 *4							9.3
	Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation	
	7	15	3332	2678.2	75-0		QPSK	

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
22.69	22.52	-0.17

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing.

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It is set to the maximum spacing less than nominal channel spacing. The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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E-UTRA CA Configuration	Uplink *1							
	PCC							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block		Modulation	
					Number	Position		
	7	20	21350	2560	1-0		QPSK	
	SCC1							-
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block		Modulation	
					Number	Position		
	-	-	-	-	-	-	-	
	Downlink							
CA_7C	PCC *2							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block		Modulation	
					Number	Position		
	7	20	3350	2680	75-0		QPSK	
	SCC1 *4							19.8
	Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block		Modulation	
					Number *6	Position		
	7	20	3152	2660.2	100-0		QPSK	

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
22.70	22.81	0.11

E-UTRA CA Configuration	Uplink *1							
	PCC							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block		Modulation	
					Number	Position		
	41	20	41490	2680	1-0		QPSK	
	SCC1							-
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block		Modulation	
					Number	Position		
	-	-	-	-	-	-	-	
	Downlink							
CA_41C	PCC *2							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block		Modulation	
					Number	Position		
	41	20	41490	2680	100-0		QPSK	
	SCC1 *4							19.8
	Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block		Modulation	
					Number *6	Position		
	41	20	41292	2660.2	100-0		QPSK	

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
22.99	22.99	0.00

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing.

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It is set to the maximum spacing less than nominal channel spacing. The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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<Intra-band Contiguous 3CA (Downlink CA only)>

E-UTRA CA Configuration	Uplink *1							
	PCC							PCC, SCC1 CH spacing [MHz] *3
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	41	20	41490	2680	1-0		QPSK	-
	SCC1							
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	-	-	-	-	-	-	-	
	Downlink							
	PCC *2							PCC, SCC1, SCC2 CH spacing [MHz] *3
CA_41D	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	41	20	41490	2680	100-0		QPSK	
	SCC1 *4							
	Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation	19.8
	41	20	41292	2660.2	100-0		QPSK	
	SCC2 *4							
	Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation	
	41	20	41094	2640.4	100-0		QPSK	

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
22.99	22.99	0.00

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing.

It is set to the maximum spacing less than nominal channel spacing. The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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<Inter-band CA (Downlink CA only)>

E-UTRA CA Configuration							
	Uplink *1						
	PCC						
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	12	3	23165	714.5	1-7		QPSK
	SCC1						
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	-	-	-	-		-
CA_12A_66A	Downlink						
	PCC *2						
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	12	3	5165	744.5	15-0		QPSK
	SCC1 *4						
	Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
	66	20	66786	2145	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.34	23.21	-0.13

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 is near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<Inter-band CA (Downlink CA only)>

E-UTRA CA Configuration	Uplink *1						
	PCC						
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	66	15	132047	1717.5	1-0		QPSK
	SCC1						
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	-	-	-	-		-
CA_12A_66A	Downlink						
	PCC *2						
	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	66	15	66511	2117.5	75-0		QPSK
	SCC1 *4						
	Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
	12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.30	23.22	-0.08

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 is near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	132047	1717.5	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						PCC, SCC1 CH spacing [MHz] *3
CA_66A-66B		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	66511	2117.5	75-0		QPSK
	Intra band Contiguous	SCC1						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	5	66604	2126.8	25-0		QPSK
		SCC2						
	Intra band non-contiguous	Band	Bandwidth *5 [MHz]	Channel *4	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
23.30	23.38	0.08

<CA with 3 Carriers(two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	132047	1717.5	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						PCC, SCC1 CH spacing [MHz] *3
CA_66A-66C		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	66511	2117.5	75-0		QPSK
	Intra band Contiguous	SCC1						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	20	66682	2134.6	100-0		QPSK
		SCC2						
	Intra band non-contiguous	Band	Bandwidth *5 [MHz]	Channel *4	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
23.30	23.34	0.04

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

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*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 The SCC2 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	19100	1900	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_2A-2A-5A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
	Intra band non contiguous	SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		2	20	700	1940	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.49	23.50	0.01

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band. When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	20525	836.5	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-2A-5A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	2525	881.5	25-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		2	20	700	1940	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.32	23.22	-0.10

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	19100	1900	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_2A-2A-12A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
	Intra band non contiguous	SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		2	20	700	1940	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.49	23.45	-0.04

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		12	5	23155	713.5	1-24		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-2A-12A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		12	5	5155	743.5	25-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		2	20	700	1940	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.14	23.11	-0.03

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	19100	1900	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_2A-2A-13A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
	Intra band non contiguous	SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		2	20	700	1940	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.49	23.57	0.08

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	10	23230	782	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-2A-13A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		2	20	700	1940	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.13	23.26	0.13

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	20300	1745	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_4A-4A-5A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
	Intra band non contiguous	SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		4	20	2050	2120	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.47	23.46	-0.01

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	20525	836.5	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_4A-4A-5A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	2525	881.5	25-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		4	20	2050	2120	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.32	23.25	-0.07

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	4	20	20300	1745	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_4A-4A-12A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band non contiguous	4	20	2300	2145	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		4	20	2050	2120	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.47	23.46	-0.01

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		12	5	23155	713.5	1-24		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_4A-4A-12A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		12	5	5155	743.5	25-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		4	20	2050	2120	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.14	23.18	0.04

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	20300	1745	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_4A-4A-13A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
	Intra band non contiguous	SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		4	20	2050	2120	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.47	23.46	-0.01

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	10	23230	782	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_4A-4A-13A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		4	20	2050	2120	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.13	23.21	0.08

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	19100	1900	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-7A-7A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		7	20	2850	2630	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		7	20	3350	2680	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.49	23.45	-0.04

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		7	20	21350	2560	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_2A-7A-7A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		7	20	3350	2680	75-0		QPSK
	Intra band non contiguous	SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		7	20	2850	2630	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
22.70	22.74	0.04

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	132047	1717.5	1-0		QPSK
		SCC1						-
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						PCC, SCC1 CH spacing [MHz] *3
CA_2A-66B		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band Contiguous	66	15	66511	2117.5	75-0		QPSK
		SCC1						9.3
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	5	66604	2126.8	25-0		QPSK
	Inter band	SCC2						-
		Band	Bandwidth *5 [MHz]	Channel *4	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
23.30	23.36	0.06

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Downlink SCC2 is near the middle of its transmission band

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	19100	1900	1-0		QPSK
		SCC1						-
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	-	-	-	-	-	-	-
		Downlink						
		PCC *2						CH spacing [MHz] *3
CA_2A-66B		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Inter band	2	20	1100	1980	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band Contiguous	66	15	66511	2117.5	75-0		QPSK
		SCC2 *4						9.3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	5	66604	2126.8	25-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.49	23.58	0.09

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Configurable bandwidth combinations and representative channels

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1							
		PCC							PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
		66	15	132047	1717.5	1-0		QPSK	
		SCC1							-
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
		-	-	-	-	-	-	-	
		Downlink							
		PCC *2							PCC, SCC1 CH spacing [MHz] *3
CA_2A-66C		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
	Intra band Contiguous	66	15	66511	2117.5	75-0		QPSK	
		SCC1							17.1
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation	
		66	20	66682	2134.6	100-0		QPSK	
	Inter band	SCC2							
		Band	Bandwidth *5 [MHz]	Channel *4	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation	-
		2	20	900	1960	100-0		QPSK	

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
23.30	23.35	0.05

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Downlink SCC2 is near the middle of its transmission band

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	19100	1900	1-0		QPSK
		SCC1						-
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	-	-	-	-	-	-	-
		Downlink						
		PCC *2						CH spacing [MHz] *3
CA_2A-66C		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Inter band	2	20	1100	1980	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band Contiguous	66	20	66786	2145	100-0		QPSK
		SCC2 *4						19.8
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	20	66588	2125.2	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.49	23.55	0.06

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Configurable bandwidth combinations and representative channels

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	19100	1900	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-66A-66A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		66	20	66536	2120	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.49	23.45	-0.04

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	66	15	132047	1717.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_2A-66A-66A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band non contiguous	66	15	66511	2117.5	75-0		QPSK
		SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.49	23.41	-0.08

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	20300	1745	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_4A-7A-7A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		7	20	2850	2630	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		7	20	3350	2680	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.47	23.49	0.02

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		7	20	21350	2560	1-0		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_4A-7A-7A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		7	20	3350	2680	75-0		QPSK
	Intra band non contiguous	SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		7	20	2850	2630	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
22.70	22.76	0.06

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
CA_5A-66A-66A	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	20525	836.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	2525	881.5	25-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		66	20	66536	2120	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.32	23.30	-0.02

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	66	15	132047	1717.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_5A-66A-66A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band non contiguous	66	15	66511	2117.5	75-0		QPSK
		SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK
		SCC2 *4						
	Inter band	Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.30	23.34	0.04

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	132047	1717.5	1-0		QPSK
		SCC1						-
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						PCC, SCC1 CH spacing [MHz] *3
CA_5A-66C		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band Contiguous	66	15	66511	2117.5	75-0		QPSK
		SCC1						17.1
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	20	66682	2134.6	100-0		QPSK
	Inter band	SCC2						-
		Band	Bandwidth *5 [MHz]	Channel *4	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
23.30	23.40	0.10

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Downlink SCC2 is near the middle of its transmission band

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	20525	836.5	1-0		QPSK
		SCC1						-
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	-	-	-	-	-	-	-
		Downlink						
		PCC *2						CH spacing [MHz] *3
CA_5A-66C		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Inter band	5	5	2525	916.5	25-0		QPSK
		SCC1 *4						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band Contiguous	66	20	66786	2145	100-0		QPSK
		SCC2 *4						19.8
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	20	66984	2164.8	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.32	23.31	-0.01

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Configurable bandwidth combinations and representative channels

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	5	23205	779.5	1-24		QPSK
		SCC1						
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_13A-66A-66A	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	5	5205	748.5	25-0		QPSK
	Intra band non contiguous	SCC1 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		66	20	66536	2120	100-0		QPSK
		SCC2 *3						
		Band	Bandwidth *7 [MHz]	Channel	Frequency [MHz]	Resource Block Number *4	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.17	23.06	-0.11

*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC 1 and SCC 2 are set to provide each other with a maximum separation and to remain fully within the downlink transmission band.

*4 Set to Maximum RB

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

*7 Set to the supported maximum bandwidth

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<CA with 3 Carriers(two bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	66	15	132047	1717.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						
CA_13A-66A-66A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band non contiguous	66	15	66511	2117.5	75-0		QPSK
		SCC1 *4						
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	20	67036	2170	100-0		QPSK
	Inter band	SCC2 *4						
		Band	Bandwidth *5 [MHz]	Channel *7	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *8	DL CA active [dBm]	Delta Power [dB] *9
23.30	23.38	0.08

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The SCC1 channel is selected to provide maximum separation from the Downlink PCC channel and remain fully within the downlink transmission band.

When channel spacing between downlink PCC and SCC1 is smaller than nominal channel bandwidth, configurerable other channels instead of the highest power channel can be selected.

*4 Enable when downlink CA is active

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 Downlink SCC2 is near the middle of its transmission band

*8 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*9 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	132047	1717.5	1-0		QPSK
		SCC1						-
	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-	-	-
		Downlink						
		PCC *2						PCC, SCC1 CH spacing [MHz] *3
CA_13A-66B		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	Intra band Contiguous	66	15	66511	2117.5	75-0		QPSK
		SCC1						9.3
		Band	Bandwidth *5 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		66	5	66604	2126.8	25-0		QPSK
	Inter band	SCC2						-
		Band	Bandwidth *5 [MHz]	Channel *4	Frequency [MHz]	Resource Block Number *6	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *7	DL CA active [dBm]	Delta Power [dB] *8
23.30	23.39	0.09

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Downlink SCC2 is near the middle of its transmission band

*5 Set to the supported maximum bandwidth

*6 Set to Maximum RB

*7 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*8 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(two bands, two sub-blocks) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						PCC, SCC1 CH spacing [MHz] *3
CA_13A-66B	-	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	-
		13	5	23205	779.5	1-24		QPSK	
		SCC1							
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
		-	-	-	-	-	-	-	
		Downlink							
		PCC *2							CH spacing [MHz] *3
	Inter band	Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	-
		13	5	5205	748.5	25-0		QPSK	
	Intra band Contiguous	SCC1 *4							9.3
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
		66	15	66786	2145	75-0		QPSK	
		SCC2 *4							
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation	
		66	5	66879	2154.3	25-0		QPSK	

Uplink Power Measurement Results		
DL CA inactive [dBm] *5	DL CA active [dBm]	Delta Power [dB] *6
23.17	23.14	-0.03

*1 Highest measured maximum output power configuration when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 The channel spacing for intra-band contiguous CA is adjusted to any multiple of 300 kHz less than the nominal channel spacing. It is set to the maximum spacing less than nominal channel spacing.

The nominal channel spacing is determined by [BW1+BW2-0.1*|BW1-BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidth of the CC in a 2-CC aggregation configuration.

*4 Configurable bandwidth combinations and representative channels

*5 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*6 Uplink Power difference between downlink CA inactive and downlink CA active

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-4A-5A	-	2	20	19100	1900	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.49	23.52	0.03

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-4A-5A	-	4	20	20300	1745	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.47	23.46	-0.01

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-4A-5A	-	5	5	20525	836.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	2525	881.5	25-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.32	23.23	-0.09

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-4A-7A	-	2	20	19100	1900	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		7	20	3100	2655	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.49	23.49	0.00

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-4A-7A	-	4	20	20300	1745	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		7	20	3100	2655	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.47	23.54	0.07

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-4A-7A	-	7	20	21350	2560	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		7	20	3350	2680	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
22.70	22.75	0.05

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	2	20	19100	1900	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-4A-12A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
	Inter band	SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.49	23.50	0.01

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	4	20	20300	1745	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-4A-12A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
	Inter band	SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.47	23.57	0.10

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	12	5	23155	713.5	1-24		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-4A-12A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		12	5	5155	743.5	25-0		QPSK
	Inter band	SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.19	23.21	0.02

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	2	20	19100	1900	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-4A-13A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
	Inter band	SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.49	23.55	0.06

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	4	20	20300	1745	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-4A-13A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
	Inter band	SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		13	10	5240	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.47	23.48	0.01

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	13	10	23230	782	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-4A-13A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK
	Inter band	SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.13	23.10	-0.03

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-7A-12A	-	2	20	19100	1900	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		7	20	3100	2655	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.49	23.51	0.02

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-7A-12A	-	7	20	21350	2560	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		7	20	3350	2680	75-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
22.70	22.68	-0.02

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	12	5	23155	713.5	1-24		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
CA_2A-7A-12A	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		12	5	5155	743.5	25-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		7	20	3100	2655	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.14	23.13	-0.01

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	4	20	20300	1745	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
CA_4A-7A-12A	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		4	20	2300	2145	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		7	20	3100	2655	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.47	23.48	0.01

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_4A-7A-12A	-	7	20	21350	2560	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		7	20	3350	2680	75-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		12	10	5095	737.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
22.70	22.76	0.06

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_4A-7A-12A	-	12	5	23155	713.5	1-24		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		12	5	5155	743.5	25-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		4	20	2175	2132.5	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		7	20	3100	2655	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.14	23.26	0.12

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	2	20	19100	1900	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-5A-66A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
		SCC1 *4						
	Inter band	Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		66	20	66786	2145	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.49	23.53	0.04

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
	-	66	15	132047	1717.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
		Downlink						
		PCC *2						
CA_2A-5A-66A		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	66511	2117.5	75-0		QPSK
		SCC1 *4						
	Inter band	Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		5	10	2525	881.5	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.30	23.26	-0.04

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-5A-66A	-	5	5	20525	836.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		5	5	2525	881.5	25-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		66	20	66786	2145	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.32	23.29	-0.03

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-13A-66A	-	2	20	19100	1900	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		2	20	1100	1980	100-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		66	20	66786	2145	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.49	23.50	0.01

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-13A-66A	-	66	15	132047	1717.5	1-0		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		66	15	66511	2117.5	75-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		13	10	5230	751	50-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.30	23.39	0.09

<CA with 3 Carriers(three bands) (Downlink CA only)>

E-UTRA CA Configuration		Uplink *1						
		PCC						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
CA_2A-13A-66A	-	13	5	23205	779.5	1-24		QPSK
		SCC1						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		-	-	-	-	-		-
	Inter band	Downlink						
		PCC *2						
		Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Resource Block Number	Resource Block Position	Modulation
		13	5	5205	748.5	25-0		QPSK
		SCC1 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		2	20	900	1960	100-0		QPSK
		SCC2 *4						
		Band	Bandwidth *8 [MHz]	Channel *3	Frequency [MHz]	Resource Block Number *5	Resource Block Position	Modulation
		66	20	66786	2145	100-0		QPSK

Uplink Power Measurement Results		
DL CA inactive [dBm] *6	DL CA active [dBm]	Delta Power [dB] *7
23.17	23.14	-0.03

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*1 Highest measured maximum output power when downlink carrier aggregation is inactive.

*2 Downlink PCC channel is paired with the uplink channel according to normal configurations, as if there is no carrier aggregation.

*3 Downlink SCC1 and SCC2 are near the middle of its transmission band

*4 Enable when downlink CA is active

*5 Set to Maximum RB

*6 See Section 9. RF Output Power Measurement result for the appropriate LTE Band (Single Carrier)

*7 Uplink Power difference between downlink CA inactive and downlink CA active

*8 Set to the supported maximum bandwidth

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10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

KDB 447498 D01 General RF Exposure Guidance:

Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

KDB 941225 D01 SAR test for 3G device:

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≦1/4 dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ration of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≦ 1.2 W/kg, SAR measurement is not required for the secondary mode.

KDB 941225 D01 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
  - o When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
  - o When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
  - o For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.
- The same procedures apply to QPSK 50% RB allocation configurations at the largest channel bandwidth.
- Testing for 100% RB allocation configurations at the largest channel bandwidth is performed for the channel, across low, mid and high, with the highest output power, when the highest reported SAR for either 1 RB or 50% RB is $\geq$ 0.8 W/kg, or when the maximum output power among 100% RB allocation configurations is greater than the maximum output power among either 1 RB or 50% RB allocation configurations.
  - o Testing for the remaining channels in 100% RB allocation configurations is required only when reported SAR for the initial 100% RB allocation configuration is > 1.45 W/kg.
- Testing for higher order modulations (16-QAM or 64-QAM) is required only when the highest reported SAR for QPSK is > 1.45 W/Kg or if its output power is more than 0.5 dB higher than that of QPSK.

Testing for the other channel bandwidths is required only when the highest reported SAR for the highest channel bandwidth is > 1.45 W/Kg or if its output power is more than 0.5 dB higher than that of the highest channel.

According to Notice 2016-DRS001 based on the IEEE1528 and IEC 62209 requirements, the low, mid and high frequency channels for the configuration with the highest SAR value must be tested regardless of the SAR value measured.

Justification for test position of Edge1:

Judgment on Tablet or Convertible about Edge1 test was decided by the following steps.

Step 1. Test both Tablet and Convertible with 0mm separation distance and power reduction.

Step 2. Other test configuration (channel change, RB change) was performed with higher mode in Step1.

Step 3. Separation distance for full power was adapted 28mm as it is most conservative for Edge1.

Note: Measured value is rounded round off to three decimal places.

