



SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2013

For
SMARTPHONE

FCC ID: BCG-E3232A
Model Name: A2097

Report Number: 12204447-S1V1
Issue Date: 8/30/2018

Prepared for
APPLE, INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A.

Prepared by
UL VERIFICATION SERVICES INC.
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888



NVLAP LAB CODE 200065-0

Revision History

Rev.	Date	Revisions	Revised By
V1	8/30/2018	Initial Issue	--

Table of Contents

1.	Attestation of Test Results	5
2.	Test Specification, Methods and Procedures.....	6
3.	Facilities and Accreditation	7
4.	SAR Measurement System & Test Equipment	8
4.1.	<i>SAR Measurement System.....</i>	8
4.2.	<i>SAR Scan Procedures.....</i>	9
4.3.	<i>Test Equipment.....</i>	11
5.	Measurement Uncertainty.....	13
6.	Device Under Test (DUT) Information	14
6.1.	<i>DUT Description</i>	14
6.2.	<i>Wireless Technologies.....</i>	15
6.3.	<i>General LTE SAR Test and Reporting Considerations.....</i>	16
6.4.	<i>LTE (TDD) Considerations.....</i>	19
7.	RF Exposure Conditions (Test Configurations)	20
8.	Dielectric Property Measurements & System Check	22
8.1.	<i>Dielectric Property Measurements</i>	22
8.2.	<i>System Check.....</i>	36
9.	Conducted Output Power Measurements.....	43
9.1.	<i>GSM.....</i>	43
9.2.	<i>W-CDMA</i>	46
9.3.	<i>CDMA.....</i>	58
9.4.	<i>LTE.....</i>	63
9.5.	<i>LTE Carrier Aggregation</i>	113
9.6.	<i>Wi-Fi 2.4 GHz (DTS Band).....</i>	127
9.7.	<i>Wi-Fi 5 GHz (U-NII Bands).....</i>	129
9.8.	<i>Bluetooth</i>	132
10.	Measured and Reported (Scaled) SAR Results.....	134
10.1.	<i>GSM850.....</i>	137
10.2.	<i>GSM1900.....</i>	138
10.3.	<i>W-CDMA Band 2.....</i>	139
10.4.	<i>W-CDMA Band 4.....</i>	140
10.5.	<i>W-CDMA Band 5.....</i>	141
10.6.	<i>CDMA BC0.....</i>	141

10.7.	<i>CDMA BC1</i>	142
10.8.	<i>CDMA BC10</i>	143
10.9.	<i>LTE Band 7 (20MHz Bandwidth)</i>	144
10.10.	<i>LTE Band 12 (10MHz Bandwidth)</i>	146
10.11.	<i>LTE Band 13 (10MHz Bandwidth)</i>	147
10.12.	<i>LTE Band 14 (10MHz Bandwidth)</i>	148
10.13.	<i>LTE Band 25 (20MHz Bandwidth)</i>	149
10.14.	<i>LTE Band 26 (10MHz Bandwidth)</i>	151
10.15.	<i>LTE Band 30 (10MHz Bandwidth)</i>	152
10.16.	<i>LTE Band 41 Power Class 3 (20MHz Bandwidth)</i>	154
10.17.	<i>LTE Band 41 Power Class 2 (20MHz Bandwidth)</i>	156
10.18.	<i>LTE Band 66 (20MHz Bandwidth)</i>	157
10.19.	<i>LTE-uplink 2CA Band 7 (20MHz + 20MHz BW)</i>	159
10.20.	<i>LTE-uplink 2CA Band 41 PC3 (20MHz + 20MHz BW)</i>	159
10.21.	<i>Wi-Fi (DTS Band)</i>	160
10.22.	<i>Wi-Fi (U-NII Band)</i>	161
10.23.	<i>Bluetooth</i>	163
11.	SAR Measurement Variability	164
12.	Simultaneous Transmission Conditions	165
12.1.	<i>Sum of the SAR for WWAN Cell-off & Wi-Fi & BT results</i>	167
12.2.	<i>Sum of the SAR for WWAN Cell-on(ANT1) & Wi-Fi & BT results</i>	167
12.3.	<i>Sum of the SAR for WWAN Cell-on(ANT2) & Wi-Fi & BT results</i>	168
12.4.	<i>Sum of the SAR for WWAN Cell-on(ANT3) & Wi-Fi & BT results</i>	168
12.5.	<i>Sum of the SAR for WWAN Cell-on(ANT4) & Wi-Fi & BT results</i>	169
Appendices	170	
	<i>12204447-S1V1 Appendix A: SAR Setup Photos</i>	170
	<i>12204447-S1V1 Appendix B: SAR System Check Plots</i>	170
	<i>12204447-S1V1 Appendix C: Highest SAR Test Plots</i>	170
	<i>12204447-S1V1 Appendix D: SAR Liquid Tissue Ingredients</i>	170
	<i>12204447-S1V1 Appendix E: SAR Probe Calibration Certificates</i>	170
	<i>12204447-S1V1 Appendix F: SAR Dipole Calibration Certificates</i>	170

1. Attestation of Test Results

Applicant Name	APPLE, INC.			
FCC ID	BCG-E3232A			
Model Name	A2097			
Applicable Standards	FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013			
	SAR Limits (W/Kg)			
Exposure Category	Peak spatial-average(1g of tissue)		Extremities (hands, wrists, ankles, etc.) (10g of tissue)	
General population / Uncontrolled exposure	1.6		4	
RF Exposure Conditions	Equipment Class - Highest Reported SAR (W/kg)			
	PCE	DTS	NII	DSS
Head	0.895	1.120	1.181	0.386
Body-worn (Dist.= 5 mm)	0.998	1.190	1.181	0.417
Hotspot (Dist.= 5 mm)	0.998	1.190	1.181	0.417
Simultaneous TX	Head	1.410	1.353	1.410
	Body-worn	1.523	1.489	1.523
	Hotspot	1.523	1.489	1.523
Date Tested	5/30/2018 to 6/29/2018			
Test Results	Pass			
<p>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.</p> <p>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.</p>				
Approved & Released By:	 Prepared By: 			
Devin Chang Senior Test Engineer UL Verification Services Inc.	Kenneth C. Mak Test Engineer UL Verification Services Inc.			

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:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 447498 D03 Supplement C Cross-Reference v01
- 648474 D04 Handset SAR v01r03
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- 865664 D02 RF Exposure Reporting v01r02
- 941225 D01 3G SAR Procedures v03r01
- 941225 D05 SAR for LTE Devices v02r05
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- 941225 D06 Hotspot Mode v02r01

In addition to the above, the following information was used:

- [TCB workshop](#) April 2015; RF Exposure Procedures Update (Overlapping LTE Bands)
- [TCB workshop](#) October 2014; RF Exposure Procedures Update (Other LTE Considerations)
- [TCB workshop](#) October 2015; RF Exposure Procedures (KDB 941225 D05A)
- [TCB workshop](#) April 2016; RF Exposure Procedures (LTE Carrier Aggregation for DL)
- [TCB workshop](#) October 2016; RF Exposure Procedures (LTE Carrier Aggregation for UL)
- [TCB workshop](#) October 2016; RF Exposure Procedures (Bluetooth Duty Factor)
- [TCB workshop](#) May 2017; RF Exposure Procedures (LTE Band 41 Power Class 2)
- [TCB workshop](#) October 2016; RF Exposure Procedures (DUT Holder Perturbations)
- [TCB workshop](#) November 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- [TCB workshop](#) April 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion)

3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

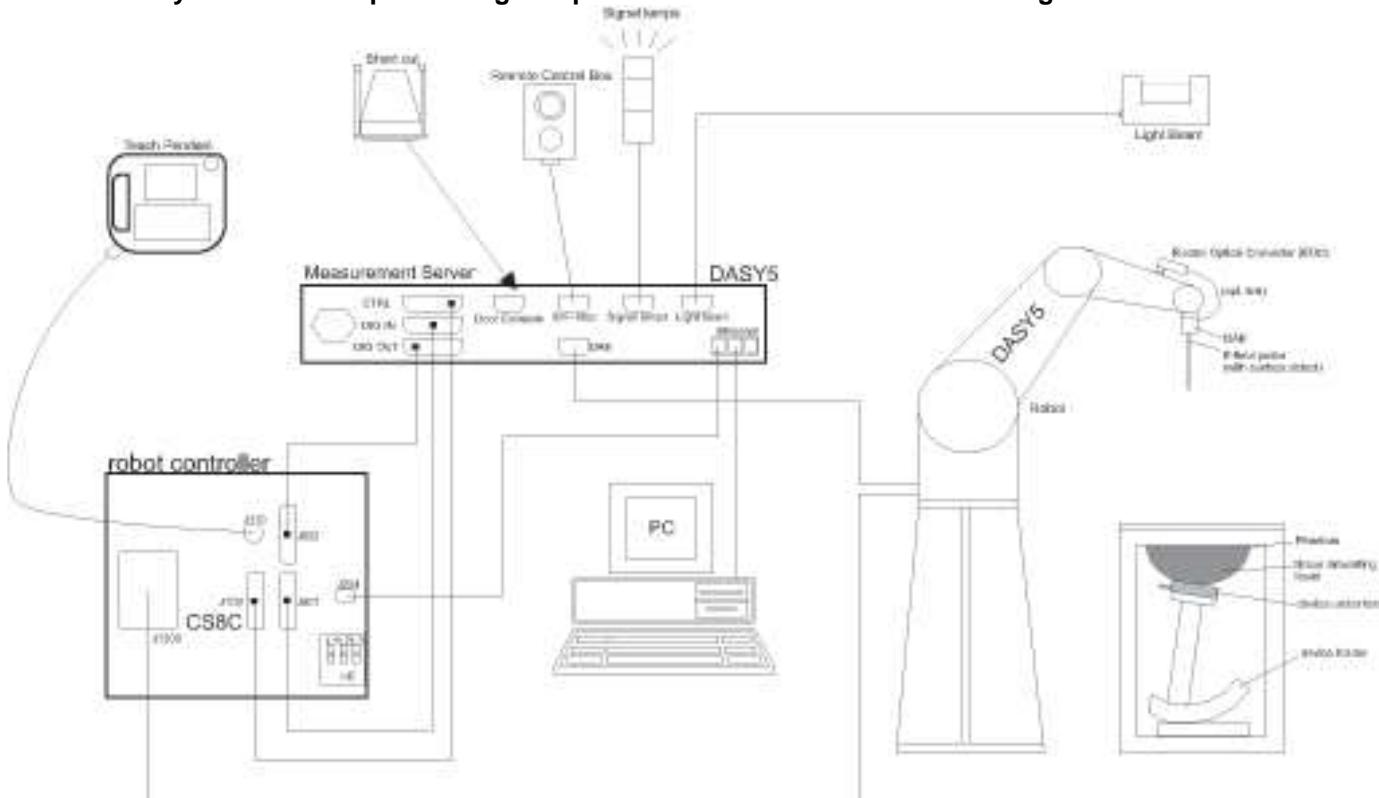
47173 Benicia Street	47266 Benicia Street
SAR Lab A	SAR Lab 1
SAR Lab B	SAR Lab 2
SAR Lab C	SAR Lab 3
SAR Lab D	SAR Lab 4
SAR Lab E	
SAR Lab F	
SAR Lab G	
SAR Lab H	

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

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.

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

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

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: $\Delta x_{Zoom}, \Delta y_{Zoom}$		≤ 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: $\Delta z_{Zoom}(n)$		$3 - 4$ GHz: ≤ 4 mm $4 - 5$ GHz: ≤ 3 mm $5 - 6$ GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$
Minimum zoom scan volume	x, y, z	≥ 30 mm	$3 - 4$ GHz: ≥ 28 mm $4 - 5$ GHz: ≥ 25 mm $5 - 6$ GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the 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.

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

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	8753ES	MY40001647	9/15/2018
Dielectric Probe kit	SPEAG	DAK-3.5	1087	11/14/2018
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	2/6/2019
Thermometer	Traceable Calibration Control Co.	4242	140493798	12/8/2018
Network Analyzer	Agilent	8753ES	MY40000980	5/14/2019
Dielectric Probe kit	SPEAG	DAK-3.5	1082	10/17/2018
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	10/17/2018
Thermometer	Traceable Calibration Control Co.	4242	140562250	11/7/2018

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Synthesized Signal Generator	Agilent	N5181A	MY50140630	5/25/2019
Power Meter	HP	437B	3125U12345	8/10/2018
Power Meter	HP	437B	3125U11347	8/15/2018
Power Sensor	HP	8481A	1926A27048	8/10/2018
Power Sensor	HP	8481A	3318A92374	8/15/2018
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Directional coupler	Werlatone	C8060-102	2141	N/A
DC Power Supply	HP	1611	215-02292	N/A
Synthesized Signal Generator	Agilent	N5181A	MY50140610	6/7/2019
Power Meter	Keysight	N1912A	MY55196004	7/14/2018
Power Sensor	Agilent	N1921A	MY53020038	4/23/2019
Power Sensor	Agilent	N1921A	MY52260009	1/8/2019
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795093	N/A
Directional coupler	Werlatone	C8060-102	2149	N/A
DC Power Supply	HP	6296A	2841A-05955	N/A

Lab Equipment

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
E-Field Probe (SAR Lab A)	SPEAG	EX3DV4	7356	4/24/2019
E-Field Probe (SAR Lab B)	SPEAG	EX3DV4	3772	2/13/2019
E-Field Probe (SAR Lab C)	SPEAG	EX3DV4	3749	1/16/2019
E-Field Probe (SAR Lab C)	SPEAG	EX3DV4	3990	2/14/2019
E-Field Probe (SAR Lab D)	SPEAG	EX3DV4	3902	5/24/2019
E-Field Probe (SAR Lab E)	SPEAG	EX3DV4	3989	1/16/2019
E-Field Probe (SAR Lab F)	SPEAG	EX3DV4	3929	3/16/2019
E-Field Probe (SAR Lab G)	SPEAG	EX3DV4	3773	4/23/2019
E-Field Probe (SAR Lab H)	SPEAG	EX3DV4	7483	12/12/2018
E-Field Probe (SAR Lab 1)	SPEAG	EX3DV4	7448	4/16/2019
E-Field Probe (SAR Lab 3)	SPEAG	EX3DV4	7335	3/16/2019
E-Field Probe (SAR Lab 4)	SPEAG	EX3DV4	3871	8/23/2018
Data Acquisition Electronics (SAR Lab A)	SPEAG	DAE4	1540	2/23/2019
Data Acquisition Electronics (SAR Lab B)	SPEAG	DAE4	1352	11/8/2018
Data Acquisition Electronics (SAR Lab C)	SPEAG	DAE4	1472	3/8/2019
Data Acquisition Electronics (SAR Lab D)	SPEAG	DAE4	1433	3/7/2019
Data Acquisition Electronics (SAR Lab E)	SPEAG	DAE4	1259	1/10/2019
Data Acquisition Electronics (SAR Lab F)	SPEAG	DAE4	1377	10/11/2018
Data Acquisition Electronics (SAR Lab G)	SPEAG	DAE4	1359	2/9/2019
Data Acquisition Electronics (SAR Lab H)	SPEAG	DAE4	1257	10/11/2018
Data Acquisition Electronics (SAR Lab 1)	SPEAG	DAE4	1544	4/12/2019
Data Acquisition Electronics (SAR Lab 3)	SPEAG	DAE4	1434	5/11/2019
Data Acquisition Electronics (SAR Lab 4)	SPEAG	DAE4	1343	8/21/2018
System Validation Dipole	SPEAG	D750V3	1071	11/21/2018
System Validation Dipole	SPEAG	D835V2	4d002	11/21/2018
System Validation Dipole	SPEAG	D835V2	4d142	10/12/2018
System Validation Dipole	SPEAG	D1750V2	1053	8/24/2018
System Validation Dipole	SPEAG	D1750V2	1077	10/5/2018
System Validation Dipole	SPEAG	D1900V2	5d163	10/5/2018
System Validation Dipole	SPEAG	D1900V2	5d140	4/11/2019
System Validation Dipole	SPEAG	D1900V2	5d043	11/22/2018
System Validation Dipole	SPEAG	D2300V2	1002	3/16/2019
System Validation Dipole	SPEAG	D2300V2	1058	8/31/2018
System Validation Dipole	SPEAG	D2450V2	748	2/14/2019
System Validation Dipole	SPEAG	D2450V2	899	3/16/2019
System Validation Dipole	SPEAG	D2600V2	1006	10/5/2018
System Validation Dipole	SPEAG	D2600V2	1036	3/16/2018
System Validation Dipole	SPEAG	D5GHzV2	1003	3/13/2019
System Validation Dipole	SPEAG	D5GHzV2	1138	10/26/2018

Other

Name of Equipment	Manufacturer	Type/Model	T Number	Serial No.	Cal. Due Date
Power Meter	Agilent	N1912A	T733	MY50001018	10/17/2018
Power Sensor	Agilent	N1921A	T309	MY52270022	12/28/2018
DC Power Supply	HP	6296A	N/A	2841A-05955	N/A
Base station Simulator	R&S	CMW500	T978	137877	2/19/2019
Base station Simulator	R&S	CMW500	T960	135384	2/20/2019
Base station Simulator	R&S	CMW500	T948	135393	2/17/2019
Base station Simulator	R&S	CMW500	T958	134855	2/15/2019
Base station Simulator	R&S	CMW500	T259	124594	2/21/2019
Base station Simulator	R&S	CMW500	T1526	147543	2/17/2019
Base station Simulator	R&S	CMW500	T964	134853	2/16/2019
Base station Simulator	R&S	CMW500	T268	124593	2/22/2019
Base station Simulator	R&S	CMW500	T953	135390	2/16/2019
Base station Simulator	R&S	CMW500	T959	137873	2/17/2019
Base station Simulator	R&S	CMW500	T919	125236	2/21/2019

5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

Therefore, the measurement uncertainty is not required.

6. Device Under Test (DUT) Information

6.1. DUT Description

The Apple iPhone, is a smartphone with multimedia functions (music, application support, and video), cellular GSM, GPRS, EGPRS, UMTS, LTE, TD-SCDMA, CDMA, IEEE 802.11a/b/g/n/ac, Bluetooth, GPS and NFC. All models support at least one UICC based SIM. The second SIM is either UICC based, electronic SIM (e-SIM), or second SIM is not present. The device has a built-in inductive charging receiver which is not user accessible. The rechargeable battery is not user accessible.

This device has Four WWAN antennas (ANT1 , ANT2, ANT3, and ANT 4) as well as multiple Wi-Fi/Bluetooth antennas (ANT3 and ANT4 for Wi-Fi/BT 2.4GHz, ANT5 and ANT6 for Wi-Fi 5GHz).

The device utilizes two power modes: Mode A and Mode B. Power selection is determined by the device's positioning and use case as described in Sec. 10. Mode A power is used when the device is used against the user's head, or away from the body. Mode B is used when the device is used in a body-worn configuration by the user.

The WWAN transmit antenna switching mechanism between WWAN antennas is implemented with a physical "break-before-make" switch so that only one antenna can be used for WWAN transmission at one time.

In Airplay mode, the device uses same power and power control mechanism as Wi-Fi. Airplay is not supported in hotspot mode. Airplay utilize the same 802.11 modes, modulation, MIMO, Channel Bandwidth, etc. as Wi-Fi does. Therefore Airplay usage is categorized by the Wi-Fi SAR testing contained in Section 10.

There are two vendors of the Wi-Fi/Bluetooth radio modules: variant 1 and variant 2. The Wi-Fi/BT radio modules have the same mechanical outline (e.g., the same package dimension and pin-out layout), use the same on-board antenna matching circuit, have an identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances. It is confirmed that Variant 1 represents the worst case.

Device Dimension	Overall (Length x Width): 143.3 mm x 70.8 mm Overall Diagonal: 153 mm Display Diagonal: 148.6 mm
Back Cover	The Back Cover is not removable
Battery Options	The rechargeable battery is not user accessible.
Accessory	Headset
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its WWAN data connection with other Wi-Fi-enabled devices. <input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 2.4 GHz) <input type="checkbox"/> Mobile Hotspot (Wi-Fi 5 GHz)
AirPlay	AirPlay mode enabled devices transfer data directly between each other <input checked="" type="checkbox"/> AirPlay (Wi-Fi 2.4 GHz) <input checked="" type="checkbox"/> AirPlay (Wi-Fi 5 GHz)
Bluetooth Tethering	BT Tethering mode permits the device to share its cellular data connection with other devices. <input checked="" type="checkbox"/> BT Tethering (Bluetooth 2.4 GHz)

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EDGE (8PSK)	GSM Class : B Multi-Slot Class: Class 10 - 2 Up, 4 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25%
		Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
CDMA (CDMA2000)	BC0 BC1 BC10	1xRTT (Voice & Data) 1xEV-DO Rel. 0 1xEV-DO Rev. A 1xAdvanced		100%
		Does this device support SV-DO (1xRTT-1xEVDO)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
W-CDMA (UMTS)	Band 2 Band 4 Band 5	UMTS Rel. 99 (Voice & Data) HSDPA (Rel. 5) HSUPA (Rel. 6) HSPA+ (Rel. 7) DC-HSDPA (Rel. 9)		100%
LTE ⁴	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 7 FDD Band 12 FDD Band 13 FDD Band 14 FDD Band 17 FDD Band 25 FDD Band 26 FDD Band 29 (DL Only) FDD Band 30 TDD Band 41 ² TDD Band 46 (DL Only) FDD Band 66 Carrier Aggregation³ FDD Band 7_2CC TDD Band 41_2CC	QPSK 16QAM 64QAM Carrier Aggregation (2 Uplinks and 4 Downlinks)		100% (FDD) 63.3% (TDD) Power Class 3 43.3% (TDD) Power Class 2 Refer to §6.4
		Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		802.11b 802.11g 802.11n (HT20)		100% (802.11b) 98.87% (802.11g/n 20MHz BW)
		802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (VHT20) 802.11ac (VHT40) 802.11ac (VHT80)		98.86% (802.11a/n/ac 20MHz BW) 97.90% (802.11n/ac 40MHz BW) 95.67% (802.11n/ac 80MHz BW)
		Does this device support bands 5.60 ~ 5.65 GHz? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
		Does this device support Band gap channel(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Bluetooth	2.4 GHz	Version 5.0 LE		100%

Note(s):

1. Duty cycle for Wi-Fi and BT is referenced from the DTS and U-NII and BT reports.
2. This device supports Power Class 2 and Power Class 3 for LTE Band 41.
3. LTE Uplink 2CA is the total combined power of the UL CA.
4. LTE Uplink Cat 13, LTE 3GPP Rel-13 (LTE 3GPP Rel-14 for B41 PC2)

6.3. General LTE SAR Test and Reporting Considerations

Item	Description					
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz (BW = 60 MHz)				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
	Low	18700 /1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5
		18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
		19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19185/ 1908.5
	Band 4	Frequency range: 1710 - 1755 MHz (BW = 45 MHz)				
		Channel Bandwidth				
		20 MHz ²	15 MHz	10 MHz	5 MHz	3 MHz
		20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
		20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5
		20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5
	Band 5	Frequency range: 824 - 849 MHz (BW = 25 MHz)				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz ²	5 MHz	3 MHz
		20450/ 829		20425/ 826.5	20415/ 825.5	20407/ 824.7
	High			20525/ 836.5	20525/ 836.5	20525/ 836.5
				20600/ 844	20625/ 846.5	20635/ 847.5
				20600/ 844	20625/ 846.5	20635/ 847.5
	Band 7	Frequency range: 2500 - 2570 MHz (BW = 70 MHz)				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		20850/ 2510	20825 2507.5	20800 2505	20775 2502.5	
	Mid	21100 2535	21100 2535	21100 2535	21100 2535	
		21350 2560	21375 2562.5	21400 2565	21425 2567.5	
		21350/ 2560	21375 2562.5	21400 2565	21425 2567.5	
	Band 12	Frequency range: 699 - 716 MHz (BW = 17 MHz)				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz ²	5 MHz	3 MHz
		23060/ 704		23035/ 701.5	23025/ 700.5	23017/ 699.7
	Mid			23095/ 707.5	23095/ 707.5	23095/ 707.5
				23130/ 711	23155/ 713.5	23165/ 714.5
				23130/ 711	23155/ 713.5	23173/ 715.3
	Band 13	Frequency range: 777 - 787 MHz (BW = 10 MHz)				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz ²	5 MHz ²	3 MHz
		23230/ 782		23205/ 779.5		
	High			23230/ 782		
				23255/ 784.5		
				23255/ 784.5		

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 14	Frequency range: 788 - 798 MHz (BW = 10 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz ²	5 MHz ²	3 MHz	1.4 MHz
	Low				23305/ 790.5		
	Mid			23330/ 793	23330/ 793		
	High				23355/ 795.5		
	Band 17	Frequency range: 704 - 716 MHz (BW = 12 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz ²	5 MHz ²	3 MHz	1.4 MHz
	Low			23780/ 709	23755/ 706.5		
	Mid			23790/ 710	23790/ 710		
	High			23800/ 711	23825/ 713.5		
	Band 25	Frequency range: 1850 - 1915 MHz (BW = 65 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	26140/ 1860	26115/ 1857.5	26090/ 1855	26065/ 1852.5	26055/ 1851.5	26047/ 1850.7
	Mid	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5
	High	26590/ 1905	26615/ 1907.5	26640/ 1910	26665/ 1912.5	26675/ 1913.5	26683/ 1914.3
	Band 26	Frequency range: 814 - 849 MHz (BW = 35 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7
	Mid			26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5
	High			26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3
	Band 30	Frequency range: 2305 - 2315 MHz (BW = 10 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz ²	5 MHz	3 MHz	1.4 MHz
	Low				27685/ 2307.5		
	Mid			27710/ 2310	27710/ 2310		
	High				27735/ 2312.5		
	Band 41 ¹	Frequency range: 2496 - 2690 MHz (BW = 194 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
		Low	39750 / 2506.0				
		Low-Mid	40185 / 2549.5				
		Mid	40620 / 2593.0				
		Mid-High	41055 / 2636.5				
		High	41490 / 2680.0				

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 66	Frequency range: 1710 - 1780 MHz (BW = 70 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																																																							
LTE transmitter and antenna implementation	LTE can transmit from either ANT1, ANT2, ANT3, and ANT4. Then antenna switching is implemented with a physical, "break-before-make" switch such that only one antenna can be used for LTE transmission at a time.																																																												
Maximum power reduction (MPR)	<p>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th> <th rowspan="2">MPR (dB)</th> </tr> <tr> <th>1.4 MHz</th> <th>3.0 MHz</th> <th>5 MHz</th> <th>10 MHz</th> <th>15 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 18</td> <td>> 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 1</td> </tr> <tr> <td>64 QAM</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 2</td> </tr> <tr> <td>256 QAM</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 3</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>≥ 1</td> <td></td> <td></td> <td>≤ 5</td> </tr> </tbody> </table> <p>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</p>							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	> 18	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	256 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3					≥ 1			≤ 5
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	> 18	> 18	≤ 1																																																						
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																						
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2																																																						
256 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																						
				≥ 1			≤ 5																																																						
Spectrum plots for RB configurations	A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																												

Note(s):

1. LTE band 41 test channels in accordance with October 2014 TCB workshop for all channels bandwidths.
2. Maximum bandwidth does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.
3. SAR Testing for LTE was performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

6.4. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices, 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	$6592 \cdot T_s$			$7680 \cdot T_s$		
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$	$(1+X) \cdot 2192 \cdot T_s$	$(1+X) \cdot 2560 \cdot T_s$	$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$	$(2+X) \cdot 2192 \cdot T_s$	$(2+X) \cdot 2560 \cdot T_s$	$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-
10	$13168 \cdot T_s$	$13152 \cdot T_s$	$12800 \cdot T_s$	-	-	-

Table 4.2-2: Uplink-downlink configurations & 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	63.3%
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.3%
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.3%
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.7%
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.7%
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.7%
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.3%

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

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%(Power Class 3) and configuration 1 at 43.3%(Power Class 2) duty cycle.

7. RF Exposure Conditions (Test Configurations)

This device has a total of 6 antennas. From Front of the device, antennas and supported frequencies are described and located as follows:

ANT1 (support all WWAN frequency bands) - located at lower right corner of the device.

ANT2 (support WWAN frequencies 663 MHz to 2700 MHz) - located at upper left corner of the device.

ANT3 (support WWAN frequencies 1700 MHz to 2700 MHz and Wi-Fi 2.4 GHz and Bluetooth) – located at lower left corner of the device. CDMA BC1 is not supported for this antenna.

ANT4 (support WWAN frequencies 1700 MHz to 2700 MHz and Wi-Fi 2.4 GHz and Bluetooth) – located at upper right corner of the device. CDMA BC1 is not supported for this antenna.

ANT5 (support Wi-Fi 5GHz Bands) – located at lower left corner of the device.

ANT6 (support Wi-Fi 5GHz Bands) – located at upper left corner of the device.

Refer to separate filing submission document for the proprietary design details of the antenna-to-antenna and antenna-to-edge(s) distances.

The Body-worn accessory test configurations were tested using a conservative minimum test separation distance of 5 mm.

Lower Antenna

Wireless technologies	RF Exposure Conditions	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN (ANT1)	Head	0 mm	Left Touch	N/A	Yes	
			Left Tilt (15°)	N/A	Yes	
			Right Touch	N/A	Yes	
			Right Tilt (15°)	N/A	Yes	
	Body/Hotspot	5 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
	Hotspot	5 mm	Edge 1 (Top)	> 25 mm	No	1
			Edge 2 (Right)	< 25 mm	Yes	
			Edge 3 (Bottom)	< 25 mm	Yes	
			Edge 4 (Left)	< 25 mm	Yes	
WWAN and Wi-Fi 2.4 GHz and Bluetooth (ANT3)	Head	0 mm	Left Touch	N/A	Yes	
			Left Tilt (15°)	N/A	Yes	
			Right Touch	N/A	Yes	
			Right Tilt (15°)	N/A	Yes	
	Body/Hotspot	5 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
	Hotspot	5 mm	Edge 1 (Top)	> 25 mm	No	1
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	< 25 mm	Yes	
			Edge 4 (Left)	< 25 mm	Yes	
Wi-Fi 5 GHz (ANT5)	Head	0 mm	Left Touch	N/A	Yes	
			Left Tilt (15°)	N/A	Yes	
			Right Touch	N/A	Yes	
			Right Tilt (15°)	N/A	Yes	
	Body/Airplay	5 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
	Airplay	5 mm	Edge 1 (Top)	> 25 mm	No	1
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	< 25 mm	Yes	
			Edge 4 (Left)	< 25 mm	Yes	

Note(s):

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot Mode.
2. The Body-worn minimum separation distance is 5 mm. To cover both body-worn and hotspot RF exposure conditions testing was performed at a separation distance of 5 mm.

Upper Antenna

Wireless technologies	RF Exposure Conditions	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN (ANT2)	Head	0 mm	Left Touch	N/A	Yes	
			Left Tilt (15°)	N/A	Yes	
			Right Touch	N/A	Yes	
			Right Tilt (15°)	N/A	Yes	
	Body/Hotspot	5 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
	Hotspot	5 mm	Edge 1 (Top)	< 25 mm	Yes	
			Edge 2 (Right)	< 25 mm	Yes	
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	< 25 mm	Yes	
WWAN and Wi-Fi 2.4 GHz and Bluetooth (ANT4)	Head	0 mm	Left Touch	N/A	Yes	
			Left Tilt (15°)	N/A	Yes	
			Right Touch	N/A	Yes	
			Right Tilt (15°)	N/A	Yes	
	Body/Hotspot	5 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
	Hotspot	5 mm	Edge 1 (Top)	< 25 mm	Yes	
			Edge 2 (Right)	< 25 mm	Yes	
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	> 25 mm	No	1
Wi-Fi 5 GHz (ANT6)	Head	0 mm	Left Touch	N/A	Yes	
			Left Tilt (15°)	N/A	Yes	
			Right Touch	N/A	Yes	
			Right Tilt (15°)	N/A	Yes	
	Body/Airplay	5 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
	Airplay	5 mm	Edge 1 (Top)	< 25 mm	Yes	
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	< 25 mm	Yes	

Note(s):

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
2. The Body-worn minimum separation distance is 5 mm. To cover both body-worn and hotspot RF exposure conditions testing was performed at a separation distance of 5 mm.

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 $\pm 2^\circ\text{C}$ of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 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 (ϵ_r) and conductivity (σ) of typical tissue-equivalent media recipes are expected to be within $\pm 5\%$ 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 ϵ_r and σ may be relaxed to $\pm 10\%$. This is limited to frequencies $\leq 3 \text{ GHz}$.

Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head		Body	
	ϵ_r	$\sigma (\text{S/m})$	ϵ_r	$\sigma (\text{S/m})$
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

Dielectric Property Measurements Results:

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
A	6/1/2018	2600	Head	2600	37.65	39.01	-3.49	1.94	1.96	-0.93
				2495	38.02	39.14	-2.87	1.82	1.85	-1.71
				2690	37.17	38.90	-4.44	2.03	2.06	-1.43
A	6/1/2018	2600	Body	2600	52.05	52.51	-0.88	2.21	2.16	2.05
				2495	52.35	52.64	-0.56	2.08	2.01	3.27
				2690	51.72	52.40	-1.29	2.30	2.29	0.42
A	6/5/2018	2600	Head	2600	37.50	39.01	-3.87	2.04	1.96	4.12
				2300	38.58	39.47	-2.26	1.70	1.66	2.30
				2690	37.11	38.90	-4.59	2.14	2.06	4.01
A	6/7/2018	2600	Body	2600	50.96	52.51	-2.95	2.24	2.16	3.66
				2495	50.95	52.64	-3.22	2.06	2.01	2.37
				2690	50.42	52.40	-3.77	2.39	2.29	4.45
A	6/10/2018	2600	Body	2600	51.12	52.51	-2.65	2.24	2.16	3.66
				2495	51.51	52.64	-2.15	2.11	2.01	4.76
				2690	50.92	52.40	-2.82	2.35	2.29	2.52
A	6/12/2018	2600	Head	2600	37.67	39.01	-3.44	2.01	1.96	2.34
				2495	38.02	39.14	-2.87	1.89	1.85	2.35
				2690	37.32	38.90	-4.06	2.11	2.06	2.36
A	6/15/2018	2600	Body	2600	52.39	52.51	-0.23	2.14	2.16	-0.87
				2495	51.71	52.64	-1.77	2.02	2.01	0.48
				2690	51.10	52.40	-2.48	2.24	2.29	-2.02
A	6/18/2018	2600	Head	2600	38.03	39.01	-2.51	2.02	1.96	3.05
				2495	38.32	39.14	-2.10	1.91	1.85	3.10
				2690	37.76	38.90	-2.92	2.11	2.06	2.55
A	6/19/2018	2600	Body	2600	50.42	52.51	-3.98	2.23	2.16	3.02
				2495	50.63	52.64	-3.82	2.11	2.01	4.66
				2690	49.99	52.40	-4.59	2.36	2.29	2.96
A	6/22/2018	2600	Head	2600	38.71	39.01	-0.77	2.03	1.96	3.46
				2495	39.05	39.14	-0.24	1.91	1.85	3.43
				2690	38.37	38.90	-1.36	2.13	2.06	3.28
A	6/23/2018	2600	Body	2600	51.68	52.51	-1.58	2.13	2.16	-1.38
				2495	51.96	52.64	-1.30	2.02	2.01	0.48
				2690	51.39	52.40	-1.92	2.24	2.29	-2.16

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
B	6/1/2018	1750	Head	1750	40.41	40.08	0.81	1.37	1.37	0.29
				1710	40.54	40.15	0.98	1.33	1.35	-0.92
				1755	40.41	40.08	0.83	1.38	1.37	0.45
B	6/4/2018	1750	Head	1750	38.99	40.08	-2.73	1.40	1.37	2.12
				1710	39.16	40.15	-2.46	1.36	1.35	1.31
				1755	38.97	40.08	-2.76	1.41	1.37	2.49
B	6/4/2018	1900	Head	1900	38.41	40.00	-3.98	1.42	1.40	1.43
				1850	38.75	40.00	-3.13	1.39	1.40	-1.00
				1920	38.45	40.00	-3.87	1.44	1.40	2.86
B	6/6/2018	1750	Body	1750	51.03	53.44	-4.51	1.48	1.49	-0.35
				1710	50.97	53.54	-4.81	1.47	1.46	0.44
				1755	50.94	53.43	-4.66	1.48	1.49	-0.42
B	6/6/2018	1900	Body	1900	52.20	53.30	-2.06	1.55	1.52	1.97
				1850	52.45	53.30	-1.59	1.48	1.52	-2.96
				1920	52.27	53.30	-1.93	1.57	1.52	3.55
B	6/9/2018	1750	Body	1750	54.74	53.44	2.43	1.51	1.49	1.47
				1710	54.88	53.54	2.50	1.46	1.46	-0.17
				1755	54.66	53.43	2.31	1.51	1.49	1.26
B	6/10/2018	1900	Body	1900	50.73	53.30	-4.82	1.53	1.52	0.59
				1850	50.82	53.30	-4.65	1.48	1.52	-2.57
				1920	50.69	53.30	-4.90	1.54	1.52	1.45
B	6/12/2018	1750	Head	1750	40.52	40.08	1.09	1.32	1.37	-3.29
				1710	40.69	40.15	1.35	1.28	1.35	-4.64
				1755	40.51	40.08	1.08	1.33	1.37	-3.34
B	6/14/2018	1750	Body	1750	51.24	53.44	-4.12	1.54	1.49	3.83
				1710	51.39	53.54	-4.02	1.51	1.46	3.18
				1755	51.22	53.43	-4.13	1.55	1.49	4.21
B	6/15/2018	1900	Body	1900	51.75	53.30	-2.91	1.59	1.52	4.61
				1850	51.82	53.30	-2.78	1.52	1.52	0.07
				1920	51.74	53.30	-2.93	1.59	1.52	4.80
B	6/16/2018	1900	Head	1900	38.24	40.00	-4.40	1.45	1.40	3.50
				1850	38.58	40.00	-3.55	1.40	1.40	0.00
				1920	38.20	40.00	-4.50	1.45	1.40	3.64
B	6/17/2018	1750	Head	1750	39.92	40.08	-0.41	1.39	1.37	1.61
				1710	40.02	40.15	-0.31	1.35	1.35	0.42
				1755	39.88	40.08	-0.49	1.40	1.37	1.91
B	6/18/2018	1750	Body	1750	51.40	53.44	-3.82	1.53	1.49	3.08
				1710	51.40	53.54	-4.00	1.50	1.46	2.56
				1755	51.40	53.43	-3.80	1.53	1.49	2.87
B	6/21/2018	1750	Head	1750	38.89	40.08	-2.98	1.36	1.37	-0.36
				1710	39.04	40.15	-2.76	1.32	1.35	-1.66
				1755	38.82	40.08	-3.14	1.37	1.37	-0.13
B	6/22/2018	1750	Body	1750	51.00	53.44	-4.57	1.43	1.49	-3.78
				1710	51.10	53.54	-4.56	1.39	1.46	-4.69
				1755	50.96	53.43	-4.62	1.43	1.49	-3.84

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
B	6/25/2018	1900	Head	1900	40.85	40.00	2.13	1.38	1.40	-1.79
				1850	41.05	40.00	2.62	1.34	1.40	-4.29
				1920	40.86	40.00	2.15	1.40	1.40	-0.14
B	6/25/2018	1900	Body	1900	51.97	53.30	-2.50	1.58	1.52	3.68
				1850	52.07	53.30	-2.31	1.53	1.52	0.86
				1920	51.99	53.30	-2.46	1.60	1.52	4.93
B	6/25/2018	2600	Head	2600	38.95	39.01	-0.16	1.94	1.96	-1.08
				2495	39.09	39.14	-0.14	1.87	1.85	1.32
				2690	38.79	38.90	-0.28	2.02	2.06	-1.96
C	6/1/2018	1900	Head	1900	38.83	40.00	-2.93	1.44	1.40	2.50
				1850	39.01	40.00	-2.48	1.39	1.40	-1.00
				1920	38.76	40.00	-3.10	1.46	1.40	4.07
C	6/4/2018	1900	Head	1900	39.67	40.00	-0.82	1.44	1.40	3.14
				1850	39.93	40.00	-0.18	1.39	1.40	-0.93
				1920	39.58	40.00	-1.05	1.47	1.40	4.79
C	6/7/2018	1900	Body	1900	51.13	53.30	-4.07	1.53	1.52	0.53
				1850	51.25	53.30	-3.85	1.47	1.52	-3.36
				1920	50.98	53.30	-4.35	1.56	1.52	2.50
C	6/9/2018	1900	Body	1900	51.18	53.30	-3.98	1.55	1.52	1.71
				1850	51.25	53.30	-3.85	1.50	1.52	-1.32
				1920	51.12	53.30	-4.09	1.57	1.52	3.55
C	6/12/2018	1900	Head	1900	39.99	40.00	-0.02	1.43	1.40	2.14
				1850	40.13	40.00	0.33	1.38	1.40	-1.79
				1920	39.87	40.00	-0.33	1.45	1.40	3.29
C	6/14/2018	1900	Body	1900	51.18	53.30	-3.98	1.54	1.52	1.32
				1850	51.45	53.30	-3.47	1.47	1.52	-3.36
				1920	51.16	53.30	-4.02	1.57	1.52	3.22
C	6/17/2018	1900	Head	1900	38.97	40.00	-2.58	1.42	1.40	1.43
				1850	39.25	40.00	-1.88	1.35	1.40	-3.36
				1920	38.92	40.00	-2.70	1.45	1.40	3.64
C	6/23/2018	2600	Head	2600	39.43	39.01	1.07	1.96	1.96	0.04
				2495	39.61	39.14	1.19	1.89	1.85	2.18
				2690	39.25	38.90	0.91	2.03	2.06	-1.33
C	6/26/2018	2450	Head	2450	39.69	39.20	1.25	1.84	1.80	2.22
				2400	39.85	39.30	1.41	1.81	1.75	3.33
				2480	39.67	39.16	1.30	1.87	1.83	2.05
C	7/2/2018	1900	Body	1900	52.50	53.30	-1.50	1.51	1.52	-0.92
				1850	52.63	53.30	-1.26	1.45	1.52	-4.67
				1920	52.42	53.30	-1.65	1.53	1.52	0.33

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
D	6/1/2018	2300	Head	2300	38.10	39.47	-3.48	1.73	1.66	3.74
				2350	37.96	39.38	-3.62	1.78	1.71	4.18
				2400	37.71	39.30	-4.04	1.83	1.75	4.36
D	6/3/2018	2600	Head	2600	37.42	39.01	-4.08	2.00	1.96	1.98
				2495	37.77	39.14	-3.51	1.88	1.85	1.86
				2690	37.09	38.90	-4.65	2.10	2.06	1.82
D	6/4/2018	2300	Head	2300	39.04	39.47	-1.10	1.72	1.66	3.14
				2350	38.91	39.38	-1.21	1.77	1.71	3.59
				2400	38.69	39.30	-1.54	1.81	1.75	3.50
D	6/6/2018	2600	Body	2600	50.74	52.51	-3.37	2.23	2.16	3.25
				2350	51.49	52.84	-2.55	1.86	1.85	0.50
				2690	49.91	52.40	-4.75	2.37	2.29	3.48
D	6/6/2018	2300	Body	2300	50.87	52.90	-3.85	1.88	1.80	4.13
				2350	50.76	52.84	-3.93	1.91	1.85	3.36
				2400	50.50	52.77	-4.31	1.97	1.90	3.90
D	6/9/2018	2300	Body	2300	51.36	52.90	-2.92	1.82	1.80	0.69
				2350	51.20	52.84	-3.10	1.89	1.85	1.90
				2400	51.03	52.77	-3.30	1.93	1.90	1.74
D	6/9/2018	2600	Body	2600	52.59	52.51	0.15	2.16	2.16	-0.27
				2495	53.00	52.64	0.68	2.04	2.01	1.08
				2690	51.99	52.40	-0.78	2.27	2.29	-0.80
D	6/12/2018	2600	Body	2600	50.02	52.51	-4.74	2.20	2.16	1.77
				2495	50.37	52.64	-4.32	2.07	2.01	2.67
				2690	49.84	52.40	-4.88	2.31	2.29	0.77
D	6/12/2018	2300	Head	2300	39.48	39.47	0.02	1.73	1.66	3.68
				2350	39.20	39.38	-0.47	1.77	1.71	3.59
				2400	39.14	39.30	-0.40	1.84	1.75	4.93
D	6/13/2018	2300	Body	2300	51.82	52.90	-2.05	1.85	1.80	2.69
				2350	51.76	52.84	-2.04	1.88	1.85	1.74
				2400	51.56	52.77	-2.30	1.94	1.90	2.21
D	6/16/2018	2600	Body	2600	50.22	52.51	-4.36	2.19	2.16	1.40
				2495	50.55	52.64	-3.98	2.09	2.01	3.56
				2690	50.01	52.40	-4.56	2.30	2.29	0.69

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
D	6/18/2018	2300	Body	2300	50.78	52.90	-4.02	1.85	1.80	2.36
				2350	50.82	52.84	-3.82	1.89	1.85	2.34
				2400	50.61	52.77	-4.10	1.92	1.90	1.11
D	6/18/2018	2300	Head	2300	40.02	39.47	1.39	1.64	1.66	-1.31
				2350	39.85	39.38	1.18	1.70	1.71	-0.74
				2400	39.69	39.30	1.00	1.74	1.75	-0.72
D	6/20/2018	2600	Body	2600	51.45	52.51	-2.02	2.21	2.16	2.28
				2495	51.78	52.64	-1.64	2.08	2.01	3.32
				2690	51.16	52.40	-2.36	2.32	2.29	1.56
D	6/22/2018	2300	Body	2300	51.77	52.90	-2.14	1.87	1.80	3.52
				2350	51.57	52.84	-2.40	1.92	1.85	3.81
				2400	51.45	52.77	-2.51	1.97	1.90	3.95
D	6/22/2018	2300	Head	2300	39.04	39.47	-1.10	1.71	1.66	2.72
				2350	38.83	39.38	-1.41	1.77	1.71	3.41
				2400	38.68	39.30	-1.57	1.81	1.75	3.39
D	6/24/2018	2600	Head	2600	38.15	39.01	-2.21	2.03	1.96	3.25
				2495	38.55	39.14	-1.52	1.91	1.85	3.48
				2690	37.86	38.90	-2.67	2.12	2.06	2.79
D	6/24/2018	2600	Body	2600	50.24	52.51	-4.32	2.21	2.16	2.46
				2495	50.53	52.64	-4.01	2.09	2.01	3.96
				2690	49.98	52.40	-4.61	2.32	2.29	1.34
E	6/4/2018	5750	Body	5750	47.74	48.27	-1.11	5.92	5.94	-0.27
				5700	47.56	48.34	-1.62	5.92	5.88	0.64
				5850	47.49	48.20	-1.47	6.10	6.00	1.72
E	6/4/2018	5750	Head	5750	35.33	35.36	-0.09	5.01	5.21	-3.93
				5700	35.48	35.42	0.17	4.95	5.16	-4.06
				5850	35.22	35.30	-0.23	5.10	5.27	-3.32
E	6/6/2018	5750	Body	5750	47.15	48.27	-2.33	6.16	5.94	3.79
				5700	48.32	48.34	-0.05	5.93	5.88	0.96
				5850	47.21	48.20	-2.05	6.14	6.00	2.40
E	6/6/2018	5750	Head	5750	36.17	35.36	2.28	5.07	5.21	-2.83
				5700	36.13	35.42	2.01	5.01	5.16	-3.01
				5850	36.12	35.30	2.32	5.18	5.27	-1.75
E	6/9/2018	5750	Body	5750	46.47	48.27	-3.74	6.12	5.94	3.12
				5700	46.73	48.34	-3.34	5.85	5.88	-0.52
				5850	46.31	48.20	-3.92	6.17	6.00	2.77

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
E	6/10/2018	5750	Head	5750	34.72	35.36	-1.82	5.06	5.21	-3.04
				5700	34.40	35.42	-2.88	5.18	5.16	0.36
				5850	34.59	35.30	-2.01	5.25	5.27	-0.30
E	6/13/2018	5750	Body	5750	46.20	48.27	-4.30	6.03	5.94	1.52
				5700	46.42	48.34	-3.98	6.00	5.88	2.05
				5850	46.08	48.20	-4.40	6.12	6.00	2.03
E	6/13/2018	5750	Head	5750	34.31	35.36	-2.98	5.07	5.21	-2.74
				5700	34.47	35.42	-2.68	5.06	5.16	-2.08
				5850	34.17	35.30	-3.20	5.13	5.27	-2.69
E	6/17/2018	5750	Body	5750	46.32	48.27	-4.05	6.14	5.94	3.44
				5700	46.42	48.34	-3.98	6.01	5.88	2.20
				5850	46.04	48.20	-4.48	6.22	6.00	3.60
E	6/17/2018	5750	Head	5750	34.27	35.36	-3.09	5.27	5.21	1.14
				5700	34.79	35.42	-1.78	5.16	5.16	0.01
				5850	34.27	35.30	-2.92	5.28	5.27	0.15
E	6/18/2018	2450	Body	2450	51.18	52.70	-2.88	1.99	1.95	1.85
				2400	51.46	52.77	-2.49	1.97	1.90	3.58
				2480	51.04	52.66	-3.08	2.07	1.99	4.06
E	6/22/2018	2450	Body	2450	50.20	52.70	-4.74	2.03	1.95	4.15
				2400	50.38	52.77	-4.53	1.96	1.90	3.48
				2480	50.08	52.66	-4.90	2.07	1.99	3.81
E	6/23/2018	5750	Head	5750	35.74	35.36	1.07	5.15	5.21	-1.24
				5700	35.75	35.42	0.93	5.05	5.16	-2.14
				5850	35.52	35.30	0.62	5.24	5.27	-0.66
E	6/25/2018	5750	Body	5750	46.02	48.27	-4.67	5.98	5.94	0.71
				5700	45.98	48.34	-4.89	5.91	5.88	0.50
				5850	45.94	48.20	-4.69	6.11	6.00	1.90
E	6/28/2018	5750	Head	5750	35.95	35.36	1.66	5.31	5.21	1.79
				5700	36.03	35.42	1.72	5.28	5.16	2.24
				5850	35.87	35.30	1.61	5.43	5.27	2.94
F	6/3/2018	5250	Body	5250	48.32	48.95	-1.29	5.32	5.35	-0.60
				5150	48.04	49.09	-2.13	5.21	5.24	-0.43
				5350	47.67	48.82	-2.35	5.44	5.47	-0.61
F	6/3/2018	5600	Body	5600	47.36	48.48	-2.31	5.79	5.76	0.47
				5500	47.86	48.61	-1.55	5.63	5.64	-0.24
				5725	47.31	48.31	-2.07	5.90	5.91	-0.10
F	6/4/2018	5250	Head	5250	34.83	35.93	-3.07	4.70	4.70	0.00
				5150	34.77	36.05	-3.54	4.60	4.60	-0.06
				5350	34.54	35.82	-3.57	4.84	4.80	0.64

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
F	6/6/2018	5250	Body	5250	47.73	48.95	-2.50	5.19	5.35	-3.01
				5150	47.84	49.09	-2.54	5.07	5.24	-3.14
				5350	47.36	48.82	-2.98	5.36	5.47	-2.08
F	6/8/2018	5250	Head	5250	35.63	35.93	-0.84	4.56	4.70	-2.98
				5150	35.78	36.05	-0.74	4.48	4.60	-2.58
				5350	35.60	35.82	-0.61	4.64	4.80	-3.44
F	6/10/2018	5250	Body	5250	51.13	48.95	4.45	5.20	5.35	-2.91
				5150	51.20	49.09	4.30	5.08	5.24	-3.03
				5350	50.86	48.82	4.19	5.35	5.47	-2.15
F	6/12/2018	5250	Head	5250	36.54	35.93	1.69	4.92	4.70	4.65
				5150	36.78	36.05	2.03	4.79	4.60	4.13
				5350	36.35	35.82	1.48	4.97	4.80	3.51
F	6/14/2018	5250	Body	5250	49.02	48.95	0.14	5.46	5.35	2.04
				5150	49.24	49.09	0.31	5.29	5.24	1.00
				5350	48.71	48.82	-0.22	5.59	5.47	2.26
F	6/16/2018	5250	Head	5250	37.60	35.93	4.64	4.61	4.70	-2.04
				5150	37.73	36.05	4.67	4.49	4.60	-2.50
				5350	37.27	35.82	4.05	4.75	4.80	-1.15
F	6/18/2018	5250	Body	5250	46.78	48.95	-4.44	5.32	5.35	-0.54
				5150	46.87	49.09	-4.52	5.19	5.24	-0.85
				5350	46.60	48.82	-4.54	5.44	5.47	-0.47
F	6/20/2018	5250	Head	5250	37.08	35.93	3.19	4.64	4.70	-1.39
				5150	37.20	36.05	3.20	4.54	4.60	-1.37
				5350	36.97	35.82	3.21	4.79	4.80	-0.26
F	6/22/2018	5250	Body	5250	47.04	48.95	-3.91	5.23	5.35	-2.22
				5150	47.32	49.09	-3.60	5.11	5.24	-2.45
				5350	46.91	48.82	-3.91	5.40	5.47	-1.35
F	6/24/2018	5250	Head	5250	36.50	35.93	1.58	4.56	4.70	-3.04
				5150	36.52	36.05	1.31	4.48	4.60	-2.69
				5350	36.41	35.82	1.65	4.64	4.80	-3.53
F	6/28/2018	5250	Body	5250	46.92	48.95	-4.15	5.51	5.35	2.97
				5150	47.12	49.09	-4.01	5.37	5.24	2.46
				5350	46.64	48.82	-4.46	5.66	5.47	3.39
F	6/28/2018	5250	Head	5250	36.57	35.93	1.77	4.69	4.70	-0.32
				5150	36.73	36.05	1.89	4.57	4.60	-0.67
				5350	36.36	35.82	1.51	4.78	4.80	-0.47

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
G	6/3/2018	2450	Body	2450	50.19	52.70	-4.76	2.01	1.95	3.18
				2400	50.37	52.77	-4.55	1.99	1.90	4.69
				2480	50.14	52.66	-4.79	2.05	1.99	2.95
G	6/4/2018	2450	Head	2450	37.70	38.56	-2.23	1.88	1.80	4.33
				2400	37.77	39.30	-3.89	1.87	1.90	-1.48
				2480	37.61	39.16	-3.96	1.90	1.83	3.74
G	6/8/2018	2450	Body	2450	50.91	52.70	-3.40	1.98	1.95	1.64
				2400	51.00	52.77	-3.36	1.93	1.90	1.53
				2480	50.94	52.66	-3.27	2.00	1.99	0.44
G	6/8/2018	2450	Head	2450	37.50	39.20	-4.34	1.79	1.80	-0.50
				2400	37.67	39.30	-4.14	1.73	1.75	-1.01
				2480	37.54	39.16	-4.14	1.82	1.83	-0.90
G	6/12/2018	2450	Body	2450	50.75	52.70	-3.70	2.01	1.95	3.13
				2400	50.86	52.77	-3.62	1.98	1.90	4.27
				2480	50.77	52.66	-3.59	2.04	1.99	2.30
G	6/12/2018	2450	Head	2450	37.35	39.20	-4.72	1.85	1.80	2.78
				2400	37.50	39.30	-4.57	1.83	1.75	4.59
				2480	37.25	39.16	-4.88	1.88	1.83	2.38
G	6/15/2018	2450	Body	2450	52.12	52.70	-1.10	2.00	1.95	2.56
				2400	52.16	52.77	-1.16	1.95	1.90	2.74
				2480	52.09	52.66	-1.09	2.03	1.99	1.75
G	6/15/2018	2450	Head	2450	38.53	39.20	-1.71	1.83	1.80	1.50
				2400	38.79	39.30	-1.29	1.81	1.75	3.33
				2480	38.48	39.16	-1.74	1.86	1.83	1.29
G	6/19/2018	2450	Head	2450	38.62	39.20	-1.48	1.79	1.80	-0.61
				2400	38.65	39.30	-1.65	1.75	1.75	0.08
				2480	38.55	39.16	-1.56	1.81	1.83	-1.22
G	6/21/2018	2450	Body	2450	50.24	52.70	-4.67	2.02	1.95	3.79
				2400	50.27	52.77	-4.74	1.98	1.90	4.11
				2480	50.22	52.66	-4.64	2.05	1.99	2.90
G	6/22/2018	2600	Head	2600	37.84	39.01	-3.00	2.02	1.96	2.85
				2495	37.42	39.14	-4.40	1.91	1.85	3.05
				2690	38.01	38.90	-2.28	2.12	2.06	3.13
G	6/22/2018	2600	Body	2600	50.45	52.51	-3.92	2.22	2.16	2.51
				2495	50.64	52.64	-3.81	2.11	2.01	4.81
				2690	50.30	52.40	-4.00	2.30	2.29	0.60
G	6/26/2018	2600	Body	2600	51.08	52.51	-2.72	2.18	2.16	1.03
				2495	51.24	52.64	-2.67	2.10	2.01	4.06
				2690	50.92	52.40	-2.82	2.28	2.29	-0.28

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
H	6/3/2018	5600	Body	5600	46.95	48.48	-3.15	5.77	5.76	0.17
				5500	47.45	48.61	-2.39	5.61	5.64	-0.57
				5725	46.96	48.31	-2.79	5.89	5.91	-0.37
H	6/4/2018	5600	Head	5600	34.89	35.53	-1.81	4.85	5.06	-4.08
				5500	34.93	35.65	-2.01	4.79	4.96	-3.43
				5725	34.67	35.39	-2.04	4.96	5.19	-4.42
H	6/8/2018	5600	Body	5600	49.66	48.48	2.44	5.99	5.76	3.89
				5500	49.83	48.61	2.50	5.87	5.64	3.94
				5725	49.56	48.31	2.59	6.14	5.91	3.88
H	6/8/2018	5600	Head	5600	34.58	35.53	-2.68	5.29	5.06	4.48
				5500	34.96	35.65	-1.93	5.20	4.96	4.80
				5725	34.51	35.39	-2.49	5.41	5.19	4.18
H	6/11/2018	5600	Head	5600	35.75	35.53	0.61	5.17	5.06	2.09
				5500	35.85	35.65	0.57	5.06	4.96	2.00
				5725	35.66	35.39	0.76	5.32	5.19	2.48
H	6/13/2018	5600	Body	5600	47.32	48.48	-2.39	5.53	5.76	-4.04
				5500	47.12	48.61	-3.07	5.50	5.64	-2.49
				5725	46.95	48.31	-2.81	5.70	5.91	-3.43
H	6/15/2018	5600	Head	5600	34.75	35.53	-2.21	4.97	5.06	-1.76
				5500	34.90	35.65	-2.10	4.89	4.96	-1.37
				5725	34.63	35.39	-2.15	5.11	5.19	-1.56
H	6/17/2018	5600	Body	5600	46.72	48.48	-3.68	5.54	5.76	-3.87
				5500	47.13	48.61	-3.05	5.37	5.64	-4.90
				5725	46.68	48.31	-3.37	5.72	5.91	-3.21
H	6/19/2018	5750	Head	5750	34.53	35.36	-2.35	4.98	5.21	-4.46
				5700	34.47	35.42	-2.68	4.94	5.16	-4.41
				5850	34.39	35.30	-2.58	5.07	5.27	-3.78
H	6/20/2018	5600	Head	5600	35.60	35.53	0.19	4.98	5.06	-1.55
				5500	35.79	35.65	0.40	4.88	4.96	-1.49
				5725	35.42	35.39	0.08	5.12	5.19	-1.41
H	6/20/2018	5600	Body	5600	47.28	48.48	-2.47	5.65	5.76	-1.86
				5500	47.45	48.61	-2.39	5.51	5.64	-2.42
				5725	46.99	48.31	-2.73	5.83	5.91	-1.37
H	6/20/2018	5750	Body	5750	47.03	48.27	-2.58	5.83	5.94	-1.75
				5700	47.14	48.34	-2.49	5.78	5.88	-1.75
				5850	46.77	48.20	-2.97	5.98	6.00	-0.32
H	6/22/2018	5250	Body	5250	47.77	48.95	-2.41	5.16	5.35	-3.57
				5150	47.89	49.09	-2.44	5.06	5.24	-3.41
				5350	47.66	48.82	-2.37	5.34	5.47	-2.41
H	6/24/2018	5600	Head	5600	35.91	35.53	1.06	4.88	5.06	-3.52
				5500	35.89	35.65	0.68	4.78	4.96	-3.69
				5725	35.76	35.39	1.04	5.01	5.19	-3.51
H	6/25/2018	5600	Body	5600	46.27	48.48	-4.55	5.51	5.76	-4.32
				5500	46.46	48.61	-4.43	5.39	5.64	-4.44
				5725	45.98	48.31	-4.82	5.70	5.91	-3.43
H	6/28/2018	5600	Head	5600	34.47	35.53	-2.99	4.88	5.06	-3.52
				5500	34.49	35.65	-3.25	4.83	4.96	-2.62
				5725	34.30	35.39	-3.08	5.05	5.19	-2.74

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
1	5/31/2018	835	Body	835	53.15	55.20	-3.71	0.99	0.97	1.91
				805	53.50	55.33	-3.32	0.95	0.97	-1.55
				905	52.37	55.00	-4.78	1.06	1.05	0.33
1	6/2/2018	835	Body	835	54.25	55.20	-1.72	0.99	0.97	2.30
				805	54.77	55.33	-1.02	0.96	0.97	-0.76
				915	53.76	55.00	-2.25	1.08	1.06	1.98
1	6/4/2018	750	Body	750	54.42	55.55	-2.03	0.95	0.96	-0.86
				695	55.03	55.76	-1.31	0.90	0.96	-6.20
				790	54.19	55.39	-2.17	0.99	0.97	2.88
1	6/5/2018	835	Body	835	53.76	55.20	-2.60	0.98	0.97	1.41
				805	53.57	55.33	-3.19	0.94	0.97	-3.15
				915	52.30	55.00	-4.91	1.04	1.06	-1.70
1	6/5/2018	750	Body	750	53.08	55.55	-4.44	0.92	0.96	-4.16
				695	53.60	55.76	-3.87	0.86	0.96	-9.83
				790	52.65	55.39	-4.95	0.97	0.97	-0.10
1	6/7/2018	750	Body	750	57.49	55.55	3.50	0.98	0.96	1.59
				695	57.84	55.76	3.73	0.92	0.96	-3.98
				790	57.05	55.39	2.99	1.01	0.97	4.54
1	6/9/2018	835	Body	835	53.71	55.20	-2.70	1.00	0.97	3.40
				805	53.96	55.33	-2.48	0.96	0.97	-0.68
				905	52.97	55.00	-3.69	1.08	1.05	2.14
1	6/11/2018	835	Head	835	41.17	41.50	-0.80	0.90	0.90	-0.10
				805	41.51	41.68	-0.41	0.87	0.90	-2.98
				905	40.44	41.50	-2.55	0.97	0.97	-0.14
1	6/15/2018	1900	Body	1900	50.93	53.30	-4.45	1.53	1.52	0.66
				1850	51.11	53.30	-4.11	1.49	1.52	-2.11
				1920	50.85	53.30	-4.60	1.55	1.52	1.97
1	6/17/2018	1900	Head	1900	38.83	40.00	-2.93	1.43	1.40	1.86
				1850	39.10	40.00	-2.25	1.38	1.40	-1.57
				1920	38.77	40.00	-3.07	1.45	1.40	3.50
1	6/20/2018	1900	Body	1900	51.13	53.30	-4.07	1.52	1.52	0.07
				1850	51.39	53.30	-3.58	1.49	1.52	-1.78
				1920	51.00	53.30	-4.32	1.55	1.52	1.84
1	6/21/2018	1900	Head	1900	38.95	40.00	-2.62	1.44	1.40	3.07
				1850	39.17	40.00	-2.08	1.39	1.40	-0.64
				1920	38.84	40.00	-2.90	1.46	1.40	4.00
1	6/21/2018	750	Body	750	54.53	55.55	-1.83	0.96	0.96	-0.57
				660	56.26	55.89	0.65	0.89	0.96	-6.86
				790	54.85	55.39	-0.98	1.02	0.97	5.47
1	6/22/2018	2600	Head	2600	40.62	39.01	4.12	1.93	1.96	-1.49
				2495	40.64	39.14	3.82	1.82	1.85	-1.55
				2690	40.62	38.90	4.43	2.05	2.06	-0.46
1	6/25/2018	2600	Body	2600	50.41	52.51	-4.00	2.21	2.16	2.42
				2495	50.62	52.64	-3.84	2.10	2.01	4.51
				2690	50.57	52.40	-3.49	2.33	2.29	1.87