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10.1. W-CDMA Band 2

Reduction power

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge1	0	Rel 99 RMC 12.2 kbps	9262	1852.4	16.5	16.03				
			9400	1880.0	16.5	16.20	1.110	1.189		
			9538	1907.6	16.5	16.30				
Edge1 convertible	0	Rel 99 RMC 12.2 kbps	9262	1852.4	16.5	16.03	0.929	1.035		
			9400	1880.0	16.5	16.20	1.160	**1.243**	1	
			9538	1907.6	16.5	16.30	0.983	1.029		
Rear	0	Rel 99 RMC 12.2 kbps	9262	1852.4	16.5	16.03				
			9400	1880.0	16.5	16.20	0.993	1.064		
			9538	1907.6	16.5	16.30				

Full power

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge1 Convertible	28	Rel 99 RMC 12.2 kbps	9262	1852.4	24.0	23.04				
			9400	1880.0	24.0	23.15	0.465	0.566		
			9538	1907.6	24.0	23.29				
Edge2	0	Rel 99 RMC 12.2 kbps	9262	1852.4	24.0	23.04				
			9400	1880	24.0	23.15	0.028	0.034		
			9538	1907.6	24.0	23.29				
Edge3	0	Rel 99 RMC 12.2 kbps	9262	1852.4	24.0	23.04				
			9400	1880.0	24.0	23.15	0.026	0.032		
			9538	1907.6	24.0	23.29				
Edge4	0	Rel 99 RMC 12.2 kbps	9262	1852.4	24.0	23.04				
			9400	1880.0	24.0	23.15	0.123	0.150		
			9538	1907.6	24.0	23.29				
Rear	20	Rel 99 RMC 12.2 kbps	9262	1852.4	24.0	23.04				
			9400	1880.0	24.0	23.15	0.489	**0.595**	2	
			9538	1907.6	24.0	23.29				

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10.2. W-CDMA Band 4

Reduction power

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge1	0	Rel 99 RMC 12.2 kbps	1312	1712.4	14.9	14.64	0.941	**0.999**	3	
			1413	1732.6	14.9	14.66	0.925	0.978		
			1513	1752.6	14.9	14.42	0.835	0.933		
Edge1 convertible	0	Rel 99 RMC 12.2 kbps	1312	1712.4	14.9	14.64				
			1413	1732.6	14.9	14.66	0.846	0.894		
			1513	1752.6	14.9	14.42				
Rear	0	Rel 99 RMC 12.2 kbps	1312	1712.4	14.9	14.64				
			1413	1732.6	14.9	14.66	0.373	0.394		
			1513	1752.6	14.9	14.42				

Full power

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge1	28	Rel 99 RMC 12.2 kbps	1312	1712.4	24.0	22.92				
			1413	1732.6	24.0	23.18	0.366	0.442		
			1513	1752.6	24.0	23.13				
Edge2	0	Rel 99 RMC 12.2 kbps	1312	1712.4	24	22.92				
			1413	1732.6	24	23.18	0.013	0.016		
			1513	1752.6	24	23.13				
Edge3	0	Rel 99 RMC 12.2 kbps	1312	1712.4	24.0	22.92				
			1413	1732.6	24.0	23.18	0.048	0.058		
			1513	1752.6	24.0	23.13				
Edge4	0	Rel 99 RMC 12.2 kbps	1312	1712.4	24.0	22.92				
			1413	1732.6	24.0	23.18	0.529	**0.639**	4	
			1513	1752.6	24.0	23.13				
Rear	20	Rel 99 RMC 12.2 kbps	1312	1712.4	24.0	22.92				
			1413	1732.6	24.0	23.18	0.349	0.422		
			1513	1752.6	24.0	23.13				

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10.3. W-CDMA Band 5

Reduction power

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge1	0	Rel 99 RMC 12.2 kbps	4132	826.4	19.0	18.80	0.893	0.935		
			4183	836.6	19.0	18.61	0.871	**0.953**	5	
			4233	846.6	19.0	18.88	0.833	0.856		
Edge1 convertible	0	Rel 99 RMC 12.2 kbps	4132	826.4	19.0	18.80				
			4183	836.6	19.0	18.61				
			4233	846.6	19.0	18.88	0.698	0.718		
Rear	0	Rel 99 RMC 12.2 kbps	4132	826.4	19.0	18.80				
			4183	836.6	19.0	18.61				
			4233	846.6	19.0	18.88	0.554	0.570		

Full power

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge1	28	Rel 99 RMC 12.2 kbps	4132	826.4	24.0	23.33	0.136	0.159		
			4183	836.6	24.0	23.28				
			4233	846.6	24.0	23.16				
Edge2	0	Rel 99 RMC 12.2 kbps	4132	826.4	24.0	23.33	0.050	0.058		
			4183	836.6	24.0	23.28				
			4233	846.6	24.0	23.16				
Edge3	0	Rel 99 RMC 12.2 kbps	4132	826.4	24.0	23.33	0.044	0.051		
			4183	836.6	24.0	23.28				
			4233	846.6	24.0	23.16				
Edge4	0	Rel 99 RMC 12.2 kbps	4132	826.4	24.0	23.33	0.296	**0.345**	6	
			4183	836.6	24.0	23.28				
			4233	846.6	24.0	23.16				
Rear	20	Rel 99 RMC 12.2 kbps	4132	826.4	24.0	23.33	0.229	0.267		
			4183	836.6	24.0	23.28				
			4233	846.6	24.0	23.16				

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10.4. LTE Band 2

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	0	QPSK	19100	1900	1	0	15.9	15.49	0.689	0.757		
			19100	1900	1	99	15.9	15.26				1.45<
			19100	1900	1	49	15.9	15.22				1.45<
Edge 1 Convertible	0	QPSK	18700	1860	1	99	15.9	15.17	0.864	1.022		
			18700	1860	1	0	15.9	15.13				1.45<
			18700	1860	1	49	15.9	14.89				1.45<
			18900	1880	1	0	15.9	15.31	0.934	1.070		
			18900	1880	1	99	15.9	15.27				1.45<
			18900	1880	1	49	15.9	15.03				1.45<
			19100	1900	1	0	15.9	15.49	1.050	1.154		
			19100	1900	1	99	15.9	15.26				1.45<
			19100	1900	1	49	15.9	15.22				1.45<
			18700	1860	50	24	15.9	14.93	0.818	1.023		
			18700	1860	50	49	15.9	14.92				1.45<
			18700	1860	50	0	15.9	14.91				1.45<
			18900	1880	50	49	15.9	15.11	0.959	1.150		
			18900	1880	50	0	15.9	15.09				1.45<
			18900	1880	50	24	15.9	15.06				1.45<
			19100	1900	50	0	15.9	15.25	1.040	1.208		
			19100	1900	50	49	15.9	15.20				1.45<
			19100	1900	50	24	15.9	15.18				1.45<
			19100	1900	100	0	15.9	15.23	1.060	1.237	7	
			18900	1880	100	0	15.9	15.05				1.45<
			18700	1860	100	0	15.9	14.90				1.45<
Rear	0	QPSK	18700	1860	1	99	15.9	15.17	0.610	0.722		
			18700	1860	1	0	15.9	15.13				1.45<
			18700	1860	1	49	15.9	14.89				1.45<
			18900	1880	1	0	15.9	15.31	0.676	0.774		
			18900	1880	1	99	15.9	15.27				1.45<
			18900	1880	1	49	15.9	15.03				1.45<
			19100	1900	1	0	15.9	15.49	0.840	0.923		
			19100	1900	1	99	15.9	15.26				1.45<
			19100	1900	1	49	15.9	15.22				1.45<
			18700	1860	50	24	15.9	14.93	0.562	0.703		
			18700	1860	50	49	15.9	14.92				1.45<
			18700	1860	50	0	15.9	14.91				1.45<
			18900	1880	50	49	15.9	15.11	0.725	0.870		
			18900	1880	50	0	15.9	15.09				1.45<
			18900	1880	50	24	15.9	15.06				1.45<
			19100	1900	50	0	15.9	15.25	0.851	0.988		
			19100	1900	50	49	15.9	15.20				1.45<
			19100	1900	50	24	15.9	15.18				1.45<
			19100	1900	100	0	15.9	15.23	0.888	1.036		
			18900	1880	100	0	15.9	15.05				1.45<
			18700	1860	100	0	15.9	14.90				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1 Convertible	28	QPSK	18700	1860	1	99	24.0	23.15				
			18700	1860	1	0	24.0	23.11				1.45<
			18700	1860	1	49	24.0	22.86				1.45<
			18900	1880	1	0	24.0	23.32				
			18900	1880	1	99	24.0	23.26				1.45<
			18900	1880	1	49	24.0	23.01				1.45<
			19100	1900	1	0	24.0	23.49	0.484	0.544		
			19100	1900	1	99	24.0	23.23				1.45<
			19100	1900	1	49	24.0	23.19				1.45<
			18700	1860	50	24	23.0	21.93				
			18700	1860	50	49	23.0	21.91				1.45<
			18700	1860	50	0	23.0	21.89				1.45<
			18900	1880	50	49	23.0	22.13				
			18900	1880	50	0	23.0	22.10				1.45<
			18900	1880	50	24	23.0	22.04				1.45<
			19100	1900	50	0	23.0	22.28	0.404	0.477		
			19100	1900	50	24	23.0	22.25				1.45<
			19100	1900	50	49	23.0	22.17				1.45<
			19100	1900	100	0	23.0	22.23				
			18900	1880	100	0	23.0	22.09				1.45<
			18700	1860	100	0	23.0	21.92				1.45<
Edge 2	0	QPSK	18700	1860	1	99	24.0	23.15				
			18700	1860	1	0	24.0	23.11				1.45<
			18700	1860	1	49	24.0	22.86				1.45<
			18900	1880	1	0	24.0	23.32				
			18900	1880	1	99	24.0	23.26				1.45<
			18900	1880	1	49	24.0	23.01				1.45<
			19100	1900	1	0	24.0	23.49	0.016	0.018		
			19100	1900	1	99	24.0	23.23				1.45<
			19100	1900	1	49	24.0	23.19				1.45<
			18700	1860	50	24	23.0	21.93				
			18700	1860	50	49	23.0	21.91				1.45<
			18700	1860	50	0	23.0	21.89				1.45<
			18900	1880	50	49	23.0	22.13				
			18900	1880	50	0	23.0	22.10				1.45<
			18900	1880	50	24	23.0	22.04				1.45<
			19100	1900	50	0	23.0	22.28	0.015	0.018		
			19100	1900	50	24	23.0	22.25				1.45<
			19100	1900	50	49	23.0	22.17				1.45<
			19100	1900	100	0	23.0	22.23				
			18900	1880	100	0	23.0	22.09				1.45<
			18700	1860	100	0	23.0	21.92				1.45<
Edge 3	0	QPSK	18700	1860	1	99	24.0	23.15				
			18700	1860	1	0	24.0	23.11				1.45<
			18700	1860	1	49	24.0	22.86				1.45<
			18900	1880	1	0	24.0	23.32				
			18900	1880	1	99	24.0	23.26				1.45<
			18900	1880	1	49	24.0	23.01				1.45<
			19100	1900	1	0	24.0	23.49	0.026	0.029		
			19100	1900	1	99	24.0	23.23				1.45<
			19100	1900	1	49	24.0	23.19				1.45<
			18700	1860	50	24	23.0	21.93				
			18700	1860	50	49	23.0	21.91				1.45<
			18700	1860	50	0	23.0	21.89				1.45<
			18900	1880	50	49	23.0	22.13				
			18900	1880	50	0	23.0	22.10				1.45<
			18900	1880	50	24	23.0	22.04				1.45<
			19100	1900	50	0	23.0	22.28	0.026	0.031		
			19100	1900	50	24	23.0	22.25				1.45<
			19100	1900	50	49	23.0	22.17				1.45<
			19100	1900	100	0	23.0	22.23				
			18900	1880	100	0	23.0	22.09				1.45<
			18700	1860	100	0	23.0	21.92				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 4	0	QPSK	18700	1860	1	99	24.0	23.15				
			18700	1860	1	0	24.0	23.11				1.45<
			18700	1860	1	49	24.0	22.86				1.45<
			18900	1880	1	0	24.0	23.32				
			18900	1880	1	99	24.0	23.26				1.45<
			18900	1880	1	49	24.0	23.01				1.45<
			19100	1900	1	0	24.0	23.49	0.161	0.181		
			19100	1900	1	99	24.0	23.23				1.45<
			19100	1900	1	49	24.0	23.19				1.45<
			18700	1860	50	24	23.0	21.93				
			18700	1860	50	49	23.0	21.91				1.45<
			18700	1860	50	0	23.0	21.89				1.45<
			18900	1880	50	49	23.0	22.13				
			18900	1880	50	0	23.0	22.10				1.45<
			18900	1880	50	24	23.0	22.04				1.45<
			19100	1900	50	0	23.0	22.28	0.112	0.132		
			19100	1900	50	24	23.0	22.25				1.45<
			19100	1900	50	49	23.0	22.17				1.45<
			19100	1900	100	0	23.0	22.23				
			18900	1880	100	0	23.0	22.09				1.45<
			18700	1860	100	0	23.0	21.92				1.45<
Rear	20	QPSK	18700	1860	1	99	24.0	23.15				
			18700	1860	1	0	24.0	23.11				1.45<
			18700	1860	1	49	24.0	22.86				1.45<
			18900	1880	1	0	24.0	23.32				
			18900	1880	1	99	24.0	23.26				1.45<
			18900	1880	1	49	24.0	23.01				1.45<
			19100	1900	1	0	24.0	23.49	0.514	0.578	8	
			19100	1900	1	99	24.0	23.23				1.45<
			19100	1900	1	49	24.0	23.19				1.45<
			18700	1860	50	24	23.0	21.93				
			18700	1860	50	49	23.0	21.91				1.45<
			18700	1860	50	0	23.0	21.89				1.45<
			18900	1880	50	49	23.0	22.13				
			18900	1880	50	0	23.0	22.10				1.45<
			18900	1880	50	24	23.0	22.04				1.45<
			19100	1900	50	0	23.0	22.28	0.412	0.486		
			19100	1900	50	24	23.0	22.25				1.45<
			19100	1900	50	49	23.0	22.17				1.45<
			19100	1900	100	0	23.0	22.23				
			18900	1880	100	0	23.0	22.09				1.45<
			18700	1860	100	0	23.0	21.92				1.45<

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10.5. LTE Band 4

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	0	QPSK	20050	1720	1	0	14.8	14.39	0.782	0.859		
			20050	1720	1	99	14.8	14.37				1.45<
			20050	1720	1	49	14.8	14.19				1.45<
			20175	1732.5	1	0	14.8	14.35	0.762	0.845		
			20175	1732.5	1	99	14.8	14.24				1.45<
			20175	1732.5	1	49	14.8	14.22				1.45<
			20300	1745	1	0	14.8	14.45	0.749	0.812		
			20300	1745	1	49	14.8	14.20				1.45<
			20300	1745	1	99	14.8	14.18				1.45<
			20050	1720	50	0	14.8	14.34	0.775	**0.862**	9	
			20050	1720	50	24	14.8	14.21				1.45<
			20050	1720	50	49	14.8	14.20				1.45<
			20175	1732.5	50	0	14.8	14.29	0.752	0.846		
			20175	1732.5	50	24	14.8	14.26				1.45<
			20175	1732.5	50	49	14.8	14.25				1.45<
			20300	1745	50	0	14.8	14.24	0.722	0.821		
			20300	1745	50	24	14.8	14.15				1.45<
			20300	1745	50	49	14.8	14.01				1.45<
			20175	1732.5	100	0	14.8	14.25	0.729	0.827		
			20050	1720	100	0	14.8	14.19				1.45<
			20300	1745	100	0	14.8	14.16				1.45<
Edge 1 Convertible	0	QPSK	20300	1745	1	0	14.8	14.45	0.707	0.766		
			20300	1745	1	49	14.8	14.20				1.45<
			20300	1745	1	99	14.8	14.18				1.45<
Rear	0	QPSK	20050	1720	1	0	14.8	14.39				
			20050	1720	1	99	14.8	14.37				1.45<
			20050	1720	1	49	14.8	14.19				1.45<
			20175	1732.5	1	0	14.8	14.35				
			20175	1732.5	1	99	14.8	14.24				1.45<
			20175	1732.5	1	49	14.8	14.22				1.45<
			20300	1745	1	0	14.8	14.45	0.362	0.392		
			20300	1745	1	49	14.8	14.20				1.45<
			20300	1745	1	99	14.8	14.18				1.45<
			20050	1720	50	0	14.8	14.34	0.354	0.394		
			20050	1720	50	24	14.8	14.21				1.45<
			20050	1720	50	49	14.8	14.20				1.45<
			20175	1732.5	50	0	14.8	14.29				
			20175	1732.5	50	24	14.8	14.26				1.45<
			20175	1732.5	50	49	14.8	14.25				1.45<
			20300	1745	50	0	14.8	14.24				
			20300	1745	50	24	14.8	14.15				1.45<
			20300	1745	50	49	14.8	14.01				1.45<
			20175	1732.5	100	0	14.8	14.25				
			20050	1720	100	0	14.8	14.19				1.45<
			20300	1745	100	0	14.8	14.16				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	28	QPSK	20050	1720	1	0	24.0	23.39				
			20050	1720	1	99	24.0	23.35				1.45<
			20050	1720	1	49	24.0	23.21				1.45<
			20175	1732.5	1	0	24.0	23.37				
			20175	1732.5	1	99	24.0	23.28				1.45<
			20175	1732.5	1	49	24.0	23.27				1.45<
			20300	1745	1	0	24.0	23.47	0.346	0.391		
			20300	1745	1	49	24.0	23.19				1.45<
			20300	1745	1	99	24.0	23.17				1.45<
			20050	1720	50	0	23.0	22.34				
			20050	1720	50	49	23.0	22.28				1.45<
			20050	1720	50	24	23.0	22.26				1.45<
			20175	1732.5	50	49	23.0	22.35	0.287	0.333		
			20175	1732.5	50	24	23.0	22.34				1.45<
			20175	1732.5	50	0	23.0	22.32				1.45<
			20300	1745	50	0	23.0	22.27				
			20300	1745	50	24	23.0	22.23				1.45<
			20300	1745	50	49	23.0	22.11				1.45<
			20175	1732.5	100	0	23.0	22.30				
			20300	1745	100	0	23.0	22.25				1.45<
			20050	1720	100	0	23.0	22.24				1.45<
Edge 2	0	QPSK	20050	1720	1	0	24.0	23.39				
			20050	1720	1	99	24.0	23.35				1.45<
			20050	1720	1	49	24.0	23.21				1.45<
			20175	1732.5	1	0	24.0	23.37				
			20175	1732.5	1	99	24.0	23.28				1.45<
			20175	1732.5	1	49	24.0	23.27				1.45<
			20300	1745	1	0	24.0	23.47	0.012	0.014		
			20300	1745	1	49	24.0	23.19				1.45<
			20300	1745	1	99	24.0	23.17				1.45<
			20050	1720	50	0	23.0	22.34				
			20050	1720	50	49	23.0	22.28				1.45<
			20050	1720	50	24	23.0	22.26				1.45<
			20175	1732.5	50	49	23.0	22.35	0.008	0.010		
			20175	1732.5	50	24	23.0	22.34				1.45<
			20175	1732.5	50	0	23.0	22.32				1.45<
			20300	1745	50	0	23.0	22.27				
			20300	1745	50	24	23.0	22.23				1.45<
			20300	1745	50	49	23.0	22.11				1.45<
			20175	1732.5	100	0	23.0	22.30				
			20300	1745	100	0	23.0	22.25				1.45<
			20050	1720	100	0	23.0	22.24				1.45<
Edge 3	0	QPSK	20050	1720	1	0	24.0	23.39				
			20050	1720	1	99	24.0	23.35				1.45<
			20050	1720	1	49	24.0	23.21				1.45<
			20175	1732.5	1	0	24.0	23.37				
			20175	1732.5	1	99	24.0	23.28				1.45<
			20175	1732.5	1	49	24.0	23.27				1.45<
			20300	1745	1	0	24.0	23.47	0.068	0.077		
			20300	1745	1	49	24.0	23.19				1.45<
			20300	1745	1	99	24.0	23.17				1.45<
			20050	1720	50	0	23.0	22.34				
			20050	1720	50	49	23.0	22.28				1.45<
			20050	1720	50	24	23.0	22.26				1.45<
			20175	1732.5	50	49	23.0	22.35	0.044	0.051		
			20175	1732.5	50	24	23.0	22.34				1.45<
			20175	1732.5	50	0	23.0	22.32				1.45<
			20300	1745	50	0	23.0	22.27				
			20300	1745	50	24	23.0	22.23				1.45<
			20300	1745	50	49	23.0	22.11				1.45<
			20175	1732.5	100	0	23.0	22.30				
			20300	1745	100	0	23.0	22.25				1.45<
			20050	1720	100	0	23.0	22.24				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 4	0	QPSK	20050	1720	1	0	24.0	23.39				
			20050	1720	1	99	24.0	23.35				1.45<
			20050	1720	1	49	24.0	23.21				1.45<
			20175	1732.5	1	0	24.0	23.37				
			20175	1732.5	1	99	24.0	23.28				1.45<
			20175	1732.5	1	49	24.0	23.27				1.45<
			20300	1745	1	0	24.0	23.47	0.421	0.476	10	
			20300	1745	1	49	24.0	23.19				1.45<
			20300	1745	1	99	24.0	23.17				1.45<
			20050	1720	50	0	23.0	22.34				
			20050	1720	50	49	23.0	22.28				1.45<
			20050	1720	50	24	23.0	22.26				1.45<
			20175	1732.5	50	49	23.0	22.35	0.332	0.386		
			20175	1732.5	50	24	23.0	22.34				1.45<
			20175	1732.5	50	0	23.0	22.32				1.45<
			20300	1745	50	0	23.0	22.27				
			20300	1745	50	24	23.0	22.23				1.45<
			20300	1745	50	49	23.0	22.11				1.45<
			20175	1732.5	100	0	23.0	22.30				
			20300	1745	100	0	23.0	22.25				1.45<
			20050	1720	100	0	23.0	22.24				1.45<
Rear	20	QPSK	20050	1720	1	0	24.0	23.39				
			20050	1720	1	99	24.0	23.35				1.45<
			20050	1720	1	49	24.0	23.21				1.45<
			20175	1732.5	1	0	24.0	23.37				
			20175	1732.5	1	99	24.0	23.28				1.45<
			20175	1732.5	1	49	24.0	23.27				1.45<
			20300	1745	1	0	24.0	23.47	0.363	0.410		
			20300	1745	1	49	24.0	23.19				1.45<
			20300	1745	1	99	24.0	23.17				1.45<
			20050	1720	50	0	23.0	22.34				
			20050	1720	50	49	23.0	22.28				1.45<
			20050	1720	50	24	23.0	22.26				1.45<
			20175	1732.5	50	49	23.0	22.35	0.254	0.295		
			20175	1732.5	50	24	23.0	22.34				1.45<
			20175	1732.5	50	0	23.0	22.32				1.45<
			20300	1745	50	0	23.0	22.27				
			20300	1745	50	24	23.0	22.23				1.45<
			20300	1745	50	49	23.0	22.11				1.45<
			20175	1732.5	100	0	23.0	22.30				
			20300	1745	100	0	23.0	22.25				1.45<
			20050	1720	100	0	23.0	22.24				1.45<