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
3	5/30/2018	750	Head	750	40.52	41.96	-3.44	0.93	0.89	3.71
				695	41.45	42.24	-1.88	0.88	0.89	-0.91
				790	40.07	41.76	-4.04	0.96	0.90	7.59
3	5/30/2018	750	Body	750	54.77	55.55	-1.40	0.97	0.96	0.84
				695	55.15	55.76	-1.09	0.92	0.96	-4.46
				790	54.06	55.39	-2.41	1.00	0.97	3.27
3	6/2/2018	750	Body	750	57.45	55.55	3.43	0.98	0.96	1.67
				695	57.96	55.76	3.95	0.93	0.96	-2.83
				790	57.03	55.39	2.96	1.02	0.97	5.57
3	6/2/2018	750	Head	750	42.69	41.96	1.74	0.94	0.89	4.69
				695	43.58	42.24	3.16	0.89	0.89	-0.26
				790	42.22	41.76	1.11	0.98	0.90	8.81
3	6/3/2018	750	Head	750	42.28	41.96	0.76	0.91	0.89	2.22
				695	43.18	42.24	2.22	0.86	0.89	-3.46
				790	42.09	41.76	0.80	0.95	0.90	5.99
3	6/3/2018	750	Body	750	53.73	55.55	-3.27	0.96	0.96	-0.76
				695	54.19	55.76	-2.81	0.91	0.96	-4.89
				790	53.07	55.39	-4.19	0.99	0.97	2.61
3	6/5/2018	750	Head	750	40.91	41.96	-2.51	0.90	0.89	0.78
				695	41.74	42.24	-1.19	0.86	0.89	-3.25
				790	40.03	41.76	-4.13	0.94	0.90	4.56
3	6/6/2018	750	Body	750	53.84	55.55	-3.07	0.96	0.96	0.09
				695	54.33	55.76	-2.56	0.91	0.96	-4.92
				790	53.09	55.39	-4.16	1.00	0.97	3.92
3	6/9/2018	5200	Body	5200	47.91	49.02	-2.26	5.15	5.29	-2.81
				5150	47.63	49.09	-2.97	5.11	5.24	-2.38
				5350	47.44	48.82	-2.82	5.38	5.47	-1.64
3	6/9/2018	5600	Body	5600	47.19	48.48	-2.66	5.68	5.76	-1.35
				5500	47.25	48.61	-2.80	5.54	5.64	-1.78
				5725	46.72	48.31	-3.29	5.87	5.91	-0.59
3	6/9/2018	5800	Body	5800	46.73	48.20	-3.05	5.99	6.00	-0.17
				5700	46.97	48.34	-2.84	5.80	5.88	-1.34
				5850	46.60	48.20	-3.32	6.04	6.00	0.65

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
3	6/13/2018	5200	Body	5200	47.36	49.02	-3.39	5.33	5.29	0.59
				5150	47.61	49.09	-3.01	5.29	5.24	1.10
				5350	47.07	48.82	-3.58	5.49	5.47	0.43
3	6/13/2018	5600	Body	5600	46.78	48.48	-3.50	5.85	5.76	1.54
				5500	46.87	48.61	-3.59	5.75	5.64	1.78
				5725	46.58	48.31	-3.58	5.99	5.91	1.44
3	6/17/2018	2450	Body	2450	50.48	52.70	-4.21	1.93	1.95	-0.82
				2400	50.56	52.77	-4.19	1.86	1.90	-1.95
				2480	50.44	52.66	-4.22	1.96	1.99	-1.77
3	6/19/2018	1900	Body	1900	52.69	53.30	-1.14	1.57	1.52	3.03
				1850	52.90	53.30	-0.75	1.51	1.52	-0.39
				1920	52.65	53.30	-1.22	1.59	1.52	4.67
3	6/21/2018	750	Head	750	40.51	41.96	-3.46	0.92	0.89	3.51
				660	42.70	42.42	0.65	0.85	0.89	-3.80
				790	40.89	41.76	-2.07	0.98	0.90	9.35
3	6/22/2018	2600	Body	2600	52.30	52.51	-0.40	2.24	2.16	3.80
				2495	52.44	52.64	-0.39	2.07	2.01	2.62
				2690	50.95	52.40	-2.76	2.35	2.29	2.70
4	5/30/2018	835	Head	835	42.81	41.50	3.16	0.94	0.90	4.87
				805	42.90	41.68	2.93	0.91	0.90	1.08
				905	41.80	41.50	0.72	1.00	0.97	2.83
4	5/30/2018	835	Body	835	53.75	55.20	-2.63	0.99	0.97	2.18
				805	53.87	55.33	-2.65	0.95	0.97	-1.85
				905	52.90	55.00	-3.82	1.05	1.05	-0.52
4	6/2/2018	835	Head	835	42.49	41.50	2.39	0.92	0.90	2.47
				805	43.18	41.68	3.60	0.89	0.90	-0.59
				915	41.93	41.50	1.04	1.01	0.98	2.55
4	6/5/2018	835	Head	835	43.44	41.50	4.67	0.93	0.90	2.97
				805	43.37	41.68	4.06	0.89	0.90	-0.96
				915	41.95	41.50	1.08	0.99	0.98	1.03
4	6/9/2018	5200	Body	5200	47.43	49.02	-3.24	5.33	5.29	0.63
				5150	47.31	49.09	-3.62	5.36	5.24	2.30
				5350	47.30	48.82	-3.11	5.43	5.47	-0.65
4	6/9/2018	5600	Body	5600	46.93	48.48	-3.19	5.80	5.76	0.61
				5500	46.91	48.61	-3.50	5.55	5.64	-1.60
				5725	46.80	48.31	-3.12	5.91	5.91	0.00
4	6/9/2018	5800	Body	5800	46.37	48.20	-3.80	6.18	6.00	3.03
				5700	46.66	48.34	-3.48	6.01	5.88	2.18
				5850	46.69	48.20	-3.13	6.14	6.00	2.40

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
4	6/9/2018	835	Head	835	41.53	41.50	0.07	0.91	0.90	0.62
				805	41.94	41.68	0.63	0.88	0.90	-1.87
				905	40.78	41.50	-1.73	0.97	0.97	0.11
4	6/13/2018	5200	Body	5200	47.41	49.02	-3.28	5.35	5.29	1.12
				5150	47.75	49.09	-2.72	5.33	5.24	1.69
				5350	47.10	48.82	-3.52	5.58	5.47	2.02
4	6/13/2018	5600	Body	5600	46.61	48.48	-3.85	5.98	5.76	3.80
				5500	46.84	48.61	-3.65	5.82	5.64	3.16
				5725	46.50	48.31	-3.74	6.11	5.91	3.51
4	6/17/2018	1900	Head	1900	38.26	40.00	-4.35	1.43	1.40	2.36
				1850	38.48	40.00	-3.80	1.39	1.40	-0.86
				1920	38.17	40.00	-4.58	1.45	1.40	3.36
4	6/19/2018	5200	Body	5200	48.03	49.02	-2.02	5.49	5.29	3.73
				5150	48.27	49.09	-1.67	5.47	5.24	4.52
				5350	47.64	48.82	-2.41	5.72	5.47	4.54
4	6/21/2018	1900	Head	1900	38.18	40.00	-4.55	1.45	1.40	3.43
				1850	38.35	40.00	-4.13	1.39	1.40	-0.57
				1920	38.08	40.00	-4.80	1.46	1.40	4.29
4	6/22/2018	2600	Head	2600	39.97	39.01	2.46	1.89	1.96	-3.73
				2495	39.95	39.14	2.06	1.79	1.85	-2.96
				2690	39.94	38.90	2.68	2.03	2.06	-1.33
4	6/25/2018	835	Body	835	54.08	55.20	-2.03	0.95	0.97	-1.98
				805	54.28	55.33	-1.91	0.92	0.97	-4.68
				905	53.35	55.00	-3.00	1.03	1.05	-2.52
4	6/25/2018	835	Head	835	41.98	41.50	1.16	0.92	0.90	2.53
				805	42.03	41.68	0.84	0.91	0.90	1.50
				905	41.80	41.50	0.72	0.95	0.97	-2.56

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.

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 $\pm 10\%$ of the manufacturer calibrated dipole SAR target. Refer to Appendix B for the SAR System Check Plots.

SAR Lab	Date	Tissue Type	Dipole Type Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta $\pm 10\%$	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta $\pm 10\%$	
A	6/1/2018	Head	D2600V2 SN:1036	3/16/2019	5.830	58.30	54.54	6.89	2.520	25.20	24.56	2.61	1,2
A	6/1/2018	Body	D2600V2 SN:1036	3/16/2019	5.550	55.50	56.13	-1.12	2.420	24.20	25.04	-3.35	
A	6/5/2018	Head	D2600V2 SN:1036	3/16/2019	5.800	58.00	54.54	6.34	2.510	25.10	24.56	2.20	
A	6/7/2018	Body	D2600V2 SN:1006	10/5/2018	5.710	57.10	56.13	1.73	2.500	25.00	25.00	0.00	
A	6/10/2018	Body	D2600V2 SN:1036	3/16/2019	5.690	56.90	56.13	1.37	2.460	24.60	25.04	-1.76	
A	6/12/2018	Head	D2600V2 SN:1036	3/16/2019	5.820	58.20	54.54	6.71	2.520	25.20	24.56	2.61	
A	6/15/2018	Body	D2600V2 SN:1036	3/16/2019	5.430	54.30	56.13	-3.26	2.360	23.60	25.04	-5.75	
A	6/18/2018	Head	D2600V2 SN:1006	10/5/2018	6.020	60.20	55.73	8.02	2.610	26.10	25.08	4.07	3,4
A	6/19/2018	Body	D2600V2 SN:1006	10/5/2018	5.440	54.40	56.13	-3.08	2.370	23.70	25.00	-5.20	
A	6/22/2018	Head	D2600V2 SN:1036	3/16/2019	5.398	53.98	54.54	-1.03	2.340	23.40	24.56	-4.72	
A	6/23/2018	Body	D2600V2 SN:1036	3/16/2019	5.310	53.10	56.13	-5.40	2.300	23.00	25.04	-8.15	
B	6/1/2018	Head	D1750V2 SN:1053	8/24/2018	4.120	41.20	39.45	4.44	2.160	21.60	20.58	4.96	
B	6/4/2018	Head	D1750V2 SN:1053	8/24/2018	4.140	41.40	39.45	4.94	2.170	21.70	20.58	5.44	
B	6/4/2018	Head	D1900V2 SN:5d140	4/11/2019	4.140	41.40	38.93	6.34	2.100	21.00	20.14	4.27	5,6
B	6/6/2018	Body	D1750V2 SN:1053	8/24/2018	3.140	31.40	32.44	-3.21	1.660	16.60	17.31	-4.10	
B	6/6/2018	Body	D1900V2 SN:5d140	4/11/2019	4.120	41.20	41.00	0.49	2.120	21.20	21.05	0.71	
B	6/9/2018	Body	D1750V2 SN:1077	10/5/2018	3.980	39.80	37.34	6.59	2.090	20.90	19.98	4.60	7,8
B	6/10/2018	Body	D1900V2 SN:5d140	4/11/2019	4.180	41.80	41.00	1.95	2.120	21.20	21.05	0.71	
B	6/12/2018	Head	D1750V2 SN:1077	10/5/2018	3.660	36.60	36.26	0.94	1.940	19.40	19.34	0.31	
B	6/14/2018	Body	D1750V2 SN:1077	10/5/2018	3.890	38.90	37.34	4.18	2.060	20.60	19.98	3.10	
B	6/15/2018	Body	D1900V2 SN:5d140	4/11/2019	4.300	43.00	41.00	4.88	2.200	22.00	21.05	4.51	
B	6/16/2018	Head	D1900V2 SN:5d140	4/11/2019	4.000	40.00	38.93	2.75	2.040	20.40	20.14	1.29	
B	6/17/2018	Head	D1750V2 SN:1053	8/24/2018	3.790	37.90	39.45	-3.93	2.000	20.00	20.58	-2.82	
B	6/18/2018	Body	D1750V2 SN:1053	8/24/2018	3.130	31.30	32.44	-3.51	1.650	16.50	17.31	-4.68	
B	6/21/2018	Head	D1750V2 SN:1053	8/24/2018	3.680	36.80	39.45	-6.72	1.940	19.40	20.58	-5.73	9,10
B	6/22/2018	Body	D1750V2 SN:1053	8/24/2018	3.330	33.30	32.44	2.65	1.750	17.50	17.31	1.10	
B	6/25/2018	Head	D1900V2 SN:5d163	10/5/2018	4.030	40.30	38.77	3.95	2.040	20.40	20.10	1.49	11,12
B	6/25/2018	Body	D1900V2 SN:5d163	10/5/2018	4.280	42.80	42.99	-0.44	2.190	21.90	21.97	-0.32	
B	6/25/2018	Head	D2600V2 SN:1006	10/5/2018	5.630	56.30	55.73	1.02	2.530	25.30	25.08	0.88	13,14

SAR Lab	Date	Tissue Type	Dipole Type Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
C	6/1/2018	Head	D1900V2 SN:5d140	4/11/2019	4.020	40.20	38.93	3.26	2.060	20.60	20.14	2.28	
C	6/4/2018	Head	D1900V2 SN:5d140	4/11/2019	4.260	42.60	38.93	9.43	2.170	21.70	20.14	7.75	15,16
C	6/7/2018	Body	D1900V2 SN:5d140	4/11/2019	4.220	42.20	41.00	2.93	2.180	21.80	21.05	3.56	
C	6/9/2018	Body	D1900V2 SN:5d140	4/11/2019	4.100	41.00	41.00	0.00	2.110	21.10	21.05	0.24	
C	6/12/2018	Head	D1900V2 SN:5d140	4/11/2019	4.150	41.50	38.93	6.60	2.120	21.20	20.14	5.26	
C	6/14/2018	Body	D1900V2 SN:5d140	4/11/2019	4.410	44.10	41.00	7.56	2.280	22.80	21.05	8.31	
C	6/17/2018	Head	D1900V2 SN:5d140	4/11/2019	4.050	40.50	38.93	4.03	2.070	20.70	20.14	2.78	
C	6/23/2018	Head	D2600V2 SN:1036	3/16/2019	5.720	57.20	54.54	4.88	2.560	25.60	24.56	4.23	17,18
C	6/26/2018	Head	D2450V2 SN:748	2/14/2019	5.690	56.90	52.94	7.48	2.640	26.40	24.60	7.32	19,20
C	7/2/2018	Body	D1900V2 SN:5d163	10/5/2018	4.080	40.80	42.99	-5.09	2.110	21.10	21.97	-3.96	21,22
D	6/1/2018	Head	D2300V2 SN:1058	8/31/2018	5.020	50.20	53.74	-6.59	2.360	23.60	25.31	-6.76	23,24
D	6/3/2018	Head	D2600V2 SN:1006	10/5/2018	5.530	55.30	55.73	-0.77	2.410	24.10	25.08	-3.91	
D	6/4/2018	Head	D2300V2 SN:1058	8/31/2018	5.070	50.70	53.74	-5.66	2.380	23.80	25.31	-5.97	
D	6/6/2018	Body	D2600V2 SN:1036	3/16/2019	5.410	54.10	56.13	-3.62	2.340	23.40	25.04	-6.55	
D	6/6/2018	Body	D2300V2 SN:1058	8/31/2018	5.060	50.60	54.14	-6.54	2.390	23.90	24.88	-3.94	
D	6/9/2018	Body	D2300V2 SN:1058	8/31/2018	5.360	53.60	54.14	-1.00	2.530	25.30	24.88	1.69	
D	6/9/2018	Body	D2600V2 SN:1036	3/16/2019	5.430	54.30	56.13	-3.26	2.360	23.60	25.04	-5.75	
D	6/12/2018	Body	D2600V2 SN:1006	10/5/2018	5.350	53.50	56.13	-4.69	2.330	23.30	25.00	-6.80	25,26
D	6/12/2018	Head	D2300V2 SN:1058	8/31/2018	5.070	50.70	53.74	-5.66	2.390	23.90	25.31	-5.57	
D	6/13/2018	Body	D2300V2 SN:1058	8/31/2018	5.120	51.20	54.14	-5.43	2.430	24.30	24.88	-2.33	
D	6/16/2018	Body	D2600V2 SN:1036	3/16/2019	5.270	52.70	56.13	-6.11	2.310	23.10	25.04	-7.75	
D	6/18/2018	Body	D2300V2 SN:1058	8/31/2018	5.090	50.90	54.14	-5.98	2.400	24.00	24.88	-3.54	
D	6/18/2018	Head	D2300V2 SN:1058	8/31/2018	5.100	51.00	53.74	-5.10	2.410	24.10	25.31	-4.78	
D	6/20/2018	Body	D2600V2 SN:1036	3/16/2019	5.120	51.20	56.13	-8.78	2.260	22.60	25.04	-9.74	27,28
D	6/22/2018	Body	D2300V2 SN:1002	3/16/2019	5.070	50.70	50.16	1.08	2.410	24.10	23.72	1.60	
D	6/22/2018	Head	D2300V2 SN:1002	3/16/2019	5.030	50.30	51.75	-2.80	2.380	23.80	24.68	-3.57	29,30
D	6/24/2018	Head	D2600V2 SN:1036	3/16/2019	5.650	56.50	54.54	3.59	2.470	24.70	24.56	0.57	
D	6/24/2018	Body	D2600V2 SN:1036	3/16/2019	5.570	55.70	56.13	-0.77	2.440	24.40	25.04	-2.56	

SAR Lab	Date	Tissue Type	Dipole Type Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
E	6/4/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.700	77.00	73.90	4.19	2.160	21.60	20.60	4.85	
E	6/4/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.370	73.70	78.40	-5.99	2.110	21.10	22.20	-4.95	
E	6/6/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.630	76.30	73.90	3.25	2.110	21.10	20.60	2.43	
E	6/6/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	8.050	80.50	78.40	2.68	2.310	23.10	22.20	4.05	
E	6/9/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	6.750	67.50	73.90	-8.66	1.990	19.90	20.60	-3.40	
E	6/10/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.450	74.50	78.40	-4.97	2.130	21.30	22.20	-4.05	
E	6/13/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	8.110	81.10	73.90	9.74	2.260	22.60	20.60	9.71	31,32
E	6/13/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.110	71.10	78.40	-9.31	2.040	20.40	22.20	-8.11	
E	6/17/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	8.030	80.30	73.90	8.66	2.230	22.30	20.60	8.25	
E	6/17/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.780	77.80	78.40	-0.77	2.230	22.30	22.20	0.45	
E	6/18/2018	Body	D2450V2 SN:748	2/14/2019	5.320	53.20	50.95	4.42	2.440	24.40	23.80	2.52	33,34
E	6/22/2018	Body	D2450V2 SN:748	2/14/2019	5.420	54.20	50.95	6.38	2.500	25.00	23.80	5.04	
E	6/23/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.680	76.80	78.40	-2.04	2.200	22.00	22.20	-0.90	
E	6/25/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.010	70.10	73.90	-5.14	1.950	19.50	20.60	-5.34	
E	6/28/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.790	77.90	78.40	-0.64	2.230	22.30	22.20	0.45	
F	6/3/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.170	71.70	73.60	-2.58	2.020	20.20	20.50	-1.46	
F	6/3/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	7.890	78.90	77.70	1.54	2.200	22.00	21.70	1.38	
F	6/4/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.560	75.60	80.60	-6.20	2.150	21.50	23.20	-7.33	
F	6/6/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.360	73.60	73.60	0.00	2.080	20.80	20.50	1.46	
F	6/8/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.490	74.90	80.60	-7.07	2.150	21.50	23.20	-7.33	
F	6/10/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	6.710	67.10	73.60	-8.83	1.920	19.20	20.50	-6.34	35,36
F	6/12/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	8.080	80.80	80.60	0.25	2.300	23.00	23.20	-0.86	
F	6/14/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.030	70.30	73.60	-4.48	1.980	19.80	20.50	-3.41	
F	6/16/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.750	77.50	80.60	-3.85	2.260	22.60	23.20	-2.59	
F	6/18/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.570	75.70	73.60	2.85	2.130	21.30	20.50	3.90	
F	6/20/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.460	74.60	80.60	-7.44	2.110	21.10	23.20	-9.05	
F	6/22/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.180	71.80	73.60	-2.45	2.030	20.30	20.50	-0.98	
F	6/24/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.370	73.70	80.60	-8.56	2.120	21.20	23.20	-8.62	
F	6/28/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	6.760	67.60	73.60	-8.15	1.970	19.70	20.50	-3.90	
F	6/28/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.560	75.60	80.60	-6.20	2.170	21.70	23.20	-6.47	

SAR Lab	Date	Tissue Type	Dipole Type Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
G	6/3/2018	Body	D2450V2 SN:899	3/16/2019	5.340	53.40	50.55	5.64	2.470	24.70	23.20	6.47	
G	6/4/2018	Head	D2450V2 SN:899	3/16/2019	5.560	55.60	51.75	7.44	2.570	25.70	24.20	6.20	
G	6/8/2018	Body	D2450V2 SN:899	3/16/2019	5.280	52.80	50.55	4.45	2.460	24.60	23.20	6.03	
G	6/8/2018	Head	D2450V2 SN:899	3/16/2019	5.190	51.90	51.75	0.29	2.400	24.00	24.20	-0.83	
G	6/12/2018	Body	D2450V2 SN:899	3/16/2019	5.310	53.10	50.55	5.04	2.450	24.50	23.20	5.60	
G	6/12/2018	Head	D2450V2 SN:899	3/16/2019	5.230	52.30	51.75	1.06	2.430	24.30	24.20	0.41	
G	6/15/2018	Body	D2450V2 SN:899	3/16/2019	4.750	47.50	50.55	-6.03	2.200	22.00	23.20	-5.17	
G	6/15/2018	Head	D2450V2 SN:899	3/16/2019	4.750	47.50	51.75	-8.21	2.210	22.10	24.20	-8.68	37,38
G	6/19/2018	Head	D2450V2 SN:899	3/16/2019	5.300	53.00	51.75	2.42	2.460	24.60	24.20	1.65	
G	6/21/2018	Body	D2450V2 SN:748	2/14/2019	5.560	55.60	50.95	9.13	2.560	25.60	23.80	7.56	39,40
G	6/22/2018	Head	D2600V2 SN:1036	3/16/2019	5.890	58.90	54.54	7.99	2.630	26.30	24.56	7.08	41,42
G	6/22/2018	Body	D2600V2 SN:1036	3/16/2019	5.710	57.10	56.13	1.73	2.520	25.20	25.04	0.64	
G	6/26/2018	Body	D2600V2 SN:1006	10/5/2018	5.780	57.80	56.13	2.98	2.550	25.50	25.00	2.00	43,44
H	6/3/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	7.970	79.70	77.70	2.57	2.270	22.70	21.70	4.61	
H	6/4/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.010	80.10	84.50	-5.21	2.260	22.60	24.00	-5.83	
H	6/8/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.380	83.80	77.70	7.85	2.360	23.60	21.70	8.76	
H	6/8/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	7.700	77.00	84.50	-8.88	2.170	21.70	24.00	-9.58	45,46
H	6/11/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.420	84.20	84.50	-0.36	2.370	23.70	24.00	-1.25	
H	6/13/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	7.970	79.70	77.70	2.57	2.240	22.40	21.70	3.23	
H	6/15/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.960	89.60	84.50	6.04	2.530	25.30	24.00	5.42	
H	6/17/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.440	84.40	77.70	8.62	2.380	23.80	21.70	9.68	
H	6/19/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.290	72.90	78.40	-7.02	2.080	20.80	22.20	-6.31	
H	6/20/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	9.170	91.70	84.50	8.52	2.600	26.00	24.00	8.33	
H	6/20/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.440	84.40	77.70	8.62	2.360	23.60	21.70	8.76	
H	6/20/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.590	75.90	73.90	2.71	2.130	21.30	20.60	3.40	
H	6/22/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.330	73.30	73.60	-0.41	2.100	21.00	20.50	2.44	
H	6/24/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.250	82.50	84.50	-2.37	2.350	23.50	24.00	-2.08	
H	6/25/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	7.630	76.30	77.70	-1.80	2.190	21.90	21.70	0.92	
H	6/28/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.120	81.20	84.50	-3.91	2.290	22.90	24.00	-4.58	

SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
1	5/31/2018	Body	D835V2 SN:4d002	11/21/2018	1.000	10.00	10.23	-2.25	0.661	6.61	6.80	-2.79	
1	6/2/2018	Body	D835V2 SN:4d002	11/21/2018	0.989	9.89	10.23	-3.32	0.650	6.50	6.80	-4.41	
1	6/4/2018	Body	D750V3 SN:1071	11/21/2018	0.858	8.58	8.52	0.70	0.574	5.74	5.69	0.88	
1	6/5/2018	Body	D835V2 SN:4d002	11/21/2018	1.020	10.20	10.23	-0.29	0.666	6.66	6.80	-2.06	
1	6/7/2018	Body	D750V3 SN:1071	11/21/2018	0.905	9.05	8.52	6.22	0.605	6.05	5.69	6.33	47,48
1	6/9/2018	Body	D835V2 SN:4d142	10/12/2018	1.030	10.30	9.63	6.96	0.678	6.78	6.27	8.13	49,50
1	6/11/2018	Head	D835V2 SN:4d002	11/21/2018	0.982	9.82	10.27	-4.38	0.644	6.44	6.76	-4.73	51,52
1	6/15/2018	Body	D1900V2 SN:5d043	11/22/2018	4.370	43.70	41.00	6.59	2.280	22.80	20.90	9.09	53,54
1	6/17/2018	Head	D1900V2 SN:5d043	11/22/2018	4.050	40.50	42.99	-5.79	2.070	20.70	22.17	-6.63	
1	6/20/2018	Body	D1900V2 SN:5d043	11/22/2018	4.360	43.60	41.00	6.34	2.270	22.70	20.90	8.61	
1	6/21/2018	Head	D1900V2 SN:5d043	11/22/2018	4.420	44.20	42.99	2.81	2.260	22.60	22.17	1.94	
1	6/21/2018	Body	D750V3 SN:1071	11/21/2018	0.878	8.78	8.52	3.05	0.584	5.84	5.69	2.64	
1	6/22/2018	Head	D2600V2 SN:1006	10/5/2018	5.540	55.40	55.73	-0.59	2.490	24.90	25.08	-0.72	
1	6/25/2018	Body	D2600V2 SN:1006	10/5/2018	5.250	52.50	56.13	-6.47	2.260	22.60	25.00	-9.60	55,56
3	5/30/2018	Head	D750V3 SN:1071	11/21/2018	0.901	9.01	8.59	4.89	0.592	5.92	5.73	3.32	
3	5/30/2018	Body	D750V3 SN:1071	11/21/2018	0.903	9.03	8.52	5.99	0.603	6.03	5.69	5.98	
3	6/2/2018	Body	D750V3 SN:1071	11/21/2018	0.909	9.09	8.52	6.69	0.607	6.07	5.69	6.68	57,58
3	6/2/2018	Head	D750V3 SN:1071	11/21/2018	0.903	9.03	8.59	5.12	0.592	5.92	5.73	3.32	
3	6/5/2018	Head	D750V3 SN:1071	11/21/2018	0.829	8.29	8.59	-3.49	0.545	5.45	5.73	-4.89	
3	6/6/2018	Body	D750V3 SN:1071	11/21/2018	0.893	8.93	8.52	4.81	0.594	5.94	5.69	4.39	
3	6/9/2018	Body	D5GHzV2 SN:1138 (5.2 GHz)	10/26/2018	7.210	72.10	73.40	-1.77	2.060	20.60	20.60	0.00	
3	6/9/2018	Body	D5GHzV2 SN:1138 (5.6 GHz)	10/26/2018	8.690	86.90	79.50	9.31	2.450	24.50	22.30	9.87	59,60
3	6/9/2018	Body	D5GHzV2 SN:1138 (5.8 GHz)	10/26/2018	7.230	72.30	76.80	-5.86	2.050	20.50	21.30	-3.76	
3	6/13/2018	Body	D5GHzV2 SN:1138 (5.2 GHz)	10/26/2018	6.820	68.20	73.40	-7.08	1.930	19.30	20.60	-6.31	
3	6/13/2018	Body	D5GHzV2 SN:1138 (5.6 GHz)	10/26/2018	8.130	81.30	79.50	2.26	2.290	22.90	22.30	2.69	
3	6/17/2018	Body	D2450V2 SN:899	3/16/2019	5.210	52.10	50.55	3.07	2.420	24.20	23.20	4.31	61,62
3	6/19/2018	Body	D1900V2 SN:5d043	11/22/2018	4.070	40.70	41.00	-0.73	2.120	21.20	20.90	1.44	63,64
3	6/21/2018	Head	D750V3 SN:1071	11/21/2018	0.862	8.62	8.59	0.35	0.567	5.67	5.73	-1.05	
3	6/22/2018	Body	D2600V2 SN:1006	10/5/2018	5.940	59.40	56.13	5.83	2.610	26.10	25.00	4.40	65,66

SAR Lab	Date	Tissue Type	Dipole Type Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
4	5/30/2018	Head	D835V2 SN:4d142	10/12/2018	1.030	10.30	9.64	6.85	0.676	6.76	6.22	8.68	67,68
4	5/30/2018	Body	D835V2 SN:4d142	10/12/2018	0.975	9.75	9.63	1.25	0.646	6.46	6.27	3.03	
4	6/2/2018	Head	D835V2 SN:4d142	10/12/2018	1.010	10.10	9.64	4.77	0.664	6.64	6.22	6.75	
4	6/5/2018	Head	D835V2 SN:4d142	10/12/2018	1.010	10.10	9.64	4.77	0.665	6.65	6.22	6.91	
4	6/9/2018	Body	D5GHzV2 SN:1138 (5.2 GHz)	10/26/2018	6.830	68.30	73.40	-6.95	1.940	19.40	20.60	-5.83	
4	6/9/2018	Body	D5GHzV2 SN:1138 (5.6 GHz)	10/26/2018	8.520	85.20	79.50	7.17	2.340	23.40	22.30	4.93	
4	6/9/2018	Body	D5GHzV2 SN:1138 (5.8 GHz)	10/26/2018	8.000	80.00	76.80	4.17	2.210	22.10	21.30	3.76	
4	6/9/2018	Head	D835V2 SN:4d002	11/21/2018	1.010	10.10	10.27	-1.66	0.629	6.29	6.76	-6.95	69,70
4	6/13/2018	Body	D5GHzV2 SN:1138 (5.2 GHz)	10/26/2018	7.350	73.50	73.40	0.14	2.090	20.90	20.60	1.46	
4	6/13/2018	Body	D5GHzV2 SN:1138 (5.6 GHz)	10/26/2018	8.310	83.10	79.50	4.53	2.290	22.90	22.30	2.69	
4	6/17/2018	Head	D1900V2 SN:5d043	11/22/2018	3.970	39.70	42.99	-7.65	2.040	20.40	22.17	-7.98	71,72
4	6/19/2018	Body	D5GHzV2 SN:1138 (5.2 GHz)	10/26/2018	7.930	79.30	73.40	8.04	2.240	22.40	20.60	8.74	73,74
4	6/21/2018	Head	D1900V2 SN:5d043	11/22/2018	4.130	41.30	42.99	-3.93	2.120	21.20	22.17	-4.38	
4	6/22/2018	Head	D2600V2 SN:1006	10/5/2018	5.110	51.10	55.73	-8.31	2.290	22.90	25.08	-8.69	75,76
4	6/25/2018	Body	D835V2 SN:4d142	10/12/2018	0.983	9.83	9.63	2.08	0.651	6.51	6.27	3.83	
4	6/25/2018	Head	D835V2 SN:4d142	10/12/2018	0.976	9.76	9.64	1.24	0.638	6.38	6.22	2.57	

9. Conducted Output Power Measurements

Power measurements were performed in accordance to the device's two power modes, Mode A and Mode B for each antenna. Mode A power is used when the device is used against the user's head or away from the body. Mode B power is used when the device is used in a Body-worn configuration by the user.

The selection between antennas ANT1, ANT2, ANT3, ANT4, ANT5, and ANT6 in the application is based on RSSI based antenna selection. The full details of power selections are described in the operational description. Refer to Sec. 7 and Sec. 10 for details of the testing. Test reductions have applied accordingly following the SAR KDB Procedure for the supported wireless technologies of the DUT. This is noted in detail for each technology in their respective Sections.

The Tune-up limit already includes component tolerance of ± 0.5 dB for modulations other than LTE 2CA, where a ± 1.0 dB tolerance is included. KDB 447498 sec.4.1.(d) at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.

9.1. GSM

Per KDB 941225 D01 3G SAR Procedures for GSM:

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

When different maximum output power applies to GSM voice or GPRS/EDGE time slots, GSM voice and GPRS/EDGE time slots should be tested separately to determine compliance by summing the corresponding reported SAR.

The GMSK EDGE configurations are grouped with GPRS and considered with respect to time-averaged maximum output power to determine compliance

Per October 2013 TCB Workshop:

When the maximum frame-averaged powers levels are within 0.25 dB of each other, test the configuration with the most number of time slots.

Maximum Output Power (Tune-up Limit) for GSM

SAR is not required for EDGE (8PSK) mode because the maximum output power and tune-up limit is $\leq 1/4$ dB higher than GPRS/EDGE (GMSK) or the adjusted SAR of the highest reported SAR of GPRS/EDGE (GMSK) is ≤ 1.2 W/kg.

RF Air interface	Mode	Maximum Output Power (Tune-up Limit) (dBm)							
		ANT1		ANT2		ANT3		ANT4	
		Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
GSM850	Voice/GPRS (1 slot)	33.00	33.00	31.00	31.00				
	GPRS 2 slots	32.00	32.00	30.00	30.00				
	EGPRS 1 slot	27.50	27.50	25.50	25.50				
	EGPRS 2 slots	26.50	26.50	24.50	24.50				
GSM1900	Voice/GPRS (1 slot)	31.50	30.50	29.00	29.00	31.00	30.00	29.00	29.00
	GPRS 2 slots	30.50	27.50	26.50	26.20	30.00	27.00	27.00	27.50
	EGPRS 1 slot	26.50	26.50	24.00	24.00	26.00	26.00	24.00	24.00
	EGPRS 2 slots	25.50	25.50	23.00	23.00	25.00	25.00	23.00	23.00

GSM850 Measured Results (ANT1)

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Power Mode A (dBm)				Power Mode B (dBm)			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	128	824.2	32.00	22.97	33.00	23.97	32.00	22.97	33.00	23.97
			190	836.6	32.00	22.97			32.00	22.97		
			251	848.8	32.00	22.97			32.00	22.97		
		2	128	824.2	31.00	24.98	32.00	25.98	31.00	24.98	32.00	25.98
			190	836.6	31.00	24.98			31.00	24.98		
			251	848.8	31.00	24.98			31.00	24.98		
EDGE (8PSK)	MCS5	1	128	824.2	26.50	17.47	27.50	18.47	26.50	17.47	27.50	18.47
			190	836.6	26.50	17.47			26.50	17.47		
			251	848.8	26.50	17.47			26.50	17.47		
		2	128	824.2	25.50	19.48	26.50	20.48	25.50	19.48	26.50	20.48
			190	836.6	25.50	19.48			25.50	19.48		
			251	848.8	25.50	19.48			25.50	19.48		

Note(s):

GPRS/EDGE (GMSK) mode with 2 time slots for power Mode A and 2 time slots for power Mode B, based on the Tune-up Procedure.

GSM850 Measured Results (ANT2)

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Power Mode A (dBm)				Power Mode B (dBm)			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	128	824.2	30.70	21.67	31.00	21.97	30.70	21.67	31.00	21.97
			190	836.6	30.70	21.67			30.70	21.67		
			251	848.8	30.60	21.57			30.60	21.57		
		2	128	824.2	29.00	22.98	30.00	23.98	29.00	22.98	30.00	23.98
			190	836.6	29.00	22.98			29.00	22.98		
			251	848.8	29.00	22.98			29.00	22.98		
EDGE (8PSK)	MCS5	1	128	824.2	24.80	15.77	25.50	16.47	24.80	15.77	25.50	16.47
			190	836.6	24.80	15.77			24.80	15.77		
			251	848.8	24.70	15.67			24.70	15.67		
		2	128	824.2	23.80	17.78	24.50	18.48	23.80	17.78	24.50	18.48
			190	836.6	23.80	17.78			23.80	17.78		
			251	848.8	23.70	17.68			23.70	17.68		

Note(s):

GPRS/EDGE (GMSK) mode with 2 time slots for power Mode A and 2 time slots for power Mode B, based on the Tune-up Procedure.

GSM1900 Measured Results (ANT1)

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Power Mode A (dBm)				Power Mode B (dBm)			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	512	1850.2	30.50	21.47	31.50	22.47	30.40	21.37	30.50	21.47
			661	1880.0	30.50	21.47			30.40	21.37		
			810	1909.8	30.50	21.47			30.40	21.37		
		2	512	1850.2	29.50	23.48	30.50	24.48	27.40	21.38	27.50	21.48
			661	1880.0	29.50	23.48			27.40	21.38		
			810	1909.8	29.50	23.48			27.40	21.38		
EDGE (8PSK)	MCS5	1	512	1850.2	25.50	16.47	26.50	17.47	26.40	17.37	26.50	17.47
			661	1880.0	25.50	16.47			26.40	17.37		
			810	1909.8	25.50	16.47			26.40	17.37		
		2	512	1850.2	24.50	18.48	25.50	19.48	25.40	19.38	25.50	19.48
			661	1880.0	24.50	18.48			25.40	19.38		
			810	1909.8	24.50	18.48			25.40	19.38		

Note(s):

GPRS/EDGE (GMSK) mode with 2 time slots for power Mode A and 2 time slots for power Mode B, based on the Tune-up Procedure.

GSM1900 Measured Results (ANT2)

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Power Mode A (dBm)				Power Mode B (dBm)			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	512	1850.2	28.80	19.77	29.00	19.97	28.80	19.77	29.00	19.97
			661	1880.0	28.80	19.77			28.80	19.77		
			810	1909.8	28.70	19.67			28.70	19.67		
		2	512	1850.2	26.50	20.48	26.50	20.48	26.12	20.10	26.20	20.18
			661	1880.0	26.50	20.48			26.13	20.11		
			810	1909.8	26.50	20.48			26.06	20.04		
EDGE (8PSK)	MCS5	1	512	1850.2	23.60	14.57	24.00	14.97	23.60	14.57	24.00	14.97
			661	1880.0	23.70	14.67			23.70	14.67		
			810	1909.8	23.50	14.47			23.50	14.47		
		2	512	1850.2	22.60	16.58	23.00	16.98	22.60	16.58	23.00	16.98
			661	1880.0	22.60	16.58			22.60	16.58		
			810	1909.8	22.50	16.48			22.50	16.48		

Note(s):

GPRS/EDGE (GMSK) mode with 2 time slots for power Mode A and 2 time slots for power Mode B, based on the Tune-up Procedure.

GSM1900 Measured Results (ANT3)

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Power Mode A (dBm)				Power Mode B (dBm)			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	512	1850.2	30.00	20.97	31.00	21.97	29.50	20.47	30.00	20.97
			661	1880.0	30.00	20.97			29.50	20.47		
			810	1909.8	30.00	20.97			29.50	20.47		
		2	512	1850.2	29.00	22.98	30.00	23.98	26.50	20.48	27.00	20.98
			661	1880.0	29.10	23.08			26.60	20.58		
			810	1909.8	29.10	23.08			26.60	20.58		
EDGE (8PSK)	MCS5	1	512	1850.2	25.50	16.47	26.00	16.97	25.50	16.47	26.00	16.97
			661	1880.0	25.50	16.47			25.50	16.47		
			810	1909.8	25.50	16.47			25.50	16.47		
		2	512	1850.2	24.50	18.48	25.00	18.98	24.50	18.48	25.00	18.98
			661	1880.0	24.50	18.48			24.50	18.48		
			810	1909.8	24.50	18.48			24.50	18.48		

Note(s):

GPRS/EDGE (GMSK) mode with 2 time slots for power Mode A and 2 time slots for power Mode B, based on the Tune-up Procedure.

GSM1900 Measured Results (ANT4)

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Power Mode A (dBm)				Power Mode B (dBm)			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	512	1850.2	28.00	18.97	29.00	19.97	28.00	18.97	29.00	19.97
			661	1880.0	28.00	18.97			28.00	18.97		
			810	1909.8	28.00	18.97			28.00	18.97		
		2	512	1850.2	26.80	20.78	27.00	20.98	27.50	21.48	27.50	21.48
			661	1880.0	26.60	20.58			27.50	21.48		
			810	1909.8	26.80	20.78			27.50	21.48		
EDGE (8PSK)	MCS5	1	512	1850.2	23.90	14.87	24.00	14.97	23.90	14.87	24.00	14.97
			661	1880.0	23.80	14.77			23.80	14.77		
			810	1909.8	23.80	14.77			23.80	14.77		
		2	512	1850.2	22.90	16.88	23.00	16.98	22.90	16.88	23.00	16.98
			661	1880.0	22.80	16.78			22.80	16.78		
			810	1909.8	22.70	16.68			22.70	16.68		

Note(s):

GPRS/EDGE (GMSK) mode with 2 time slots for power Mode A and 2 time slots for power Mode B, based on the Tune-up Procedure.

9.2. W-CDMA

Per KDB 941225 D01 3G SAR Procedures for W-CDMA:

Maximum output power is verified on the high, middle and low channels and using the appropriate 12.2 kbps RMC with TPC (transmit power control) set to all "1's"

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. A summary of these settings are illustrated below:

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

HSDPA Setup Procedures used to establish the test signals

The following 4 Sub-tests were completed according to Release 5 procedures in table C.10.1.4 of 3GPP TS 34.121-1
A summary of these settings are illustrated below:

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

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

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

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and $\Delta_{NACK} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$, and $\Delta_{CQI} = 24/15$ with $\beta_{hs} = 24/15 * \beta_c$.

Note 3: CM = 1 for $\beta_c/\beta_d = 12/15, \beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note 1)	β_{ec}	β_{es} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	β_{ed} (SF)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75	
2	8/15	15/15	64	8/15	12/15	12/15	94/75	4	1	3.0	2.0	12	87	
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	4	2	2.0	1.0	15	92	
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71	
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67	

Note 1: For sub-test 1 to 4, $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 5/15$ with $\beta_{hs} = 5/15 * \beta_c$.

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

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

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ec} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could result in slightly smaller MPR values.

DC-HSDPA Setup Procedures used to establish the test signals

The following 4 Sub-tests for DC-HSDPA were completed according to Release 8 procedures in table C08.1.12 of 3GPP TS 34.121-1. A summary of subtest settings are illustrated below:

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_{DFT})	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.	

HSPA+ Setup Procedures used to establish the test signals

The following 1 Sub-test was completed according to Release 7 procedures in table C.11.1.4 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 (Note 3)	β_d	β_{HS} (Note 1)	β_e	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	$\beta_{ed1}: 30/15$ $\beta_{ed2}: 30/15$	$\beta_{ed3}: 24/15$ $\beta_{ed4}: 24/15$	3.5	2.5	14	105	105
Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{Data} = 30/15$ with $\beta_{ed} = 30/15 * \beta_c$.											
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 $\beta_d = 0$ 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.											

Maximum Output Power (Tune-up Limit) for W-CDMA

SAR measurement is not required for the HSDPA, HSUPA, DC-HSDPA and HSPA+. When primary mode and the adjusted SAR is ≤ 1.2 W/kg and secondary mode is $\leq 1/4$ dB higher than the primary mode

RF Air interface	Mode	Maximum Output Power (Tune-up Limit) (dBm)							
		ANT1		ANT2		ANT3		ANT4	
		Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
W-CDMA Band 2	R99	25.50	21.00	18.50	17.70	25.00	19.50	20.20	20.50
	HSDPA	25.50	21.00	18.50	17.70	25.00	19.50	20.20	20.50
	HSUPA	25.50	21.00	18.50	17.70	25.00	19.50	20.20	20.50
	DC-HSDPA	25.50	21.00	18.50	17.70	25.00	19.50	20.20	20.50
	HSPA+	25.50	21.00	18.50	17.70	25.00	19.50	20.20	20.50
W-CDMA Band 4	R99	25.50	18.00	20.20	19.00	25.00	22.00	22.50	22.50
	HSDPA	25.50	18.00	20.20	19.00	25.00	22.00	22.50	22.50
	HSUPA	25.50	18.00	20.20	19.00	25.00	22.00	22.50	22.50
	DC-HSDPA	25.50	18.00	20.20	19.00	25.00	22.00	22.50	22.50
	HSPA+	25.50	18.00	20.20	19.00	25.00	22.00	22.50	22.50
W-CDMA Band 5	R99	25.50	25.50	24.50	24.50				
	HSDPA	25.50	25.50	24.50	24.50				
	HSUPA	25.50	25.50	24.50	24.50				
	DC-HSDPA	25.50	25.50	24.50	24.50				
	HSPA+	25.50	25.50	24.50	24.50				

W-CDMA Band 2 Measured Results (ANT1)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	24.50	N/A	25.50	20.20	N/A	21.00
		9400	1880.0	24.50			20.40		
		9538	1907.6	24.50			20.30		
HSUPA	Subtest 1	9262	1852.4	24.50	0	25.50	20.33	0	21.00
		9400	1880.0	24.50			20.20		
		9538	1907.6	24.50			20.39		
	Subtest 2	9262	1852.4	24.50	0	25.50	20.23	0	21.00
		9400	1880.0	24.50			20.29		
		9538	1907.6	24.50			20.28		
	Subtest 3	9262	1852.4	24.00	0.5	25.00	20.22	0.5	20.50
		9400	1880.0	24.07			20.29		
		9538	1907.6	24.00			20.27		
	Subtest 4	9262	1852.4	24.00	0.5	25.00	20.33	0.5	20.50
		9400	1880.0	24.00			20.20		
		9538	1907.6	24.00			20.37		
DC-HSDPA	Subtest 1	9262	1852.4	24.50	0	25.50	20.20	0	21.00
		9400	1880.0	24.50			20.31		
		9538	1907.6	24.50			20.28		
	Subtest 2	9262	1852.4	22.50	2	23.50	18.22	2	19.00
		9400	1880.0	22.50			18.34		
		9538	1907.6	22.50			18.30		
	Subtest 3	9262	1852.4	23.50	1	24.50	19.23	1	20.00
		9400	1880.0	23.50			19.36		
		9538	1907.6	23.50			19.30		
	Subtest 4	9262	1852.4	23.50	2	23.50	18.22	2	19.00
		9400	1880.0	23.50			18.35		
		9538	1907.6	23.50			18.28		
HSPA+	Subtest 5	9262	1852.4	24.50	0	25.50	20.27	0	21.00
		9400	1880.0	24.50			20.39		
		9538	1907.6	24.50			20.35		
	Subtest 1	9262	1852.4	24.50	0	25.50	20.33	0	21.00
		9400	1880.0	24.50			20.40		
		9538	1907.6	24.50			20.39		
	Subtest 2	9262	1852.4	24.50	0	25.50	20.23	0	21.00
		9400	1880.0	24.50			20.33		
		9538	1907.6	24.50			20.27		
	Subtest 3	9262	1852.4	24.00	0.5	25.00	20.24	0.5	20.50
		9400	1880.0	24.24			20.32		
		9538	1907.6	24.18			20.28		
	Subtest 4	9262	1852.4	24.00	0.5	25.00	20.33	0.5	20.50
		9400	1880.0	24.34			20.40		
		9538	1907.6	24.24			20.36		
HSPA+	Subtest 1	9262	1852.4	23.00	2.5	23.00	18.50	2.5	18.50
		9400	1880.0	23.00			18.50		
		9538	1907.6	23.00			18.50		

W-CDMA Band 2 Measured Results (ANT2)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	18.50	N/A	18.50	17.50	N/A	17.70
		9400	1880.0	18.50			17.70		
		9538	1907.6	18.50			17.60		
HSUPA	Subtest 1	9262	1852.4	18.23	0	18.50	17.68	0	17.70
		9400	1880.0	18.30			17.63		
		9538	1907.6	18.19			17.58		
	Subtest 2	9262	1852.4	18.12	0	18.50	17.67	0	17.70
		9400	1880.0	18.20			17.59		
		9538	1907.6	18.08			17.53		
	Subtest 3	9262	1852.4	18.00	0.5	18.00	17.14	0.5	17.20
		9400	1880.0	18.00			17.16		
		9538	1907.6	18.00			17.12		
	Subtest 4	9262	1852.4	18.00	0.5	18.00	17.18	0.5	17.20
		9400	1880.0	18.00			17.12		
		9538	1907.6	18.00			17.13		
DC-HSDPA	Subtest 1	9262	1852.4	18.10	0	18.50	17.45	0	17.70
		9400	1880.0	18.14			17.49		
		9538	1907.6	18.00			17.29		
	Subtest 2	9262	1852.4	16.50	2	16.50	15.70	2	15.70
		9400	1880.0	16.50			15.60		
		9538	1907.6	16.50			15.70		
	Subtest 3	9262	1852.4	17.50	1	17.50	16.70	1	16.70
		9400	1880.0	17.50			16.50		
		9538	1907.6	17.50			16.60		
	Subtest 4	9262	1852.4	16.50	2	16.50	15.70	2	15.70
		9400	1880.0	16.50			15.60		
		9538	1907.6	16.50			15.60		
HSPA+	Subtest 5	9262	1852.4	18.19	0	18.50	17.61	0	17.70
		9400	1880.0	18.27			17.65		
		9538	1907.6	18.07			17.51		
	Subtest 1	9262	1852.4	18.22	0	18.50	17.67	0	17.70
		9400	1880.0	18.32			17.65		
		9538	1907.6	18.21			17.54		
	Subtest 2	9262	1852.4	18.14	0	18.50	17.43	0	17.70
		9400	1880.0	18.21			17.48		
		9538	1907.6	18.08			17.25		
	Subtest 3	9262	1852.4	18.00	0.5	18.00	17.18	0.5	17.20
		9400	1880.0	18.00			17.20		
		9538	1907.6	18.00			17.19		
	Subtest 4	9262	1852.4	18.00	0.5	18.00	17.15	0.5	17.20
		9400	1880.0	18.00			17.16		
		9538	1907.6	18.00			17.18		
HSPA+	Subtest 1	9262	1852.4	16.00	2.5	16.00	15.18	2.5	15.20
		9400	1880.0	16.00			15.19		
		9538	1907.6	16.00			15.20		

W-CDMA Band 2 Measured Results (ANT3)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	24.00	N/A	25.00	19.40	N/A	19.50
		9400	1880.0	24.00			19.30		
		9538	1907.6	24.00			19.30		
HSUPA	Subtest 1	9262	1852.4	24.00	0	25.00	19.32	0	19.50
		9400	1880.0	24.00			19.16		
		9538	1907.6	24.00			19.01		
	Subtest 2	9262	1852.4	24.00	0	25.00	19.03	0	19.50
		9400	1880.0	24.00			19.13		
		9538	1907.6	24.00			18.97		
	Subtest 3	9262	1852.4	23.50	0.5	24.50	19.00	0.5	19.00
		9400	1880.0	23.50			19.00		
		9538	1907.6	23.50			19.00		
	Subtest 4	9262	1852.4	23.50	0.5	24.50	19.00	0.5	19.00
		9400	1880.0	23.62			19.00		
		9538	1907.6	23.50			18.97		
DC-HSDPA	Subtest 1	9262	1852.4	24.00	0	25.00	19.00	0	19.50
		9400	1880.0	24.00			19.10		
		9538	1907.6	24.00			18.91		
	Subtest 2	9262	1852.4	22.00	2	23.00	17.50	2	17.50
		9400	1880.0	22.09			17.50		
		9538	1907.6	22.00			17.50		
	Subtest 3	9262	1852.4	23.20	1	24.00	18.50	1	18.50
		9400	1880.0	23.10			18.50		
		9538	1907.6	23.00			18.50		
	Subtest 4	9262	1852.4	22.00	2	23.00	17.50	2	17.50
		9400	1880.0	22.33			17.50		
		9538	1907.6	22.17			17.50		
HSPA+	Subtest 5	9262	1852.4	24.00	0	25.00	19.05	0	19.50
		9400	1880.0	24.00			19.12		
		9538	1907.6	24.00			19.00		
	Subtest 1	9262	1852.4	24.00	0	25.00	19.07	0	19.50
		9400	1880.0	24.00			19.15		
		9538	1907.6	24.00			19.00		
	Subtest 2	9262	1852.4	24.00	0	25.00	18.83	0	19.50
		9400	1880.0	24.00			18.91		
		9538	1907.6	24.00			18.72		
	Subtest 3	9262	1852.4	23.50	0.5	24.50	18.74	0.5	19.00
		9400	1880.0	23.56			18.83		
		9538	1907.6	23.50			18.64		
	Subtest 4	9262	1852.4	23.60	0.5	24.50	18.73	0.5	19.00
		9400	1880.0	23.60			18.82		
		9538	1907.6	23.60			18.64		
Subtest 1	9262	1852.4	22.50	2.5	22.50	17.00	2.5	17.00	17.00
	9400	1880.0	22.50			17.00			
	9538	1907.6	22.50			17.00			

W-CDMA Band 2 Measured Results (ANT4)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	20.20	N/A	20.20	20.00	N/A	20.50
		9400	1880.0	20.20			20.20		
		9538	1907.6	20.20			20.40		
HSUPA	Subtest 1	9262	1852.4	19.75	0	20.20	19.98	0	20.50
		9400	1880.0	19.78			20.07		
		9538	1907.6	19.69			19.99		
	Subtest 2	9262	1852.4	19.72	0	20.20	19.96	0	20.50
		9400	1880.0	19.78			20.08		
		9538	1907.6	19.73			20.05		
	Subtest 3	9262	1852.4	19.60	0.5	19.70	19.85	0.5	20.00
		9400	1880.0	19.69			19.99		
		9538	1907.6	19.59			19.90		
	Subtest 4	9262	1852.4	19.61	0.5	19.70	19.84	0.5	20.00
		9400	1880.0	19.69			20.00		
		9538	1907.6	19.60			19.84		
DC-HSDPA	Subtest 1	9262	1852.4	19.72	0	20.20	19.96	0	20.50
		9400	1880.0	19.85			20.11		
		9538	1907.6	19.68			19.93		
	Subtest 2	9262	1852.4	18.20	2	18.20	18.50	2	18.50
		9400	1880.0	18.20			18.50		
		9538	1907.6	18.20			18.50		
	Subtest 3	9262	1852.4	18.64	1	19.20	18.65	1	19.50
		9400	1880.0	19.20			19.00		
		9538	1907.6	19.20			19.00		
	Subtest 4	9262	1852.4	18.20	2	18.20	18.50	2	18.50
		9400	1880.0	18.20			18.50		
		9538	1907.6	18.20			18.50		
HSPA+	Subtest 5	9262	1852.4	19.20	0	20.20	19.50	0	20.50
		9400	1880.0	19.77			20.02		
		9538	1907.6	19.64			19.88		
	Subtest 1	9262	1852.4	19.71	0	20.20	19.89	0	20.50
		9400	1880.0	19.78			20.03		
		9538	1907.6	19.69			19.89		
	Subtest 2	9262	1852.4	19.74	0	20.20	20.01	0	20.50
		9400	1880.0	19.81			20.14		
		9538	1907.6	19.79			20.04		
	Subtest 3	9262	1852.4	19.66	0.5	19.70	19.92	0.5	20.00
		9400	1880.0	19.70			20.00		
		9538	1907.6	19.65			19.91		
	Subtest 4	9262	1852.4	19.65	0.5	19.70	19.93	0.5	20.00
		9400	1880.0	19.70			20.00		
		9538	1907.6	19.65			19.90		
HSPA+	Subtest 1	9262	1852.4	17.70	2.5	17.70	17.50	2.5	18.00
		9400	1880.0	17.70			17.50		
		9538	1907.6	17.70			17.50		

W-CDMA Band 4 Measured Results (ANT1)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	24.50	N/A	25.50	17.30	N/A	18.00
		1413	1732.6	24.50			17.30		
		1513	1752.6	24.50			17.40		
HSUPA	Subtest 1	1312	1712.4	24.50	0	25.50	17.30	0	18.00
		1413	1732.6	24.50			17.30		
		1513	1752.6	24.50			17.30		
	Subtest 2	1312	1712.4	24.50	0	25.50	17.30	0	18.00
		1413	1732.6	24.50			17.30		
		1513	1752.6	24.50			17.30		
	Subtest 3	1312	1712.4	24.00	0.5	25.00	17.00	0.5	17.50
		1413	1732.6	24.00			17.00		
		1513	1752.6	24.00			17.00		
	Subtest 4	1312	1712.4	24.00	0.5	25.00	17.00	0.5	17.50
		1413	1732.6	24.00			17.00		
		1513	1752.6	24.00			17.00		
DC-HSDPA	Subtest 1	1312	1712.4	24.50	0	25.50	17.30	0	18.00
		1413	1732.6	24.50			17.30		
		1513	1752.6	24.50			17.30		
	Subtest 2	1312	1712.4	22.50	2	23.50	16.00	2	16.00
		1413	1732.6	22.50			16.00		
		1513	1752.6	22.50			16.00		
	Subtest 3	1312	1712.4	23.50	1	24.50	17.00	1	17.00
		1413	1732.6	23.50			17.00		
		1513	1752.6	23.50			17.00		
	Subtest 4	1312	1712.4	22.50	2	23.50	16.00	2	16.00
		1413	1732.6	22.59			16.00		
		1513	1752.6	22.72			16.00		
HSPA+	Subtest 5	1312	1712.4	24.50	0	25.50	17.30	0	18.00
		1413	1732.6	24.50			17.30		
		1513	1752.6	24.50			17.30		
	Subtest 1	1312	1712.4	24.50	0	25.50	17.30	0	18.00
		1413	1732.6	24.50			17.30		
		1513	1752.6	24.50			17.30		
	Subtest 2	1312	1712.4	24.50	0	25.50	17.30	0	18.00
		1413	1732.6	24.50			17.30		
		1513	1752.6	24.50			17.30		
	Subtest 3	1312	1712.4	24.00	0.5	25.00	17.00	0.5	17.50
		1413	1732.6	24.27			17.00		
		1513	1752.6	24.35			17.00		
	Subtest 4	1312	1712.4	24.00	0.5	25.00	17.00	0.5	17.50
		1413	1732.6	24.20			17.00		
		1513	1752.6	24.31			17.00		
	Subtest 1	1312	1712.4	23.00	2.5	23.00	15.50	2.5	15.50
		1413	1732.6	23.00			15.50		
		1513	1752.6	23.00			15.50		

W-CDMA Band 4 Measured Results (ANT2)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	20.20	N/A	20.20	18.80	N/A	19.00
		1413	1732.6	20.20			18.50		
		1513	1752.6	20.00			18.50		
HSUPA	Subtest 1	1312	1712.4	20.01	0	20.20	18.73	0	19.00
		1413	1732.6	19.91			18.68		
		1513	1752.6	20.02			18.78		
	Subtest 2	1312	1712.4	19.89	0	20.20	18.62	0	19.00
		1413	1732.6	19.82			18.58		
		1513	1752.6	19.93			18.69		
	Subtest 3	1312	1712.4	19.70	0.5	19.70	18.50	0.5	18.50
		1413	1732.6	19.70			18.50		
		1513	1752.6	19.70			18.50		
	Subtest 4	1312	1712.4	19.70	0.5	19.70	18.50	0.5	18.50
		1413	1732.6	19.70			18.50		
		1513	1752.6	19.70			18.50		
DC-HSDPA	Subtest 1	1312	1712.4	19.87	0	20.20	18.60	0	19.00
		1413	1732.6	19.82			18.56		
		1513	1752.6	19.94			18.65		
	Subtest 2	1312	1712.4	18.20	2	18.20	17.00	2	17.00
		1413	1732.6	18.20			17.00		
		1513	1752.6	18.20			17.00		
	Subtest 3	1312	1712.4	19.20	1	19.20	18.00	1	18.00
		1413	1732.6	19.20			18.00		
		1513	1752.6	19.20			18.00		
	Subtest 4	1312	1712.4	18.20	2	18.20	17.00	2	17.00
		1413	1732.6	18.20			17.00		
		1513	1752.6	18.20			17.00		
HSPA+	Subtest 5	1312	1712.4	19.83	0	20.20	18.64	0	19.00
		1413	1732.6	19.80			18.56		
		1513	1752.6	19.92			18.69		
	Subtest 1	1312	1712.4	19.95	0	20.20	18.73	0	19.00
		1413	1732.6	19.91			18.68		
		1513	1752.6	20.02			18.70		
	Subtest 2	1312	1712.4	19.88	0	20.20	18.64	0	19.00
		1413	1732.6	19.85			18.54		
		1513	1752.6	19.93			18.62		
	Subtest 3	1312	1712.4	19.70	0.5	19.70	18.50	0.5	18.50
		1413	1732.6	19.70			18.50		
		1513	1752.6	19.70			18.50		
	Subtest 4	1312	1712.4	19.70	0.5	19.70	18.50	0.5	18.50
		1413	1732.6	19.70			18.50		
		1513	1752.6	19.70			18.50		
Subtest 1	1312	1712.4	17.70	2.5	17.70	16.50	2.5	16.50	16.50
	1413	1732.6	17.70			16.50			
	1513	1752.6	17.70			16.50			

W-CDMA Band 4 Measured Results (ANT3)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	24.00	N/A	25.00	21.50	N/A	22.00
		1413	1732.6	24.00			21.70		
		1513	1752.6	24.00			21.70		
HSDPA	Subtest 1	1312	1712.4	24.00	0	25.00	21.44	0	22.00
		1413	1732.6	24.00			21.60		
		1513	1752.6	24.00			21.60		
	Subtest 2	1312	1712.4	24.00	0	25.00	21.32	0	22.00
		1413	1732.6	24.00			21.52		
		1513	1752.6	24.00			21.49		
	Subtest 3	1312	1712.4	23.70	0.5	24.50	21.24	0.5	21.50
		1413	1732.6	23.67			21.50		
		1513	1752.6	23.65			21.48		
	Subtest 4	1312	1712.4	23.60	0.5	24.50	21.23	0.5	21.50
		1413	1732.6	23.60			21.50		
		1513	1752.6	23.60			21.47		
HSUPA	Subtest 1	1312	1712.4	24.00	0	25.00	21.29	0	22.00
		1413	1732.6	24.00			21.52		
		1513	1752.6	24.00			21.49		
	Subtest 2	1312	1712.4	22.00	2	23.00	20.00	2	20.00
		1413	1732.6	22.00			20.00		
		1513	1752.6	22.00			20.00		
	Subtest 3	1312	1712.4	23.00	1	24.00	21.00	1	21.00
		1413	1732.6	23.00			21.00		
		1513	1752.6	23.00			21.00		
	Subtest 4	1312	1712.4	22.00	2	23.00	20.00	2	20.00
		1413	1732.6	22.32			20.00		
		1513	1752.6	22.20			20.00		
	Subtest 5	1312	1712.4	24.00	0	25.00	21.28	0	22.00
		1413	1732.6	24.00			21.49		
		1513	1752.6	24.00			21.48		
DC-HSDPA	Subtest 1	1312	1712.4	24.00	0	25.00	21.41	0	22.00
		1413	1732.6	24.00			21.58		
		1513	1752.6	24.00			21.57		
	Subtest 2	1312	1712.4	24.00	0	25.00	21.33	0	22.00
		1413	1732.6	24.00			21.53		
		1513	1752.6	24.00			21.49		
	Subtest 3	1312	1712.4	23.50	0.5	24.50	21.26	0.5	21.50
		1413	1732.6	23.99			21.50		
		1513	1752.6	23.88			21.48		
	Subtest 4	1312	1712.4	23.50	0.5	24.50	21.23	0.5	21.50
		1413	1732.6	23.90			21.49		
		1513	1752.6	23.87			21.45		
HSPA+	Subtest 1	1312	1712.4	22.50	2.5	22.50	19.50	2.5	19.50
		1413	1732.6	22.50			19.50		
		1513	1752.6	22.50			19.50		