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10.6. LTE Band 5

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	0	QPSK	20450	829	1	24	19.2	18.61	0.851	0.975		
			20450	829	1	49	19.2	18.55				1.45<
			20450	829	1	0	19.2	18.51				1.45<
			20525	836.5	1	24	19.2	18.86	0.913	0.987		
			20525	836.5	1	0	19.2	18.82				1.45<
			20525	836.5	1	49	19.2	18.71				1.45<
			20600	844	1	0	19.2	18.69	0.848	0.954		
			20600	844	1	24	19.2	18.61				1.45<
			20600	844	1	49	19.2	18.60				1.45<
			20450	829	25	12	19.2	18.70	0.882	0.990		
			20450	829	25	24	19.2	18.67				1.45<
			20450	829	25	0	19.2	18.63				1.45<
			20525	836.5	25	0	19.2	18.85	0.969	**1.050**	11	
			20525	836.5	25	12	19.2	18.85				1.45<
			20525	836.5	25	24	19.2	18.81				1.45<
			20600	844	25	12	19.2	18.62	0.873	0.998		
			20600	844	25	0	19.2	18.61				1.45<
			20600	844	25	24	19.2	18.59				1.45<
			20525	836.5	50	0	19.2	18.82	0.937	1.023		
			20450	829	50	0	19.2	18.71				1.45<
			20600	844	50	0	19.2	18.61				1.45<
Edge 1 Convertible	0	QPSK	20525	836.5	1	24	19.2	18.86	0.734	0.794		
			20525	836.5	1	0	19.2	18.82				1.45<
			20525	836.5	1	49	19.2	18.71				1.45<
Rear	0	QPSK	20450	829	1	24	19.2	18.61				
			20450	829	1	49	19.2	18.55				1.45<
			20450	829	1	0	19.2	18.51				1.45<
			20525	836.5	1	24	19.2	18.86	0.562	0.608		
			20525	836.5	1	0	19.2	18.82				1.45<
			20525	836.5	1	49	19.2	18.71				1.45<
			20600	844	1	0	19.2	18.69				
			20600	844	1	24	19.2	18.61				1.45<
			20600	844	1	49	19.2	18.60				1.45<
			20450	829	25	12	19.2	18.70				
			20450	829	25	24	19.2	18.67				1.45<
			20450	829	25	0	19.2	18.63				1.45<
			20525	836.5	25	0	19.2	18.85	0.599	0.649		
			20525	836.5	25	12	19.2	18.85				1.45<
			20525	836.5	25	24	19.2	18.81				1.45<
			20600	844	25	12	19.2	18.62				
			20600	844	25	0	19.2	18.61				1.45<
			20600	844	25	24	19.2	18.59				1.45<
			20525	836.5	50	0	19.2	18.82				
			20450	829	50	0	19.2	18.71				1.45<
			20600	844	50	0	19.2	18.61				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	28	QPSK	20450	829	1	24	24.0	23.03				
			20450	829	1	0	24.0	23.01				1.45<
			20450	829	1	49	24.0	22.99				1.45<
			20525	836.5	1	24	24.0	23.26	0.121	0.143		
			20525	836.5	1	0	24.0	23.21				1.45<
			20525	836.5	1	49	24.0	23.10				1.45<
			20600	844	1	0	24.0	23.02				
			20600	844	1	24	24.0	23.01				1.45<
			20600	844	1	49	24.0	22.98				1.45<
			20450	829	25	12	23.0	22.17				
			20450	829	25	0	23.0	22.12				1.45<
			20450	829	25	24	23.0	22.09				1.45<
			20525	836.5	25	0	23.0	22.37	0.100	0.116		
			20525	836.5	25	12	23.0	22.37				1.45<
			20525	836.5	25	24	23.0	22.34				1.45<
			20600	844	25	0	23.0	22.14				
			20600	844	25	12	23.0	22.12				1.45<
			20600	844	25	24	23.0	22.11				1.45<
			20525	836.5	50	0	23.0	22.36				
			20450	829	50	0	23.0	22.12				1.45<
			20600	844	50	0	23.0	22.08				1.45<
Edge 2	0	QPSK	20450	829	1	24	24.0	23.03				
			20450	829	1	0	24.0	23.01				1.45<
			20450	829	1	49	24.0	22.99				1.45<
			20525	836.5	1	24	24.0	23.26	0.048	0.057		
			20525	836.5	1	0	24.0	23.21				1.45<
			20525	836.5	1	49	24.0	23.10				1.45<
			20600	844	1	0	24.0	23.02				
			20600	844	1	24	24.0	23.01				1.45<
			20600	844	1	49	24.0	22.98				1.45<
			20450	829	25	12	23.0	22.17				
			20450	829	25	0	23.0	22.12				1.45<
			20450	829	25	24	23.0	22.09				1.45<
			20525	836.5	25	0	23.0	22.37	0.050	0.058		
			20525	836.5	25	12	23.0	22.37				1.45<
			20525	836.5	25	24	23.0	22.34				1.45<
			20600	844	25	0	23.0	22.14				
			20600	844	25	12	23.0	22.12				1.45<
			20600	844	25	24	23.0	22.11				1.45<
			20525	836.5	50	0	23.0	22.36				
			20450	829	50	0	23.0	22.12				1.45<
			20600	844	50	0	23.0	22.08				1.45<
Edge 3	0	QPSK	20450	829	1	24	24.0	23.03				
			20450	829	1	0	24.0	23.01				1.45<
			20450	829	1	49	24.0	22.99				1.45<
			20525	836.5	1	24	24.0	23.26	0.040	0.047		
			20525	836.5	1	0	24.0	23.21				1.45<
			20525	836.5	1	49	24.0	23.10				1.45<
			20600	844	1	0	24.0	23.02				
			20600	844	1	24	24.0	23.01				1.45<
			20600	844	1	49	24.0	22.98				1.45<
			20450	829	25	12	23.0	22.17				
			20450	829	25	0	23.0	22.12				1.45<
			20450	829	25	24	23.0	22.09				1.45<
			20525	836.5	25	0	23.0	22.37	0.032	0.037		
			20525	836.5	25	12	23.0	22.37				1.45<
			20525	836.5	25	24	23.0	22.34				1.45<
			20600	844	25	0	23.0	22.14				
			20600	844	25	12	23.0	22.12				1.45<
			20600	844	25	24	23.0	22.11				1.45<
			20525	836.5	50	0	23.0	22.36				
			20450	829	50	0	23.0	22.12				1.45<
			20600	844	50	0	23.0	22.08				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 4	0	QPSK	20450	829	1	24	24.0	23.03				
			20450	829	1	0	24.0	23.01				1.45<
			20450	829	1	49	24.0	22.99				1.45<
			20525	836.5	1	24	24.0	23.26	0.234	0.277		
			20525	836.5	1	0	24.0	23.21				1.45<
			20525	836.5	1	49	24.0	23.10				1.45<
			20600	844	1	0	24.0	23.02				
			20600	844	1	24	24.0	23.01				1.45<
			20600	844	1	49	24.0	22.98				1.45<
			20450	829	25	12	23.0	22.17				
			20450	829	25	0	23.0	22.12				1.45<
			20450	829	25	24	23.0	22.09				1.45<
			20525	836.5	25	0	23.0	22.37	0.188	0.217		
			20525	836.5	25	12	23.0	22.37				1.45<
			20525	836.5	25	24	23.0	22.34				1.45<
			20600	844	25	0	23.0	22.14				
			20600	844	25	12	23.0	22.12				1.45<
			20600	844	25	24	23.0	22.11				1.45<
			20525	836.5	50	0	23.0	22.36				
			20450	829	50	0	23.0	22.12				1.45<
			20600	844	50	0	23.0	22.08				1.45<
Rear	20	QPSK	20450	829	1	24	24.0	23.03				
			20450	829	1	0	24.0	23.01				1.45<
			20450	829	1	49	24.0	22.99				1.45<
			20525	836.5	1	24	24.0	23.26	0.253	0.300	12	
			20525	836.5	1	0	24.0	23.21				1.45<
			20525	836.5	1	49	24.0	23.10				1.45<
			20600	844	1	0	24.0	23.02				
			20600	844	1	24	24.0	23.01				1.45<
			20600	844	1	49	24.0	22.98				1.45<
			20450	829	25	12	23.0	22.17				
			20450	829	25	0	23.0	22.12				1.45<
			20450	829	25	24	23.0	22.09				1.45<
			20525	836.5	25	0	23.0	22.37	0.205	0.237		
			20525	836.5	25	12	23.0	22.37				1.45<
			20525	836.5	25	24	23.0	22.34				1.45<
			20600	844	25	0	23.0	22.14				
			20600	844	25	12	23.0	22.12				1.45<
			20600	844	25	24	23.0	22.11				1.45<
			20525	836.5	50	0	23.0	22.36				
			20450	829	50	0	23.0	22.12				1.45<
			20600	844	50	0	23.0	22.08				1.45<

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10.7. LTE Band 7

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	0	QPSK	20850	2510	1	99	14.7	14.24				
			20850	2510	1	0	14.7	14.17				1.45<
			20850	2510	1	49	14.7	14.14				1.45<
			21100	2535	1	0	14.7	14.20				
			21100	2535	1	49	14.7	14.13				1.45<
			21100	2535	1	99	14.7	14.12				1.45<
			21350	2560	1	0	14.7	14.29	0.724	0.796		
			21350	2560	1	49	14.7	14.18				1.45<
			21350	2560	1	99	14.7	14.08				1.45<
			20850	2510	50	49	14.7	14.16	0.591	0.669		
			20850	2510	50	0	14.7	14.10				1.45<
			20850	2510	50	24	14.7	14.09				1.45<
			21100	2535	50	24	14.7	14.11	0.613	0.702		
			21100	2535	50	49	14.7	14.11				1.45<
			21100	2535	50	0	14.7	14.07				1.45<
			21350	2560	50	24	14.7	14.19	0.754	0.848	13	
			21350	2560	50	0	14.7	14.18				1.45<
			21350	2560	50	49	14.7	14.16				1.45<
			20850	2510	100	0	14.7	14.21	0.595	0.666		
			21350	2560	100	0	14.7	14.15				1.45<
			21100	2535	100	0	14.7	14.11				1.45<
Edge 1 Convertible	0	QPSK	21350	2560	1	0	14.7	14.29	0.430	0.473		
			21350	2560	1	49	14.7	14.18				1.45<
			21350	2560	1	99	14.7	14.08				1.45<
Rear	0	QPSK	20850	2510	1	99	14.7	14.24				
			20850	2510	1	0	14.7	14.17				1.45<
			20850	2510	1	49	14.7	14.14				1.45<
			21100	2535	1	0	14.7	14.20				
			21100	2535	1	49	14.7	14.13				1.45<
			21100	2535	1	99	14.7	14.12				1.45<
			21350	2560	1	0	14.7	14.29	0.308	0.338		
			21350	2560	1	49	14.7	14.18				1.45<
			21350	2560	1	99	14.7	14.08				1.45<
			20850	2510	50	49	14.7	14.16				
			20850	2510	50	0	14.7	14.10				1.45<
			20850	2510	50	24	14.7	14.09				1.45<
			21100	2535	50	24	14.7	14.11				
			21100	2535	50	49	14.7	14.11				1.45<
			21100	2535	50	0	14.7	14.07				1.45<
			21350	2560	50	24	14.7	14.19	0.299	0.336		
			21350	2560	50	0	14.7	14.18				1.45<
			21350	2560	50	49	14.7	14.16				1.45<
			20850	2510	100	0	14.7	14.21				
			21350	2560	100	0	14.7	14.15				1.45<
			21100	2535	100	0	14.7	14.11				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	28	QPSK	20850	2510	1	99	23.0	22.65				
			20850	2510	1	0	23.0	22.55				1.45<
			20850	2510	1	49	23.0	22.50				1.45<
			21100	2535	1	0	23.0	22.60				
			21100	2535	1	99	23.0	22.52				1.45<
			21100	2535	1	49	23.0	22.51				1.45<
			21350	2560	1	0	23.0	22.70	0.292	0.313		
			21350	2560	1	49	23.0	22.66				1.45<
			21350	2560	1	99	23.0	22.50				1.45<
			20850	2510	50	49	22.0	21.62	0.232	0.253		
			20850	2510	50	24	22.0	21.53				1.45<
			20850	2510	50	0	22.0	21.44				1.45<
			21100	2535	50	49	22.0	21.53				
			21100	2535	50	0	22.0	21.50				1.45<
			21100	2535	50	24	22.0	21.50				1.45<
			21350	2560	50	0	22.0	21.61				
			21350	2560	50	49	22.0	21.60				1.45<
			21350	2560	50	24	22.0	21.59				1.45<
			20850	2510	100	0	22.0	21.61				
			21350	2560	100	0	22.0	21.60				1.45<
			21100	2535	100	0	22.0	21.56				1.45<
Edge 2	0	QPSK	20850	2510	1	99	23.0	22.65				
			20850	2510	1	0	23.0	22.55				1.45<
			20850	2510	1	49	23.0	22.50				1.45<
			21100	2535	1	0	23.0	22.60				
			21100	2535	1	99	23.0	22.52				1.45<
			21100	2535	1	49	23.0	22.51				1.45<
			21350	2560	1	0	23.0	22.70	0.062	0.066		
			21350	2560	1	49	23.0	22.66				1.45<
			21350	2560	1	99	23.0	22.50				1.45<
			20850	2510	50	49	22.0	21.62	0.035	0.038		
			20850	2510	50	24	22.0	21.53				1.45<
			20850	2510	50	0	22.0	21.44				1.45<
			21100	2535	50	49	22.0	21.53				
			21100	2535	50	0	22.0	21.50				1.45<
			21100	2535	50	24	22.0	21.50				1.45<
			21350	2560	50	0	22.0	21.61				
			21350	2560	50	49	22.0	21.60				1.45<
			21350	2560	50	24	22.0	21.59				1.45<
			20850	2510	100	0	22.0	21.61				
			21350	2560	100	0	22.0	21.60				1.45<
			21100	2535	100	0	22.0	21.56				1.45<
Edge 3	0	QPSK	20850	2510	1	99	23.0	22.65				
			20850	2510	1	0	23.0	22.55				1.45<
			20850	2510	1	49	23.0	22.50				1.45<
			21100	2535	1	0	23.0	22.60				
			21100	2535	1	99	23.0	22.52				1.45<
			21100	2535	1	49	23.0	22.51				1.45<
			21350	2560	1	0	23.0	22.70	0.014	0.015		
			21350	2560	1	49	23.0	22.66				1.45<
			21350	2560	1	99	23.0	22.50				1.45<
			20850	2510	50	49	22.0	21.62	0.008	0.009		
			20850	2510	50	24	22.0	21.53				1.45<
			20850	2510	50	0	22.0	21.44				1.45<
			21100	2535	50	49	22.0	21.53				
			21100	2535	50	0	22.0	21.50				1.45<
			21100	2535	50	24	22.0	21.50				1.45<
			21350	2560	50	0	22.0	21.61				
			21350	2560	50	49	22.0	21.60				1.45<
			21350	2560	50	24	22.0	21.59				1.45<
			20850	2510	100	0	22.0	21.61				
			21350	2560	100	0	22.0	21.60				1.45<
			21100	2535	100	0	22.0	21.56				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 4	0	QPSK	20850	2510	1	99	23.0	22.65	0.960	1.041		
			20850	2510	1	0	23.0	22.55				1.45<
			20850	2510	1	49	23.0	22.50				1.45<
			21100	2535	1	0	23.0	22.60	1.010	**1.107**	14	
			21100	2535	1	99	23.0	22.52				1.45<
			21100	2535	1	49	23.0	22.51				1.45<
			21350	2560	1	0	23.0	22.70	0.957	1.025		
			21350	2560	1	49	23.0	22.66				1.45<
			21350	2560	1	99	23.0	22.50				1.45<
			20850	2510	50	49	22.0	21.62	0.754	0.823		
			20850	2510	50	24	22.0	21.53				1.45<
			20850	2510	50	0	22.0	21.44				1.45<
			21100	2535	50	49	22.0	21.53	0.841	0.937		
			21100	2535	50	0	22.0	21.50				1.45<
			21100	2535	50	24	22.0	21.50				1.45<
			21350	2560	50	0	22.0	21.61	0.805	0.881		
			21350	2560	50	49	22.0	21.60				1.45<
			21350	2560	50	24	22.0	21.59				1.45<
			20850	2510	100	0	22.0	21.61	0.723	0.791		
			21350	2560	100	0	22.0	21.60				1.45<
			21100	2535	100	0	22.0	21.56				1.45<
Rear	20	QPSK	20850	2510	1	99	23.0	22.65				
			20850	2510	1	0	23.0	22.55				1.45<
			20850	2510	1	49	23.0	22.50				1.45<
			21100	2535	1	0	23.0	22.60				
			21100	2535	1	99	23.0	22.52				1.45<
			21100	2535	1	49	23.0	22.51				1.45<
			21350	2560	1	0	23.0	22.70	0.255	0.273		
			21350	2560	1	49	23.0	22.66				1.45<
			21350	2560	1	99	23.0	22.50				1.45<
			20850	2510	50	49	22.0	21.62	0.222	0.242		
			20850	2510	50	24	22.0	21.53				1.45<
			20850	2510	50	0	22.0	21.44				1.45<
			21100	2535	50	49	22.0	21.53				
			21100	2535	50	0	22.0	21.50				1.45<
			21100	2535	50	24	22.0	21.50				1.45<
			21350	2560	50	0	22.0	21.61				
			21350	2560	50	49	22.0	21.60				1.45<
			21350	2560	50	24	22.0	21.59				1.45<
			20850	2510	100	0	22.0	21.61				
			21350	2560	100	0	22.0	21.60				1.45<
			21100	2535	100	0	22.0	21.56				1.45<