W-CDMA Band 4 Measured Results (ANT4)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	22.00	N/A	22.50	22.50	N/A	22.50
		1413	1732.6	22.00			22.50		
		1513	1752.6	22.10			22.50		
HSUPA	Subtest 1	1312	1712.4	21.96	0	22.50	21.96	0	22.50
		1413	1732.6	21.83			21.83		
		1513	1752.6	21.89			21.89		
	Subtest 2	1312	1712.4	22.05	0	22.50	22.05	0	22.50
		1413	1732.6	21.92			21.92		
		1513	1752.6	21.92			21.92		
	Subtest 3	1312	1712.4	21.00	0.5	22.00	21.00	0.5	22.00
		1413	1732.6	21.59			21.59		
		1513	1752.6	21.45			21.45		
	Subtest 4	1312	1712.4	21.00	0.5	22.00	21.00	0.5	22.00
		1413	1732.6	21.34			21.34		
		1513	1752.6	21.18			21.18		
DC-HSDPA	Subtest 1	1312	1712.4	21.50	0	22.50	21.50	0	22.50
		1413	1732.6	21.50			21.50		
		1513	1752.6	21.50			21.50		
	Subtest 2	1312	1712.4	20.50	2	20.50	20.50	2	20.50
		1413	1732.6	20.50			20.50		
		1513	1752.6	20.50			20.50		
	Subtest 3	1312	1712.4	20.50	1	21.50	20.50	1	21.50
		1413	1732.6	20.50			20.50		
		1513	1752.6	20.50			20.50		
	Subtest 4	1312	1712.4	19.50	2	20.50	19.50	2	20.50
		1413	1732.6	20.30			20.30		
		1513	1752.6	20.29			20.29		
HSPA+	Subtest 5	1312	1712.4	21.50	0	22.50	21.50	0	22.50
		1413	1732.6	21.50			21.50		
		1513	1752.6	21.50			21.50		
	Subtest 1	1312	1712.4	21.50	0	22.50	21.50	0	22.50
		1413	1732.6	21.50			21.50		
		1513	1752.6	21.50			21.50		
	Subtest 2	1312	1712.4	22.11	0	22.50	22.11	0	22.50
		1413	1732.6	21.90			21.90		
		1513	1752.6	21.88			21.88		
	Subtest 3	1312	1712.4	21.42	0.5	22.00	21.42	0.5	22.00
		1413	1732.6	21.82			21.82		
		1513	1752.6	21.66			21.66		
	Subtest 4	1312	1712.4	21.00	0.5	22.00	21.00	0.5	22.00
		1413	1732.6	21.60			21.60		
		1513	1752.6	21.42			21.42		
HSPA+	Subtest 1	1312	1712.4	20.00	2.5	20.00	20.00	2.5	20.00
		1413	1732.6	20.00			20.00		
		1513	1752.6	20.00			20.00		

W-CDMA Band 5 Measured Results (ANT1)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.50	N/A	25.50	24.50	N/A	25.50
		4183	836.6	24.50			24.50		
		4233	846.6	24.50			24.50		
HSDPA	Subtest 1	4132	826.4	24.50	0	25.50	24.50	0	25.50
		4183	836.6	24.60			24.60		
		4233	846.6	24.60			24.60		
	Subtest 2	4132	826.4	24.50	0	25.50	24.50	0	25.50
		4183	836.6	24.60			24.60		
		4233	846.6	24.60			24.60		
	Subtest 3	4132	826.4	24.00	0.5	25.00	24.00	0.5	25.00
		4183	836.6	24.00			24.00		
		4233	846.6	24.00			24.00		
	Subtest 4	4132	826.4	24.00	0.5	25.00	24.00	0.5	25.00
		4183	836.6	24.00			24.00		
		4233	846.6	24.00			24.00		
HSUPA	Subtest 1	4132	826.4	24.50	0	25.50	24.50	0	25.50
		4183	836.6	24.60			24.60		
		4233	846.6	24.60			24.60		
	Subtest 2	4132	826.4	23.10	2	23.50	23.10	2	23.50
		4183	836.6	23.10			23.10		
		4233	846.6	23.10			23.10		
	Subtest 3	4132	826.4	24.10	1	24.50	24.10	1	24.50
		4183	836.6	24.10			24.10		
		4233	846.6	24.10			24.10		
	Subtest 4	4132	826.4	23.40	2	23.50	23.40	2	23.50
		4183	836.6	23.40			23.40		
		4233	846.6	23.40			23.40		
	Subtest 5	4132	826.4	25.40	0	25.50	25.40	0	25.50
		4183	836.6	25.40			25.40		
		4233	846.6	25.40			25.40		
DC-HSDPA	Subtest 1	4132	826.4	24.50	0	25.50	24.50	0	25.50
		4183	836.6	24.50			24.50		
		4233	846.6	24.50			24.50		
	Subtest 2	4132	826.4	25.40	0	25.50	25.40	0	25.50
		4183	836.6	25.40			25.40		
		4233	846.6	25.40			25.40		
	Subtest 3	4132	826.4	24.40	0.5	25.00	24.40	0.5	25.00
		4183	836.6	24.40			24.40		
		4233	846.6	24.40			24.40		
	Subtest 4	4132	826.4	23.40	0.5	25.00	23.40	0.5	25.00
		4183	836.6	23.40			23.40		
		4233	846.6	23.40			23.40		
HSPA+	Subtest 1	4132	826.4	23.00	2.5	23.00	23.00	2.5	23.00
		4183	836.6	23.00			23.00		
		4233	846.6	23.00			23.00		

W-CDMA Band 5 Measured Results (ANT2)

Mode		UL Ch No.	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	23.80	N/A	24.50	23.80	N/A	24.50
		4183	836.6	23.80			23.80		
		4233	846.6	23.80			23.80		
HSDPA	Subtest 1	4132	826.4	23.70	0	24.50	23.70	0	24.50
		4183	836.6	23.70			23.70		
		4233	846.6	23.70			23.70		
	Subtest 2	4132	826.4	23.70	0	24.50	23.70	0	24.50
		4183	836.6	23.70			23.70		
		4233	846.6	23.70			23.70		
	Subtest 3	4132	826.4	23.00	0.5	24.00	23.00	0.5	24.00
		4183	836.6	23.00			23.00		
		4233	846.6	23.00			23.00		
	Subtest 4	4132	826.4	23.00	0.5	24.00	23.00	0.5	24.00
		4183	836.6	23.00			23.00		
		4233	846.6	23.00			23.00		
HSUPA	Subtest 1	4132	826.4	23.50	0	24.50	23.50	0	24.50
		4183	836.6	23.50			23.50		
		4233	846.6	23.50			23.50		
	Subtest 2	4132	826.4	21.50	2	22.50	21.50	2	22.50
		4183	836.6	21.50			21.50		
		4233	846.6	21.50			21.50		
	Subtest 3	4132	826.4	22.50	1	23.50	22.50	1	23.50
		4183	836.6	22.50			22.50		
		4233	846.6	22.50			22.50		
	Subtest 4	4132	826.4	21.70	2	22.50	21.70	2	22.50
		4183	836.6	21.70			21.70		
		4233	846.6	21.70			21.70		
	Subtest 5	4132	826.4	23.70	0	24.50	23.70	0	24.50
		4183	836.6	23.70			23.70		
		4233	846.6	23.70			23.70		
DC-HSDPA	Subtest 1	4132	826.4	23.70	0	24.50	23.70	0	24.50
		4183	836.6	23.70			23.70		
		4233	846.6	23.70			23.70		
	Subtest 2	4132	826.4	23.70	0	24.50	23.70	0	24.50
		4183	836.6	23.70			23.70		
		4233	846.6	23.70			23.70		
	Subtest 3	4132	826.4	23.30	0.5	24.00	23.30	0.5	24.00
		4183	836.6	23.30			23.30		
		4233	846.6	23.30			23.30		
	Subtest 4	4132	826.4	23.00	0.5	24.00	23.00	0.5	24.00
		4183	836.6	23.00			23.00		
		4233	846.6	23.00			23.00		
HSPA+	Subtest 1	4132	826.4	22.00	2.5	22.00	22.00	2.5	22.00
		4183	836.6	22.00			22.00		
		4233	846.6	22.00			22.00		

9.3. CDMA

1x Advanced Setup Procedures used to establish the test signals

Call box setup procedure

- Protocol Rev > 6 (IS-2000-0)
- System ID: 331; NID: 65535, Reg. Ch. #:
- Radio Config (RC) > Fwd11,Rvs8
- Service Option (SO) Setup > SO75 (Loopback)
- Traffic Data Rate > Full
- Rvs Power Ctrl > All Up bits (Maximum TxPout)
- Reverse Power Control Mode: 00-200 to 400 bps
- Smart blanking was disabled.

1xEV-DO Rev. B Setup Procedures used to establish the test signals

Call box setup procedure

- CMW 500 Signal Generator > 1xEV-DO Taskbar Enable
- CMW 500 1xEV-DO Signaling Configuration Window >
- 1xEV-DO Signaling On Window:
Under Access Network Control:
Band Class: BC0: US Cellular
RF Channel: 31
1xEV-DO Power: -70 dBm
Release B
- 1xEV-DO Signaling Configuration Window

Under RF Frequency Band / Channel: Enter Ch. Frequency
 ➤ Under Carrier Configuration: RF Frequency
 For Two Carriers: Low Channel (1013)

	<u>RF Channel</u>	<u>RF Channel Offset</u>
Carrier [0]	31	0
Carrier [1]	1013	982

➤ Under Carrier Configuration: RF Pilot

	<u>Carrier Sector</u>	<u>Active on AN</u>	<u>Assigned to AT</u>
Pilot [0]	C0/S0	✓	✓
	CA/S1	✓	✓

For Three Carriers: Low Channel (1013)

	<u>RF Channel</u>	<u>RF Channel Offset</u>
Carrier [0]	72	0
Carrier [1]	31	-41
Carrier [2]	1013	941

➤ Under Carrier Configuration: RF Pilot

	<u>Carrier Sector</u>	<u>Active on AN</u>	<u>Assigned to AT</u>
Pilot [0]	C0/S0	✓	✓
Pilot [1]	C1/S1	✓	✓
Pilot [2]	C2/S2	✓	✓

- Rvs Power Ctrl > All Up bits (to get the maximum power)

Maximum Output Power (Tune-up Limit) for CDMA

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode

Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 D01 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode.

When VOIP is supported by Ev-Do devices for next to the ear use, head exposure SAR is required.

SAR measurement is not required for the 1xEVDO Rev. A, Rev. B and 1x-Advanced. When primary mode and the adjusted SAR is $\leq 1.2 \text{ W/kg}$ and secondary mode is $\leq \frac{1}{4} \text{ dB}$ higher than the primary mode

RF Air interface	Mode	Maximum Output Power (Tune-up Limit) (dBm)							
		ANT1		ANT2		ANT3		ANT4	
		Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
CDMA BC0	1xRTT	25.5	25.5	24.5	24.5				
	1xAdvanced	25.5	25.5	24.5	24.5				
	1xEVDO Rel. 0	25.5	25.5	24.5	24.5				
	1xEVDO Rev. A	25.5	25.5	24.5	24.5				
CDMA BC1	1xRTT	25.5	21.0	18.5	17.7				
	1xAdvanced	25.5	21.0	18.5	17.7				
	1xEVDO Rel. 0	25.5	21.0	18.5	17.7				
	1xEVDO Rev. A	25.5	21.0	18.5	17.7				
CDMA BC10	1xRTT	25.5	25.5	24.5	24.5				
	1xAdvanced	25.5	25.5	24.5	24.5				
	1xEVDO Rel. 0	25.5	25.5	24.5	24.5				
	1xEVDO Rev. A	25.5	25.5	24.5	24.5				

CDMA BC1 is not supported for ANT3 and ANT 4.

CDMA BC0 Measured Results (ANT1)

Mode		Channel	Freq. (MHz)	Power Mode A (dBm)		Power Mode B (dBm)	
				Measured Pwr	Tune-up Limit	Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	1013	824.70	24.50	25.50	24.50	25.50
		384	836.52	24.50		24.50	
		777	848.31	24.50		24.50	
	RC3, SO55 (Loopback)	1013	824.70	24.50		24.50	
		384	836.52	24.50		24.50	
		777	848.31	24.50		24.50	
	RC3, SO32 (+F-SCH)	1013	824.70	24.50		24.50	
		384	836.52	24.50		24.50	
		777	848.31	24.50		24.50	
1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	1013	824.70	24.50	25.50	24.50	25.50
		384	836.52	24.50		24.50	
		777	848.31	24.50		24.50	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	1013	824.70	24.50	25.50	24.50	25.50
		384	836.52	24.50		24.50	
		777	848.31	24.50		24.50	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	1013	824.70	24.50	25.50	24.50	25.50
		384	836.52	24.50		24.50	
		777	848.31	24.50		24.50	

CDMA BC0 Measured Results (ANT2)

Mode		Channel	Freq. (MHz)	Power Mode A (dBm)		Power Mode B (dBm)	
				Measured Pwr	Tune-up Limit	Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	1013	824.70	23.80	24.50	23.80	24.50
		384	836.52	23.80		23.80	
		777	848.31	23.80		23.80	
	RC3, SO55 (Loopback)	1013	824.70	23.80		23.80	
		384	836.52	23.80		23.80	
		777	848.31	23.80		23.80	
	RC3, SO32 (+F-SCH)	1013	824.70	23.80		23.80	
		384	836.52	23.80		23.80	
		777	848.31	23.80		23.80	
1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	1013	824.70	23.80	24.50	23.80	24.50
		384	836.52	23.80		23.80	
		777	848.31	23.80		23.80	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	1013	824.70	23.80	24.50	23.80	24.50
		384	836.52	23.80		23.80	
		777	848.31	23.80		23.80	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	1013	824.70	23.80	24.50	23.80	24.50
		384	836.52	23.80		23.80	
		777	848.31	23.80		23.80	

CDMA BC1 Measured Results (ANT1)

Mode		Channel	Freq. (MHz)	Power Mode A (dBm)		Power Mode B (dBm)	
				Measured Pwr	Tune-up Limit	Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	25	1851.25	24.50	25.50	21.00	21.00
		600	1880.00	24.50		21.00	
		1175	1908.75	24.50		21.00	
	RC3, SO55 (Loopback)	25	1851.25	24.50		21.00	21.00
		600	1880.00	24.50		21.00	
		1175	1908.75	24.50		21.00	
	RC3, SO32 (+F-SCH)	25	1851.25	24.50		21.00	
		600	1880.00	24.50		21.00	
		1175	1908.75	24.50		21.00	
1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	25	1851.25	24.50	25.50	21.00	21.00
		600	1880	24.50		21.00	
		1175	1908.75	24.50		21.00	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	25	1851.25	24.50	25.50	21.00	21.00
		600	1880.00	24.50		21.00	
		1175	1908.75	24.50		21.00	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	25	1851.25	24.50	25.50	21.00	21.00
		600	1880	24.50		21.00	
		1175	1908.75	24.50		21.00	

CDMA BC1 Measured Results (ANT2)

Mode		Channel	Freq. (MHz)	Power Mode A (dBm)		Power Mode B (dBm)	
				Measured Pwr	Tune-up Limit	Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	25	1851.25	18.50	18.50	17.50	17.70
		600	1880.00	18.50		17.60	
		1175	1908.75	18.50		17.70	
	RC3, SO55 (Loopback)	25	1851.25	18.50		17.50	17.70
		600	1880.00	18.50		17.60	
		1175	1908.75	18.50		17.70	
	RC3, SO32 (+F-SCH)	25	1851.25	18.50		17.50	
		600	1880.00	18.50		17.60	
		1175	1908.75	18.50		17.70	
1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	25	1851.25	18.50	18.50	17.50	17.70
		600	1880	18.50		17.60	
		1175	1908.75	18.50		17.70	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	25	1851.25	18.50	18.50	17.50	17.70
		600	1880.00	18.50		17.60	
		1175	1908.75	18.50		17.70	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	25	1851.25	18.50	18.50	17.50	17.70
		600	1880	18.50		17.60	
		1175	1908.75	18.50		17.70	

CDMA BC10 Measured Results (ANT1)

Mode		Channel	Freq. (MHz)	Power Mode A (dBm)		Power Mode B (dBm)	
				Measured Pwr	Tune-up Limit	Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	450	817.25	24.50	25.50	24.50	25.50
		560	820.00	24.50		24.50	
		670	822.75	24.50		24.50	
	RC3, SO55 (Loopback)	450	817.25	24.50		24.50	
		560	820.00	24.50		24.50	
		670	822.75	24.50		24.50	
	RC3, SO32 (+F-SCH)	450	817.25	24.50		24.50	
		560	820.00	24.50		24.50	
		670	822.75	24.50		24.50	
1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	450	817.25	24.50	25.50	24.50	25.50
		560	820	24.50		24.50	
		670	822.75	24.50		24.50	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	450	817.25	24.50	25.50	24.50	25.50
		560	820.00	24.50		24.50	
		670	822.75	24.50		24.50	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	450	817.25	24.50	25.50	24.50	25.50
		560	820	24.50		24.50	
		670	822.75	24.50		24.50	

CDMA BC10 Measured Results (ANT2)

Mode		Channel	Freq. (MHz)	Power Mode A (dBm)		Power Mode B (dBm)	
				Measured Pwr	Tune-up Limit	Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	450	817.25	23.80	24.50	23.80	24.50
		560	820.00	23.80		23.80	
		670	822.75	23.80		23.80	
	RC3, SO55 (Loopback)	450	817.25	23.80		23.80	
		560	820.00	23.80		23.80	
		670	822.75	23.80		23.80	
	RC3, SO32 (+F-SCH)	450	817.25	23.80		23.80	
		560	820.00	23.80		23.80	
		670	822.75	23.80		23.80	
1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	450	817.25	23.80	24.50	23.80	24.50
		560	820	23.80		23.80	
		670	822.75	23.80		23.80	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	450	817.25	23.80	24.50	23.80	24.50
		560	820.00	23.80		23.80	
		670	822.75	23.80		23.80	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	450	817.25	23.80	24.50	23.80	24.50
		560	820	23.80		23.80	
		670	822.75	23.80		23.80	

9.4. 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

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

Maximum Output Power (Tune-up Limit) for LTE

According to April 2015 TCB workshop, SAR test exclusion can be applied for testing overlapping LTE bands as follows:

- a) The maximum output power, including tolerance, for the smaller band must be \leq the larger band to qualify for the SAR test exclusion.
- b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.
 - LTE Band 2 (1850-1910 MHz) is covered by LTE Band 25 (1850-1915 MHz)
 - LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz)
 - LTE Band 5 (824-849 MHz) is covered by LTE Band 26 (814-849 MHz)
 - LTE Band 17 (704-716 MHz) is covered by LTE Band 12 (699-716 MHz)

LTE QPSK configuration has the highest maximum average output power per 3GPP standard.

SAR measurement is not required for the 16QAM and 64QAM. When primary mode and the adjusted SAR is ≤ 1.2 W/kg and secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

Please refer to section 6.3. for LTE detail test channels.

RF Air interface	Mode	Maximum Output Power (Tune-up Limit) (dBm)							
		ANT1		ANT2		ANT3		ANT4	
		Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
LTE Band 2	QPSK	25.50	21.00	18.50	17.70	25.00	19.70	20.20	20.50
LTE Band 4	QPSK	25.50	18.00	20.20	19.00	25.00	22.00	22.50	22.50
LTE Band 5	QPSK	25.50	25.50	24.50	24.50				
LTE Band 7	QPSK	25.50	21.50	19.70	21.50	25.00	21.00	18.00	18.70
LTE Band 12	QPSK	25.50	25.50	24.50	24.50				
LTE Band 13	QPSK	25.50	25.50	24.50	24.50				
LTE Band 14	QPSK	25.50	25.50	24.50	24.50				
LTE Band 17	QPSK	25.50	25.50	24.50	24.50				
LTE Band 25	QPSK	25.50	21.00	18.50	17.70	25.00	19.70	20.20	20.50
LTE Band 26	QPSK	25.50	25.50	24.50	24.50				
LTE Band 30	QPSK	23.50	21.70	20.50	20.50	23.50	20.00	18.20	19.50
LTE Band 41 (PC 3)	QPSK	25.50	24.00	21.50	22.50	25.50	24.00	19.50	21.70
LTE Band 41 (PC 2)	QPSK	27.00	24.00	21.50	22.50	26.50	24.00	19.50	21.70
LTE Band 66	QPSK	25.50	18.00	20.20	19.00	25.00	22.00	22.50	22.50

Note(s):

* From May 2017 TCB Workshop, Rel. 14 has introduced HPUUE Power Class 2 for Band 41 allows 26 ± 2 dBm and does not support uplink-downlink configurations 0 and 6 or inter-band CA. The highest time averaged power for UL-DL configurations is 1 the duty cycle is 43.3%. Please refer to section 6.4. LTE (TDD) Considerations.

LTE Band 7 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				20850	21100	21350	MPR	Tune-up Limit	20850	21100	21350	MPR	Tune-up Limit		
				2510 MHz	2535 MHz	2560 MHz			2510 MHz	2535 MHz	2560 MHz				
20 MHz	QPSK	1	0	24.50	24.50	24.50	0	25.5	21.40	21.26	21.26	0	21.5		
		1	49	24.50	24.50	24.50	0	25.5	21.42	21.26	21.26	0	21.5		
		1	99	24.50	24.50	24.50	0	25.5	21.40	21.25	21.23	0	21.5		
		50	0	24.50	23.55	23.51	1	24.5	21.41	21.21	21.20	0	21.5		
		50	24	23.52	23.51	23.57	1	24.5	21.42	21.26	21.28	0	21.5		
		50	50	23.50	23.56	23.55	1	24.5	21.42	21.20	21.27	0	21.5		
		100	0	23.59	23.56	23.58	1	24.5	21.44	21.31	21.35	0	21.5		
	16QAM	1	0	24.03	24.06	23.99	1	24.5	21.50	21.50	21.50	0	21.5		
		1	49	23.99	23.86	23.89	1	24.5	21.50	21.50	21.50	0	21.5		
		1	99	24.03	23.95	24.15	1	24.5	21.50	21.50	21.50	0	21.5		
		50	0	22.71	22.75	22.76	2	23.5	21.46	21.23	21.25	0	21.5		
		50	24	22.80	22.69	22.77	2	23.5	21.44	21.29	21.32	0	21.5		
		50	50	22.87	22.74	22.91	2	23.5	21.43	21.23	21.34	0	21.5		
		100	0	22.86	22.73	22.82	2	23.5	21.47	21.33	21.37	0	21.5		
	64QAM	1	0	23.50	23.39	23.13	2	23.5	21.50	21.50	21.50	0	21.5		
		1	49	23.50	23.33	23.08	2	23.5	21.50	21.50	21.50	0	21.5		
		1	99	23.44	23.26	23.05	2	23.5	21.50	21.50	21.50	0	21.5		
		50	0	22.27	22.09	22.03	3	22.5	21.50	21.50	21.50	0	21.5		
		50	24	22.22	22.08	22.05	3	22.5	21.50	21.50	21.50	0	21.5		
		50	50	22.21	22.02	22.11	3	22.5	21.50	21.45	21.50	0	21.5		
		100	0	22.25	22.12	22.12	3	22.5	21.50	21.50	21.50	0	21.5		
15 MHz	QPSK	1	0	24.50	24.50	24.53	0	25.5	21.50	21.21	21.27	0	21.5		
		1	37	24.50	24.50	24.56	0	25.5	21.41	21.25	21.35	0	21.5		
		1	74	24.50	24.50	24.67	0	25.5	21.41	21.16	21.34	0	21.5		
		36	0	23.51	23.54	23.67	1	24.5	21.39	21.16	21.30	0	21.5		
		36	20	23.54	23.53	23.73	1	24.5	21.40	21.24	21.31	0	21.5		
		36	39	23.57	23.52	23.82	1	24.5	21.39	21.24	21.31	0	21.5		
		75	0	23.51	23.54	23.72	1	24.5	21.41	21.27	21.30	0	21.5		
	16QAM	1	0	23.90	23.90	24.01	1	24.5	21.50	21.50	21.50	0	21.5		
		1	37	23.85	23.87	24.08	1	24.5	21.50	21.50	21.50	0	21.5		
		1	74	24.03	23.92	24.18	1	24.5	21.50	21.50	21.50	0	21.5		
		36	0	22.69	22.84	22.87	2	23.5	21.42	21.22	21.29	0	21.5		
		36	20	22.74	22.82	22.92	2	23.5	21.43	21.30	21.32	0	21.5		
		36	39	22.80	22.80	23.02	2	23.5	21.43	21.29	21.33	0	21.5		
		75	0	22.75	22.82	22.95	2	23.5	21.42	21.31	21.33	0	21.5		
	64QAM	1	0	23.46	23.38	23.37	2	23.5	21.50	21.50	21.50	0	21.5		
		1	37	23.33	23.40	23.39	2	23.5	21.50	21.50	21.50	0	21.5		
		1	74	23.31	23.33	23.30	2	23.5	21.50	21.50	21.50	0	21.5		
		36	0	22.27	22.13	22.10	3	22.5	21.50	21.50	21.50	0	21.5		
		36	20	22.28	22.19	22.17	3	22.5	21.50	21.50	21.50	0	21.5		
		36	39	22.24	22.17	22.16	3	22.5	21.50	21.50	21.50	0	21.5		
		75	0	22.25	22.17	22.16	3	22.5	21.50	21.50	21.50	0	21.5		
10 MHz	QPSK	1	0	24.57	24.58	24.75	0	25.5	21.50	21.24	21.23	0	21.5		
		1	25	24.50	24.52	24.73	0	25.5	21.45	21.28	21.25	0	21.5		
		1	49	24.50	24.63	24.84	0	25.5	21.48	21.23	21.22	0	21.5		
		25	0	23.59	23.61	23.73	1	24.5	21.42	21.27	21.26	0	21.5		
		25	12	23.55	23.59	23.82	1	24.5	21.42	21.26	21.24	0	21.5		
		25	25	23.61	23.59	23.88	1	24.5	21.43	21.28	21.26	0	21.5		
		50	0	23.56	23.61	23.86	1	24.5	21.40	21.28	21.26	0	21.5		
	16QAM	1	0	24.01	23.98	24.13	1	24.5	21.50	21.50	21.50	0	21.5		
		1	25	23.91	23.91	24.21	1	24.5	21.50	21.50	21.50	0	21.5		
		1	49	23.95	23.98	24.37	1	24.5	21.50	21.50	21.50	0	21.5		
		25	0	22.82	22.79	22.90	2	23.5	21.40	21.32	21.32	0	21.5		
		25	12	22.78	22.75	22.98	2	23.5	21.39	21.32	21.30	0	21.5		
		25	25	22.81	22.74	23.00	2	23.5	21.38	21.32	21.32	0	21.5		
		50	0	22.78	22.75	22.97	2	23.5	21.37	21.32	21.30	0	21.5		
	64QAM	1	0	23.46	23.29	23.28	2	23.5	21.50	21.50	21.50	0	21.5		
		1	25	23.34	23.29	23.24	2	23.5	21.50	21.50	21.50	0	21.5		
		1	49	23.40	23.27	23.23	2	23.5	21.50	21.50	21.50	0	21.5		
		25	0	22.24	22.15	22.14	3	22.5	21.50	21.50	21.50	0	21.5		
		25	12	22.21	22.12	22.14	3	22.5	21.50	21.50	21.50	0	21.5		
		25	25	22.20	22.12	22.18	3	22.5	21.50	21.50	21.50	0	21.5		
		50	0	22.22	22.12	22.15	3	22.5	21.50	21.50	21.50	0	21.5		

LTE Band 7 Measured Results (ANT1) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				20775	21100	21425	MPR	Tune-up Limit	20775	21100	21425	MPR	Tune-up Limit
				2502.5 MHz	2535 MHz	2567.5 MHz			2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	24.66	24.70	25.01	0	25.5	21.39	21.30	21.15	0	21.5
		1	12	24.52	24.63	24.99	0	25.5	21.31	21.27	21.24	0	21.5
		1	24	24.50	24.64	24.96	0	25.5	21.33	21.30	21.28	0	21.5
		12	0	23.61	23.61	23.80	1	24.5	21.25	21.14	21.15	0	21.5
		12	7	23.58	23.60	23.80	1	24.5	21.20	21.11	21.14	0	21.5
		12	13	23.57	23.59	23.83	1	24.5	21.21	21.12	21.14	0	21.5
		25	0	23.52	23.60	23.83	1	24.5	21.26	21.15	21.16	0	21.5
	16QAM	1	0	24.09	24.03	24.26	1	24.5	21.50	21.50	21.50	0	21.5
		1	12	23.98	23.99	24.27	1	24.5	21.50	21.50	21.50	0	21.5
		1	24	24.04	24.00	24.36	1	24.5	21.50	21.50	21.50	0	21.5
		12	0	22.71	22.65	22.84	2	23.5	21.32	21.10	21.15	0	21.5
		12	7	22.69	22.63	22.86	2	23.5	21.24	21.10	21.14	0	21.5
		12	13	22.69	22.63	22.83	2	23.5	21.25	21.11	21.16	0	21.5
		25	0	22.66	22.60	22.87	2	23.5	21.22	21.08	21.12	0	21.5
	64QAM	1	0	23.50	23.28	23.39	2	23.5	21.50	21.50	21.50	0	21.5
		1	12	23.48	23.22	23.24	2	23.5	21.50	21.50	21.50	0	21.5
		1	24	23.49	23.29	23.34	2	23.5	21.50	21.50	21.50	0	21.5
		12	0	22.10	21.88	21.86	3	22.5	21.43	21.30	21.50	0	21.5
		12	7	22.02	21.85	21.84	3	22.5	21.39	21.27	21.50	0	21.5
		12	13	22.03	21.86	21.82	3	22.5	21.41	21.30	21.45	0	21.5
		25	0	22.07	21.92	21.90	3	22.5	21.47	21.33	21.50	0	21.5

LTE Band 7 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				20850	21100	21350	MPR	Tune-up Limit	20850	21100	21350	MPR	Tune-up Limit		
				2510 MHz	2535 MHz	2560 MHz			2510 MHz	2535 MHz	2560 MHz				
20 MHz	QPSK	1	0	19.34	19.23	19.08	0	19.7	20.93	20.70	20.68	0	21.5		
		1	49	19.70	19.70	19.70	0	19.7	21.10	21.20	21.20	0	21.5		
		1	99	19.39	19.13	19.28	0	19.7	20.94	20.82	20.81	0	21.5		
		50	0	19.20	19.13	18.97	0	19.7	20.76	20.63	20.66	0	21.5		
		50	24	19.50	19.50	19.50	0	19.7	21.00	21.00	21.00	0	21.5		
		50	50	19.35	19.10	19.19	0	19.7	20.85	20.74	20.82	0	21.5		
		100	0	19.50	19.50	19.50	0	19.7	21.00	21.00	21.00	0	21.5		
	16QAM	1	0	19.70	19.70	19.43	0	19.7	21.17	21.15	20.99	0	21.5		
		1	49	19.54	19.70	19.40	0	19.7	21.15	21.12	21.03	0	21.5		
		1	99	19.70	19.70	19.65	0	19.7	21.28	21.26	21.12	0	21.5		
		50	0	19.21	19.52	19.01	0	19.7	20.30	20.30	20.30	0.3	21.3		
		50	24	19.27	19.51	19.10	0	19.7	20.30	20.30	20.30	0.3	21.3		
		50	50	19.34	19.53	19.23	0	19.7	20.28	20.30	20.30	0.3	21.3		
		100	0	19.32	19.60	19.15	0	19.7	20.25	20.30	20.30	0.3	21.3		
15 MHz	QPSK	1	0	19.70	19.62	19.40	0	19.7	20.96	20.65	20.87	0.3	21.3		
		1	49	19.62	19.70	19.45	0	19.7	20.89	20.57	20.81	0.3	21.3		
		1	99	19.70	19.62	19.67	0	19.7	20.91	20.54	20.78	0.3	21.3		
		50	0	19.15	19.54	19.04	0	19.7	19.55	19.49	19.52	1.3	20.3		
		50	24	19.20	19.53	19.12	0	19.7	19.60	19.50	19.53	1.3	20.3		
		50	50	19.29	19.49	19.22	0	19.7	19.58	19.51	19.54	1.3	20.3		
		100	0	19.24	19.60	19.17	0	19.7	19.67	19.54	19.59	1.3	20.3		
	16QAM	1	0	19.36	19.19	19.03	0	19.7	20.98	20.77	20.85	0	21.5		
		1	37	19.27	19.15	19.18	0	19.7	20.93	20.76	20.84	0	21.5		
		1	74	19.34	19.12	19.30	0	19.7	20.94	20.81	20.80	0	21.5		
		36	0	19.18	19.10	19.03	0	19.7	20.75	20.72	20.77	0	21.5		
		36	20	19.24	19.06	19.10	0	19.7	20.84	20.78	20.83	0	21.5		
		36	39	19.23	19.05	19.18	0	19.7	20.87	20.78	20.90	0	21.5		
		75	0	19.27	19.09	19.12	0	19.7	20.86	20.75	20.78	0	21.5		
	64QAM	1	0	19.70	19.57	19.41	0	19.7	21.27	21.13	21.05	0	21.5		
		1	37	19.65	19.49	19.53	0	19.7	21.22	21.12	21.08	0	21.5		
		1	74	19.70	19.50	19.64	0	19.7	21.22	21.13	21.09	0	21.5		
		36	0	19.24	19.11	19.01	0	19.7	20.30	20.30	20.30	0.3	21.3		
		36	20	19.30	19.10	19.14	0	19.7	20.30	20.30	20.30	0.3	21.3		
		36	39	19.29	19.09	19.19	0	19.7	20.27	20.30	20.30	0.3	21.3		
		75	0	19.32	19.12	19.17	0	19.7	20.30	20.30	20.30	0.3	21.3		
10 MHz	QPSK	1	0	19.57	19.42	19.22	0	19.7	20.78	20.72	20.76	0.3	21.3		
		1	37	19.52	19.30	19.35	0	19.7	20.73	20.70	20.76	0.3	21.3		
		1	74	19.55	19.24	19.49	0	19.7	20.73	20.71	20.71	0.3	21.3		
		36	0	19.24	19.13	19.03	0	19.7	19.57	19.51	19.55	1.3	20.3		
		36	20	19.31	19.12	19.15	0	19.7	19.62	19.54	19.56	1.3	20.3		
		36	39	19.30	19.11	19.21	0	19.7	19.62	19.53	19.59	1.3	20.3		
		75	0	19.24	19.11	19.16	0	19.7	19.61	19.52	19.57	1.3	20.3		
	16QAM	1	0	20800	21100	21400	MPR	Tune-up Limit	20800	21100	21400	MPR	Tune-up Limit		
		1	25	20800	21100	21400			2505 MHz	2535 MHz	2565 MHz				
		1	49	20800	21100	21400			2505 MHz	2535 MHz	2565 MHz				
		25	0	19.34	19.16	19.19			21.00	20.84	21.05	0	21.5		
		25	12	19.24	19.08	19.20			20.88	20.87	20.99	0	21.5		
		25	25	19.25	19.08	19.26			20.92	20.90	20.94	0	21.5		
		50	0	19.17	19.10	19.23			20.89	20.89	20.98	0	21.5		
	64QAM	1	0	19.70	19.53	19.54	0	19.7	21.39	21.19	21.23	0	21.5		
		1	25	19.61	19.46	19.58	0	19.7	21.27	21.21	21.26	0	21.5		
		1	49	19.70	19.47	19.70	0	19.7	21.37	21.29	21.25	0	21.5		
		25	0	19.25	19.13	19.17	0	19.7	20.30	20.28	20.32	0.3	21.3		
		25	12	19.25	19.11	19.24	0	19.7	20.26	20.26	20.34	0.3	21.3		
		25	25	19.31	19.12	19.25	0	19.7	20.34	20.29	20.34	0.3	21.3		
		50	0	19.19	19.11	19.22	0	19.7	20.30	20.30	20.30	0.3	21.3		

LTE Band 7 Measured Results (ANT2) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				20775	21100	21425	MPR	Tune-up Limit	20775	21100	21425	MPR	Tune-up Limit
				2502.5 MHz	2535 MHz	2567.5 MHz			2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	19.21	19.10	19.18	0	19.7	21.15	21.02	21.16	0	21.5
		1	12	19.15	19.06	19.17	0	19.7	20.97	20.98	21.10	0	21.5
		1	24	19.19	19.08	19.26	0	19.7	21.02	21.04	21.16	0	21.5
		12	0	19.13	18.99	19.10	0	19.7	20.95	20.92	21.01	0	21.5
		12	7	19.08	18.98	19.09	0	19.7	20.90	20.92	21.00	0	21.5
		12	13	19.07	18.97	19.09	0	19.7	20.90	20.91	20.96	0	21.5
		25	0	19.12	19.01	19.11	0	19.7	20.90	20.87	20.96	0	21.5
	16QAM	1	0	19.70	19.54	19.61	0	19.7	21.50	21.29	21.33	0	21.5
		1	12	19.61	19.52	19.59	0	19.7	21.36	21.24	21.32	0	21.5
		1	24	19.63	19.57	19.70	0	19.7	21.40	21.25	21.40	0	21.5
		12	0	19.17	18.99	19.10	0	19.7	20.29	20.30	20.30	0.3	21.3
		12	7	19.10	19.01	19.11	0	19.7	20.30	20.30	20.30	0.3	21.3
		12	13	19.10	19.01	19.14	0	19.7	20.30	20.30	20.30	0.3	21.3
		25	0	19.07	18.99	19.08	0	19.7	20.30	20.30	20.30	0.3	21.3
	64QAM	1	0	19.66	19.49	19.54	0	19.7	21.06	20.81	20.93	0.3	21.3
		1	12	19.53	19.44	19.54	0	19.7	20.93	20.74	20.83	0.3	21.3
		1	24	19.57	19.44	19.62	0	19.7	20.88	20.79	20.83	0.3	21.3
		12	0	19.07	18.88	19.03	0	19.7	19.51	19.43	19.32	1.3	20.3
		12	7	19.00	18.88	19.02	0	19.7	19.43	19.41	19.32	1.3	20.3
		12	13	19.01	18.87	19.07	0	19.7	19.42	19.41	19.28	1.3	20.3
		25	0	19.08	18.91	19.12	0	19.7	19.51	19.40	19.38	1.3	20.3

LTE Band 7 Measured Results (ANT3)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				20850	21100	21350	MPR	Tune-up Limit	20850	21100	21350	MPR	Tune-up Limit		
				2510 MHz	2535 MHz	2560 MHz			2510 MHz	2535 MHz	2560 MHz				
20 MHz	QPSK	1	0	24.36	24.21	24.13	0	25	20.40	20.20	20.16	0	21		
		1	49	24.60	24.80	24.50	0	25	20.75	20.75	20.75	0	21		
		1	99	24.12	24.20	24.13	0	25	20.32	20.27	20.33	0	21		
		50	0	23.34	23.25	23.24	1	24	20.14	20.10	20.10	0	21		
		50	24	24.00	24.00	24.00	1	24	20.30	20.40	20.60	0	21		
		50	50	23.36	23.45	23.16	1	24	20.25	20.37	20.01	0	21		
	16QAM	100	0	24.00	24.00	24.00	1	24	20.40	20.30	20.20	0	21		
		1	0	24.00	23.76	23.68	1	24	20.85	20.56	20.49	0	21		
		1	49	23.87	23.62	23.52	1	24	20.68	20.51	20.44	0	21		
		1	99	23.84	23.72	23.71	1	24	20.67	20.63	20.63	0	21		
		50	0	22.60	22.49	22.50	2	23	20.19	20.13	20.14	0	21		
	64QAM	50	24	22.60	22.52	22.45	2	23	20.23	20.19	20.07	0	21		
		50	50	22.61	22.71	22.36	2	23	20.27	20.36	20.03	0	21		
		100	0	22.64	22.55	22.46	2	23	20.28	20.13	20.11	0	21		
		1	0	23.00	22.70	23.00	2	23	21.00	21.00	21.00	0	21		
		1	49	23.00	22.79	23.00	2	23	21.00	21.00	21.00	0	21		
	64QAM	1	99	23.00	22.80	23.00	2	23	21.00	21.00	21.00	0	21		
		50	0	22.00	21.76	21.87	3	22	21.00	20.89	20.92	0	21		
		50	24	21.98	21.81	21.92	3	22	21.00	20.94	20.95	0	21		
		50	50	21.96	21.88	22.00	3	22	21.00	20.97	21.00	0	21		
		100	0	22.00	21.86	21.98	3	22	21.00	20.99	21.00	0	21		
15 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				20825	21100	21375	MPR	Tune-up Limit	20825	21100	21375	MPR	Tune-up Limit		
				2507.5 MHz	2535 MHz	2562.5 MHz			2507.5 MHz	2535 MHz	2562.5 MHz				
		1	0	24.43	24.14	24.15	0	25	20.43	20.18	20.11	0	21		
		1	37	24.08	24.05	24.09	0	25	20.18	20.15	20.07	0	21		
		1	74	24.19	24.18	24.13	0	25	20.30	20.31	20.27	0	21		
	16QAM	36	0	23.41	23.27	23.22	1	24	20.22	20.05	20.05	0	21		
		36	20	23.31	23.33	23.30	1	24	20.14	20.14	20.06	0	21		
		36	39	23.35	23.43	23.27	1	24	20.20	20.28	20.00	0	21		
		75	0	23.32	23.34	23.25	1	24	20.17	20.16	20.07	0	21		
		1	0	24.00	23.75	23.59	1	24	20.79	20.48	20.48	0	21		
	64QAM	1	37	23.73	23.69	23.52	1	24	20.57	20.42	20.43	0	21		
		1	74	23.75	23.79	23.68	1	24	20.63	20.63	20.65	0	21		
		36	0	22.66	22.55	22.50	2	23	20.28	20.11	20.10	0	21		
		36	20	22.55	22.57	22.50	2	23	20.19	20.19	20.10	0	21		
		36	39	22.59	22.70	22.44	2	23	20.24	20.32	20.04	0	21		
	64QAM	75	0	22.56	22.56	22.51	2	23	20.18	20.19	20.10	0	21		
		1	0	23.00	22.89	23.00	2	23	21.00	21.00	21.00	0	21		
		1	37	23.00	22.97	23.00	2	23	21.00	21.00	21.00	0	21		
		1	74	23.00	22.99	23.00	2	23	21.00	21.00	21.00	0	21		
		36	0	22.00	21.76	21.80	3	22	21.00	20.87	20.89	0	21		
10 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				20800	21100	21400	MPR	Tune-up Limit	20800	21100	21400	MPR	Tune-up Limit		
				2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz				
		1	0	24.47	24.18	24.23	0	25	20.48	20.07	20.16	0	21		
		1	25	24.17	24.19	24.11	0	25	20.28	20.11	20.04	0	21		
		1	49	24.29	24.40	24.40	0	25	20.27	20.37	20.27	0	21		
	16QAM	25	0	23.50	23.24	23.29	1	24	20.37	20.00	20.00	0	21		
		25	12	23.35	23.33	23.23	1	24	20.25	20.10	20.00	0	21		
		25	25	23.34	23.48	23.35	1	24	20.18	20.25	20.03	0	21		
		50	0	23.38	23.36	23.24	1	24	20.27	20.11	20.00	0	21		
		1	0	23.95	23.72	23.60	1	24	20.83	20.44	20.34	0	21		
	64QAM	1	25	23.72	23.70	23.51	1	24	20.68	20.46	20.22	0	21		
		1	49	23.80	23.94	23.81	1	24	20.67	20.72	20.53	0	21		
		25	0	22.70	22.42	22.46	2	23	20.39	20.03	20.04	0	21		
		25	12	22.62	22.51	22.37	2	23	20.30	20.14	20.01	0	21		
		25	25	22.56	22.65	22.48	2	23	20.22	20.30	20.10	0	21		
		50	0	22.56	22.50	22.38	2	23	20.28	20.14	20.03	0	21		
		1	0	23.00	22.93	23.00	2	23	21.00	21.00	21.00	0	21		
		1	25	23.00	22.98	23.00	2	23	21.00	21.00	21.00	0	21		
		1	49	23.00	23.00	23.00	2	23	21.00	21.00	21.00	0	21		
		25	0	22.00	21.86	21.97	3	22	21.00	20.95	21.00	0	21		
		25	12	22.00	21.86	22.00	3	22	21.00	20.94	21.00	0	21		
		25	25	22.00	21.89	22.00	3	22	21.00	20.96	21.00	0	21		
		50	0	22.00	21.86	22.00	3	22	21.00	20.90	21.00	0	21		

LTE Band 7 Measured Results (ANT3) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				20775	21100	21425	MPR	Tune-up Limit	20775	21100	21425	MPR	Tune-up Limit
				2502.5 MHz	2535 MHz	2567.5 MHz			2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	24.65	24.20	24.13	0	25	20.12	20.18	20.11	0	21
		1	12	24.45	24.27	24.18	0	25	20.00	20.02	20.00	0	21
		1	24	24.38	24.41	24.35	0	25	20.16	20.19	20.16	0	21
		12	0	23.54	23.24	23.18	1	24	20.08	20.04	20.09	0	21
		12	7	23.46	23.29	23.19	1	24	20.00	20.00	20.00	0	21
		12	13	23.42	23.33	23.24	1	24	20.06	20.00	20.06	0	21
		25	0	23.39	23.30	23.19	1	24	20.00	20.00	20.00	0	21
	16QAM	1	0	24.00	23.59	23.59	1	24	20.53	20.48	20.55	0	21
		1	12	23.83	23.68	23.69	1	24	20.37	20.36	20.36	0	21
		1	24	23.81	23.80	23.93	1	24	20.56	20.51	20.56	0	21
		12	0	22.61	22.28	22.33	2	23	20.14	20.09	20.14	0	21
		12	7	22.53	22.32	22.37	2	23	20.03	20.02	20.04	0	21
		12	13	22.48	22.40	22.45	2	23	20.11	20.08	20.12	0	21
		25	0	22.56	22.30	22.32	2	23	20.05	20.04	20.05	0	21
	64QAM	1	0	23.00	22.99	23.00	2	23	21.00	21.00	21.00	0	21
		1	12	23.00	22.96	23.00	2	23	21.00	21.00	21.00	0	21
		1	24	23.00	23.00	23.00	2	23	21.00	21.00	21.00	0	21
		12	0	21.84	21.65	21.82	3	22	20.90	20.75	20.84	0	21
		12	7	21.76	21.64	21.81	3	22	20.77	20.73	20.85	0	21
		12	13	21.79	21.66	21.70	3	22	20.80	20.75	20.82	0	21
		25	0	21.82	21.65	21.81	3	22	20.86	20.73	20.93	0	21

LTE Band 7 Measured Results (ANT4)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				20850	21100	21350	MPR	Tune-up Limit	20850	21100	21350	MPR	Tune-up Limit		
				2510 MHz	2535 MHz	2560 MHz			2510 MHz	2535 MHz	2560 MHz				
20 MHz	QPSK	1	0	17.97	17.40	17.57	0	18	18.24	17.87	17.83	0	18.7		
		1	49	18.00	17.40	17.60	0	18	18.21	17.82	17.98	0	18.7		
		1	99	17.67	17.40	17.47	0	18	18.23	17.91	18.17	0	18.7		
		50	0	17.87	17.37	17.40	0	18	18.21	17.82	17.92	0	18.7		
		50	24	17.90	17.50	17.40	0	18	18.18	17.83	17.97	0	18.7		
		50	50	17.62	17.49	17.40	0	18	18.10	17.82	17.90	0	18.7		
		100	0	17.80	17.50	17.40	0	18	18.21	17.88	17.99	0	18.7		
	16QAM	1	0	18.00	17.74	17.89	0	18	18.51	18.31	18.20	0	18.7		
		1	49	18.00	17.68	17.79	0	18	18.50	18.28	18.32	0	18.7		
		1	99	18.00	17.83	17.74	0	18	18.53	18.34	18.51	0	18.7		
		50	0	17.90	17.40	17.52	0	18	18.16	17.83	17.90	0	18.7		
		50	24	17.78	17.38	17.48	0	18	18.13	17.84	17.93	0	18.7		
	64QAM	50	50	17.64	17.55	17.48	0	18	18.07	17.83	17.89	0	18.7		
		100	0	17.77	17.42	17.52	0	18	18.18	17.89	18.01	0	18.7		
		1	0	18.00	17.76	17.53	0	18	18.70	18.70	18.51	0	18.7		
		1	49	18.00	17.68	17.57	0	18	18.70	18.64	18.36	0	18.7		
		1	99	18.00	17.69	17.66	0	18	18.70	18.70	18.30	0	18.7		
		50	0	17.81	17.34	17.43	0	18	18.70	18.34	18.30	0	18.7		
		50	24	17.75	17.33	17.46	0	18	18.70	18.29	18.25	0	18.7		
		100	0	17.77	17.38	17.52	0	18	18.70	18.35	18.29	0	18.7		
15 MHz	QPSK	20825	21100	21375	MPR	Tune-up Limit	20825	21100	21375	MPR	Tune-up Limit				
		2507.5 MHz	2535 MHz	2562.5 MHz			2507.5 MHz	2535 MHz	2562.5 MHz						
		1	0	18.00	17.37	17.52	0	18	18.28	17.87	17.97	0	18.7		
		1	37	17.82	17.35	17.46	0	18	18.28	17.86	17.98	0	18.7		
		1	74	17.64	17.45	17.40	0	18	18.18	17.88	18.19	0	18.7		
		36	0	17.91	17.36	17.44	0	18	18.18	17.82	18.00	0	18.7		
		36	20	17.83	17.36	17.43	0	18	18.23	17.86	17.97	0	18.7		
	16QAM	36	39	17.71	17.42	17.43	0	18	18.16	17.89	17.94	0	18.7		
		75	0	17.77	17.37	17.47	0	18	18.20	17.82	17.94	0	18.7		
		1	0	18.00	17.64	17.85	0	18	18.60	18.20	18.29	0	18.7		
		1	37	18.00	17.64	17.83	0	18	18.58	18.24	18.28	0	18.7		
		1	74	18.00	17.72	17.80	0	18	18.56	18.24	18.51	0	18.7		
		36	0	17.94	17.39	17.47	0	18	18.19	17.81	18.06	0	18.7		
		36	20	17.88	17.38	17.47	0	18	18.28	17.84	18.02	0	18.7		
	64QAM	36	39	17.74	17.46	17.50	0	18	18.14	17.88	18.00	0	18.7		
		75	0	17.77	17.40	17.50	0	18	18.21	17.87	17.97	0	18.7		
		1	0	18.00	17.64	17.78	0	18	18.70	18.70	18.70	0	18.7		
		1	37	18.00	17.60	17.74	0	18	18.70	18.62	18.63	0	18.7		
		1	74	17.85	17.56	17.87	0	18	18.70	18.63	18.52	0	18.7		
		36	0	17.78	17.39	17.52	0	18	18.70	18.41	18.32	0	18.7		
		36	20	17.85	17.39	17.48	0	18	18.70	18.40	18.30	0	18.7		
10 MHz	QPSK	20800	21100	21400	MPR	Tune-up Limit	20800	21100	21400	MPR	Tune-up Limit				
		2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz						
		1	0	17.98	17.41	17.44	0	18	18.33	17.85	18.21	0	18.7		
		1	25	17.87	17.38	17.39	0	18	18.30	17.83	18.19	0	18.7		
		1	49	17.78	17.56	17.40	0	18	18.30	17.87	18.43	0	18.7		
		25	0	17.85	17.29	17.34	0	18	18.21	17.82	18.15	0	18.7		
		25	12	17.83	17.32	17.33	0	18	18.25	17.82	18.09	0	18.7		
	16QAM	25	25	17.82	17.39	17.29	0	18	18.32	17.85	18.20	0	18.7		
		50	0	17.88	17.32	17.39	0	18	18.32	17.85	18.03	0	18.7		
		1	0	18.00	17.71	17.70	0	18	18.67	18.24	18.42	0	18.7		
		1	25	18.00	17.68	17.62	0	18	18.70	18.23	18.40	0	18.7		
		1	49	18.00	17.87	17.65	0	18	18.69	18.26	18.57	0	18.7		
		25	0	17.91	17.31	17.38	0	18	18.25	17.86	18.09	0	18.7		
		25	12	17.88	17.34	17.38	0	18	18.31	17.86	18.05	0	18.7		
	64QAM	25	25	17.87	17.43	17.34	0	18	18.37	17.90	18.17	0	18.7		
		50	0	17.88	17.35	17.34	0	18	18.25	17.88	18.05	0	18.7		
		1	0	18.00	17.61	17.62	0	18	18.70	18.67	18.60	0	18.7		
		1	25	18.00	17.62	17.59	0	18	18.70	18.63	18.58	0	18.7		
		1	49	18.00	17.59	17.78	0	18	18.70	18.70	18.55	0	18.7		
		25	0	17.75	17.37	17.47	0	18	18.70	18.38	18.32	0	18.7		
		25	12	17.79	17.35	17.40	0	18	18.70	18.41	18.31	0	18.7		
		25	25	17.84	17.37	17.52	0	18	18.70	18.46	18.25	0	18.7		
		50	0	17.80	17.36	17.41	0	18	18.70	18.42	18.33	0	18.7		

LTE Band 7 Measured Results (ANT4) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				20775	21100	21425	MPR	Tune-up Limit	20775	21100	21425	MPR	Tune-up Limit
				2502.5 MHz	2535 MHz	2567.5 MHz			2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	17.90	17.24	17.42	0	18	18.38	17.90	18.11	0	18.7
		1	12	17.81	17.30	17.36	0	18	18.24	17.87	18.21	0	18.7
		1	24	17.88	17.40	17.45	0	18	18.33	17.94	18.35	0	18.7
		12	0	17.82	17.14	17.29	0	18	18.22	17.78	18.04	0	18.7
		12	7	17.72	17.20	17.29	0	18	18.15	17.77	18.06	0	18.7
		12	13	17.76	17.21	17.23	0	18	18.15	17.78	18.16	0	18.7
		25	0	17.78	17.22	17.33	0	18	18.17	17.80	18.10	0	18.7
	16QAM	1	0	18.00	17.63	17.90	0	18	18.64	18.26	18.55	0	18.7
		1	12	18.00	17.67	17.76	0	18	18.48	18.25	18.62	0	18.7
		1	24	18.00	17.79	17.85	0	18	18.53	18.32	18.70	0	18.7
		12	0	17.79	17.12	17.25	0	18	18.06	17.77	18.10	0	18.7
		12	7	17.71	17.18	17.24	0	18	18.05	17.77	18.09	0	18.7
		12	13	17.77	17.18	17.20	0	18	18.08	17.78	18.17	0	18.7
		25	0	17.67	17.21	17.23	0	18	18.02	17.81	18.08	0	18.7
	64QAM	1	0	18.00	17.58	17.68	0	18	18.70	18.52	18.67	0	18.7
		1	12	17.90	17.54	17.74	0	18	18.70	18.56	18.60	0	18.7
		1	24	18.00	17.57	17.91	0	18	18.70	18.64	18.61	0	18.7
		12	0	17.47	17.26	17.25	0	18	18.70	18.13	18.01	0	18.7
		12	7	17.45	17.22	17.26	0	18	18.67	18.21	18.02	0	18.7
		12	13	17.49	17.22	17.35	0	18	18.70	18.21	17.96	0	18.7
		25	0	17.53	17.19	17.30	0	18	18.70	18.20	18.06	0	18.7

LTE Band 12 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23095	707.5 MHz	MPR	Tune-up Limit	23095	707.5 MHz	MPR	Tune-up Limit
				707.5 MHz	707.5 MHz			707.5 MHz	707.5 MHz		
10 MHz	QPSK	1	0	24.64	0	0	25.5	24.64	0	0	25.5
		1	25	24.79	0	0	25.5	24.79	0	0	25.5
		1	49	24.75	0	0	25.5	24.75	0	0	25.5
		25	0	23.66	1	1	24.5	23.66	1	1	24.5
		25	12	23.72	1	1	24.5	23.72	1	1	24.5
	16QAM	25	25	23.83	1	1	24.5	23.83	1	1	24.5
		50	0	23.76	1	1	24.5	23.76	1	1	24.5
		1	0	23.92	1	1	24.5	23.92	1	1	24.5
		1	25	24.08	1	1	24.5	24.08	1	1	24.5
		1	49	24.04	1	1	24.5	24.04	1	1	24.5
	64QAM	25	0	22.74	2	2	23.5	22.74	2	2	23.5
		25	12	22.81	2	2	23.5	22.81	2	2	23.5
		25	25	22.89	2	2	23.5	22.89	2	2	23.5
		50	0	22.83	2	2	23.5	22.83	2	2	23.5
		1	0	23.07	2	2	23.5	23.07	2	2	23.5
		1	25	23.30	2	2	23.5	23.30	2	2	23.5
		1	49	23.13	2	2	23.5	23.13	2	2	23.5
		25	0	21.92	3	3	22.5	21.92	3	3	22.5
		25	12	21.93	3	3	22.5	21.93	3	3	22.5
		50	0	21.96	3	3	22.5	21.96	3	3	22.5
5 MHz	QPSK	1	0	24.59	24.75	0	25.5	24.59	24.75	0	25.5
		1	12	24.50	24.75	0	25.5	24.50	24.75	0	25.5
		1	24	24.63	24.85	0	25.5	24.63	24.85	0	25.5
		12	0	23.50	23.67	1	24.5	23.50	23.67	1	24.5
		12	7	23.50	23.63	1	24.5	23.50	23.63	1	24.5
		12	13	23.50	23.64	1	24.5	23.50	23.64	1	24.5
		25	0	23.50	23.75	1	24.5	23.50	23.75	1	24.5
	16QAM	1	0	23.90	24.12	1	24.5	23.90	24.12	1	24.5
		1	12	23.83	24.17	1	24.5	23.83	24.17	1	24.5
		1	24	24.02	24.26	1	24.5	24.02	24.26	1	24.5
		12	0	22.50	22.62	2	23.5	22.50	22.62	2	23.5
		12	7	22.50	22.64	2	23.5	22.50	22.64	2	23.5
	64QAM	12	13	22.50	22.63	2	23.5	22.50	22.63	2	23.5
		25	0	22.50	22.76	2	23.5	22.50	22.76	2	23.5
		1	0	22.95	23.17	2	23.5	22.95	23.17	2	23.5
		1	12	22.88	23.16	2	23.5	22.88	23.16	2	23.5
		1	24	23.05	23.25	2	23.5	23.05	23.25	2	23.5
3 MHz	QPSK	12	0	21.51	21.72	3	22.5	21.51	21.72	3	22.5
		12	7	22.50	21.73	3	22.5	22.50	21.73	3	22.5
		12	13	21.53	21.74	3	22.5	21.53	21.74	3	22.5
		25	0	21.58	21.72	3	22.5	21.58	21.72	3	22.5
		1	0	23.025	23.095	0	25.5	23.025	23.095	0	25.5
		1	8	23.025	23.095	0	25.5	23.025	23.095	0	25.5
		1	14	23.025	23.095	0	25.5	23.025	23.095	0	25.5
	16QAM	8	0	23.50	23.57	1	24.5	23.50	23.57	1	24.5
		8	4	23.50	23.56	1	24.5	23.50	23.56	1	24.5
		8	7	23.50	23.56	1	24.5	23.50	23.56	1	24.5
		15	0	23.53	23.68	1	24.5	23.53	23.68	1	24.5
		1	0	23.88	24.04	1	24.5	23.88	24.04	1	24.5
	64QAM	1	8	23.92	24.06	1	24.5	23.92	24.06	1	24.5
		1	14	23.86	23.97	1	24.5	23.86	23.97	1	24.5
		8	0	22.50	22.54	2	23.5	22.50	22.54	2	23.5
		8	4	22.50	22.53	2	23.5	22.50	22.53	2	23.5
		8	7	22.50	22.53	2	23.5	22.50	22.53	2	23.5

LTE Band 12 Measured Results (ANT1) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				23017	23095	23173	MPR	Tune-up Limit	23017	23095	23173	MPR	Tune-up Limit
				699.7 MHz	707.5 MHz	715.3 MHz			699.7 MHz	707.5 MHz	715.3 MHz		
1.4 MHz	QPSK	1	0	24.63	24.84	24.62	0	25.5	24.63	24.84	24.62	0	25.5
		1	3	24.62	24.80	24.61	0	25.5	24.62	24.80	24.61	0	25.5
		1	5	24.63	24.83	24.69	0	25.5	24.63	24.83	24.69	0	25.5
		3	0	24.50	24.50	24.50	0	25.5	24.50	24.50	24.50	0	25.5
		3	1	24.50	24.50	24.50	0	25.5	24.50	24.50	24.50	0	25.5
		3	3	24.50	24.50	24.50	0	25.5	24.50	24.50	24.50	0	25.5
		6	0	23.50	23.63	23.50	1	24.5	23.50	23.63	23.50	1	24.5
	16QAM	1	0	23.86	24.20	23.86	1	24.5	23.86	24.20	23.86	1	24.5
		1	3	23.85	24.16	23.85	1	24.5	23.85	24.16	23.85	1	24.5
		1	5	23.88	24.17	23.93	1	24.5	23.88	24.17	23.93	1	24.5
		3	0	23.54	23.73	23.52	1	24.5	23.54	23.73	23.52	1	24.5
		3	1	23.52	23.72	23.51	1	24.5	23.52	23.72	23.51	1	24.5
		3	3	23.50	23.72	23.50	1	24.5	23.50	23.72	23.50	1	24.5
		6	0	22.50	22.52	22.50	2	23.5	22.50	22.52	22.50	2	23.5
	64QAM	1	0	23.26	23.28	23.34	2	23.5	23.26	23.28	23.34	2	23.5
		1	3	23.18	23.23	23.30	2	23.5	23.18	23.23	23.30	2	23.5
		1	5	23.08	23.33	23.30	2	23.5	23.08	23.33	23.30	2	23.5
		3	0	22.75	22.86	22.83	2	23.5	22.75	22.86	22.83	2	23.5
		3	1	22.75	22.81	22.82	2	23.5	22.75	22.81	22.82	2	23.5
		3	3	22.71	22.84	22.83	2	23.5	22.71	22.84	22.83	2	23.5
		6	0	21.63	21.61	21.60	3	22.5	21.63	21.61	21.60	3	22.5

LTE Band 12 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)						
				23095		707.5 MHz		MPR	Tune-up Limit	23095		707.5 MHz		MPR	Tune-up Limit
				23.50	23.50	0	24.5			23.50	23.50	0	24.5		
10 MHz	QPSK	1	0	23.50	23.50	0	24.5	23.50	23.50	0	24.5	0	24.5		
		1	25	23.50	23.50	0	24.5	23.50	23.50	0	24.5	0	24.5		
		1	49	23.50	23.50	0	24.5	23.50	23.50	0	24.5	0	24.5		
		25	0	22.50	22.50	1	23.5	22.50	22.50	1	23.5	1	23.5		
		25	12	22.50	22.50	1	23.5	22.50	22.50	1	23.5	1	23.5		
	16QAM	25	25	22.59	22.59	1	23.5	22.59	22.59	1	23.5	1	23.5		
		50	0	22.50	22.50	1	23.5	22.50	22.50	1	23.5	1	23.5		
		1	0	22.75	22.75	1	23.5	22.75	22.75	1	23.5	1	23.5		
		1	25	22.80	22.80	1	23.5	22.80	22.80	1	23.5	1	23.5		
		1	49	23.00	23.00	1	23.5	23.00	23.00	1	23.5	1	23.5		
5 MHz	64QAM	25	0	21.50	21.50	2	22.5	21.50	21.50	2	22.5	2	22.5		
		25	12	21.56	21.56	2	22.5	21.56	21.56	2	22.5	2	22.5		
		25	25	21.72	21.72	2	22.5	21.72	21.72	2	22.5	2	22.5		
		50	0	21.60	21.60	2	22.5	21.60	21.60	2	22.5	2	22.5		
		1	0	22.50	22.50	2	22.5	22.50	22.50	2	22.5	2	22.5		
		1	25	22.50	22.50	2	22.5	22.50	22.50	2	22.5	2	22.5		
		1	49	21.50	21.50	2	22.5	21.50	21.50	2	22.5	2	22.5		
		25	0	21.50	21.50	3	21.5	21.50	21.50	3	21.5	3	21.5		
		25	12	21.50	21.50	3	21.5	21.50	21.50	3	21.5	3	21.5		
		50	0	21.50	21.50	3	21.5	21.50	21.50	3	21.5	3	21.5		
3 MHz	QPSK	1	0	23.50	23.50	23.71	0	24.5	23.50	23.50	23.71	0	24.5		
		1	12	23.50	23.50	23.72	0	24.5	23.50	23.50	23.72	0	24.5		
		1	24	23.50	23.57	23.58	0	24.5	23.50	23.57	23.58	0	24.5		
		12	0	22.50	22.50	22.58	1	23.5	22.50	22.50	22.58	1	23.5		
		12	7	22.50	22.50	22.64	1	23.5	22.50	22.50	22.64	1	23.5		
	16QAM	12	13	22.50	22.50	22.56	1	23.5	22.50	22.50	22.56	1	23.5		
		25	0	22.50	22.50	22.70	1	23.5	22.50	22.50	22.70	1	23.5		
		1	0	22.83	22.82	23.14	1	23.5	22.83	22.82	23.14	1	23.5		
		1	12	22.78	22.86	23.15	1	23.5	22.78	22.86	23.15	1	23.5		
		1	24	22.78	23.01	23.12	1	23.5	22.78	23.01	23.12	1	23.5		
	64QAM	12	0	21.50	21.50	21.60	2	22.5	21.50	21.50	21.60	2	22.5		
		12	7	21.50	21.50	21.67	2	22.5	21.50	21.50	21.67	2	22.5		
		12	13	21.50	21.50	21.55	2	22.5	21.50	21.50	21.55	2	22.5		
		25	0	21.50	21.50	21.65	2	22.5	21.50	21.50	21.65	2	22.5		
		1	0	22.21	22.34	22.23	2	22.5	22.21	22.34	22.23	2	22.5		
UL Verification Services Inc.	QPSK	1	12	22.23	22.29	22.17	2	22.5	22.23	22.29	22.17	2	22.5		
		1	24	22.40	22.32	22.21	2	22.5	22.40	22.32	22.21	2	22.5		
		8	0	20.58	20.70	20.79	3	21.5	20.58	20.70	20.79	3	21.5		
		8	4	20.66	20.72	20.75	3	21.5	20.66	20.72	20.75	3	21.5		
		8	7	20.65	20.72	20.76	3	21.5	20.65	20.72	20.76	3	21.5		
	16QAM	8	0	21.50	21.50	21.57	2	22.5	21.50	21.50	21.57	2	22.5		
		8	4	21.50	21.50	21.50	2	22.5	21.50	21.50	21.50	2	22.5		
		8	7	21.50	21.50	21.50	2	22.5	21.50	21.50	21.50	2	22.5		
		15	0	21.50	21.50	21.57	2	22.5	21.50	21.50	21.57	2	22.5		
		1	0	21.96	22.13	22.01	2	22.5	21.96	22.13	22.01	2	22.5		
	64QAM	1	8	22.03	22.14	22.12	2	22.5	22.03	22.14	22.12	2	22.5		
		1	14	22.07	22.08	22.02	2	22.5	22.07	22.08	22.02	2	22.5		
		8	0	20.57	20.64	20.63	3	21.5	20.57	20.64	20.63	3	21.5		
		8	4	20.56	20.64	20.63	3	21.5	20.56	20.64	20.63	3	21.5		
		8	7	20.57	20.64	20.63	3	21.5	20.57	20.64	20.63	3	21.5		
		15	0	20.64	20.73	20.65	3	21.5	20.64	20.73	20.65	3	21.5		