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10.8. LTE Band 12

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	0	QPSK	23060	704	1	0	20.2	19.67	0.732	0.827		
			23060	704	1	49	20.2	19.63				1.45<
			23060	704	1	24	20.2	19.57				1.45<
Edge 1 Convertible	0	QPSK	23060	704	1	0	20.2	19.67	1.090	1.231		
			23060	704	1	49	20.2	19.63				1.45<
			23060	704	1	24	20.2	19.57				1.45<
			23095	707.5	1	24	20.2	19.66	1.030	1.166		
			23095	707.5	1	49	20.2	19.62				1.45<
			23095	707.5	1	0	20.2	19.61				1.45<
			23130	711	1	0	20.2	19.61	1.030	1.180		
			23130	711	1	24	20.2	19.55				1.45<
			23130	711	1	49	20.2	19.54				1.45<
			23060	704	25	12	20.2	19.64	1.090	**1.240**	15	
			23060	704	25	0	20.2	19.63				1.45<
			23060	704	25	24	20.2	19.58				1.45<
			23095	707.5	25	12	20.2	19.69	1.090	1.226		
			23095	707.5	25	24	20.2	19.64				1.45<
			23095	707.5	25	0	20.2	19.61				1.45<
			23130	711	25	0	20.2	19.56	1.060	1.228		
			23130	711	25	12	20.2	19.55				1.45<
			23130	711	25	24	20.2	19.51				1.45<
			23095	707.5	50	0	20.2	19.68	1.100	1.240		
			23060	704	50	0	20.2	19.59				1.45<
			23130	711	50	0	20.2	19.50				1.45<
Rear	0	QPSK	23060	704	1	0	20.2	19.67	0.769	0.869		
			23060	704	1	49	20.2	19.63				1.45<
			23060	704	1	24	20.2	19.57				1.45<
			23095	707.5	1	24	20.2	19.66	0.796	0.901		
			23095	707.5	1	49	20.2	19.62				1.45<
			23095	707.5	1	0	20.2	19.61				1.45<
			23130	711	1	0	20.2	19.61	0.807	0.924		
			23130	711	1	24	20.2	19.55				1.45<
			23130	711	1	49	20.2	19.54				1.45<
			23060	704	25	12	20.2	19.64	0.813	0.925		
			23060	704	25	0	20.2	19.63				1.45<
			23060	704	25	24	20.2	19.58				1.45<
			23095	707.5	25	12	20.2	19.69	0.839	0.944		
			23095	707.5	25	24	20.2	19.64				1.45<
			23095	707.5	25	0	20.2	19.61				1.45<
			23130	711	25	0	20.2	19.56	0.821	0.951		
			23130	711	25	12	20.2	19.55				1.45<
			23130	711	25	24	20.2	19.51				1.45<
			23095	707.5	50	0	20.2	19.68	0.834	0.940		
			23060	704	50	0	20.2	19.59				1.45<
			23130	711	50	0	20.2	19.50				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1 Convertible	28	QPSK	23060	704	1	49	24.0	23.08	0.052	0.064		
			23060	704	1	0	24.0	23.07				1.45<
			23060	704	1	24	24.0	23.00				1.45<
			23095	707.5	1	24	24.0	23.07				
			23095	707.5	1	0	24.0	23.06				1.45<
			23095	707.5	1	49	24.0	23.04				1.45<
			23130	711	1	49	24.0	23.03				
			23130	711	1	0	24.0	23.01				1.45<
			23130	711	1	24	24.0	22.95				1.45<
			23060	704	25	0	23.0	22.11	0.038	0.047		
			23060	704	25	12	23.0	22.10				1.45<
			23060	704	25	24	23.0	22.06				1.45<
			23095	707.5	25	12	23.0	22.17				
			23095	707.5	25	24	23.0	22.11				1.45<
			23095	707.5	25	0	23.0	22.10				1.45<
			23130	711	25	0	23.0	22.05				
			23130	711	25	12	23.0	22.00				1.45<
			23130	711	25	24	23.0	21.99				1.45<
			23095	707.5	50	0	23.0	22.15				
			23060	704	50	0	23.0	22.10				1.45<
			23130	711	50	0	23.0	22.05				1.45<
Edge 2	0	QPSK	23060	704	1	49	24.0	23.08	0.049	0.061		
			23060	704	1	0	24.0	23.07				1.45<
			23060	704	1	24	24.0	23.00				1.45<
			23095	707.5	1	24	24.0	23.07				
			23095	707.5	1	0	24.0	23.06				1.45<
			23095	707.5	1	49	24.0	23.04				1.45<
			23130	711	1	49	24.0	23.03				
			23130	711	1	0	24.0	23.01				1.45<
			23130	711	1	24	24.0	22.95				1.45<
			23060	704	25	0	23.0	22.11	0.035	0.043		
			23060	704	25	12	23.0	22.10				1.45<
			23060	704	25	24	23.0	22.06				1.45<
			23095	707.5	25	12	23.0	22.17				
			23095	707.5	25	24	23.0	22.11				1.45<
			23095	707.5	25	0	23.0	22.10				1.45<
			23130	711	25	0	23.0	22.05				
			23130	711	25	12	23.0	22.00				1.45<
			23130	711	25	24	23.0	21.99				1.45<
			23095	707.5	50	0	23.0	22.15				
			23060	704	50	0	23.0	22.10				1.45<
			23130	711	50	0	23.0	22.05				1.45<
Edge 3	0	QPSK	23060	704	1	49	24.0	23.08	0.019	0.023		
			23060	704	1	0	24.0	23.07				1.45<
			23060	704	1	24	24.0	23.00				1.45<
			23095	707.5	1	24	24.0	23.07				
			23095	707.5	1	0	24.0	23.06				1.45<
			23095	707.5	1	49	24.0	23.04				1.45<
			23130	711	1	49	24.0	23.03				
			23130	711	1	0	24.0	23.01				1.45<
			23130	711	1	24	24.0	22.95				1.45<
			23060	704	25	0	23.0	22.11	0.010	0.012		
			23060	704	25	12	23.0	22.10				1.45<
			23060	704	25	24	23.0	22.06				1.45<
			23095	707.5	25	12	23.0	22.17				
			23095	707.5	25	24	23.0	22.11				1.45<
			23095	707.5	25	0	23.0	22.10				1.45<
			23130	711	25	0	23.0	22.05				
			23130	711	25	12	23.0	22.00				1.45<
			23130	711	25	24	23.0	21.99				1.45<
			23095	707.5	50	0	23.0	22.15				
			23060	704	50	0	23.0	22.10				1.45<
			23130	711	50	0	23.0	22.05				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 4	0	QPSK	23060	704	1	49	24.0	23.08	0.124	0.153		
			23060	704	1	0	24.0	23.07				1.45<
			23060	704	1	24	24.0	23.00				1.45<
			23095	707.5	1	24	24.0	23.07				
			23095	707.5	1	0	24.0	23.06				1.45<
			23095	707.5	1	49	24.0	23.04				1.45<
			23130	711	1	49	24.0	23.03				
			23130	711	1	0	24.0	23.01				1.45<
			23130	711	1	24	24.0	22.95				1.45<
			23060	704	25	0	23.0	22.11	0.106	0.130		
			23060	704	25	12	23.0	22.10				1.45<
			23060	704	25	24	23.0	22.06				1.45<
			23095	707.5	25	12	23.0	22.17				
			23095	707.5	25	24	23.0	22.11				1.45<
			23095	707.5	25	0	23.0	22.10				1.45<
			23130	711	25	0	23.0	22.05				
			23130	711	25	12	23.0	22.00				1.45<
			23130	711	25	24	23.0	21.99				1.45<
			23095	707.5	50	0	23.0	22.15				
			23060	704	50	0	23.0	22.10				1.45<
			23130	711	50	0	23.0	22.05				1.45<
Rear	20	QPSK	23060	704	1	49	24.0	23.08	0.127	0.157	16	
			23060	704	1	0	24.0	23.07				1.45<
			23060	704	1	24	24.0	23.00				1.45<
			23095	707.5	1	24	24.0	23.07				
			23095	707.5	1	0	24.0	23.06				1.45<
			23095	707.5	1	49	24.0	23.04				1.45<
			23130	711	1	49	24.0	23.03				
			23130	711	1	0	24.0	23.01				1.45<
			23130	711	1	24	24.0	22.95				1.45<
			23060	704	25	0	23.0	22.11	0.100	0.123		
			23060	704	25	12	23.0	22.10				1.45<
			23060	704	25	24	23.0	22.06				1.45<
			23095	707.5	25	12	23.0	22.17				
			23095	707.5	25	24	23.0	22.11				1.45<
			23095	707.5	25	0	23.0	22.10				1.45<
			23130	711	25	0	23.0	22.05				
			23130	711	25	12	23.0	22.00				1.45<
			23130	711	25	24	23.0	21.99				1.45<
			23095	707.5	50	0	23.0	22.15				
			23060	704	50	0	23.0	22.10				1.45<
			23130	711	50	0	23.0	22.05				1.45<

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10.9. LTE Band 13

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	0	QPSK	23230	782	1	0	19.0	18.69	0.773	0.830		
			23230	782	1	24	19.0	18.63				1.45<
			23230	782	1	49	19.0	18.56				1.45<
Edge 1 Convertible	0	QPSK	23230	782	1	0	19.0	18.69	0.812	**0.872**	17	
			23230	782	1	24	19.0	18.63				1.45<
			23230	782	1	49	19.0	18.56				1.45<
			23230	782	25	0	19.0	18.66	0.792	0.856		
			23230	782	25	24	19.0	18.65				1.45<
			23230	782	25	12	19.0	18.64				1.45<
			23230	782	50	0	19.0	18.61	0.770	0.842		
Rear	0	QPSK	23230	782	1	0	19.0	18.69	0.704	0.756		
			23230	782	1	24	19.0	18.63				1.45<
			23230	782	1	49	19.0	18.56				1.45<
			23230	782	25	0	19.0	18.66	0.710	0.768		
			23230	782	25	24	19.0	18.65				1.45<
			23230	782	25	12	19.0	18.64				1.45<
			23230	782	50	0	19.0	18.61				

Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1 Convertible	28	QPSK	23230	782	1	0	24.0	23.13	0.121	0.148		
			23230	782	1	24	24.0	23.12				1.45<
			23230	782	1	49	24.0	23.01				1.45<
			23230	782	25	12	23.0	22.11	0.092	0.113		
			23230	782	25	0	23.0	22.08				1.45<
			23230	782	25	24	23.0	22.05				1.45<
			23230	782	50	0	23.0	22.10				
Edge 2	0	QPSK	23230	782	1	0	24.0	23.13	0.050	0.061		
			23230	782	1	24	24.0	23.12				1.45<
			23230	782	1	49	24.0	23.01				1.45<
			23230	782	25	12	23.0	22.11	0.024	0.029		
			23230	782	25	0	23.0	22.08				1.45<
			23230	782	25	24	23.0	22.05				1.45<
			23230	782	50	0	23.0	22.10				
Edge 3	0	QPSK	23230	782	1	0	24.0	23.13	0.035	0.043		
			23230	782	1	24	24.0	23.12				1.45<
			23230	782	1	49	24.0	23.01				1.45<
			23230	782	25	12	23.0	22.11	0.025	0.031		
			23230	782	25	0	23.0	22.08				1.45<
			23230	782	25	24	23.0	22.05				1.45<
			23230	782	50	0	23.0	22.10				
Edge 4	0	QPSK	23230	782	1	0	24.0	23.13	0.305	0.373	18	
			23230	782	1	24	24.0	23.12				1.45<
			23230	782	1	49	24.0	23.01				1.45<
			23230	782	25	12	23.0	22.11	0.251	0.308		
			23230	782	25	0	23.0	22.08				1.45<
			23230	782	25	24	23.0	22.05				1.45<
			23230	782	50	0	23.0	22.10				
Rear	20	QPSK	23230	782	1	0	24.0	23.13	0.228	0.279		
			23230	782	1	24	24.0	23.12				1.45<
			23230	782	1	49	24.0	23.01				1.45<
			23230	782	25	12	23.0	22.11	0.183	0.225		
			23230	782	25	0	23.0	22.08				1.45<
			23230	782	25	24	23.0	22.05				1.45<
			23230	782	50	0	23.0	22.10				

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10.10.LTE Band 14

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	0	QPSK	23330	793	1	49	19.6	19.21	0.879	0.962		
			23330	793	1	0	19.6	19.16				1.45<
			23330	793	1	24	19.6	19.12				1.45<
			23330	793	25	0	19.6	19.08	0.915	**1.031**	19	
			23330	793	25	12	19.6	19.07				1.45<
			23330	793	25	24	19.6	19.06				1.45<
			23330	793	50	0	19.6	19.18	0.907	0.999		
Edge 1 Convertible	0	QPSK	23330	793	1	49	19.6	19.21	0.878	0.960		
			23330	793	1	0	19.6	19.16				1.45<
			23330	793	1	24	19.6	19.12				1.45<
Rear	0	QPSK	23330	793	1	49	19.6	19.21	0.722	0.790		
			23330	793	1	0	19.6	19.16				1.45<
			23330	793	1	24	19.6	19.12				1.45<
			23330	793	25	0	19.6	19.08	0.753	0.849		
			23330	793	25	12	19.6	19.07				1.45<
			23330	793	25	24	19.6	19.06				1.45<
			23330	793	50	0	19.6	19.18	0.765	0.843		

Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	28	QPSK	23330	793	1	49	24.0	23.20	0.127	0.153		
			23330	793	1	0	24.0	23.14				1.45<
			23330	793	1	24	24.0	23.11				1.45<
			23330	793	25	12	23.0	22.05	0.097	0.121		
			23330	793	25	0	23.0	22.04				1.45<
			23330	793	25	24	23.0	22.03				1.45<
			23330	793	50	0	23.0	22.04				
Edge 2	0	QPSK	23330	793	1	49	24.0	23.20	0.057	0.069		
			23330	793	1	0	24.0	23.14				1.45<
			23330	793	1	24	24.0	23.11				1.45<
			23330	793	25	12	23.0	22.05	0.058	0.072		
			23330	793	25	0	23.0	22.04				1.45<
			23330	793	25	24	23.0	22.03				1.45<
			23330	793	50	0	23.0	22.04				
Edge 3	0	QPSK	23330	793	1	49	24.0	23.20	0.030	0.036		
			23330	793	1	0	24.0	23.14				1.45<
			23330	793	1	24	24.0	23.11				1.45<
			23330	793	25	12	23.0	22.05	0.025	0.031		
			23330	793	25	0	23.0	22.04				1.45<
			23330	793	25	24	23.0	22.03				1.45<
			23330	793	50	0	23.0	22.04				
Edge 4	0	QPSK	23330	793	1	49	24.0	23.20	0.286	0.344	20	
			23330	793	1	0	24.0	23.14				1.45<
			23330	793	1	24	24.0	23.11				1.45<
			23330	793	25	12	23.0	22.05	0.228	0.284		
			23330	793	25	0	23.0	22.04				1.45<
			23330	793	25	24	23.0	22.03				1.45<
			23330	793	50	0	23.0	22.04				
Rear	20	QPSK	23330	793	1	49	24.0	23.20	0.234	0.281		
			23330	793	1	0	24.0	23.14				1.45<
			23330	793	1	24	24.0	23.11				1.45<
			23330	793	25	12	23.0	22.05	0.188	0.234		
			23330	793	25	0	23.0	22.04				1.45<
			23330	793	25	24	23.0	22.03				1.45<
			23330	793	50	0	23.0	22.04				

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10.11.LTE Band 26

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	0	QPSK	26765	821.5	1	74	19.2	18.78	0.852	0.939		
			26765	821.5	1	0	19.2	18.77				1.45<
			26765	821.5	1	37	19.2	18.74				1.45<
			26865	831.5	1	0	19.2	18.77	0.917	1.012		
			26865	831.5	1	37	19.2	18.75				1.45<
			26865	831.5	1	74	19.2	18.71				1.45<
			26965	841.5	1	0	19.2	18.81	0.927	1.014		
			26965	841.5	1	37	19.2	18.64				1.45<
			26965	841.5	1	74	19.2	18.53				1.45<
			26765	821.5	36	19	19.2	18.84	0.875	0.951		
			26765	821.5	36	39	19.2	18.75				1.45<
			26765	821.5	36	0	19.2	18.73				1.45<
			26865	831.5	36	0	19.2	18.83	0.906	0.987		
			26865	831.5	36	19	19.2	18.83				1.45<
			26865	831.5	36	39	19.2	18.77				1.45<
			26965	841.5	36	19	19.2	18.76	0.917	**1.015**	21	
			26965	841.5	36	0	19.2	18.74				1.45<
			26965	841.5	36	39	19.2	18.68				1.45<
			26865	831.5	75	0	19.2	18.78	0.918	1.011		
			26765	821.5	75	0	19.2	18.77				1.45<
			26965	841.5	75	0	19.2	18.66				1.45<
Edge 1 Convertible	0	QPSK	26965	841.5	1	0	19.2	18.81	0.749	0.819		
			26965	841.5	1	37	19.2	18.64				1.45<
			26965	841.5	1	74	19.2	18.53				1.45<
Rear	0	QPSK	26765	821.5	1	74	19.2	18.78				
			26765	821.5	1	0	19.2	18.77				1.45<
			26765	821.5	1	37	19.2	18.74				1.45<
			26865	831.5	1	0	19.2	18.77				
			26865	831.5	1	37	19.2	18.75				1.45<
			26865	831.5	1	74	19.2	18.71				1.45<
			26965	841.5	1	0	19.2	18.81	0.591	0.647		
			26965	841.5	1	37	19.2	18.64				1.45<
			26965	841.5	1	74	19.2	18.53				1.45<
			26765	821.5	36	19	19.2	18.84	0.643	0.699		
			26765	821.5	36	39	19.2	18.75				1.45<
			26765	821.5	36	0	19.2	18.73				1.45<
			26865	831.5	36	0	19.2	18.83				
			26865	831.5	36	19	19.2	18.83				1.45<
			26865	831.5	36	39	19.2	18.77				1.45<
			26965	841.5	36	19	19.2	18.76				
			26965	841.5	36	0	19.2	18.74				1.45<
			26965	841.5	36	39	19.2	18.68				1.45<
			26865	831.5	75	0	19.2	18.78				
			26765	821.5	75	0	19.2	18.77				1.45<
			26965	841.5	75	0	19.2	18.66				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	28	QPSK	26765	821.5	1	74	24.0	23.22				
			26765	821.5	1	37	24.0	23.17				1.45<
			26765	821.5	1	0	24.0	23.16				1.45<
			26865	831.5	1	37	24.0	23.20				
			26865	831.5	1	0	24.0	23.18				1.45<
			26865	831.5	1	74	24.0	23.13				1.45<
			26965	841.5	1	0	24.0	23.27	0.144	0.170		
			26965	841.5	1	37	24.0	23.04				1.45<
			26965	841.5	1	74	24.0	22.95				1.45<
			26765	821.5	36	19	23.0	22.21				
			26765	821.5	36	0	23.0	22.13				1.45<
			26765	821.5	36	39	23.0	22.12				1.45<
			26865	831.5	36	0	23.0	22.25	0.113	0.134		
			26865	831.5	36	19	23.0	22.24				1.45<
			26865	831.5	36	39	23.0	22.18				1.45<
			26965	841.5	36	0	23.0	22.21				
			26965	841.5	36	19	23.0	22.20				1.45<
			26965	841.5	36	39	23.0	22.15				1.45<
			26865	831.5	75	0	23.0	22.23				
			26965	841.5	75	0	23.0	22.20				1.45<
			26765	821.5	75	0	23.0	22.18				1.45<
Edge 2	0	QPSK	26765	821.5	1	74	24.0	23.22				
			26765	821.5	1	37	24.0	23.17				1.45<
			26765	821.5	1	0	24.0	23.16				1.45<
			26865	831.5	1	37	24.0	23.20				
			26865	831.5	1	0	24.0	23.18				1.45<
			26865	831.5	1	74	24.0	23.13				1.45<
			26965	841.5	1	0	24.0	23.27	0.064	0.075		
			26965	841.5	1	37	24.0	23.04				1.45<
			26965	841.5	1	74	24.0	22.95				1.45<
			26765	821.5	36	19	23.0	22.21				
			26765	821.5	36	0	23.0	22.13				1.45<
			26765	821.5	36	39	23.0	22.12				1.45<
			26865	831.5	36	0	23.0	22.25	0.054	0.065		
			26865	831.5	36	19	23.0	22.24				1.45<
			26865	831.5	36	39	23.0	22.18				1.45<
			26965	841.5	36	0	23.0	22.21				
			26965	841.5	36	19	23.0	22.20				1.45<
			26965	841.5	36	39	23.0	22.15				1.45<
			26865	831.5	75	0	23.0	22.23				
			26965	841.5	75	0	23.0	22.20				1.45<
			26765	821.5	75	0	23.0	22.18				1.45<
Edge 3	0	QPSK	26765	821.5	1	74	24.0	23.22				
			26765	821.5	1	37	24.0	23.17				1.45<
			26765	821.5	1	0	24.0	23.16				1.45<
			26865	831.5	1	37	24.0	23.20				
			26865	831.5	1	0	24.0	23.18				1.45<
			26865	831.5	1	74	24.0	23.13				1.45<
			26965	841.5	1	0	24.0	23.27	0.040	0.048		
			26965	841.5	1	37	24.0	23.04				1.45<
			26965	841.5	1	74	24.0	22.95				1.45<
			26765	821.5	36	19	23.0	22.21				
			26765	821.5	36	0	23.0	22.13				1.45<
			26765	821.5	36	39	23.0	22.12				1.45<
			26865	831.5	36	0	23.0	22.25	0.038	0.045		
			26865	831.5	36	19	23.0	22.24				1.45<
			26865	831.5	36	39	23.0	22.18				1.45<
			26965	841.5	36	0	23.0	22.21				
			26965	841.5	36	19	23.0	22.20				1.45<
			26965	841.5	36	39	23.0	22.15				1.45<
			26865	831.5	75	0	23.0	22.23				
			26965	841.5	75	0	23.0	22.20				1.45<
			26765	821.5	75	0	23.0	22.18				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 4	0	QPSK	26765	821.5	1	74	24.0	23.22				
			26765	821.5	1	37	24.0	23.17				1.45<
			26765	821.5	1	0	24.0	23.16				1.45<
			26865	831.5	1	37	24.0	23.20				
			26865	831.5	1	0	24.0	23.18				1.45<
			26865	831.5	1	74	24.0	23.13				1.45<
			26965	841.5	1	0	24.0	23.27	0.237	0.280	22	
			26965	841.5	1	37	24.0	23.04				1.45<
			26965	841.5	1	74	24.0	22.95				1.45<
			26765	821.5	36	19	23.0	22.21				
			26765	821.5	36	0	23.0	22.13				1.45<
			26765	821.5	36	39	23.0	22.12				1.45<
			26865	831.5	36	0	23.0	22.25	0.203	0.241		
			26865	831.5	36	19	23.0	22.24				1.45<
			26865	831.5	36	39	23.0	22.18				1.45<
			26965	841.5	36	0	23.0	22.21				
			26965	841.5	36	19	23.0	22.20				1.45<
			26965	841.5	36	39	23.0	22.15				1.45<
			26865	831.5	75	0	23.0	22.23				
			26965	841.5	75	0	23.0	22.20				1.45<
			26765	821.5	75	0	23.0	22.18				1.45<
Rear	20	QPSK	26765	821.5	1	74	24.0	23.22				
			26765	821.5	1	37	24.0	23.17				1.45<
			26765	821.5	1	0	24.0	23.16				1.45<
			26865	831.5	1	37	24.0	23.20				
			26865	831.5	1	0	24.0	23.18				1.45<
			26865	831.5	1	74	24.0	23.13				1.45<
			26965	841.5	1	0	24.0	23.27	0.230	0.272		
			26965	841.5	1	37	24.0	23.04				1.45<
			26965	841.5	1	74	24.0	22.95				1.45<
			26765	821.5	36	19	23.0	22.21				
			26765	821.5	36	0	23.0	22.13				1.45<
			26765	821.5	36	39	23.0	22.12				1.45<
			26865	831.5	36	0	23.0	22.25	0.198	0.235		
			26865	831.5	36	19	23.0	22.24				1.45<
			26865	831.5	36	39	23.0	22.18				1.45<
			26965	841.5	36	0	23.0	22.21				
			26965	841.5	36	19	23.0	22.20				1.45<
			26965	841.5	36	39	23.0	22.15				1.45<
			26865	831.5	75	0	23.0	22.23				
			26965	841.5	75	0	23.0	22.20				1.45<
			26765	821.5	75	0	23.0	22.18				1.45<