LTE Band 12 Measured Results (ANT2) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				23017	23095	23173	MPR	Tune-up Limit	23017	23095	23173	MPR	Tune-up Limit
				699.7 MHz	707.5 MHz	715.3 MHz			699.7 MHz	707.5 MHz	715.3 MHz		
1.4 MHz	QPSK	1	0	23.57	23.56	23.74	0	24.5	23.57	23.56	23.74	0	24.5
		1	3	23.55	23.54	23.70	0	24.5	23.55	23.54	23.70	0	24.5
		1	5	23.56	23.56	23.68	0	24.5	23.56	23.56	23.68	0	24.5
		3	0	23.50	23.50	23.55	0	24.5	23.50	23.50	23.55	0	24.5
		3	1	23.50	23.50	23.57	0	24.5	23.50	23.50	23.57	0	24.5
		3	3	23.50	23.50	23.50	0	24.5	23.50	23.50	23.50	0	24.5
		6	0	22.50	22.50	22.50	1	23.5	22.50	22.50	22.50	1	23.5
	16QAM	1	0	22.84	22.95	22.95	1	23.5	22.84	22.95	22.95	1	23.5
		1	3	22.84	22.90	22.88	1	23.5	22.84	22.90	22.88	1	23.5
		1	5	22.83	22.92	22.88	1	23.5	22.83	22.92	22.88	1	23.5
		3	0	22.51	22.50	22.56	1	23.5	22.51	22.50	22.56	1	23.5
		3	1	22.50	22.50	22.57	1	23.5	22.50	22.50	22.57	1	23.5
		3	3	22.50	22.50	22.52	1	23.5	22.50	22.50	22.52	1	23.5
		6	0	21.50	21.50	21.50	2	22.5	21.50	21.50	21.50	2	22.5
	64QAM	1	0	21.95	22.20	22.31	2	22.5	21.95	22.20	22.31	2	22.5
		1	3	22.00	22.24	22.29	2	22.5	22.00	22.24	22.29	2	22.5
		1	5	22.00	22.17	22.21	2	22.5	22.00	22.17	22.21	2	22.5
		3	0	21.69	21.79	21.79	2	22.5	21.69	21.79	21.79	2	22.5
		3	1	21.70	21.76	21.78	2	22.5	21.70	21.76	21.78	2	22.5
		3	3	21.70	21.80	21.78	2	22.5	21.70	21.80	21.78	2	22.5
		6	0	20.56	20.70	20.60	3	21.5	20.56	20.70	20.60	3	21.5

LTE Band 13 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23230	782 MHz	MPR	Tune-up Limit	23230	782 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0	24.55		0	25.5	24.55		0	25.5
		1	25	24.60		0	25.5	24.60		0	25.5
		1	49	24.58		0	25.5	24.58		0	25.5
		25	0	23.50		1	24.5	23.50		1	24.5
		25	12	23.50		1	24.5	23.50		1	24.5
		25	25	23.50		1	24.5	23.50		1	24.5
		50	0	23.50		1	24.5	23.50		1	24.5
	16QAM	1	0	24.00		1	24.5	24.00		1	24.5
		1	25	23.95		1	24.5	23.95		1	24.5
		1	49	23.98		1	24.5	23.98		1	24.5
		25	0	22.54		2	23.5	22.54		2	23.5
		25	12	22.51		2	23.5	22.51		2	23.5
	64QAM	25	25	22.50		2	23.5	22.50		2	23.5
		50	0	22.50		2	23.5	22.50		2	23.5
		1	0	23.15		2	23.5	23.15		2	23.5
		1	25	22.72		2	23.5	22.72		2	23.5
		1	49	22.90		2	23.5	22.90		2	23.5
5 MHz	QPSK	25	0	21.50		3	22.5	21.50		3	22.5
		25	12	21.50		3	22.5	21.50		3	22.5
		25	25	21.50		3	22.5	21.50		3	22.5
		50	0	21.50		3	22.5	21.50		3	22.5
	16QAM	1	0	23230	782 MHz	MPR	Tune-up Limit	23230	782 MHz	MPR	Tune-up Limit
		1	12	24.55		0	25.5	24.55		0	25.5
		1	24	24.50		0	25.5	24.50		0	25.5
		12	0	23.50		1	24.5	23.50		1	24.5
		12	7	23.50		1	24.5	23.50		1	24.5
	64QAM	12	13	23.50		1	24.5	23.50		1	24.5
		25	0	23.50		1	24.5	23.50		1	24.5
		1	0	23.99		1	24.5	23.99		1	24.5
		1	12	23.92		1	24.5	23.92		1	24.5
		1	24	23.93		1	24.5	23.93		1	24.5
	16QAM	12	0	22.50		2	23.5	22.50		2	23.5
		12	7	22.50		2	23.5	22.50		2	23.5
		12	13	22.50		2	23.5	22.50		2	23.5
		25	0	22.50		2	23.5	22.50		2	23.5
		1	0	23.25		2	23.5	23.25		2	23.5
	64QAM	1	12	22.87		2	23.5	22.87		2	23.5
		1	24	22.77		2	23.5	22.77		2	23.5
		12	0	21.50		3	22.5	21.50		3	22.5
		12	7	21.50		3	22.5	21.50		3	22.5
		12	13	21.50		3	22.5	21.50		3	22.5
		25	0	21.50		3	22.5	21.50		3	22.5

LTE Band 13 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23230	782 MHz	MPR	Tune-up Limit	23230	782 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0	23.50	0	0	24.5	23.50	0	0	24.5
		1	25	23.50	0	0	24.5	23.50	0	0	24.5
		1	49	23.50	0	0	24.5	23.50	0	0	24.5
		25	0	22.50	1	1	23.5	22.50	1	1	23.5
		25	12	22.50	1	1	23.5	22.50	1	1	23.5
		25	25	22.60	1	1	23.5	22.60	1	1	23.5
		50	0	22.50	1	1	23.5	22.50	1	1	23.5
	16QAM	1	0	23.41	1	1	23.5	23.41	1	1	23.5
		1	25	23.10	1	1	23.5	23.10	1	1	23.5
		1	49	23.12	1	1	23.5	23.12	1	1	23.5
		25	0	21.75	2	2	22.5	21.75	2	2	22.5
		25	12	21.64	2	2	22.5	21.64	2	2	22.5
		25	25	21.62	2	2	22.5	21.62	2	2	22.5
		50	0	21.56	2	2	22.5	21.56	2	2	22.5
	64QAM	1	0	22.50	2	2	22.5	22.50	2	2	22.5
		1	25	22.50	2	2	22.5	22.50	2	2	22.5
		1	49	22.50	2	2	22.5	22.50	2	2	22.5
		25	0	21.29	3	3	21.5	21.29	3	3	21.5
		25	12	21.23	3	3	21.5	21.23	3	3	21.5
		25	25	21.14	3	3	21.5	21.14	3	3	21.5
		50	0	21.19	3	3	21.5	21.19	3	3	21.5
BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23230	782 MHz	MPR	Tune-up Limit	23230	782 MHz	MPR	Tune-up Limit
5 MHz	QPSK	1	0	23.77	0	0	24.5	23.77	0	0	24.5
		1	12	23.58	0	0	24.5	23.58	0	0	24.5
		1	24	23.63	0	0	24.5	23.63	0	0	24.5
		12	0	22.56	1	1	23.5	22.56	1	1	23.5
		12	7	22.50	1	1	23.5	22.50	1	1	23.5
		12	13	22.50	1	1	23.5	22.50	1	1	23.5
		25	0	22.50	1	1	23.5	22.50	1	1	23.5
	16QAM	1	0	23.20	1	1	23.5	23.20	1	1	23.5
		1	12	23.06	1	1	23.5	23.06	1	1	23.5
		1	24	23.09	1	1	23.5	23.09	1	1	23.5
		12	0	21.56	2	2	22.5	21.56	2	2	22.5
		12	7	21.50	2	2	22.5	21.50	2	2	22.5
		12	13	21.50	2	2	22.5	21.50	2	2	22.5
		25	0	21.50	2	2	22.5	21.50	2	2	22.5
	64QAM	1	0	22.50	2	2	22.5	22.50	2	2	22.5
		1	12	22.49	2	2	22.5	22.49	2	2	22.5
		1	24	22.48	2	2	22.5	22.48	2	2	22.5
		12	0	21.07	3	3	21.5	21.07	3	3	21.5
		12	7	21.03	3	3	21.5	21.03	3	3	21.5
		12	13	20.95	3	3	21.5	20.95	3	3	21.5
		25	0	21.06	3	3	21.5	21.06	3	3	21.5

LTE Band 14 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23330	793 MHz	MPR	Tune-up Limit	23330	793 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0	24.56	0	0	25.5	24.56	0	0	25.5
		1	25	24.70	0	0	25.5	24.70	0	0	25.5
		1	49	24.69	0	0	25.5	24.69	0	0	25.5
		25	0	23.52	1	1	24.5	23.52	1	1	24.5
		25	12	23.59	1	1	24.5	23.59	1	1	24.5
		25	25	23.56	1	1	24.5	23.56	1	1	24.5
		50	0	23.57	1	1	24.5	23.57	1	1	24.5
	16QAM	1	0	23.78	1	1	24.5	23.78	1	1	24.5
		1	25	23.93	1	1	24.5	23.93	1	1	24.5
		1	49	24.02	1	1	24.5	24.02	1	1	24.5
		25	0	22.63	2	2	23.5	22.63	2	2	23.5
		25	12	22.68	2	2	23.5	22.68	2	2	23.5
		25	25	22.78	2	2	23.5	22.78	2	2	23.5
		50	0	22.64	2	2	23.5	22.64	2	2	23.5
	64QAM	1	0	22.79	2	2	23.5	22.79	2	2	23.5
		1	25	22.86	2	2	23.5	22.86	2	2	23.5
		1	49	22.76	2	2	23.5	22.76	2	2	23.5
		25	0	21.52	3	3	22.5	21.52	3	3	22.5
		25	12	21.61	3	3	22.5	21.61	3	3	22.5
		25	25	21.65	3	3	22.5	21.65	3	3	22.5
		50	0	21.57	3	3	22.5	21.57	3	3	22.5
BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23330	793 MHz	MPR	Tune-up Limit	23330	793 MHz	MPR	Tune-up Limit
5 MHz	QPSK	1	0	24.50	0	0	25.5	24.50	0	0	25.5
		1	12	24.50	0	0	25.5	24.50	0	0	25.5
		1	24	24.64	0	0	25.5	24.64	0	0	25.5
		12	0	23.50	1	1	24.5	23.50	1	1	24.5
		12	7	23.50	1	1	24.5	23.50	1	1	24.5
		12	13	23.50	1	1	24.5	23.50	1	1	24.5
		25	0	23.50	1	1	24.5	23.50	1	1	24.5
	16QAM	1	0	23.76	1	1	24.5	23.76	1	1	24.5
		1	12	23.76	1	1	24.5	23.76	1	1	24.5
		1	24	23.95	1	1	24.5	23.95	1	1	24.5
		12	0	22.50	2	2	23.5	22.50	2	2	23.5
		12	7	22.50	2	2	23.5	22.50	2	2	23.5
		12	13	22.50	2	2	23.5	22.50	2	2	23.5
		25	0	22.50	2	2	23.5	22.50	2	2	23.5
	64QAM	1	0	22.76	2	2	23.5	22.76	2	2	23.5
		1	12	22.73	2	2	23.5	22.73	2	2	23.5
		1	24	22.88	2	2	23.5	22.88	2	2	23.5
		12	0	21.50	3	3	22.5	21.50	3	3	22.5
		12	7	21.50	3	3	22.5	21.50	3	3	22.5
		12	13	21.50	3	3	22.5	21.50	3	3	22.5
		25	0	21.50	3	3	22.5	21.50	3	3	22.5

LTE Band 14 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23330	793 MHz	MPR	Tune-up Limit	23330	793 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0	23.50		0	24.5	23.50		0	24.5
		1	25	23.50		0	24.5	23.50		0	24.5
		1	49	23.50		0	24.5	23.50		0	24.5
		25	0	22.50		1	23.5	22.50		1	23.5
		25	12	22.50		1	23.5	22.50		1	23.5
		25	25	22.50		1	23.5	22.50		1	23.5
		50	0	22.50		1	23.5	22.50		1	23.5
	16QAM	1	0	23.03		1	23.5	23.03		1	23.5
		1	25	23.08		1	23.5	23.08		1	23.5
		1	49	23.26		1	23.5	23.26		1	23.5
		25	0	21.50		2	22.5	21.50		2	22.5
		25	12	21.50		2	22.5	21.50		2	22.5
		25	25	21.52		2	22.5	21.52		2	22.5
		50	0	21.53		2	22.5	21.53		2	22.5
	64QAM	1	0	22.38		2	22.5	22.38		2	22.5
		1	25	22.49		2	22.5	22.49		2	22.5
		1	49	22.50		2	22.5	22.50		2	22.5
		25	0	20.97		3	21.5	20.97		3	21.5
		25	12	21.04		3	21.5	21.04		3	21.5
		25	25	21.07		3	21.5	21.07		3	21.5
		50	0	21.10		3	21.5	21.10		3	21.5
BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				23330	793 MHz	MPR	Tune-up Limit	23330	793 MHz	MPR	Tune-up Limit
5 MHz	QPSK	1	0	23.59		0	24.5	23.59		0	24.5
		1	12	23.67		0	24.5	23.67		0	24.5
		1	24	23.83		0	24.5	23.83		0	24.5
		12	0	22.58		1	23.5	22.58		1	23.5
		12	7	22.61		1	23.5	22.61		1	23.5
		12	13	22.76		1	23.5	22.76		1	23.5
		25	0	22.67		1	23.5	22.67		1	23.5
	16QAM	1	0	22.86		1	23.5	22.86		1	23.5
		1	12	22.95		1	23.5	22.95		1	23.5
		1	24	23.08		1	23.5	23.08		1	23.5
		12	0	21.69		2	22.5	21.69		2	22.5
		12	7	21.71		2	22.5	21.71		2	22.5
		12	13	21.86		2	22.5	21.86		2	22.5
		25	0	21.74		2	22.5	21.74		2	22.5
	64QAM	1	0	22.39		2	22.5	22.39		2	22.5
		1	12	22.45		2	22.5	22.45		2	22.5
		1	24	22.42		2	22.5	22.42		2	22.5
		12	0	21.16		3	21.5	21.16		3	21.5
		12	7	21.29		3	21.5	21.29		3	21.5
		12	13	21.32		3	21.5	21.32		3	21.5
		25	0	21.30		3	21.5	21.30		3	21.5

LTE Band 25 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				26140	26365	26590	MPR	Tune-up Limit	26140	26365	26590	MPR	Tune-up Limit		
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz				
20 MHz	QPSK	1	0	24.50	24.50	24.50	0	25.5	20.50	20.50	20.67	0	21		
		1	49	24.50	24.50	24.50	0	25.5	20.50	20.50	20.70	0	21		
		1	99	24.50	24.50	24.50	0	25.5	20.50	20.50	20.69	0	21		
		50	0	23.55	23.50	23.50	1	24.5	20.70	20.68	20.62	0	21		
		50	24	23.57	23.51	23.50	1	24.5	20.50	20.50	20.70	0	21		
		50	50	23.50	23.50	23.50	1	24.5	20.57	20.57	20.60	0	21		
	16QAM	100	0	23.59	23.56	23.52	1	24.5	20.50	20.50	20.70	0	21		
		1	0	23.94	24.07	23.80	1	24.5	21.00	21.00	21.00	0	21		
		1	49	23.94	23.97	23.79	1	24.5	21.00	21.00	21.00	0	21		
		1	99	23.85	23.83	23.86	1	24.5	20.95	20.93	21.00	0	21		
		50	0	22.79	22.78	22.73	2	23.5	20.72	20.71	20.67	0	21		
		50	24	22.77	22.73	22.61	2	23.5	20.68	20.64	20.68	0	21		
	64QAM	50	50	22.63	22.69	22.62	2	23.5	20.59	20.62	20.62	0	21		
		100	0	22.77	22.76	22.68	2	23.5	20.68	20.67	20.73	0	21		
		1	0	22.79	22.84	22.59	2	23.5	20.83	20.97	20.80	0	21		
		1	49	22.85	22.79	22.59	2	23.5	20.86	20.79	20.90	0	21		
		1	99	22.83	22.78	22.71	2	23.5	20.83	20.75	20.88	0	21		
		50	0	21.56	21.53	21.50	3	22.5	20.72	20.70	20.65	0	21		
15 MHz	QPSK	50	24	21.50	21.50	21.50	3	22.5	20.68	20.60	20.62	0	21		
		50	50	21.50	21.50	21.50	3	22.5	20.68	20.67	20.69	0	21		
		100	0	21.50	21.50	21.55	3	22.5	20.68	20.67	20.69	0	21		
	16QAM	1	0	26115	26365	26615	MPR	Tune-up Limit	26115	26365	26615	MPR	Tune-up Limit		
		1	37	1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz				
		1	74	24.50	24.50	24.50	0	25.5	20.63	20.60	20.78	0	21		
		36	0	23.61	23.57	23.50	1	24.5	20.71	20.69	20.61	0	21		
		36	20	23.56	23.50	23.50	1	24.5	20.71	20.64	20.62	0	21		
		36	39	23.56	23.50	23.50	1	24.5	20.67	20.62	20.57	0	21		
	64QAM	75	0	23.56	23.51	23.50	1	24.5	20.66	20.62	20.67	0	21		
		1	0	23.89	23.99	23.87	1	24.5	20.96	21.00	20.98	0	21		
		1	37	23.97	23.91	23.72	1	24.5	21.00	20.95	20.98	0	21		
		1	74	23.82	23.84	23.79	1	24.5	20.94	20.96	21.00	0	21		
		36	0	22.82	22.76	22.62	2	23.5	20.67	20.67	20.69	0	21		
		36	20	22.75	22.72	22.58	2	23.5	20.68	20.64	20.67	0	21		
		36	39	22.76	22.69	22.59	2	23.5	20.65	20.61	20.60	0	21		
		75	0	22.74	22.72	22.61	2	23.5	20.68	20.62	20.67	0	21		
10 MHz	QPSK	1	0	22.63	22.75	22.81	2	23.5	21.00	21.00	21.00	0	21		
		1	25	22.73	22.69	22.69	2	23.5	21.00	20.90	21.00	0	21		
		1	49	22.63	22.67	22.73	2	23.5	20.97	20.85	21.00	0	21		
		25	0	21.53	21.51	21.52	3	22.5	20.70	20.74	20.74	0	21		
		25	20	21.55	21.50	21.51	3	22.5	20.70	20.69	20.73	0	21		
		25	39	21.53	21.50	21.50	3	22.5	20.67	20.64	20.59	0	21		
	16QAM	75	0	21.54	21.50	21.50	3	22.5	20.69	20.66	20.66	0	21		
		1	0	26090	26365	26640	MPR	Tune-up Limit	26090	26365	26640	MPR	Tune-up Limit		
		1	37	1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz				
		1	49	24.50	24.50	24.50	0	25.5	20.64	20.76	20.79	0	21		
		25	0	23.64	23.56	23.50	1	24.5	20.68	20.63	20.67	0	21		
		25	12	23.59	23.53	23.50	1	24.5	20.70	20.62	20.62	0	21		
	64QAM	25	25	23.58	23.52	23.50	1	24.5	20.68	20.61	20.67	0	21		
		50	0	23.60	23.54	23.50	1	24.5	20.67	20.62	20.60	0	21		
		1	0	23.93	23.94	23.86	1	24.5	20.93	21.00	21.00	0	21		
		1	25	23.96	23.85	23.83	1	24.5	21.00	20.98	20.99	0	21		
		1	49	24.01	23.84	23.90	1	24.5	20.98	20.97	21.00	0	21		
		25	0	22.77	22.72	22.57	2	23.5	20.66	20.70	20.66	0	21		
		25	12	22.73	22.68	22.59	2	23.5	20.67	20.67	20.59	0	21		
		25	25	22.74	22.70	22.59	2	23.5	20.66	20.67	20.62	0	21		
		50	0	22.72	22.69	22.60	2	23.5	20.67	20.63	20.59	0	21		
	64QAM	1	0	22.67	22.79	22.82	2	23.5	20.77	20.94	20.95	0	21		
		1	25	22.86	22.68	22.73	2	23.5	20.94	20.87	20.89	0	21		
		1	49	22.83	22.72	22.81	2	23.5	20.90	20.86	20.98	0	21		
		25	0	21.54	21.51	21.52	3	22.5	20.73	20.68	20.73	0	21		
		25	12	21.57	21.52	21.52	3	22.5	20.75	20.66	20.67	0	21		
		25	25	21.58	21.50	21.50	3	22.5	20.69	20.67	20.60	0	21		

LTE Band 25 Measured Results (ANT1) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)								
				26065	26365	26665	MPR	Tune-up Limit	26065	26365	26665	MPR	Tune-up Limit				
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz						
5 MHz	QPSK	1	0	24.50	24.50	24.50	0	25.5	20.57	20.62	20.63	0	21				
		1	12	24.50	24.50	24.50	0	25.5	20.64	20.60	20.69	0	21				
		1	24	24.51	24.50	24.50	0	25.5	20.71	20.61	20.83	0	21				
		12	0	23.50	23.50	23.50	1	24.5	20.48	20.49	20.59	0	21				
		12	7	23.50	23.50	23.50	1	24.5	20.54	20.47	20.56	0	21				
		12	13	23.52	23.50	23.50	1	24.5	20.54	20.46	20.65	0	21				
		25	0	23.54	23.50	23.50	1	24.5	20.57	20.50	20.63	0	21				
	16QAM	1	0	23.85	23.91	23.89	1	24.5	20.96	20.99	21.00	0	21				
		1	12	23.89	23.85	23.88	1	24.5	20.99	21.00	21.00	0	21				
		1	24	23.93	23.88	23.94	1	24.5	21.00	20.98	21.00	0	21				
		12	0	22.51	22.56	22.50	2	23.5	20.45	20.49	20.54	0	21				
		12	7	22.58	22.51	22.50	2	23.5	20.52	20.45	20.50	0	21				
		12	13	22.67	22.51	22.51	2	23.5	20.50	20.46	20.60	0	21				
		25	0	22.64	22.57	22.50	2	23.5	20.56	20.49	20.60	0	21				
	64QAM	1	0	22.62	22.73	22.80	2	23.5	20.83	20.91	20.89	0	21				
		1	12	22.76	22.67	22.81	2	23.5	20.94	20.93	20.94	0	21				
		1	24	22.82	22.73	22.98	2	23.5	20.98	20.95	21.00	0	21				
		12	0	21.50	21.50	21.50	3	22.5	20.49	20.52	20.58	0	21				
		12	7	21.50	21.50	21.50	3	22.5	20.55	20.51	20.54	0	21				
		12	13	21.50	21.50	21.50	3	22.5	20.54	20.50	20.64	0	21				
		25	0	21.50	21.50	21.50	3	22.5	20.54	20.50	20.56	0	21				
3 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)								
				26055	26365	26675	MPR	Tune-up Limit	26055	26365	26675	MPR	Tune-up Limit				
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz						
				1	0	24.50	24.50	24.50	0	25.5	20.51	20.55	20.59	0	21		
				1	8	24.50	24.50	24.50	0	25.5	20.56	20.57	20.73	0	21		
				1	14	24.50	24.50	24.50	0	25.5	20.62	20.54	20.73	0	21		
				8	0	23.50	23.50	23.50	1	24.5	20.38	20.39	20.44	0	21		
	16QAM			8	4	23.50	23.50	23.50	1	24.5	20.37	20.38	20.52	0	21		
				8	7	23.50	23.50	23.50	1	24.5	20.38	20.38	20.54	0	21		
				15	0	23.50	23.50	23.50	1	24.5	20.45	20.47	20.64	0	21		
				1	0	23.76	23.73	23.67	1	24.5	20.76	20.74	20.82	0	21		
				1	8	23.76	23.81	23.81	1	24.5	20.81	20.91	21.00	0	21		
				1	14	23.78	23.72	23.78	1	24.5	20.95	20.86	20.97	0	21		
				8	0	22.50	22.50	22.50	2	23.5	20.35	20.39	20.45	0	21		
	64QAM			8	4	22.50	22.50	22.50	2	23.5	20.35	20.40	20.52	0	21		
				8	7	22.50	22.52	22.50	2	23.5	20.36	20.39	20.48	0	21		
				15	0	22.50	22.53	22.50	2	23.5	20.40	20.38	20.53	0	21		
				1	0	22.50	22.55	22.55	2	23.5	20.66	20.70	20.77	0	21		
				1	8	22.53	22.60	22.67	2	23.5	20.75	20.80	20.85	0	21		
				1	14	22.62	22.57	22.65	2	23.5	20.78	20.79	20.89	0	21		
				8	0	21.50	21.50	21.50	3	22.5	20.29	20.30	20.33	0	21		
1.4 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)								
				26047	26365	26683	MPR	Tune-up Limit	26047	26365	26683	MPR	Tune-up Limit				
				1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz						
				1	0	24.50	24.50	24.52	0	25.5	20.56	20.58	20.73	0	21		
				1	3	24.50	24.50	24.50	0	25.5	20.55	20.56	20.72	0	21		
				1	5	24.50	24.50	24.50	0	25.5	20.59	20.61	20.79	0	21		
				3	0	24.50	24.50	24.50	0	25.5	20.34	20.37	20.58	0	21		
	16QAM			3	1	24.50	24.50	24.50	0	25.5	20.35	20.35	20.61	0	21		
				3	3	24.50	24.50	24.50	0	25.5	20.38	20.33	20.62	0	21		
				6	0	23.50	23.50	23.50	1	24.5	20.31	20.27	20.56	0	21		
				1	0	23.73	23.69	23.71	1	24.5	20.82	20.90	20.98	0	21		
				1	3	23.80	23.66	23.67	1	24.5	20.77	20.74	20.96	0	21		
				1	5	23.81	23.68	23.75	1	24.5	20.96	20.85	20.95	0	21		
				3	0	23.50	23.50	23.50	1	24.5	20.56	20.46	20.60	0	21		
	64QAM			3	1	23.50	23.50	23.50	1	24.5	20.54	20.47	20.53	0	21		
				3	3	23.50	23.50	23.50	1	24.5	20.49	20.50	20.61	0	21		
				6	0	22.50	22.50	22.50	2	23.5	20.44	20.42	20.50	0	21		
				1	0	22.65	22.52	22.58	2	23.5	20.79	20.72	20.83	0	21		
				1	3	22.65	22.51	22.59	2	23.5	20.76	20.77	20.82	0	21		
				1	5	22.73	22.54	22.59	2	23.5	20.72	20.81	21.00	0	21		
				3	0	22.50	22.50	22.50	2	23.5	20.40	20.53	20.67	0	21		
				3	1	22.50	22.50	22.50	2	23.5	20.37	20.54	20.70	0	21		
				3	3	22.50	22.50	22.50	2	23.5	20.44	20.54	20.69	0	21		
				6	0	21.50	21.50	21.50	3	22.5	20.33	20.43	20.51	0	21		

LTE Band 25 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				26140	26365	26590	MPR	Tune-up Limit	26140	26365	26590	MPR	Tune-up Limit
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	18.50	18.50	18.50	0	18.5	17.50	17.50	17.50	0	17.7
		1	49	18.50	18.50	18.50	0	18.5	17.50	17.50	17.50	0	17.7
		1	99	18.50	18.50	18.50	0	18.5	17.50	17.50	17.50	0	17.7
		50	0	18.50	18.50	18.49	0	18.5	17.50	17.50	17.60	0	17.7
		50	24	18.50	18.50	18.50	0	18.5	17.50	17.50	17.67	0	17.7
		50	50	18.50	18.50	18.41	0	18.5	17.50	17.50	17.67	0	17.7
		100	0	18.50	18.50	18.50	0	18.5	17.50	17.50	17.50	0	17.7
	16QAM	1	0	18.49	18.48	18.39	0	18.5	17.70	17.70	17.70	0	17.7
		1	49	18.50	18.50	18.38	0	18.5	17.70	17.70	17.70	0	17.7
		1	99	18.44	18.32	18.42	0	18.5	17.70	17.70	17.70	0	17.7
		50	0	18.19	18.15	18.02	0	18.5	17.70	17.70	17.70	0	17.7
		50	24	18.15	18.16	18.00	0	18.5	17.70	17.70	17.70	0	17.7
		50	50	18.11	18.11	17.93	0	18.5	17.70	17.70	17.69	0	17.7
		100	0	18.16	18.19	18.06	0	18.5	17.70	17.70	17.70	0	17.7
	64QAM	1	0	18.33	18.36	18.25	0	18.5	17.70	17.70	17.70	0	17.7
		1	49	18.28	18.33	18.19	0	18.5	17.70	17.70	17.70	0	17.7
		1	99	18.21	18.17	18.19	0	18.5	17.70	17.70	17.70	0	17.7
		50	0	18.19	18.16	18.02	0	18.5	17.70	17.70	17.66	0	17.7
		50	24	18.14	18.16	17.94	0	18.5	17.70	17.70	17.59	0	17.7
		50	50	18.10	18.09	17.88	0	18.5	17.67	17.70	17.51	0	17.7
		100	0	18.15	18.19	18.02	0	18.5	17.70	17.70	17.68	0	17.7
15 MHz	QPSK	1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.67	0	17.7
		1	37	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	74	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		36	0	18.50	18.50	18.47	0	18.5	17.70	17.70	17.61	0	17.7
		36	20	18.50	18.50	18.43	0	18.5	17.70	17.70	17.65	0	17.7
		36	39	18.50	18.50	18.34	0	18.5	17.70	17.70	17.57	0	17.7
		75	0	18.50	18.50	18.46	0	18.5	17.70	17.70	17.67	0	17.7
	16QAM	1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	37	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	74	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		36	0	18.50	18.50	18.49	0	18.5	17.70	17.70	17.66	0	17.7
		36	20	18.50	18.50	18.46	0	18.5	17.70	17.70	17.69	0	17.7
		36	39	18.50	18.50	18.37	0	18.5	17.70	17.70	17.58	0	17.7
		75	0	18.50	18.50	18.47	0	18.5	17.70	17.70	17.68	0	17.7
	64QAM	1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	37	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	74	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		36	0	18.50	18.50	18.49	0	18.5	17.70	17.70	17.66	0	17.7
		36	20	18.50	18.50	18.47	0	18.5	17.69	17.70	17.69	0	17.7
		36	39	18.50	18.50	18.38	0	18.5	17.68	17.70	17.70	0	17.7
		75	0	18.50	18.50	18.47	0	18.5	17.68	17.70	17.64	0	17.7
10 MHz	QPSK	1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	25	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	49	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		25	0	18.50	18.50	18.48	0	18.5	17.70	17.70	17.69	0	17.7
		25	12	18.50	18.50	18.42	0	18.5	17.70	17.70	17.61	0	17.7
		25	25	18.50	18.50	18.46	0	18.5	17.70	17.70	17.70	0	17.7
		50	0	18.50	18.50	18.49	0	18.5	17.70	17.70	17.64	0	17.7
	16QAM	1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	25	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	49	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		25	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		25	12	18.50	18.50	18.47	0	18.5	17.70	17.70	17.65	0	17.7
		25	25	18.50	18.50	18.49	0	18.5	17.70	17.70	17.70	0	17.7
		50	0	18.50	18.50	18.45	0	18.5	17.70	17.70	17.64	0	17.7
	64QAM	1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	25	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		1	49	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7
		25	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.68	0	17.7
		25	12	18.50	18.50	18.49	0	18.5	17.70	17.70	17.59	0	17.7
		25	25	18.50	18.50	18.50	0	18.5	17.69	17.70	17.66	0	17.7
		50	0	18.50	18.50	18.48	0	18.5	17.70	17.70	17.57	0	17.7