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10.12.LTE Band 41

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge 1	0	QPSK	39750	2506	1	0	16.8	15.68	0.458	0.593		
			39750	2506	1	49	16.8	15.62				1.45<
			39750	2506	1	99	16.8	15.53				1.45<
			40185	2549.5	1	49	16.8	15.60	0.529	0.697		
			40185	2549.5	1	99	16.8	15.59				1.45<
			40185	2549.5	1	0	16.8	15.45				1.45<
			40620	2593	1	0	16.8	15.58	0.621	0.822		
			40620	2593	1	49	16.8	15.41				1.45<
			40620	2593	1	99	16.8	15.36				1.45<
			41055	2636.5	1	0	16.8	15.41	0.632	0.870		
			41055	2636.5	1	49	16.8	15.33				1.45<
			41055	2636.5	1	99	16.8	15.30				1.45<
			41490	2680	1	0	16.8	16.48	0.817	**0.879**	23	
			41490	2680	1	99	16.8	16.22				1.45<
			41490	2680	1	49	16.8	15.73				1.45<
			39750	2506	50	49	16.8	15.66	0.457	0.594		
			39750	2506	50	0	16.8	15.65				1.45<
			39750	2506	50	24	16.8	15.64				1.45<
			40185	2549.5	50	24	16.8	15.59				
			40185	2549.5	50	49	16.8	15.65				1.45<
			40185	2549.5	50	0	16.8	15.64				1.45<
			40620	2593	50	0	16.8	15.42				
			40620	2593	50	24	16.8	15.40				1.45<
			40620	2593	50	49	16.8	15.39				1.45<
			41055	2636.5	50	0	16.8	15.35				
			41055	2636.5	50	24	16.8	15.34				1.45<
			41055	2636.5	50	49	16.8	15.33				1.45<
			41490	2680	50	0	16.8	15.49				
			41490	2680	50	49	16.8	15.40				1.45<
			41490	2680	50	24	16.8	15.34				1.45<
			39750	2506	100	0	16.8	15.62	0.454	0.596		
			40185	2549.5	100	0	16.8	15.53				1.45<
			41490	2680	100	0	16.8	15.44				1.45<
			40620	2593	100	0	16.8	15.37				1.45<
			41055	2636.5	100	0	16.8	15.33				1.45<
Edge 1 Convertible	0	QPSK	41490	2680	1	0	16.8	16.48	0.539	0.580		
			41490	2680	1	99	16.8	16.22				1.45<
			41490	2680	1	49	16.8	15.73				1.45<
Rear	0	QPSK	39750	2506	1	0	16.8	15.68				
			39750	2506	1	49	16.8	15.62				1.45<
			39750	2506	1	99	16.8	15.53				1.45<
			40185	2549.5	1	49	16.8	15.60				
			40185	2549.5	1	99	16.8	15.59				1.45<
			40185	2549.5	1	0	16.8	15.45				1.45<
			40620	2593	1	0	16.8	15.58				
			40620	2593	1	49	16.8	15.41				1.45<
			40620	2593	1	99	16.8	15.36				1.45<
			41055	2636.5	1	0	16.8	15.41				
			41055	2636.5	1	49	16.8	15.33				1.45<
			41055	2636.5	1	99	16.8	15.30				1.45<
			41490	2680	1	0	16.8	16.48	0.316	0.340		
			41490	2680	1	99	16.8	16.22				1.45<
			41490	2680	1	49	16.8	15.73				1.45<
			39750	2506	50	49	16.8	15.66	0.215	0.280		
			39750	2506	50	0	16.8	15.65				1.45<
			39750	2506	50	24	16.8	15.64				1.45<
			40185	2549.5	50	24	16.8	15.59				
			40185	2549.5	50	49	16.8	15.65				1.45<
			40185	2549.5	50	0	16.8	15.64				1.45<
			40620	2593	50	0	16.8	15.42				
			40620	2593	50	24	16.8	15.40				1.45<
			40620	2593	50	49	16.8	15.39				1.45<
			41055	2636.5	50	0	16.8	15.35				
			41055	2636.5	50	24	16.8	15.34				1.45<
			41055	2636.5	50	49	16.8	15.33				1.45<
			41490	2680	50	0	16.8	15.49				
			41490	2680	50	49	16.8	15.40				1.45<
			41490	2680	50	24	16.8	15.34				1.45<
			39750	2506	100	0	16.8	15.62				
			40185	2549.5	100	0	16.8	15.53				1.45<
			41490	2680	100	0	16.8	15.44				1.45<
			40620	2593	100	0	16.8	15.37				1.45<
			41055	2636.5	100	0	16.8	15.33				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	28	QPSK	39750	2506	1	0	23.0	22.47				
			39750	2506	1	49	23.0	22.35				1.45<
			39750	2506	1	99	23.0	22.30				1.45<
			40185	2549.5	1	49	23.0	22.28				
			40185	2549.5	1	99	23.0	22.25				1.45<
			40185	2549.5	1	0	23.0	22.18				1.45<
			40620	2593	1	0	23.0	22.33				
			40620	2593	1	99	23.0	22.12				1.45<
			40620	2593	1	49	23.0	22.10				1.45<
			41055	2636.5	1	0	23.0	22.21				
			41055	2636.5	1	49	23.0	22.19				1.45<
			41055	2636.5	1	99	23.0	22.09				1.45<
			41490	2680	1	0	23.0	22.99	0.171	0.171		
			41490	2680	1	99	23.0	22.98				1.45<
			41490	2680	1	49	23.0	22.57				1.45<
			39750	2506	50	24	22.0	21.54				
			39750	2506	50	0	22.0	21.53				1.45<
			39750	2506	50	49	22.0	21.51				1.45<
			40185	2549.5	50	24	22.0	21.48				
			40185	2549.5	50	49	22.0	21.53				1.45<
			40185	2549.5	50	0	22.0	21.51				1.45<
			40620	2593	50	0	22.0	21.41				
			40620	2593	50	49	22.0	21.35				1.45<
			40620	2593	50	24	22.0	21.34				1.45<
			41055	2636.5	50	49	22.0	21.35				
			41055	2636.5	50	24	22.0	21.34				1.45<
			41055	2636.5	50	0	22.0	21.33				1.45<
			41490	2680	50	0	22.0	21.99	0.091	0.091		
			41490	2680	50	49	22.0	21.78				1.45<
			41490	2680	50	24	22.0	21.75				1.45<
			41490	2680	100	0	22.0	21.78				
			39750	2506	100	0	22.0	21.54				1.45<
			40185	2549.5	100	0	22.0	21.49				1.45<
			40620	2593	100	0	22.0	21.38				1.45<
			41055	2636.5	100	0	22.0	21.33				1.45<
Edge 2	0	QPSK	39750	2506	1	0	23.0	22.47				
			39750	2506	1	49	23.0	22.35				1.45<
			39750	2506	1	99	23.0	22.30				1.45<
			40185	2549.5	1	49	23.0	22.28				
			40185	2549.5	1	99	23.0	22.25				1.45<
			40185	2549.5	1	0	23.0	22.18				1.45<
			40620	2593	1	0	23.0	22.33				
			40620	2593	1	99	23.0	22.12				1.45<
			40620	2593	1	49	23.0	22.10				1.45<
			41055	2636.5	1	0	23.0	22.21				
			41055	2636.5	1	49	23.0	22.19				1.45<
			41055	2636.5	1	99	23.0	22.09				1.45<
			41490	2680	1	0	23.0	22.99	0.047	0.047		
			41490	2680	1	99	23.0	22.98				1.45<
			41490	2680	1	49	23.0	22.57				1.45<
			39750	2506	50	24	22.0	21.54				
			39750	2506	50	0	22.0	21.53				1.45<
			39750	2506	50	49	22.0	21.51				1.45<
			40185	2549.5	50	24	22.0	21.48				
			40185	2549.5	50	49	22.0	21.53				1.45<
			40185	2549.5	50	0	22.0	21.51				1.45<
			40620	2593	50	0	22.0	21.41				
			40620	2593	50	49	22.0	21.35				1.45<
			40620	2593	50	24	22.0	21.34				1.45<
			41055	2636.5	50	49	22.0	21.35				
			41055	2636.5	50	24	22.0	21.34				1.45<
			41055	2636.5	50	0	22.0	21.33				1.45<
			41490	2680	50	0	22.0	21.99	0.017	0.017		
			41490	2680	50	49	22.0	21.78				1.45<
			41490	2680	50	24	22.0	21.75				1.45<
			41490	2680	100	0	22.0	21.78				
			39750	2506	100	0	22.0	21.54				1.45<
			40185	2549.5	100	0	22.0	21.49				1.45<
			40620	2593	100	0	22.0	21.38				1.45<
			41055	2636.5	100	0	22.0	21.33				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 3	0	QPSK	39750	2506	1	0	23.0	22.47				
			39750	2506	1	49	23.0	22.35				1.45<
			39750	2506	1	99	23.0	22.30				1.45<
			40185	2549.5	1	49	23.0	22.28				
			40185	2549.5	1	99	23.0	22.25				1.45<
			40185	2549.5	1	0	23.0	22.18				1.45<
			40620	2593	1	0	23.0	22.33				
			40620	2593	1	99	23.0	22.12				1.45<
			40620	2593	1	49	23.0	22.10				1.45<
			41055	2636.5	1	0	23.0	22.21				
			41055	2636.5	1	49	23.0	22.19				1.45<
			41055	2636.5	1	99	23.0	22.09				1.45<
			41490	2680	1	0	23.0	22.99	0.021	0.021		
			41490	2680	1	99	23.0	22.98				1.45<
			41490	2680	1	49	23.0	22.57				1.45<
			39750	2506	50	24	22.0	21.54				
			39750	2506	50	0	22.0	21.53				1.45<
			39750	2506	50	49	22.0	21.51				1.45<
			40185	2549.5	50	24	22.0	21.48				
			40185	2549.5	50	49	22.0	21.53				1.45<
			40185	2549.5	50	0	22.0	21.51				1.45<
			40620	2593	50	0	22.0	21.41				
			40620	2593	50	49	22.0	21.35				1.45<
			40620	2593	50	24	22.0	21.34				1.45<
			41055	2636.5	50	49	22.0	21.35				
			41055	2636.5	50	24	22.0	21.34				1.45<
			41055	2636.5	50	0	22.0	21.33				1.45<
			41490	2680	50	0	22.0	21.99	0.005	0.005		
			41490	2680	50	49	22.0	21.78				1.45<
			41490	2680	50	24	22.0	21.75				1.45<
			41490	2680	100	0	22.0	21.78				
			39750	2506	100	0	22.0	21.54				1.45<
			40185	2549.5	100	0	22.0	21.49				1.45<
			40620	2593	100	0	22.0	21.38				1.45<
			41055	2636.5	100	0	22.0	21.33				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 4	0	QPSK	39750	2506	1	0	23.0	22.47				
			39750	2506	1	49	23.0	22.35				1.45<
			39750	2506	1	99	23.0	22.30				1.45<
			40185	2549.5	1	49	23.0	22.28				
			40185	2549.5	1	99	23.0	22.25				1.45<
			40185	2549.5	1	0	23.0	22.18				1.45<
			40620	2593	1	0	23.0	22.33				
			40620	2593	1	99	23.0	22.12				1.45<
			40620	2593	1	49	23.0	22.10				1.45<
			41055	2636.5	1	0	23.0	22.21				
			41055	2636.5	1	49	23.0	22.19				1.45<
			41055	2636.5	1	99	23.0	22.09				1.45<
			41490	2680	1	0	23.0	22.99	0.746	0.748	24	
			41490	2680	1	99	23.0	22.98				1.45<
			41490	2680	1	49	23.0	22.57				1.45<
			39750	2506	50	24	22.0	21.54				
			39750	2506	50	0	22.0	21.53				1.45<
			39750	2506	50	49	22.0	21.51				1.45<
			40185	2549.5	50	24	22.0	21.48				
			40185	2549.5	50	49	22.0	21.53				1.45<
			40185	2549.5	50	0	22.0	21.51				1.45<
			40620	2593	50	0	22.0	21.41				
			40620	2593	50	49	22.0	21.35				1.45<
			40620	2593	50	24	22.0	21.34				1.45<
			41055	2636.5	50	49	22.0	21.35				
			41055	2636.5	50	24	22.0	21.34				1.45<
			41055	2636.5	50	0	22.0	21.33				1.45<
			41490	2680	50	0	22.0	21.99	0.428	0.429		
			41490	2680	50	49	22.0	21.78				1.45<
			41490	2680	50	24	22.0	21.75				1.45<
			41490	2680	100	0	22.0	21.78				
			39750	2506	100	0	22.0	21.54				1.45<
			40185	2549.5	100	0	22.0	21.49				1.45<
			40620	2593	100	0	22.0	21.38				1.45<
			41055	2636.5	100	0	22.0	21.33				1.45<
Rear	20	QPSK	39750	2506	1	0	23.0	22.47				
			39750	2506	1	49	23.0	22.35				1.45<
			39750	2506	1	99	23.0	22.30				1.45<
			40185	2549.5	1	49	23.0	22.28				
			40185	2549.5	1	99	23.0	22.25				1.45<
			40185	2549.5	1	0	23.0	22.18				1.45<
			40620	2593	1	0	23.0	22.33				
			40620	2593	1	99	23.0	22.12				1.45<
			40620	2593	1	49	23.0	22.10				1.45<
			41055	2636.5	1	0	23.0	22.21				
			41055	2636.5	1	49	23.0	22.19				1.45<
			41055	2636.5	1	99	23.0	22.09				1.45<
			41490	2680	1	0	23.0	22.99	0.127	0.127		
			41490	2680	1	99	23.0	22.98				1.45<
			41490	2680	1	49	23.0	22.57				1.45<
			39750	2506	50	24	22.0	21.54				
			39750	2506	50	0	22.0	21.53				1.45<
			39750	2506	50	49	22.0	21.51				1.45<
			40185	2549.5	50	24	22.0	21.48				
			40185	2549.5	50	49	22.0	21.53				1.45<
			40185	2549.5	50	0	22.0	21.51				1.45<
			40620	2593	50	0	22.0	21.41				
			40620	2593	50	49	22.0	21.35				1.45<
			40620	2593	50	24	22.0	21.34				1.45<
			41055	2636.5	50	49	22.0	21.35				
			41055	2636.5	50	24	22.0	21.34				1.45<
			41055	2636.5	50	0	22.0	21.33				1.45<
			41490	2680	50	0	22.0	21.99	0.068	0.068		
			41490	2680	50	49	22.0	21.78				1.45<
			41490	2680	50	24	22.0	21.75				1.45<
			41490	2680	100	0	22.0	21.78				
			39750	2506	100	0	22.0	21.54				1.45<
			40185	2549.5	100	0	22.0	21.49				1.45<
			40620	2593	100	0	22.0	21.38				1.45<
			41055	2636.5	100	0	22.0	21.33				1.45<

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10.13.LTE Band 66

Reduction power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	0	QPSK	132072	1720	1	0	15.0	14.75	0.895	0.948		
			132072	1720	1	99	15.0	14.62				1.45<
			132072	1720	1	49	15.0	14.59				1.45<
			132322	1745	1	0	15.0	14.85	0.889	0.920		
			132322	1745	1	99	15.0	14.68				1.45<
			132322	1745	1	49	15.0	14.60				1.45<
			132572	1770	1	0	15.0	14.81	0.827	0.864		
			132572	1770	1	49	15.0	14.57				1.45<
			132572	1770	1	99	15.0	14.50				1.45<
			132072	1720	50	0	15.0	14.68	0.910	**0.980**	25	
			132072	1720	50	24	15.0	14.66				1.45<
			132072	1720	50	49	15.0	14.60				1.45<
			132322	1745	50	0	15.0	14.62	0.847	0.924		
			132322	1745	50	24	15.0	14.59				1.45<
			132322	1745	50	49	15.0	14.56				1.45<
			132572	1770	50	0	15.0	14.62	0.832	0.908		
			132572	1770	50	49	15.0	14.52				1.45<
			132572	1770	50	24	15.0	14.51				1.45<
			132072	1720	100	0	15.0	14.66	0.887	0.959		
			132322	1745	100	0	15.0	14.59				1.45<
			132572	1770	100	0	15.0	14.55				1.45<
Edge 1 Convertible	0	QPSK	132322	1745	1	0	15.0	14.85	0.821	0.850		
			132322	1745	1	99	15.0	14.68				1.45<
			132322	1745	1	49	15.0	14.60				1.45<
Rear	0	QPSK	132072	1720	1	0	15.0	14.75				
			132072	1720	1	99	15.0	14.62				1.45<
			132072	1720	1	49	15.0	14.59				1.45<
			132322	1745	1	0	15.0	14.85	0.354	0.366		
			132322	1745	1	99	15.0	14.68				1.45<
			132322	1745	1	49	15.0	14.60				1.45<
			132572	1770	1	0	15.0	14.81				
			132572	1770	1	49	15.0	14.57				1.45<
			132572	1770	1	99	15.0	14.50				1.45<
			132072	1720	50	0	15.0	14.68	0.338	0.364		
			132072	1720	50	24	15.0	14.66				1.45<
			132072	1720	50	49	15.0	14.60				1.45<
			132322	1745	50	0	15.0	14.62				
			132322	1745	50	24	15.0	14.59				1.45<
			132322	1745	50	49	15.0	14.56				1.45<
			132572	1770	50	0	15.0	14.62				
			132572	1770	50	49	15.0	14.52				1.45<
			132572	1770	50	24	15.0	14.51				1.45<
			132072	1720	100	0	15.0	14.66				
			132322	1745	100	0	15.0	14.59				1.45<
			132572	1770	100	0	15.0	14.55				1.45<

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Full power

Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas. Avg	Meas.	Scaled		
Edge 1	28	QPSK	132072	1720	1	0	24.0	23.19				
			132072	1720	1	49	24.0	23.02				1.45<
			132072	1720	1	99	24.0	23.00				1.45<
			132322	1745	1	0	24.0	23.28	0.320	0.378		
			132322	1745	1	99	24.0	23.04				1.45<
			132322	1745	1	49	24.0	22.98				1.45<
			132572	1770	1	0	24.0	23.14				
			132572	1770	1	49	24.0	22.93				1.45<
			132572	1770	1	99	24.0	22.87				1.45<
			132072	1720	50	24	23.0	22.11	0.251	0.308		
			132072	1720	50	0	23.0	22.10				1.45<
			132072	1720	50	49	23.0	22.04				1.45<
			132322	1745	50	0	23.0	22.05				
			132322	1745	50	24	23.0	22.02				1.45<
			132322	1745	50	49	23.0	21.98				1.45<
			132572	1770	50	0	23.0	22.00				
			132572	1770	50	24	23.0	21.94				1.45<
			132572	1770	50	49	23.0	21.92				1.45<
			132072	1720	100	0	23.0	22.10				
			132322	1745	100	0	23.0	22.01				1.45<
			132572	1770	100	0	23.0	21.97				1.45<
Edge 2	0	QPSK	132072	1720	1	0	24.0	23.19				
			132072	1720	1	49	24.0	23.02				1.45<
			132072	1720	1	99	24.0	23.00				1.45<
			132322	1745	1	0	24.0	23.28	0.019	0.022		
			132322	1745	1	99	24.0	23.04				1.45<
			132322	1745	1	49	24.0	22.98				1.45<
			132572	1770	1	0	24.0	23.14				
			132572	1770	1	49	24.0	22.93				1.45<
			132572	1770	1	99	24.0	22.87				1.45<
			132072	1720	50	24	23.0	22.11	0.016	0.019		
			132072	1720	50	0	23.0	22.10				1.45<
			132072	1720	50	49	23.0	22.04				1.45<
			132322	1745	50	0	23.0	22.05				
			132322	1745	50	24	23.0	22.02				1.45<
			132322	1745	50	49	23.0	21.98				1.45<
			132572	1770	50	0	23.0	22.00				
			132572	1770	50	24	23.0	21.94				1.45<
			132572	1770	50	49	23.0	21.92				1.45<
			132072	1720	100	0	23.0	22.10				
			132322	1745	100	0	23.0	22.01				1.45<
			132572	1770	100	0	23.0	21.97				1.45<
Edge 3	0	QPSK	132072	1720	1	0	24.0	23.19				
			132072	1720	1	49	24.0	23.02				1.45<
			132072	1720	1	99	24.0	23.00				1.45<
			132322	1745	1	0	24.0	23.28	0.062	0.074		
			132322	1745	1	99	24.0	23.04				1.45<
			132322	1745	1	49	24.0	22.98				1.45<
			132572	1770	1	0	24.0	23.14				
			132572	1770	1	49	24.0	22.93				1.45<
			132572	1770	1	99	24.0	22.87				1.45<
			132072	1720	50	24	23.0	22.11	0.055	0.067		
			132072	1720	50	0	23.0	22.10				1.45<
			132072	1720	50	49	23.0	22.04				1.45<
			132322	1745	50	0	23.0	22.05				
			132322	1745	50	24	23.0	22.02				1.45<
			132322	1745	50	49	23.0	21.98				1.45<
			132572	1770	50	0	23.0	22.00				
			132572	1770	50	24	23.0	21.94				1.45<
			132572	1770	50	49	23.0	21.92				1.45<
			132072	1720	100	0	23.0	22.10				
			132322	1745	100	0	23.0	22.01				1.45<
			132572	1770	100	0	23.0	21.97				1.45<

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Test Position	Dist. (mm)	Modu-lation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Tune-up limit	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	1-g SAR (W/kg) Scaled	Plot No.	Note
Edge4	0	QPSK	132072	1720	1	0	24.0	23.19				
			132072	1720	1	49	24.0	23.02				1.45<
			132072	1720	1	99	24.0	23.00				1.45<
			132322	1745	1	0	24.0	23.28	0.485	0.572		
			132322	1745	1	99	24.0	23.04				1.45<
			132322	1745	1	49	24.0	22.98				1.45<
			132572	1770	1	0	24.0	23.14				
			132572	1770	1	49	24.0	22.93				1.45<
			132572	1770	1	99	24.0	22.87				1.45<
			132072	1720	50	24	23.0	22.11	0.473	0.581	26	
			132072	1720	50	0	23.0	22.10				1.45<
			132072	1720	50	49	23.0	22.04				1.45<
			132322	1745	50	0	23.0	22.05				
			132322	1745	50	24	23.0	22.02				1.45<
			132322	1745	50	49	23.0	21.98				1.45<
			132572	1770	50	0	23.0	22.00				
			132572	1770	50	24	23.0	21.94				1.45<
			132572	1770	50	49	23.0	21.92				1.45<
			132072	1720	100	0	23.0	22.10				
			132322	1745	100	0	23.0	22.01				1.45<
			132572	1770	100	0	23.0	21.97				1.45<
Rear	20	QPSK	132072	1720	1	0	24.0	23.19				
			132072	1720	1	49	24.0	23.02				1.45<
			132072	1720	1	99	24.0	23.00				1.45<
			132322	1745	1	0	24.0	23.28	0.316	0.373		
			132322	1745	1	99	24.0	23.04				1.45<
			132322	1745	1	49	24.0	22.98				1.45<
			132572	1770	1	0	24.0	23.14				
			132572	1770	1	49	24.0	22.93				1.45<
			132572	1770	1	99	24.0	22.87				1.45<
			132072	1720	50	24	23.0	22.11	0.270	0.331		
			132072	1720	50	0	23.0	22.10				1.45<
			132072	1720	50	49	23.0	22.04				1.45<
			132322	1745	50	0	23.0	22.05				
			132322	1745	50	24	23.0	22.02				1.45<
			132322	1745	50	49	23.0	21.98				1.45<
			132572	1770	50	0	23.0	22.00				
			132572	1770	50	24	23.0	21.94				1.45<
			132572	1770	50	49	23.0	21.92				1.45<
			132072	1720	100	0	23.0	22.10				
			132322	1745	100	0	23.0	22.01				1.45<
			132572	1770	100	0	23.0	21.97				1.45<

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10.14. Summary of Highest SAR Values

Results for the highest scaled SAR values in each frequency band and mode

Technology/ Band	Test configuration				Mode	Freq. (MHz)	Power (dBm)	1g SAR (W/kg)
	Transmit Antenna	Exposure	Position	Dist. (mm)				
WCDMA/ Band 2	WWAN Main	Body	Edge1 convertible	0	RMC 12.2k	1880	16.2	1.243
WCDMA/ Band 4	WWAN Main	Body	Edge 1	0	RMC 12.2k	1712.4	14.64	0.999
WCDMA/ Band 5	WWAN Main	Body	Edge 1	0	RMC 12.2k	836.6	18.61	0.953
LTE/ Band 2	WWAN Main	Body	Edge1 convertible	0	QPSK	1900	15.23	1.237
LTE/ Band 4	WWAN Main	Body	Edge 1	0	QPSK	1720	14.34	0.862
LTE/ Band 5	WWAN Main	Body	Edge 1	0	QPSK	836.5	18.85	1.050
LTE/ Band 7	WWAN Main	Body	Edge 4	0	QPSK	2535	22.60	1.107
LTE/ Band 12	WWAN Main	Body	Edge1 convertible	0	QPSK	704	19.64	1.240
LTE/ Band 13	WWAN Main	Body	Edge1 convertible	0	QPSK	782	18.69	0.872
LTE/ Band 14	WWAN Main	Body	Edge 1	0	QPSK	793	19.08	1.031
LTE/ Band 26	WWAN Main	Body	Edge 1	0	QPSK	841.5	18.76	1.015
LTE/ Band 41	WWAN Main	Body	Edge 1	0	QPSK	2680	16.48	0.879
LTE/ Band 66	WWAN Main	Body	Edge 1	0	QPSK	1720	14.68	0.980

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11. SAR Measurement Variability

In accordance with published RF Exposure KDB 865664 D01 SAR measurement 100 MHz to 6 GHz. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is <0.8 or 2 W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.8 or 2 W/kg (1-g or 10-g respectively), 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 or 3.6 W/kg (~ 10% from the 1-g or 10-g respective SAR limit).
4) Perform a third repeated measurement only if the original, first, or second repeated measurement is ≥ 1.5 or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	First Repeated		Second Repeated		Third Repeated
						Measured SAR (W/kg)	Largest to Smallest SAR Ratio	Measured SAR (W/kg)	Largest to Smallest SAR Ratio	Measured SAR (W/kg)
700	LTE Band 12	Body	Edge 1	Yes	1.100	1.100	1.000	N/A	N/A	N/A
	LTE Band 13	Body	Edge 1	Yes	0.812	0.799	1.016	N/A	N/A	N/A
850	WCDMA Band V	Body	Edge 1	Yes	0.893	0.887	1.007	N/A	N/A	N/A
	LTE Band 5	Body	Edge 1	Yes	0.969	0.950	1.020	N/A	N/A	N/A
	LTE Band 14	Body	Edge 1	Yes	0.915	0.910	1.005	N/A	N/A	N/A
	LTE Band 26	Body	Edge 1	Yes	0.927	0.926	1.001	N/A	N/A	N/A
1700	WCDMA Band IV	Body	Edge 1	Yes	0.941	0.916	1.027	N/A	N/A	N/A
	LTE Band 4	Body	Edge 1	No	0.782	N/A	N/A	N/A	N/A	N/A
	LTE Band 66	Body	Edge 1	Yes	0.910	0.863	1.054	N/A	N/A	N/A
1900	WCDMA Band II	Body	Edge 1	Yes	1.160	1.020	1.137	N/A	N/A	N/A
	LTE Band 2	Body	Edge 1	Yes	1.060	1.060	1.000	N/A	N/A	N/A
2500	LTE Band 7	Body	Edge 4	Yes	1.010	1.010	1.000	N/A	N/A	N/A
2600	LTE Band 41	Body	Edge 1	Yes	0.817	0.816	1.001	N/A	N/A	N/A

Note(s):
Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is < 1.20.

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12. Simultaneous Transmission Conditions

RF Exposure Condition	Item	Capable Transmit Configurations				
Standalone	5	W-CDMA	+	WLAN2.4GHz(SISO)		
	6	W-CDMA	+	WLAN5GHz(SISO)		
	5	W-CDMA	+	WLAN2.4GHz(MIMO)		
	6	W-CDMA	+	WLAN5GHz(MIMO)		
	7	W-CDMA	+	BT		
	8	W-CDMA	+	WLAN2.4GHz(SISO)	+	BT
	8	W-CDMA	+	WLAN5GHz(SISO)	+	BT
	5	LTE	+	WLAN2.4GHz(SISO)		
	6	LTE	+	WLAN5GHz(SISO)		
	5	LTE	+	WLAN2.4GHz(MIMO)		
	6	LTE	+	WLAN5GHz(MIMO)		
	7	LTE	+	BT		
	8	LTE	+	WLAN2.4GHz(SISO)	+	BT
	8	LTE	+	WLAN5GHz(SISO)	+	BT

Notes:

All WLAN 1-g SAR values were taken from results recorded in SAR report for WLAN (11889834H-A-R1 submitted under FCC ID ACJ9TGWL16A or 11889834H-B-R1, submitted under IC Number 216H-CFWL16A).

12.1. Simultaneous transmission SAR test exclusion considerations

KDB 447498 D01 General RF Exposure Guidance provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR and SAR to Peak Location Ratio (SPLSR)

Sum of SAR

To qualify for simultaneous transmission SAR test exclusion based upon Sum of SAR the sum of the reported standalone SARs for all simultaneously transmitting antennas shall be below the applicable standalone SAR limit. If the sum of the SARs is above the applicable limit then simultaneous transmission SAR test exclusion may still apply if the requirements of the SAR to Peak Location Ratio (SPLSR) evaluation are met.

SAR to Peak Location Ratio (SPLSR)

KDB 447498 D01 General RF Exposure Guidance explains how to calculate the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

SAR_1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of

$$[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$$

In order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri \leq 0.04$$

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When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine SAR_1.or SAR_2. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

The antennas in all antenna pairs that do not qualify for simultaneous transmission SAR test exclusion must be tested for SAR compliance, according to the enlarged zoom scan and volume scan post-processing procedures in KDB Publication 865664 D01

Simultaneous transmission SAR measurement

When simultaneous transmission SAR measurements are required in different frequency bands not covered by a single probe calibration point then separate tests for each frequency band are performed. The tests are performed using enlarged zoom scans which are processed, by means of superposition, using the DASY5 volume scan post-processing procedures to determine the 1-g SAR for the aggregate SAR distribution.

The spatial resolution used for all enlarged zoom scans is the same as used for the most stringent zoom scans. I.E. the scan parameters required for the highest frequency assessed are used for all enlarged zoom scans. The scans cover the complete area of the device to ensure all transmitting antennas and radiating structures are assessed.

DASY5 provides the ability to perform Multiband Evaluations according to the latest standards using the Volume Scan job as well as appropriate routines for the Post-processing.

In order to extract and process measurements within different frequency bands, the SEMCAD X Post-processor performs the combination and subsequent superposition of these measurement data via DASY5= Combined MultiBand Averaged SAR.

Combined Multi Band Averaged SAR allows - in addition to the data extraction - an evaluation of the 1 g, 10 g and/or arbitrary averaged mass SAR.
Power Scaling Factor is used to allow the volume scans to be scaled by a value other than "1", this is important when the results need to be scaled to different maximum power levels. The Power Scaling Factor is applied to each individual point of the scan. When power scaling is used in multi-band combinations the scaling factor is applied to each individual point of the first scan, the second factor is then applied to each individual point of the second scan and so on. The scans are then combined.

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12.2. Sum of the SAR for WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

Sum of the SAR for WCDMA B2 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	WCDMA B2	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.566	0.017	0.003		0.586	
	0.566	0.017		0.000	0.583	
Edge1 Reduction	1.243	0.017	0.003		1.263	
	1.243	0.017		0.000	1.260	
Edge 2	0.034	>20cm	0.748		0.782	
	0.034	>20cm		0.269	0.303	
Edge 3	0.032	0.090	0.087		0.209	
	0.032	0.090		0.030	0.152	
Edge 4	0.150	0.662	>20cm		0.812	
	0.150	0.662		>20cm	0.812	
Rear	0.595	0.297	0.202		1.094	
	0.595	0.297		0.078	0.970	
Rear Reduction	1.064	0.297	0.202		1.563	
	1.064	0.297		0.078	1.439	

Sum of the SAR for WCDMA B4 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	WCDMA B4	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.442	0.017	0.003		0.462	
	0.442	0.017		0.000	0.459	
Edge1 Reduction	0.999	0.017	0.003		1.019	
	0.999	0.017		0.000	1.016	
Edge 2	0.016	>20cm	0.748		0.764	
	0.016	>20cm		0.269	0.285	
Edge 3	0.058	0.090	0.087		0.235	
	0.058	0.090		0.030	0.178	
Edge 4	0.639	0.662	>20cm		1.301	
	0.639	0.662		>20cm	1.301	
Rear	0.422	0.297	0.202		0.921	
	0.422	0.297		0.078	0.797	
Rear Reduction	0.394	0.297	0.202		0.893	
	0.394	0.297		0.078	0.769	

Sum of the SAR for WCDMA B5 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	WCDMA B5	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.159	0.017	0.003		0.179	
	0.159	0.017		0.000	0.176	
Edge1 Reduction	0.953	0.017	0.003		0.973	
	0.953	0.017		0.000	0.970	
Edge 2	0.058	>20cm	0.748		0.806	
	0.058	>20cm		0.269	0.327	
Edge 3	0.051	0.090	0.087		0.228	
	0.051	0.090		0.030	0.171	
Edge 4	0.345	0.662	>20cm		1.007	
	0.345	0.662		>20cm	1.007	
Rear	0.267	0.297	0.202		0.766	
	0.267	0.297		0.078	0.642	
Rear Reduction	0.570	0.297	0.202		1.069	
	0.570	0.297		0.078	0.945	

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Sum of the SAR for LTE B2 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B2	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.544	0.017	0.003		0.564	
	0.544	0.017		0.000	0.561	
Edge1 Reduction	1.237	0.017	0.003		1.257	
	1.237	0.017		0.000	1.254	
Edge 2	0.018	>20cm	0.748		0.766	
	0.018	>20cm		0.269	0.287	
Edge 3	0.031	0.090	0.087		0.208	
	0.031	0.090		0.030	0.151	
Edge 4	0.181	0.662	>20cm		0.843	
	0.181	0.662		>20cm	0.843	
Rear	0.578	0.297	0.202		1.077	
	0.578	0.297		0.078	0.953	
Rear Reduction	1.036	0.297	0.202		1.535	
	1.036	0.297		0.078	1.411	

Sum of the SAR for LTE B4 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B4	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.391	0.017	0.003		0.411	
	0.391	0.017		0.000	0.408	
Edge1 Reduction	0.862	0.017	0.003		0.882	
	0.862	0.017		0.000	0.879	
Edge 2	0.014	>20cm	0.748		0.762	
	0.014	>20cm		0.269	0.283	
Edge 3	0.077	0.090	0.087		0.254	
	0.077	0.090		0.030	0.197	
Edge 4	0.476	0.662	>20cm		1.138	
	0.476	0.662		>20cm	1.138	
Rear	0.410	0.297	0.202		0.909	
	0.410	0.297		0.078	0.785	
Rear Reduction	0.394	0.297	0.202		0.893	
	0.394	0.297		0.078	0.769	

Sum of the SAR for LTE B5 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B5	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.143	0.017	0.003		0.163	
	0.143	0.017		0.000	0.160	
Edge1 Reduction	1.050	0.017	0.003		1.070	
	1.050	0.017		0.000	1.067	
Edge 2	0.058	>20cm	0.748		0.806	
	0.058	>20cm		0.269	0.327	
Edge 3	0.047	0.090	0.087		0.224	
	0.047	0.090		0.030	0.167	
Edge 4	0.277	0.662	>20cm		0.939	
	0.277	0.662		>20cm	0.939	
Rear	0.300	0.297	0.202		0.799	
	0.300	0.297		0.078	0.675	
Rear Reduction	0.649	0.297	0.202		1.148	
	0.649	0.297		0.078	1.024	

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Sum of the SAR for LTE B7 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B7	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.313	0.017	0.003		0.333	
	0.313	0.017		0.000	0.330	
Edge1 Reduction	0.848	0.017	0.003		0.868	
	0.848	0.017		0.000	0.865	
Edge 2	0.066	>20cm	0.748		0.814	
	0.066	>20cm		0.269	0.335	
Edge 3	0.015	0.090	0.087		0.192	
	0.015	0.090		0.030	0.135	
Edge 4	1.107	0.662	>20cm		1.769	Section 12.6.1
	1.107	0.662		>20cm	1.769	Section 12.6.1
Rear	0.273	0.297	0.202		0.772	
	0.273	0.297		0.078	0.648	
Rear Reduction	0.338	0.297	0.202		0.837	
	0.338	0.297		0.078	0.713	

Sum of the SAR for LTE B12 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B12	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.064	0.017	0.003		0.084	
	0.064	0.017		0.000	0.081	
Edge1 Reduction	1.240	0.017	0.003		1.260	
	1.240	0.017		0.000	1.257	
Edge 2	0.061	>20cm	0.748		0.809	
	0.061	>20cm		0.269	0.330	
Edge 3	0.023	0.090	0.087		0.200	
	0.023	0.090		0.030	0.143	
Edge 4	0.153	0.662	>20cm		0.815	
	0.153	0.662		>20cm	0.815	
Rear	0.157	0.297	0.202		0.656	
	0.157	0.297		0.078	0.532	
Rear Reduction	0.951	0.297	0.202		1.450	
	0.951	0.297		0.078	1.326	

Sum of the SAR for LTE B13 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B13	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.148	0.017	0.003		0.168	
	0.148	0.017		0.000	0.165	
Edge1 Reduction	0.872	0.017	0.003		0.892	
	0.872	0.017		0.000	0.889	
Edge 2	0.061	>20cm	0.748		0.809	
	0.061	>20cm		0.269	0.330	
Edge 3	0.043	0.090	0.087		0.220	
	0.043	0.090		0.030	0.163	
Edge 4	0.373	0.662	>20cm		1.035	
	0.373	0.662		>20cm	1.035	
Rear	0.279	0.297	0.202		0.778	
	0.279	0.297		0.078	0.654	
Rear Reduction	0.768	0.297	0.202		1.267	
	0.768	0.297		0.078	1.143	

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Sum of the SAR for LTE B14 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B14	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.153	0.017	0.003		0.173	
	0.153	0.017		0.000	0.170	
Edge1 Reduction	1.031	0.017	0.003		1.051	
	1.031	0.017		0.000	1.048	
Edge 2	0.072	>20cm	0.748		0.820	
	0.072	>20cm		0.269	0.341	
Edge 3	0.036	0.090	0.087		0.213	
	0.036	0.090		0.030	0.156	
Edge 4	0.344	0.662	>20cm		1.006	
	0.344	0.662		>20cm	1.006	
Rear	0.281	0.297	0.202		0.780	
	0.281	0.297		0.078	0.656	
Rear Reduction	0.849	0.297	0.202		1.348	
	0.849	0.297		0.078	1.224	

Sum of the SAR for LTE B26 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B26	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.170	0.017	0.003		0.190	
	0.170	0.017		0.000	0.187	
Edge1 Reduction	1.015	0.017	0.003		1.035	
	1.015	0.017		0.000	1.032	
Edge 2	0.075	>20cm	0.748		0.823	
	0.075	>20cm		0.269	0.344	
Edge 3	0.048	0.090	0.087		0.225	
	0.048	0.090		0.030	0.168	
Edge 4	0.280	0.662	>20cm		0.942	
	0.280	0.662		>20cm	0.942	
Rear	0.272	0.297	0.202		0.771	
	0.272	0.297		0.078	0.647	
Rear Reduction	0.699	0.297	0.202		1.198	
	0.699	0.297		0.078	1.074	

Sum of the SAR for LTE B41 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B41	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.171	0.017	0.003		0.191	
	0.171	0.017		0.000	0.188	
Edge1 Reduction	0.879	0.017	0.003		0.899	
	0.879	0.017		0.000	0.896	
Edge 2	0.047	>20cm	0.748		0.795	
	0.047	>20cm		0.269	0.316	
Edge 3	0.021	0.090	0.087		0.198	
	0.021	0.090		0.030	0.141	
Edge 4	0.748	0.662	>20cm		1.410	
	0.748	0.662		>20cm	1.410	
Rear	0.127	0.297	0.202		0.626	
	0.127	0.297		0.078	0.502	
Rear Reduction	0.340	0.297	0.202		0.839	
	0.340	0.297		0.078	0.715	

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Sum of the SAR for LTE B66 & WLAN Main 2.4GHz / WLAN Aux 2.4GHz / BT

	Mode					
Test Position	LTE B66	WLAN Main 2.4GHz	WLAN Aux 2.4GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.378	0.017	0.003		0.398	
	0.378	0.017		0.000	0.395	
Edge1 Reduction	0.980	0.017	0.003		1.000	
	0.980	0.017		0.000	0.997	
Edge 2	0.022	>20cm	0.748		0.770	
	0.022	>20cm		0.269	0.291	
Edge 3	0.074	0.090	0.087		0.251	
	0.074	0.090		0.030	0.194	
Edge 4	0.581	0.662	>20cm		1.243	
	0.581	0.662		>20cm	1.243	
Rear	0.373	0.297	0.202		0.872	
	0.373	0.297		0.078	0.748	
Rear Reduction	0.366	0.297	0.202		0.865	
	0.366	0.297		0.078	0.741	

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12.3. Sum of the SAR for WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

Sum of the SAR for WCDMA B2 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	WCDMA B2	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.566	0.115	0.002		0.683	
	0.566	0.115		0.000	0.681	
Edge1 Reduction	1.243	0.115	0.002		1.360	
	1.243	0.115		0.000	1.358	
Edge 2	0.034	>20cm	0.275		0.309	
	0.034	>20cm		0.269	0.303	
Edge 3	0.032	0.022	0.042		0.096	
	0.032	0.022		0.030	0.084	
Edge 4	0.150	1.128	>20cm		1.278	
	0.150	1.128		>20cm	1.278	
Rear	0.595	0.266	0.053		0.914	
	0.595	0.266		0.078	0.939	
Rear Reduction	1.064	0.266	0.053		1.383	
	1.064	0.266		0.078	1.408	

Sum of the SAR for WCDMA B4 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	WCDMA B4	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.442	0.115	0.002		0.559	
	0.442	0.115		0.000	0.557	
Edge1 Reduction	0.999	0.115	0.002		1.116	
	0.999	0.115		0.000	1.114	
Edge 2	0.016	>20cm	0.275		0.291	
	0.016	>20cm		0.269	0.285	
Edge 3	0.058	0.022	0.042		0.122	
	0.058	0.022		0.030	0.110	
Edge 4	0.639	1.128	>20cm		1.767	Section 12.6.8
	0.639	1.128		>20cm	1.767	Section 12.6.8
Rear	0.422	0.266	0.053		0.741	
	0.422	0.266		0.078	0.766	
Rear Reduction	0.394	0.266	0.053		0.713	
	0.394	0.266		0.078	0.738	

Sum of the SAR for WCDMA B5 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	WCDMA B5	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.159	0.115	0.002		0.276	
	0.159	0.115		0.000	0.274	
Edge1 Reduction	0.953	0.115	0.002		1.070	
	0.953	0.115		0.000	1.068	
Edge 2	0.058	>20cm	0.275		0.333	
	0.058	>20cm		0.269	0.327	
Edge 3	0.051	0.022	0.042		0.115	
	0.051	0.022		0.030	0.103	
Edge 4	0.345	1.128	>20cm		1.473	
	0.345	1.128		>20cm	1.473	
Rear	0.267	0.266	0.053		0.586	
	0.267	0.266		0.078	0.611	
Rear Reduction	0.570	0.266	0.053		0.889	
	0.570	0.266		0.078	0.914	

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Sum of the SAR for LTE B2 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B2	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.544	0.115	0.002		0.661	
	0.544	0.115		0.000	0.659	
Edge1 Reduction	1.237	0.115	0.002		1.354	
	1.237	0.115		0.000	1.352	
Edge 2	0.018	>20cm	0.275		0.293	
	0.018	>20cm		0.269	0.287	
Edge 3	0.031	0.022	0.042		0.095	
	0.031	0.022		0.030	0.083	
Edge 4	0.181	1.128	>20cm		1.309	
	0.181	1.128		>20cm	1.309	
Rear	0.578	0.266	0.053		0.897	
	0.578	0.266		0.078	0.922	
Rear Reduction	1.036	0.266	0.053		1.355	
	1.036	0.266		0.078	1.380	

Sum of the SAR for LTE B4 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B4	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.391	0.115	0.002		0.508	
	0.391	0.115		0.000	0.506	
Edge1 Reduction	0.862	0.115	0.002		0.979	
	0.862	0.115		0.000	0.977	
Edge 2	0.014	>20cm	0.275		0.289	
	0.014	>20cm		0.269	0.283	
Edge 3	0.077	0.022	0.042		0.141	
	0.077	0.022		0.030	0.129	
Edge 4	0.476	1.128	>20cm		1.604	Section 12.6.2
	0.476	1.128		>20cm	1.604	Section 12.6.2
Rear	0.410	0.266	0.053		0.729	
	0.410	0.266		0.078	0.754	
Rear Reduction	0.394	0.266	0.053		0.713	
	0.394	0.266		0.078	0.738	

Sum of the SAR for LTE B5 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B5	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.143	0.115	0.002		0.260	
	0.143	0.115		0.000	0.258	
Edge1 Reduction	1.050	0.115	0.002		1.167	
	1.050	0.115		0.000	1.165	
Edge 2	0.058	>20cm	0.275		0.333	
	0.058	>20cm		0.269	0.327	
Edge 3	0.047	0.022	0.042		0.111	
	0.047	0.022		0.030	0.099	
Edge 4	0.277	1.128	>20cm		1.405	
	0.277	1.128		>20cm	1.405	
Rear	0.300	0.266	0.053		0.619	
	0.300	0.266		0.078	0.644	
Rear Reduction	0.649	0.266	0.053		0.968	
	0.649	0.266		0.078	0.993	

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Sum of the SAR for LTE B7 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B7	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.313	0.115	0.002		0.430	
	0.313	0.115		0.000	0.428	
Edge1 Reduction	0.848	0.115	0.002		0.965	
	0.848	0.115		0.000	0.963	
Edge 2	0.066	>20cm	0.275		0.341	
	0.066	>20cm		0.269	0.335	
Edge 3	0.015	0.022	0.042		0.079	
	0.015	0.022		0.030	0.067	
Edge 4	1.107	1.128	>20cm		2.235	Section 12.6.3
	1.107	1.128		>20cm	2.235	Section 12.6.3
Rear	0.273	0.266	0.053		0.592	
	0.273	0.266		0.078	0.617	
Rear Reduction	0.338	0.266	0.053		0.657	
	0.338	0.266		0.078	0.682	

Sum of the SAR for LTE B12 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B12	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.064	0.115	0.002		0.181	
	0.064	0.115		0.000	0.179	
Edge1 Reduction	1.240	0.115	0.002		1.357	
	1.240	0.115		0.000	1.355	
Edge 2	0.061	>20cm	0.275		0.336	
	0.061	>20cm		0.269	0.330	
Edge 3	0.023	0.022	0.042		0.087	
	0.023	0.022		0.030	0.075	
Edge 4	0.153	1.128	>20cm		1.281	
	0.153	1.128		>20cm	1.281	
Rear	0.157	0.266	0.053		0.476	
	0.157	0.266		0.078	0.501	
Rear Reduction	0.951	0.266	0.053		1.270	
	0.951	0.266		0.078	1.295	

Sum of the SAR for LTE B13 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B13	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.148	0.115	0.002		0.265	
	0.148	0.115		0.000	0.263	
Edge1 Reduction	0.872	0.115	0.002		0.989	
	0.872	0.115		0.000	0.987	
Edge 2	0.061	>20cm	0.275		0.336	
	0.061	>20cm		0.269	0.330	
Edge 3	0.043	0.022	0.042		0.107	
	0.043	0.022		0.030	0.095	
Edge 4	0.373	1.128	>20cm		1.501	
	0.373	1.128		>20cm	1.501	
Rear	0.279	0.266	0.053		0.598	
	0.279	0.266		0.078	0.623	
Rear Reduction	0.768	0.266	0.053		1.087	
	0.768	0.266		0.078	1.112	

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Sum of the SAR for LTE B14 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B14	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.153	0.115	0.002		0.270	
	0.153	0.115		0.000	0.268	
Edge1 Reduction	1.031	0.115	0.002		1.148	
	1.031	0.115		0.000	1.146	
Edge 2	0.072	>20cm	0.275		0.347	
	0.072	>20cm		0.269	0.341	
Edge 3	0.036	0.022	0.042		0.100	
	0.036	0.022		0.030	0.088	
Edge 4	0.344	1.128	>20cm		1.472	
	0.344	1.128		>20cm	1.472	
Rear	0.281	0.266	0.053		0.600	
	0.281	0.266		0.078	0.625	
Rear Reduction	0.849	0.266	0.053		1.168	
	0.849	0.266		0.078	1.193	

Sum of the SAR for LTE B26 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B26	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.170	0.115	0.002		0.287	
	0.170	0.115		0.000	0.285	
Edge1 Reduction	1.015	0.115	0.002		1.132	
	1.015	0.115		0.000	1.130	
Edge 2	0.075	>20cm	0.275		0.350	
	0.075	>20cm		0.269	0.344	
Edge 3	0.048	0.022	0.042		0.112	
	0.048	0.022		0.030	0.100	
Edge 4	0.280	1.128	>20cm		1.408	
	0.280	1.128		>20cm	1.408	
Rear	0.272	0.266	0.053		0.591	
	0.272	0.266		0.078	0.616	
Rear Reduction	0.699	0.266	0.053		1.018	
	0.699	0.266		0.078	1.043	

Sum of the SAR for LTE B41 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B41	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.171	0.115	0.002		0.288	
	0.171	0.115		0.000	0.286	
Edge1 Reduction	0.879	0.115	0.002		0.996	
	0.879	0.115		0.000	0.994	
Edge 2	0.047	>20cm	0.275		0.322	
	0.047	>20cm		0.269	0.316	
Edge 3	0.021	0.022	0.042		0.085	
	0.021	0.022		0.030	0.073	
Edge 4	0.748	1.128	>20cm		1.876	Section 12.6.4
	0.748	1.128		>20cm	1.876	Section 12.6.4
Rear	0.127	0.266	0.053		0.446	
	0.127	0.266		0.078	0.471	
Rear Reduction	0.340	0.266	0.053		0.659	
	0.340	0.266		0.078	0.684	

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Sum of the SAR for LTE B66 & WLAN Main 5.2 5.3GHz / WLAN Aux 5.2 5.3GHz / BT

	Mode					
Test Position	LTE B66	WLAN Main 5.2 5.3GHz	WLAN Aux 5.2 5.3GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.378	0.115	0.002		0.495	
	0.378	0.115		0.000	0.493	
Edge1 Reduction	0.980	0.115	0.002		1.097	
	0.980	0.115		0.000	1.095	
Edge 2	0.022	>20cm	0.275		0.297	
	0.022	>20cm		0.269	0.291	
Edge 3	0.074	0.022	0.042		0.138	
	0.074	0.022		0.030	0.126	
Edge 4	0.581	1.128	>20cm		1.709	Section 12.6.5
	0.581	1.128		>20cm	1.709	Section 12.6.5
Rear	0.373	0.266	0.053		0.692	
	0.373	0.266		0.078	0.717	
Rear Reduction	0.366	0.266	0.053		0.685	
	0.366	0.266		0.078	0.710	

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12.4. Sum of the SAR for WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

Sum of the SAR for WCDMA B2 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	WCDMA B2	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.566	0.031	0.033		0.630	
	0.566	0.031		0.000	0.597	
Edge1 Reduction	1.243	0.031	0.033		1.307	
	1.243	0.031		0.000	1.274	
Edge 2	0.034	>20cm	0.668		0.702	
	0.034	>20cm		0.269	0.303	
Edge 3	0.032	0.014	0.028		0.074	
	0.032	0.014		0.030	0.076	
Edge 4	0.150	0.734	>20cm		0.884	
	0.150	0.734		>20cm	0.884	
Rear	0.595	0.273	0.070		0.938	
	0.595	0.273		0.078	0.946	
Rear Reduction	1.064	0.273	0.070		1.407	
	1.064	0.273		0.078	1.415	

Sum of the SAR for WCDMA B4 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	WCDMA B4	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.442	0.031	0.033		0.506	
	0.442	0.031		0.000	0.473	
Edge1 Reduction	0.999	0.031	0.033		1.063	
	0.999	0.031		0.000	1.030	
Edge 2	0.016	>20cm	0.668		0.684	
	0.016	>20cm		0.269	0.285	
Edge 3	0.058	0.014	0.028		0.100	
	0.058	0.014		0.030	0.102	
Edge 4	0.639	0.734	>20cm		1.373	
	0.639	0.734		>20cm	1.373	
Rear	0.422	0.273	0.070		0.765	
	0.422	0.273		0.078	0.773	
Rear Reduction	0.394	0.273	0.070		0.737	
	0.394	0.273		0.078	0.745	

Sum of the SAR for WCDMA B5 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	WCDMA B5	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.159	0.031	0.033		0.223	
	0.159	0.031		0.000	0.190	
Edge1 Reduction	0.953	0.031	0.033		1.017	
	0.953	0.031		0.000	0.984	
Edge 2	0.058	>20cm	0.668		0.726	
	0.058	>20cm		0.269	0.327	
Edge 3	0.051	0.014	0.028		0.093	
	0.051	0.014		0.030	0.095	
Edge 4	0.345	0.734	>20cm		1.079	
	0.345	0.734		>20cm	1.079	
Rear	0.267	0.273	0.070		0.610	
	0.267	0.273		0.078	0.618	
Rear Reduction	0.570	0.273	0.070		0.913	
	0.570	0.273		0.078	0.921	

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Sum of the SAR for LTE B2 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B2	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.544	0.031	0.033		0.608	
	0.544	0.031		0.000	0.575	
Edge1 Reduction	1.237	0.031	0.033		1.301	
	1.237	0.031		0.000	1.268	
Edge 2	0.018	>20cm	0.668		0.686	
	0.018	>20cm		0.269	0.287	
Edge 3	0.031	0.014	0.028		0.073	
	0.031	0.014		0.030	0.075	
Edge 4	0.181	0.734	>20cm		0.915	
	0.181	0.734		>20cm	0.915	
Rear	0.578	0.273	0.070		0.921	
	0.578	0.273		0.078	0.929	
Rear Reduction	1.036	0.273	0.070		1.379	
	1.036	0.273		0.078	1.387	

Sum of the SAR for LTE B4 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B4	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.391	0.031	0.033		0.455	
	0.391	0.031		0.000	0.422	
Edge1 Reduction	0.862	0.031	0.033		0.926	
	0.862	0.031		0.000	0.893	
Edge 2	0.014	>20cm	0.668		0.682	
	0.014	>20cm		0.269	0.283	
Edge 3	0.077	0.014	0.028		0.119	
	0.077	0.014		0.030	0.121	
Edge 4	0.476	0.734	>20cm		1.210	
	0.476	0.734		>20cm	1.210	
Rear	0.410	0.273	0.070		0.753	
	0.410	0.273		0.078	0.761	
Rear Reduction	0.394	0.273	0.070		0.737	
	0.394	0.273		0.078	0.745	

Sum of the SAR for LTE B5 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B5	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.143	0.031	0.033		0.207	
	0.143	0.031		0.000	0.174	
Edge1 Reduction	1.050	0.031	0.033		1.114	
	1.050	0.031		0.000	1.081	
Edge 2	0.058	>20cm	0.668		0.726	
	0.058	>20cm		0.269	0.327	
Edge 3	0.047	0.014	0.028		0.089	
	0.047	0.014		0.030	0.091	
Edge 4	0.277	0.734	>20cm		1.011	
	0.277	0.734		>20cm	1.011	
Rear	0.300	0.273	0.070		0.643	
	0.300	0.273		0.078	0.651	
Rear Reduction	0.649	0.273	0.070		0.992	
	0.649	0.273		0.078	1.000	

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Sum of the SAR for LTE B7 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B7	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.313	0.031	0.033		0.377	
	0.313	0.031		0.000	0.344	
Edge1 Reduction	0.848	0.031	0.033		0.912	
	0.848	0.031		0.000	0.879	
Edge 2	0.066	>20cm	0.668		0.734	
	0.066	>20cm		0.269	0.335	
Edge 3	0.015	0.014	0.028		0.057	
	0.015	0.014		0.030	0.059	
Edge 4	1.107	0.734	>20cm		1.841	Section 12.6.6
	1.107	0.734		>20cm	1.841	Section 12.6.6
Rear	0.273	0.273	0.070		0.616	
	0.273	0.273		0.078	0.624	
Rear Reduction	0.338	0.273	0.070		0.681	
	0.338	0.273		0.078	0.689	

Sum of the SAR for LTE B12 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B12	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.064	0.031	0.033		0.128	
	0.064	0.031		0.000	0.095	
Edge1 Reduction	1.240	0.031	0.033		1.304	
	1.240	0.031		0.000	1.271	
Edge 2	0.061	>20cm	0.668		0.729	
	0.061	>20cm		0.269	0.330	
Edge 3	0.023	0.014	0.028		0.065	
	0.023	0.014		0.030	0.067	
Edge 4	0.153	0.734	>20cm		0.887	
	0.153	0.734		>20cm	0.887	
Rear	0.157	0.273	0.070		0.500	
	0.157	0.273		0.078	0.508	
Rear Reduction	0.951	0.273	0.070		1.294	
	0.951	0.273		0.078	1.302	

Sum of the SAR for LTE B13 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B13	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.148	0.031	0.033		0.212	
	0.148	0.031		0.000	0.179	
Edge1 Reduction	0.872	0.031	0.033		0.936	
	0.872	0.031		0.000	0.903	
Edge 2	0.061	>20cm	0.668		0.729	
	0.061	>20cm		0.269	0.330	
Edge 3	0.043	0.014	0.028		0.085	
	0.043	0.014		0.030	0.087	
Edge 4	0.373	0.734	>20cm		1.107	
	0.373	0.734		>20cm	1.107	
Rear	0.279	0.273	0.070		0.622	
	0.279	0.273		0.078	0.630	
Rear Reduction	0.768	0.273	0.070		1.111	
	0.768	0.273		0.078	1.119	

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Sum of the SAR for LTE B14 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B14	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.153	0.031	0.033		0.217	
	0.153	0.031		0.000	0.184	
Edge1 Reduction	1.031	0.031	0.033		1.095	
	1.031	0.031		0.000	1.062	
Edge 2	0.072	>20cm	0.668		0.740	
	0.072	>20cm		0.269	0.341	
Edge 3	0.036	0.014	0.028		0.078	
	0.036	0.014		0.030	0.080	
Edge 4	0.344	0.734	>20cm		1.078	
	0.344	0.734		>20cm	1.078	
Rear	0.281	0.273	0.070		0.624	
	0.281	0.273		0.078	0.632	
Rear Reduction	0.849	0.273	0.070		1.192	
	0.849	0.273		0.078	1.200	

Sum of the SAR for LTE B26 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B26	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.170	0.031	0.033		0.234	
	0.170	0.031		0.000	0.201	
Edge1 Reduction	1.015	0.031	0.033		1.079	
	1.015	0.031		0.000	1.046	
Edge 2	0.075	>20cm	0.668		0.743	
	0.075	>20cm		0.269	0.344	
Edge 3	0.048	0.014	0.028		0.090	
	0.048	0.014		0.030	0.092	
Edge 4	0.280	0.734	>20cm		1.014	
	0.280	0.734		>20cm	1.014	
Rear	0.272	0.273	0.070		0.615	
	0.272	0.273		0.078	0.623	
Rear Reduction	0.699	0.273	0.070		1.042	
	0.699	0.273		0.078	1.050	

Sum of the SAR for LTE B41 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B41	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.171	0.031	0.033		0.235	
	0.171	0.031		0.000	0.202	
Edge1 Reduction	0.879	0.031	0.033		0.943	
	0.879	0.031		0.000	0.910	
Edge 2	0.047	>20cm	0.668		0.715	
	0.047	>20cm		0.269	0.316	
Edge 3	0.021	0.014	0.028		0.063	
	0.021	0.014		0.030	0.065	
Edge 4	0.748	0.734	>20cm		1.482	
	0.748	0.734		>20cm	1.482	
Rear	0.127	0.273	0.070		0.470	
	0.127	0.273		0.078	0.478	
Rear Reduction	0.340	0.273	0.070		0.683	
	0.340	0.273		0.078	0.691	

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Sum of the SAR for LTE B66 & WLAN Main 5.5GHz / WLAN Aux 5.5GHz / BT

	Mode					
Test Position	LTE B66	WLAN Main 5.5GHz	WLAN Aux 5.5GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.378	0.031	0.033		0.442	
	0.378	0.031		0.000	0.409	
Edge1 Reduction	0.980	0.031	0.033		1.044	
	0.980	0.031		0.000	1.011	
Edge 2	0.022	>20cm	0.668		0.690	
	0.022	>20cm		0.269	0.291	
Edge 3	0.074	0.014	0.028		0.116	
	0.074	0.014		0.030	0.118	
Edge 4	0.581	0.734	>20cm		1.315	
	0.581	0.734		>20cm	1.315	
Rear	0.373	0.273	0.070		0.716	
	0.373	0.273		0.078	0.724	
Rear Reduction	0.366	0.273	0.070		0.709	
	0.366	0.273		0.078	0.717	

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12.5. Sum of the SAR for WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

Sum of the SAR for WCDMA B2 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	WCDMA B2	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.566	0.054	0.004		0.624	
	0.566	0.054		0.000	0.620	
Edge1 Reduction	1.243	0.054	0.004		1.301	
	1.243	0.054		0.000	1.297	
Edge 2	0.034	>20cm	0.597		0.631	
	0.034	>20cm		0.269	0.303	
Edge 3	0.032	0.014	0.027		0.073	
	0.032	0.014		0.030	0.076	
Edge 4	0.150	0.766	>20cm		0.916	
	0.150	0.766		>20cm	0.916	
Rear	0.595	0.336	0.078		1.009	
	0.595	0.336		0.078	1.009	
Rear Reduction	1.064	0.336	0.078		1.478	
	1.064	0.336		0.078	1.478	

Sum of the SAR for WCDMA B4 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	WCDMA B4	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.442	0.054	0.004		0.500	
	0.442	0.054		0.000	0.496	
Edge1 Reduction	0.999	0.054	0.004		1.057	
	0.999	0.054		0.000	1.053	
Edge 2	0.016	>20cm	0.597		0.613	
	0.016	>20cm		0.269	0.285	
Edge 3	0.058	0.014	0.027		0.099	
	0.058	0.014		0.030	0.102	
Edge 4	0.639	0.766	>20cm		1.405	
	0.639	0.766		>20cm	1.405	
Rear	0.422	0.336	0.078		0.836	
	0.422	0.336		0.078	0.836	
Rear Reduction	0.394	0.336	0.078		0.808	
	0.394	0.336		0.078	0.808	

Sum of the SAR for WCDMA B5 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	WCDMA B5	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.159	0.054	0.004		0.217	
	0.159	0.054		0.000	0.213	
Edge1 Reduction	0.953	0.054	0.004		1.011	
	0.953	0.054		0.000	1.007	
Edge 2	0.058	>20cm	0.597		0.655	
	0.058	>20cm		0.269	0.327	
Edge 3	0.051	0.014	0.027		0.092	
	0.051	0.014		0.030	0.095	
Edge 4	0.345	0.766	>20cm		1.111	
	0.345	0.766		>20cm	1.111	
Rear	0.267	0.336	0.078		0.681	
	0.267	0.336		0.078	0.681	
Rear Reduction	0.570	0.336	0.078		0.984	
	0.570	0.336		0.078	0.984	

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Sum of the SAR for LTE B2 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B2	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.544	0.054	0.004		0.602	
	0.544	0.054		0.000	0.598	
Edge1 Reduction	1.237	0.054	0.004		1.295	
	1.237	0.054		0.000	1.291	
Edge 2	0.018	>20cm	0.597		0.615	
	0.018	>20cm		0.269	0.287	
Edge 3	0.031	0.014	0.027		0.072	
	0.031	0.014		0.030	0.075	
Edge 4	0.181	0.766	>20cm		0.947	
	0.181	0.766		>20cm	0.947	
Rear	0.578	0.336	0.078		0.992	
	0.578	0.336		0.078	0.992	
Rear Reduction	1.036	0.336	0.078		1.450	
	1.036	0.336		0.078	1.450	

Sum of the SAR for LTE B4 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B4	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.391	0.054	0.004		0.449	
	0.391	0.054		0.000	0.445	
Edge1 Reduction	0.862	0.054	0.004		0.920	
	0.862	0.054		0.000	0.916	
Edge 2	0.014	>20cm	0.597		0.611	
	0.014	>20cm		0.269	0.283	
Edge 3	0.077	0.014	0.027		0.118	
	0.077	0.014		0.030	0.121	
Edge 4	0.476	0.766	>20cm		1.242	
	0.476	0.766		>20cm	1.242	
Rear	0.410	0.336	0.078		0.824	
	0.410	0.336		0.078	0.824	
Rear Reduction	0.394	0.336	0.078		0.808	
	0.394	0.336		0.078	0.808	

Sum of the SAR for LTE B5 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B5	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.143	0.054	0.004		0.201	
	0.143	0.054		0.000	0.197	
Edge1 Reduction	1.050	0.054	0.004		1.108	
	1.050	0.054		0.000	1.104	
Edge 2	0.058	>20cm	0.597		0.655	
	0.058	>20cm		0.269	0.327	
Edge 3	0.047	0.014	0.027		0.088	
	0.047	0.014		0.030	0.091	
Edge 4	0.277	0.766	>20cm		1.043	
	0.277	0.766		>20cm	1.043	
Rear	0.300	0.336	0.078		0.714	
	0.300	0.336		0.078	0.714	
Rear Reduction	0.649	0.336	0.078		1.063	
	0.649	0.336		0.078	1.063	

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Sum of the SAR for LTE B7 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B7	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.313	0.054	0.004		0.371	
	0.313	0.054		0.000	0.367	
Edge1 Reduction	0.848	0.054	0.004		0.906	
	0.848	0.054		0.000	0.902	
Edge 2	0.066	>20cm	0.597		0.663	
	0.066	>20cm		0.269	0.335	
Edge 3	0.015	0.014	0.027		0.056	
	0.015	0.014		0.030	0.059	
Edge 4	1.107	0.766	>20cm		1.873	Section 12.6.7
	1.107	0.766		>20cm	1.873	Section 12.6.7
Rear	0.273	0.336	0.078		0.687	
	0.273	0.336		0.078	0.687	
Rear Reduction	0.338	0.336	0.078		0.752	
	0.338	0.336		0.078	0.752	

Sum of the SAR for LTE B12 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B12	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.064	0.054	0.004		0.122	
	0.064	0.054		0.000	0.118	
Edge1 Reduction	1.240	0.054	0.004		1.298	
	1.240	0.054		0.000	1.294	
Edge 2	0.061	>20cm	0.597		0.658	
	0.061	>20cm		0.269	0.330	
Edge 3	0.023	0.014	0.027		0.064	
	0.023	0.014		0.030	0.067	
Edge 4	0.153	0.766	>20cm		0.919	
	0.153	0.766		>20cm	0.919	
Rear	0.157	0.336	0.078		0.571	
	0.157	0.336		0.078	0.571	
Rear Reduction	0.951	0.336	0.078		1.365	
	0.951	0.336		0.078	1.365	

Sum of the SAR for LTE B13 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B13	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.148	0.054	0.004		0.206	
	0.148	0.054		0.000	0.202	
Edge1 Reduction	0.872	0.054	0.004		0.930	
	0.872	0.054		0.000	0.926	
Edge 2	0.061	>20cm	0.597		0.658	
	0.061	>20cm		0.269	0.330	
Edge 3	0.043	0.014	0.027		0.084	
	0.043	0.014		0.030	0.087	
Edge 4	0.373	0.766	>20cm		1.139	
	0.373	0.766		>20cm	1.139	
Rear	0.279	0.336	0.078		0.693	
	0.279	0.336		0.078	0.693	
Rear Reduction	0.768	0.336	0.078		1.182	
	0.768	0.336		0.078	1.182	

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Sum of the SAR for LTE B14 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B14	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.153	0.054	0.004		0.211	
	0.153	0.054		0.000	0.207	
Edge1 Reduction	1.031	0.054	0.004		1.089	
	1.031	0.054		0.000	1.085	
Edge 2	0.072	>20cm	0.597		0.669	
	0.072	>20cm		0.269	0.341	
Edge 3	0.036	0.014	0.027		0.077	
	0.036	0.014		0.030	0.080	
Edge 4	0.344	0.766	>20cm		1.110	
	0.344	0.766		>20cm	1.110	
Rear	0.281	0.336	0.078		0.695	
	0.281	0.336		0.078	0.695	
Rear Reduction	0.849	0.336	0.078		1.263	
	0.849	0.336		0.078	1.263	

Sum of the SAR for LTE B26 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B26	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.170	0.054	0.004		0.228	
	0.170	0.054		0.000	0.224	
Edge1 Reduction	1.015	0.054	0.004		1.073	
	1.015	0.054		0.000	1.069	
Edge 2	0.075	>20cm	0.597		0.672	
	0.075	>20cm		0.269	0.344	
Edge 3	0.048	0.014	0.027		0.089	
	0.048	0.014		0.030	0.092	
Edge 4	0.280	0.766	>20cm		1.046	
	0.280	0.766		>20cm	1.046	
Rear	0.272	0.336	0.078		0.686	
	0.272	0.336		0.078	0.686	
Rear Reduction	0.699	0.336	0.078		1.113	
	0.699	0.336		0.078	1.113	

Sum of the SAR for LTE B41 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B41	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.171	0.054	0.004		0.229	
	0.171	0.054		0.000	0.225	
Edge1 Reduction	0.879	0.054	0.004		0.937	
	0.879	0.054		0.000	0.933	
Edge 2	0.047	>20cm	0.597		0.644	
	0.047	>20cm		0.269	0.316	
Edge 3	0.021	0.014	0.027		0.062	
	0.021	0.014		0.030	0.065	
Edge 4	0.748	0.766	>20cm		1.514	
	0.748	0.766		>20cm	1.514	
Rear	0.127	0.336	0.078		0.541	
	0.127	0.336		0.078	0.541	
Rear Reduction	0.340	0.336	0.078		0.754	
	0.340	0.336		0.078	0.754	

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Sum of the SAR for LTE B66 & WLAN Main 5.8GHz / WLAN Aux 5.8GHz / BT

	Mode					
Test Position	LTE B66	WLAN Main 5.8GHz	WLAN Aux 5.8GHz	BT	Sum of SAR (1g/Wkg)	Remarks
Edge1	0.378	0.054	0.004		0.436	
	0.378	0.054		0.000	0.432	
Edge1 Reduction	0.980	0.054	0.004		1.038	
	0.980	0.054		0.000	1.034	
Edge 2	0.022	>20cm	0.597		0.619	
	0.022	>20cm		0.269	0.291	
Edge 3	0.074	0.014	0.027		0.115	
	0.074	0.014		0.030	0.118	
Edge 4	0.581	0.766	>20cm		1.347	
	0.581	0.766		>20cm	1.347	
Rear	0.373	0.336	0.078		0.787	
	0.373	0.336		0.078	0.787	
Rear Reduction	0.366	0.336	0.078		0.780	
	0.366	0.336		0.078	0.780	

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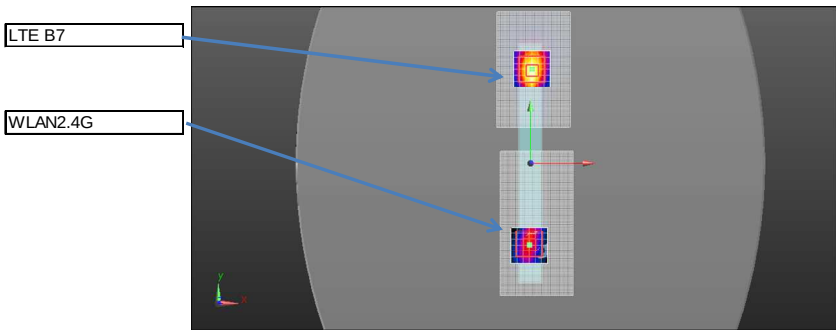
12.6. SAR to Peak Location Separation Ratio (SPLSR)

12.6.1. Edge4: LTE B7 + WLAN 2.4G Main Ant

Combination LTE B7 + WLAN2.4G



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
LTE B7	Main	1	0.30	70.00	-3.57		
WLAN2.4G	Main	2	0.00	-60.00	-5.70	No1+No2	130.02

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 LTE B7 Main	No.2 WLAN2.4G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	1.107	0.662	No.1 + No.2	1.769	130.02	0.018	No

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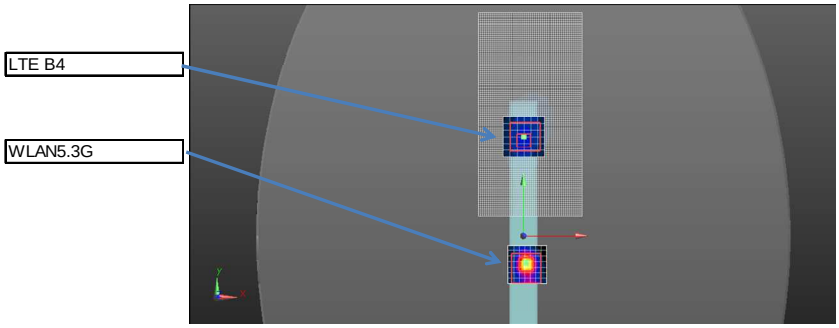
12.6.2. Edge4: LTE B4 + WLAN 5.3G Main Ant

Combination LTE B4 + WLAN5.3G



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
LTE B4	Main	1	0.50	65.50	-3.67		
WLAN5.3G	Main	2	1.80	-19.80	-3.91	No1+No2	85.31

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 LTE B4 Main	No.2 WLAN5.3G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	0.476	1.128	No.1 + No.2	1.604	85.31	0.024	No

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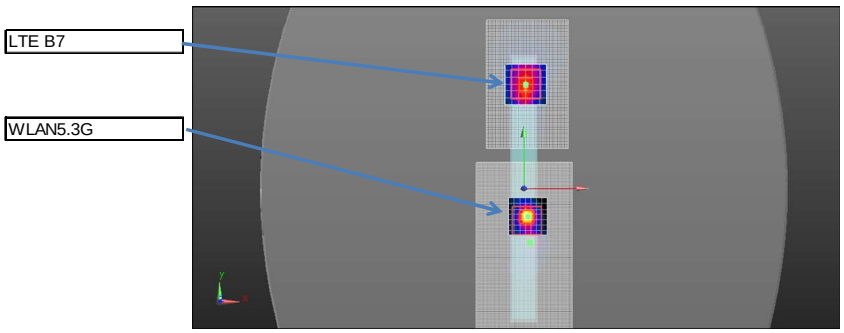
12.6.3. Edge4: LTE B7 + WLAN 5.3G Main Ant

Combination LTE B7 + WLAN5.3G



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
LTE B7	Main	1	0.30	70.00	-3.57		
WLAN5.3G	Main	2	1.80	-19.80	-3.91	No1+No2	89.81

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 LTE B7 Main	No.2 WLAN5.3G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	1.107	1.128	No.1 + No.2	2.235	89.81	0.037	No

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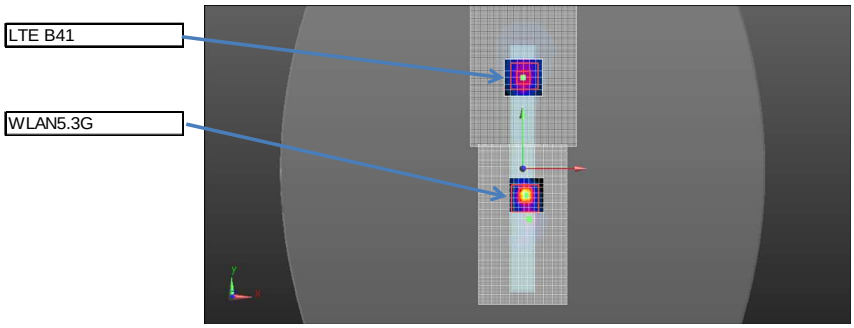
12.6.4. Edge4: LTE B41 + WLAN 5.3G Main Ant

Combination LTE B41 + WLAN5.3G



Mode	Ant	No	X mm	Y mm	Z mm	Combination	d: Calculated distance (mm)
LTE B41	Main	1	0.50	70.40	-3.82		
WLAN5.3G	Main	2	1.80	-19.80	-3.91	No1+No2	90.21

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 LTE B41 Main	No.2 WLAN5.3G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	0.748	1.128	No.1 + No.2	1.876	90.21	0.028	No

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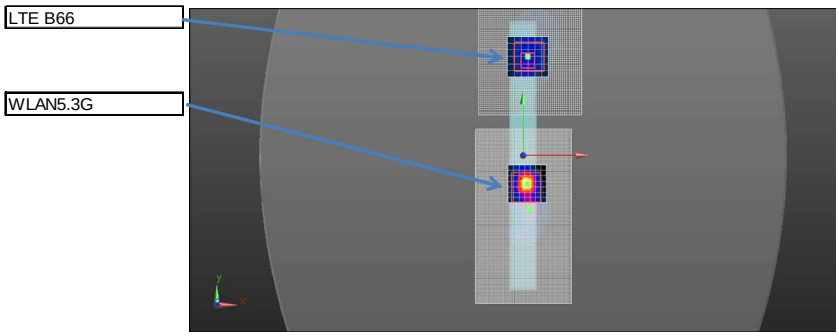
12.6.5. Edge4: LTE B66 + WLAN 5.3G Main Ant

Combination LTE B66 + WLAN5.3G



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
LTE B66	Main	1	3.50	64.50	-4.04		
WLAN5.3G	Main	2	1.80	-19.80	-3.91	No1+No2	84.32

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 LTE B66 Main	No.2 WLAN5.3G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	0.581	1.128	No.1 + No.2	1.709	84.32	0.026	No

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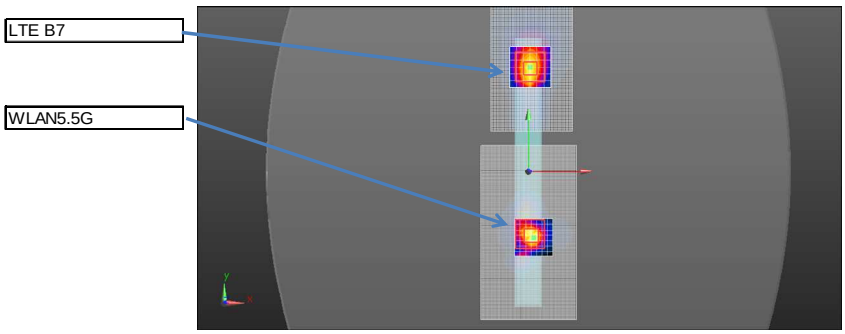
12.6.6. Edge4: LTE B7 + WLAN 5.5G Main Ant

Combination LTE B7 + WLAN5.5G



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
LTE B7	Main	1	0.30	70.00	-3.57		
WLAN5.5G	Main	2	5.20	-51.00	-5.35	No1+No2	121.11

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 LTE B7 Main	No.2 WLAN5.5G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	1.107	0.734	No.1 + No.2	1.841	121.11	0.021	No

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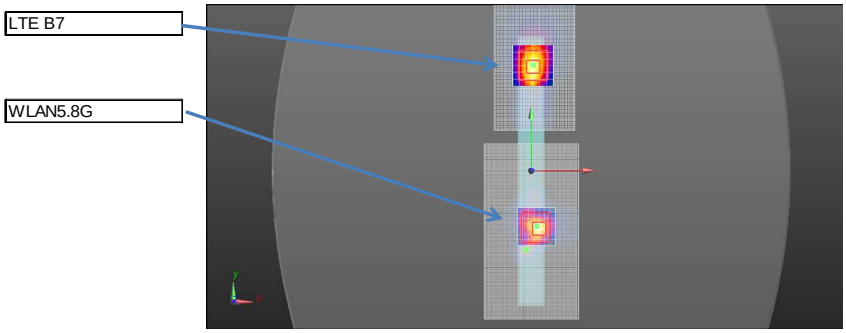
12.6.7. Edge4: LTE B7 + WLAN 5.8G Main Ant

Combination LTE B7 + WLAN5.8G



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
LTE B7	Main	1	0.30	70.00	-3.57		
WLAN5.8G	Main	2	6.00	-43.00	-3.47	No1+No2	113.14

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 LTE B7 Main	No.2 WLAN5.8G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	1.107	0.766	No.1 + No.2	1.873	113.14	0.023	No

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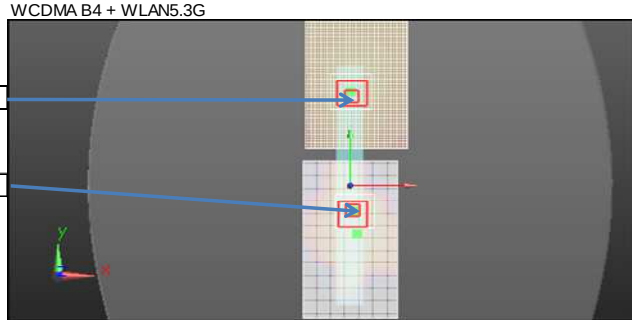
12.6.8. Edge4: WCDMA B4 + WLAN 5.3G Main Ant

Combination WCDMA B4 + WLAN5.3G

WCDMA B4

WLAN5.3G



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WCDMA B4	Main	1	1.80	-19.80	-3.91		
WLAN5.3G	Main	2	0.50	69.00	-3.41	No1+No2	88.81

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WCDMA B4 Main	No.2 WLAN5.3G Main	Combination	Σ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Edge4	0.639	1.128	No.1 + No.2	1.767	88.81	0.026	No

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because either the sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

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Appendixes

Refer to separated files for the following appendixes.

13054825H for SAR Appendix A: DUT and SAR Setup Photos

13054825H for SAR Appendix B: Antenna Dimensions and Separation Distances

13054825H for SAR Appendix C: SAR System Check Plots

13054825H for SAR Appendix D: Highest SAR Test Plots

13054825H for SAR Appendix E: SAR Liquid Tissue Ingredients

13054825H for SAR Appendix F: SAR Probe Calibration Certificates

13054825H for SAR Appendix G: SAR Dipole Calibration Certificates

END OF REPORT

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