LTE Band 25 Measured Results (ANT2) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				26065	26365	26665	MPR	Tune-up Limit	26065	26365	26665	MPR	Tune-up Limit		
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz				
5 MHz	QPSK	1	0	18.50	18.50	18.40	0	18.5	17.70	17.70	17.58	0	17.7		
		1	12	18.50	18.50	18.41	0	18.5	17.70	17.70	17.60	0	17.7		
		1	24	18.50	18.50	18.49	0	18.5	17.70	17.70	17.70	0	17.7		
		12	0	18.50	18.50	18.32	0	18.5	17.65	17.67	17.46	0	17.7		
		12	7	18.50	18.50	18.30	0	18.5	17.61	17.69	17.55	0	17.7		
		12	13	18.50	18.50	18.38	0	18.5	17.62	17.67	17.59	0	17.7		
	16QAM	25	0	18.50	18.50	18.35	0	18.5	17.64	17.66	17.58	0	17.7		
		1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	12	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	24	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		12	0	18.50	18.50	18.29	0	18.5	17.60	17.70	17.42	0	17.7		
		12	7	18.50	18.50	18.27	0	18.5	17.58	17.70	17.49	0	17.7		
	64QAM	12	13	18.50	18.50	18.34	0	18.5	17.59	17.70	17.53	0	17.7		
		25	0	18.50	18.50	18.35	0	18.5	17.65	17.70	17.47	0	17.7		
3 MHz	QPSK	1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	8	18.50	18.50	18.43	0	18.5	17.70	17.70	17.70	0	17.7		
		1	14	18.50	18.50	18.37	0	18.5	17.69	17.70	17.69	0	17.7		
		8	0	18.46	18.37	18.21	0	18.5	17.52	17.67	17.47	0	17.7		
		8	4	18.44	18.36	18.26	0	18.5	17.49	17.67	17.49	0	17.7		
		8	7	18.43	18.37	18.27	0	18.5	17.49	17.62	17.50	0	17.7		
	16QAM	15	0	18.50	18.44	18.36	0	18.5	17.65	17.69	17.60	0	17.7		
		1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	8	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	14	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		8	0	18.38	18.35	18.15	0	18.5	17.51	17.57	17.37	0	17.7		
		8	4	18.41	18.35	18.21	0	18.5	17.50	17.57	17.42	0	17.7		
	64QAM	8	7	18.39	18.35	18.22	0	18.5	17.51	17.54	17.44	0	17.7		
		15	0	18.45	18.37	18.26	0	18.5	17.52	17.60	17.51	0	17.7		
1.4 MHz	QPSK	1	0	18.50	18.50	18.44	0	18.5	17.70	17.70	17.70	0	17.7		
		1	3	18.50	18.50	18.46	0	18.5	17.70	17.70	17.62	0	17.7		
		1	5	18.50	18.50	18.43	0	18.5	17.70	17.70	17.67	0	17.7		
		3	0	18.44	18.43	18.34	0	18.5	17.58	17.56	17.49	0	17.7		
		3	1	18.43	18.39	18.34	0	18.5	17.56	17.56	17.50	0	17.7		
		3	3	18.42	18.39	18.34	0	18.5	17.55	17.52	17.48	0	17.7		
	16QAM	6	0	18.32	18.30	18.28	0	18.5	17.46	17.60	17.43	0	17.7		
		1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	3	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	5	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		3	0	18.50	18.50	18.43	0	18.5	17.70	17.70	17.49	0	17.7		
		3	1	18.50	18.50	18.40	0	18.5	17.70	17.70	17.50	0	17.7		
	64QAM	3	3	18.50	18.50	18.34	0	18.5	17.70	17.67	17.53	0	17.7		
		6	0	18.45	18.48	18.25	0	18.5	17.60	17.51	17.37	0	17.7		
		1	0	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	3	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		1	5	18.50	18.50	18.50	0	18.5	17.70	17.70	17.70	0	17.7		
		3	0	18.50	18.50	18.43	0	18.5	17.61	17.70	17.49	0	17.7		

LTE Band 25 Measured Results (ANT3)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)								
				26140	26365	26590	MPR	Tune-up Limit	26140	26365	26590	MPR	Tune-up Limit				
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz						
20 MHz	QPSK	1	0	24.20	24.05	24.13	0	25	19.68	19.70	19.57	0	19.7				
		1	49	24.20	24.05	24.17	0	25	19.70	19.70	19.70	0	19.7				
		1	99	24.00	24.00	24.00	0	25	19.64	19.49	19.64	0	19.7				
		50	0	23.30	23.18	23.15	1	24	19.70	19.70	19.70	0	19.7				
		50	24	23.34	23.22	23.27	1	24	19.70	19.70	19.70	0	19.7				
		50	50	23.34	23.10	23.17	1	24	19.70	19.70	19.70	0	19.7				
	16QAM	100	0	23.29	23.26	23.30	1	24	19.70	19.70	19.70	0	19.7				
		1	0	23.72	23.70	23.59	1	24	19.70	19.70	19.70	0	19.7				
		1	49	23.71	23.67	23.68	1	24	19.70	19.70	19.70	0	19.7				
		1	99	23.53	23.37	23.49	1	24	19.70	19.70	19.70	0	19.7				
		50	0	22.51	22.30	22.38	2	23	19.70	19.70	19.70	0	19.7				
		50	24	22.46	22.33	22.46	2	23	19.70	19.70	19.70	0	19.7				
	64QAM	50	50	22.45	22.23	22.42	2	23	19.70	19.70	19.70	0	19.7				
		100	0	22.47	22.38	22.53	2	23	19.70	19.70	19.70	0	19.7				
		1	0	22.47	22.51	22.14	2	23	19.70	19.70	19.70	0	19.7				
		1	49	22.59	22.61	22.23	2	23	19.70	19.70	19.70	0	19.7				
		1	99	22.48	22.30	22.24	2	23	19.70	19.70	19.70	0	19.7				
		50	0	21.20	21.23	21.02	3	22	19.70	19.70	19.70	0	19.7				
		50	24	21.23	21.30	21.11	3	22	19.70	19.70	19.70	0	19.7				
		50	50	21.13	21.16	21.08	3	22	19.70	19.70	19.70	0	19.7				
		100	0	21.23	21.33	21.17	3	22	19.70	19.70	19.70	0	19.7				
15 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)								
				26115	26365	26615	MPR	Tune-up Limit	26115	26365	26615	MPR	Tune-up Limit				
				1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz						
				1	0	24.14	24.00	24.16	0	25	19.65	19.70	19.57	0	19.7		
				1	37	24.16	24.06	24.22	0	25	19.70	19.70	19.67	0	19.7		
				1	74	24.15	24.00	24.13	0	25	19.64	19.58	19.61	0	19.7		
	16QAM			36	0	23.35	23.11	23.32	1	24	19.59	19.67	19.61	0	19.7		
				36	20	23.30	23.17	23.33	1	24	19.65	19.70	19.64	0	19.7		
				36	39	23.31	23.13	23.28	1	24	19.66	19.68	19.50	0	19.7		
				75	0	23.31	23.21	23.33	1	24	19.65	19.70	19.58	0	19.7		
				1	0	23.68	23.47	23.66	1	24	19.70	19.70	19.70	0	19.7		
				1	37	23.71	23.51	23.74	1	24	19.70	19.70	19.70	0	19.7		
	64QAM			1	74	23.71	23.30	23.56	1	24	19.70	19.70	19.70	0	19.7		
				36	0	22.48	22.28	22.46	2	23	19.62	19.69	19.61	0	19.7		
				36	20	22.45	22.33	22.46	2	23	19.66	19.70	19.60	0	19.7		
				36	39	22.47	22.28	22.39	2	23	19.67	19.70	19.53	0	19.7		
				75	0	22.44	22.33	22.48	2	23	19.67	19.70	19.61	0	19.7		
				1	0	22.32	22.48	22.38	2	23	19.70	19.70	19.70	0	19.7		
10 MHz	QPSK	RB Allocation	RB offset	1	37	22.39	22.58	22.44	2	23	19.70	19.70	19.70	0	19.7		
				1	74	22.37	22.31	22.36	2	23	19.70	19.70	19.70	0	19.7		
				36	0	21.15	21.24	21.15	3	22	19.61	19.70	19.61	0	19.7		
				36	20	21.19	21.33	21.13	3	22	19.67	19.70	19.61	0	19.7		
				36	39	21.22	21.25	21.06	3	22	19.68	19.70	19.53	0	19.7		
				75	0	21.18	21.31	21.14	3	22	19.66	19.70	19.61	0	19.7		
	16QAM			1	0	23.66	23.44	23.74	1	24	19.70	19.70	19.70	0	19.7		
				1	25	23.65	23.45	23.64	1	24	19.70	19.70	19.70	0	19.7		
				1	49	23.66	23.40	23.61	1	24	19.70	19.70	19.70	0	19.7		
				25	0	22.50	22.39	22.49	2	23	19.68	19.70	19.65	0	19.7		
				25	12	22.50	22.39	22.47	2	23	19.69	19.70	19.60	0	19.7		
				25	25	22.46	22.40	22.42	2	23	19.70	19.70	19.58	0	19.7		
	64QAM			50	0	22.50	22.39	22.44	2	23	19.69	19.70	19.61	0	19.7		
				1	0	22.29	22.47	22.30	2	23	19.70	19.70	19.70	0	19.7		
				1	25	22.38	22.51	22.20	2	23	19.70	19.70	19.70	0	19.7		
				1	49	22.47	22.39	22.26	2	23	19.70	19.70	19.70	0	19.7		
				25	0	21.10	21.29	21.11	3	22	19.69	19.70	19.66	0	19.7		
				25	12	21.11	21.29	21.06	3	22	19.70	19.70	19.60	0	19.7		
				25	25	21.15	21.29	21.04	3	22	19.70	19.70	19.58	0	19.7		
				50	0	21.12	21.27	21.05	3	22	19.70	19.70	19.61	0	19.7		

LTE Band 25 Measured Results (ANT3) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)						
				26065	26365	26665	MPR	Tune-up Limit	26065	26365	26665	MPR	Tune-up Limit		
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz				
5 MHz	QPSK	1	0	24.20	24.11	24.24	0	25	19.58	19.70	19.55	0	19.7		
		1	12	24.17	24.03	24.09	0	25	19.59	19.70	19.53	0	19.7		
		1	24	24.17	24.08	24.14	0	25	19.64	19.70	19.60	0	19.7		
		12	0	23.17	23.11	23.14	1	24	19.43	19.63	19.42	0	19.7		
		12	7	23.20	23.11	23.13	1	24	19.49	19.62	19.39	0	19.7		
		12	13	23.20	23.13	23.11	1	24	19.50	19.61	19.43	0	19.7		
	16QAM	25	0	23.21	23.15	23.17	1	24	19.55	19.65	19.47	0	19.7		
		1	0	23.57	23.66	23.75	1	24	19.70	19.70	19.70	0	19.7		
		1	12	23.56	23.65	23.62	1	24	19.70	19.70	19.70	0	19.7		
		1	24	23.60	23.65	23.66	1	24	19.70	19.70	19.70	0	19.7		
		12	0	22.27	22.25	22.30	2	23	19.40	19.62	19.41	0	19.7		
		12	7	22.31	22.25	22.23	2	23	19.47	19.60	19.37	0	19.7		
	64QAM	12	13	22.37	22.23	22.23	2	23	19.47	19.60	19.41	0	19.7		
		25	0	22.33	22.25	22.27	2	23	19.53	19.64	19.47	0	19.7		
		1	0	22.35	22.49	22.43	2	23	19.70	19.70	19.70	0	19.7		
		1	12	22.36	22.52	22.34	2	23	19.70	19.70	19.70	0	19.7		
		1	24	22.39	22.55	22.39	2	23	19.70	19.70	19.70	0	19.7		
		12	0	21.00	21.19	21.00	3	22	19.43	19.66	19.43	0	19.7		
		12	7	21.00	21.19	21.00	3	22	19.48	19.63	19.39	0	19.7		
		12	13	21.00	21.20	21.00	3	22	19.48	19.64	19.44	0	19.7		
		25	0	21.00	21.18	21.00	3	22	19.48	19.62	19.41	0	19.7		
3 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)						
				26055	26365	26675	MPR	Tune-up Limit	26055	26365	26675	MPR	Tune-up Limit		
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz				
				1	0	24.14	24.12	24.16	0	25	19.50	19.66	19.45	0	19.7
				1	8	24.14	24.10	24.14	0	25	19.53	19.70	19.53	0	19.7
				1	14	24.14	24.05	24.14	0	25	19.57	19.66	19.51	0	19.7
	16QAM	RB Allocation	RB offset	8	0	23.11	23.01	23.03	1	24	19.35	19.51	19.28	0	19.7
				8	4	23.09	23.00	23.02	1	24	19.33	19.50	19.31	0	19.7
				8	7	23.09	23.01	23.03	1	24	19.32	19.51	19.34	0	19.7
				15	0	23.18	23.08	23.19	1	24	19.41	19.58	19.43	0	19.7
				1	0	23.56	23.41	23.55	1	24	19.70	19.70	19.70	0	19.7
				1	8	23.57	23.44	23.56	1	24	19.70	19.70	19.70	0	19.7
	64QAM	RB Allocation	RB offset	1	14	23.55	23.44	23.54	1	24	19.70	19.70	19.70	0	19.7
				8	0	22.16	22.12	22.18	2	23	19.31	19.49	19.28	0	19.7
				8	4	22.14	22.09	22.18	2	23	19.29	19.49	19.31	0	19.7
				8	7	22.14	22.11	22.18	2	23	19.28	19.50	19.32	0	19.7
				15	0	22.21	22.12	22.22	2	23	19.32	19.51	19.35	0	19.7
				1	0	22.17	22.43	22.13	2	23	19.68	19.70	19.57	0	19.7
				1	8	22.21	22.49	22.20	2	23	19.70	19.70	19.70	0	19.7
				1	14	22.28	22.49	22.02	2	23	19.66	19.70	19.70	0	19.7
				8	0	21.00	21.06	21.00	3	22	19.28	19.44	19.22	0	19.7
				8	4	21.00	21.05	21.00	3	22	19.26	19.45	19.25	0	19.7
				8	7	21.00	21.06	21.00	3	22	19.24	19.45	19.26	0	19.7
				15	0	21.00	21.09	21.00	3	22	19.31	19.48	19.35	0	19.7
1.4 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)						
				26047	26365	26683	MPR	Tune-up Limit	26047	26365	26683	MPR	Tune-up Limit		
				1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz				
				1	0	24.20	24.18	24.29	0	25	19.59	19.70	19.70	0	19.7
				1	3	24.17	24.16	24.29	0	25	19.51	19.70	19.70	0	19.7
				1	5	24.20	24.14	24.25	0	25	19.51	19.70	19.70	0	19.7
	16QAM	RB Allocation	RB offset	3	0	24.08	24.00	24.01	0	25	19.31	19.53	19.58	0	19.7
				3	1	24.05	24.00	24.00	0	25	19.28	19.54	19.53	0	19.7
				3	3	24.07	24.00	24.00	0	25	19.30	19.49	19.54	0	19.7
				6	0	23.05	23.00	23.00	1	24	19.20	19.53	19.42	0	19.7
				1	0	23.45	23.46	23.42	1	24	19.70	19.70	19.70	0	19.7
				1	3	23.43	23.44	23.41	1	24	19.70	19.70	19.70	0	19.7
	64QAM	RB Allocation	RB offset	1	5	23.43	23.51	23.45	1	24	19.70	19.70	19.70	0	19.7
				3	0	23.17	23.18	23.18	1	24	19.48	19.62	19.70	0	19.7
				3	1	23.16	23.15	23.15	1	24	19.46	19.63	19.68	0	19.7
				3	3	23.11	23.17	23.16	1	24	19.47	19.64	19.70	0	19.7
				6	0	22.17	22.14	22.19	2	23	19.35	19.43	19.59	0	19.7
				1	0	22.43	22.55	23.00	2	23	19.67	19.70	19.70	0	19.7
				1	3	22.46	22.56	22.53	2	23	19.63	19.70	19.70	0	19.7
				1	5	22.45	22.53	22.51	2	23	19.67	19.70	19.70	0	19.7
				3	0	22.39	22.44	22.45	2	23	19.40	19.63	19.70	0	19.7
				3	1	22.39	22.45	22.46	2	23	19.42	19.58	19.68	0	19.7
				3	3	22.38	22.46	22.45	2	23	19.42	19.60	19.68	0	19.7
				6	0	22.00	22.00	22.00	3	22	19.30	19.51	19.58	0	19.7

LTE Band 25 Measured Results (ANT4)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				26140	26365	26590	MPR	Tune-up Limit	26140	26365	26590	MPR	Tune-up Limit		
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz				
20 MHz	QPSK	1	0	19.70	19.70	20.00	0	20.2	20.13	20.15	20.14	0	20.5		
		1	49	19.70	19.70	20.00	0	20.2	20.20	20.20	20.20	0	20.5		
		1	99	19.70	19.70	20.00	0	20.2	20.20	20.08	20.20	0	20.5		
		50	0	19.70	19.70	19.70	0	20.2	20.00	20.12	20.00	0	20.5		
		50	24	19.70	19.70	20.02	0	20.2	20.00	20.20	20.00	0	20.5		
		50	50	19.70	19.70	19.70	0	20.2	20.00	20.17	20.00	0	20.5		
	16QAM	100	0	19.70	19.70	20.00	0	20.2	20.20	20.10	20.10	0	20.5		
		1	0	20.20	20.20	20.20	0	20.2	20.50	20.50	20.46	0	20.5		
		1	49	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		1	99	20.20	20.20	20.20	0	20.2	20.50	20.43	20.50	0	20.5		
	64QAM	50	0	19.90	19.85	19.99	0	20.2	19.93	19.92	19.92	0	20.5		
		50	24	19.85	19.90	20.08	0	20.2	19.97	19.95	19.87	0	20.5		
		50	50	19.95	19.84	20.03	0	20.2	19.87	19.93	19.96	0	20.5		
		100	0	19.88	19.94	20.14	0	20.2	19.98	19.99	19.91	0	20.5		
		1	0	20.20	20.20	20.20	0	20.2	20.41	20.50	20.50	0	20.5		
		1	49	20.20	20.20	20.20	0	20.2	20.50	20.49	20.50	0	20.5		
15 MHz	QPSK	1	99	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		36	0	19.97	19.86	20.03	0	20.2	20.15	20.10	20.08	0	20.5		
		36	20	19.89	19.90	20.09	0	20.2	20.25	20.15	20.12	0	20.5		
		36	39	19.91	19.87	20.04	0	20.2	20.24	20.14	20.14	0	20.5		
		75	0	19.85	19.90	20.07	0	20.2	20.27	20.20	20.14	0	20.5		
	16QAM	1	0	20.20	20.20	20.20	0	20.2	20.49	20.45	20.50	0	20.5		
		1	37	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		1	74	20.20	20.20	20.20	0	20.2	20.44	20.44	20.50	0	20.5		
		36	0	19.92	19.91	20.04	0	20.2	19.90	19.90	19.85	0	20.5		
		36	20	19.86	19.96	20.09	0	20.2	20.03	19.96	19.89	0	20.5		
		36	39	19.85	19.90	19.99	0	20.2	19.98	19.93	19.90	0	20.5		
		75	0	19.85	19.97	20.10	0	20.2	20.03	19.98	19.93	0	20.5		
	64QAM	1	0	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		1	37	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		1	74	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		36	0	19.67	19.62	19.79	0.2	20	19.68	19.58	19.77	0.5	20		
		36	20	19.52	19.65	19.81	0.2	20	19.60	19.64	19.82	0.5	20		
		36	39	19.53	19.56	19.68	0.2	20	19.60	19.56	19.69	0.5	20		
		75	0	19.50	19.60	19.75	0.2	20	19.56	19.62	19.73	0.5	20		
10 MHz	QPSK	1	0	19.98	19.93	20.20	0	20.2	20.04	20.19	20.24	0	20.5		
		1	25	19.95	19.91	20.11	0	20.2	20.20	20.19	20.31	0	20.5		
		1	49	19.98	19.92	20.20	0	20.2	20.27	20.26	20.31	0	20.5		
		25	0	19.95	19.93	20.11	0	20.2	20.14	20.12	20.08	0	20.5		
		25	12	19.88	19.87	20.01	0	20.2	20.16	20.14	20.12	0	20.5		
		25	25	19.87	19.89	20.14	0	20.2	20.23	20.19	20.12	0	20.5		
		50	0	19.91	19.93	20.05	0	20.2	20.17	20.17	20.17	0	20.5		
	16QAM	1	0	20.20	20.20	20.20	0	20.2	20.41	20.50	20.50	0	20.5		
		1	25	20.20	20.20	20.20	0	20.2	20.50	20.49	20.50	0	20.5		
		1	49	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		25	0	19.99	19.97	20.16	0	20.2	19.97	19.99	19.89	0	20.5		
		25	12	19.93	19.91	20.03	0	20.2	19.99	20.00	19.89	0	20.5		
		25	25	19.91	19.92	20.16	0	20.2	20.07	20.05	19.89	0	20.5		
		50	0	19.92	19.92	20.05	0	20.2	19.92	19.98	19.90	0	20.5		
	64QAM	1	0	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		1	25	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		1	49	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5		
		25	0	19.65	19.63	19.83	0.2	20	19.69	19.65	19.78	0.5	20		
		25	12	19.60	19.56	19.71	0.2	20	19.64	19.59	19.66	0.5	20		
		25	25	19.54	19.60	19.78	0.2	20	19.58	19.63	19.77	0.5	20		
		50	0	19.59	19.61	19.70	0.2	20	19.64	19.64	19.68	0.5	20		

LTE Band 25 Measured Results (ANT4) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				26065	26365	26665	MPR	Tune-up Limit	26065	26365	26665	MPR	Tune-up Limit
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	QPSK	1	0	19.97	19.93	20.11	0	20.2	20.12	20.26	20.22	0	20.5
		1	12	20.00	19.88	20.13	0	20.2	20.22	20.25	20.22	0	20.5
		1	24	19.97	19.92	20.20	0	20.2	20.29	20.36	20.39	0	20.5
		12	0	19.84	19.84	19.96	0	20.2	20.05	20.16	20.14	0	20.5
		12	7	19.90	19.80	19.96	0	20.2	20.12	20.16	20.13	0	20.5
		12	13	19.91	19.82	20.03	0	20.2	20.12	20.18	20.21	0	20.5
	16QAM	25	0	19.95	19.85	20.06	0	20.2	20.17	20.18	20.17	0	20.5
		1	0	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5
		1	12	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5
		1	24	20.20	20.20	20.20	0	20.2	20.50	20.50	20.50	0	20.5
		12	0	19.83	19.79	20.02	0	20.2	19.90	19.88	19.85	0	20.5
		12	7	19.89	19.76	20.01	0	20.2	19.88	19.88	19.84	0	20.5
	64QAM	12	13	19.90	19.78	20.07	0	20.2	19.87	19.89	19.89	0	20.5
		25	0	19.82	19.81	19.99	0	20.2	19.87	19.85	19.92	0	20.5
		1	0	20.20	20.20	20.20	0	20.2	20.28	20.50	20.31	0	20.5
		1	12	20.20	20.20	20.20	0	20.2	20.41	20.50	20.49	0	20.5
		1	24	20.20	20.20	20.20	0	20.2	20.39	20.50	20.40	0	20.5
		12	0	19.40	19.41	19.57	0.2	20	19.39	19.41	19.54	0.5	20
3 MHz	QPSK	12	7	19.41	19.32	19.60	0.2	20	19.42	19.35	19.57	0.5	20
		12	13	19.41	19.33	19.63	0.2	20	19.42	19.36	19.60	0.5	20
		25	0	19.50	19.37	19.63	0.2	20	19.49	19.38	19.59	0.5	20
	16QAM	1	0	19.90	19.95	20.07	0	20.2	20.03	20.13	20.18	0	20.5
		1	8	19.95	19.93	20.17	0	20.2	20.09	20.23	20.29	0	20.5
		1	14	19.93	19.87	20.14	0	20.2	20.15	20.17	20.26	0	20.5
		8	0	19.83	19.74	19.87	0	20.2	19.92	20.06	20.01	0	20.5
		8	4	19.83	19.74	19.93	0	20.2	19.90	20.07	20.09	0	20.5
		8	7	19.83	19.75	19.94	0	20.2	19.92	20.08	20.11	0	20.5
	64QAM	15	0	19.90	19.82	20.15	0	20.2	20.08	20.12	20.21	0	20.5
		1	0	20.20	20.16	20.20	0	20.2	20.28	20.50	20.31	0	20.5
		1	8	20.20	20.20	20.20	0	20.2	20.41	20.50	20.49	0	20.5
		1	14	20.20	20.12	20.20	0	20.2	20.39	20.50	20.40	0	20.5
		8	0	19.74	19.73	19.92	0	20.2	19.74	19.77	19.74	0	20.5
		8	4	19.72	19.72	19.99	0	20.2	19.69	19.77	19.76	0	20.5
	64QAM	8	7	19.72	19.73	19.99	0	20.2	19.72	19.82	19.77	0	20.5
		15	0	19.77	19.73	19.96	0	20.2	19.70	19.85	19.82	0	20.5
		1	0	20.20	20.20	20.20	0	20.2	20.32	20.48	20.50	0	20.5
		1	8	20.20	20.20	20.20	0	20.2	20.44	20.42	20.49	0	20.5
		1	14	20.20	20.20	20.20	0	20.2	20.50	20.38	20.50	0	20.5
		8	0	19.36	19.22	19.48	0.2	20	19.37	19.27	19.45	0.5	20
1.4 MHz	QPSK	8	4	19.34	19.23	19.51	0.2	20	19.35	19.27	19.47	0.5	20
		8	7	19.34	19.23	19.50	0.2	20	19.35	19.27	19.49	0.5	20
		15	0	19.34	19.26	19.47	0.2	20	19.30	19.26	19.54	0.5	20
	16QAM	1	0	19.96	19.85	20.20	0	20.2	20.14	20.23	20.38	0	20.5
		1	3	19.95	19.83	20.19	0	20.2	20.08	20.23	20.34	0	20.5
		1	5	19.96	19.87	20.20	0	20.2	20.23	20.25	20.37	0	20.5
		3	0	19.68	19.73	19.90	0	20.2	19.86	20.11	20.11	0	20.5
		3	1	19.68	19.71	19.91	0	20.2	19.86	20.09	20.12	0	20.5
		3	3	19.68	19.71	19.92	0	20.2	19.91	20.10	20.09	0	20.5
	64QAM	6	0	19.80	19.67	19.79	0	20.2	20.01	20.04	19.99	0	20.5
		1	0	20.20	20.05	20.20	0	20.2	20.32	20.48	20.50	0	20.5
		1	3	20.20	20.05	20.20	0	20.2	20.44	20.42	20.49	0	20.5
		1	5	20.20	20.08	20.20	0	20.2	20.50	20.38	20.50	0	20.5
		3	0	19.87	19.81	20.10	0	20.2	20.00	20.19	20.32	0	20.5
		3	1	19.88	19.77	20.14	0	20.2	20.05	20.24	20.35	0	20.5
	64QAM	3	3	19.89	19.82	20.14	0	20.2	20.12	20.21	20.35	0	20.5
		6	0	19.70	19.67	20.00	0	20.2	19.64	19.79	19.92	0	20.5
		1	0	20.20	20.20	20.20	0	20.2	20.28	20.50	20.31	0	20.5
		1	3	20.20	20.20	20.20	0	20.2	20.41	20.50	20.49	0	20.5
		1	5	20.20	20.20	20.20	0	20.2	20.39	20.50	20.40	0	20.5
		3	0	20.00	20.00	20.00	0.2	20	19.33	19.28	19.50	0.5	20
		3	1	20.00	20.00	20.00	0.2	20	19.33	19.28	19.50	0.5	20
		3	3	20.00	20.00	20.00	0.2	20	19.33	19.28	19.50	0.5	20
		6	0	19.40	19.28	19.53	0.2	20	19.33	19.28	19.50	0.5	20

LTE Band 26 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				26740	26865	26990	MPR	Tune-up Limit	26740	26865	26990	MPR	Tune-up Limit		
				819 MHz	831.5 MHz	844 MHz			819 MHz	831.5 MHz	844 MHz				
10 MHz	QPSK	1	0	24.70	24.71	24.69	0	25.5	24.70	24.71	24.69	0	25.5		
		1	25	24.74	24.74	24.74	0	25.5	24.74	24.74	24.74	0	25.5		
		1	49	24.54	24.71	24.59	0	25.5	24.54	24.71	24.59	0	25.5		
		25	0	23.60	23.76	23.63	1	24.5	23.60	23.76	23.63	1	24.5		
		25	12	23.77	23.77	23.77	1	24.5	23.77	23.77	23.77	1	24.5		
		25	25	23.56	23.76	23.57	1	24.5	23.56	23.76	23.57	1	24.5		
	16QAM	50	0	23.79	23.79	23.79	1	24.5	23.79	23.79	23.79	1	24.5		
		1	0	24.19	24.10	23.97	1	24.5	24.19	24.10	23.97	1	24.5		
		1	25	23.94	24.21	23.89	1	24.5	23.94	24.21	23.89	1	24.5		
		1	49	23.99	24.14	23.90	1	24.5	23.99	24.14	23.90	1	24.5		
		25	0	22.65	22.85	22.71	2	23.5	22.65	22.85	22.71	2	23.5		
	64QAM	25	12	22.61	22.83	22.63	2	23.5	22.61	22.83	22.63	2	23.5		
		25	25	22.65	22.82	22.63	2	23.5	22.65	22.82	22.63	2	23.5		
		50	0	22.69	22.83	22.65	2	23.5	22.69	22.83	22.65	2	23.5		
		1	0	23.03	23.00	22.82	2	23.5	23.03	23.00	22.82	2	23.5		
		1	25	22.83	22.86	22.85	2	23.5	22.83	22.86	22.85	2	23.5		
	64QAM	1	49	22.99	22.83	22.87	2	23.5	22.99	22.83	22.87	2	23.5		
		25	0	21.63	21.62	21.58	3	22.5	21.63	21.62	21.58	3	22.5		
		25	12	21.58	21.58	21.55	3	22.5	21.58	21.58	21.55	3	22.5		
		25	25	21.67	21.56	21.58	3	22.5	21.67	21.56	21.58	3	22.5		
		50	0	21.69	21.59	21.58	3	22.5	21.69	21.59	21.58	3.0	22.5		
5 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				26715	26865	27015	MPR	Tune-up Limit	26715	26865	27015	MPR	Tune-up Limit		
				816.5 MHz	831.5 MHz	846.5 MHz			816.5 MHz	831.5 MHz	846.5 MHz				
		12	0	24.76	24.76	24.66	0	25.5	24.76	24.76	24.66	0	25.5		
			12	24.52	24.76	24.61	0	25.5	24.52	24.76	24.61	0	25.5		
			24	24.51	24.78	24.55	0	25.5	24.51	24.78	24.55	0	25.5		
			12	0	23.52	23.71	23.50	1	24.5	23.52	23.71	23.50	1	24.5	
	16QAM	12	7	23.50	23.70	23.50	1	24.5	23.50	23.70	23.50	1	24.5		
			13	23.50	23.70	23.50	1	24.5	23.50	23.70	23.50	1	24.5		
			25	0	23.54	23.73	23.57	1	24.5	23.54	23.73	23.57	1	24.5	
		12	0	24.19	24.12	24.01	1	24.5	24.19	24.12	24.01	1	24.5		
			12	24.04	24.09	24.01	1	24.5	24.04	24.09	24.01	1	24.5		
	64QAM	12	24	23.99	24.12	23.99	1	24.5	23.99	24.12	23.99	1	24.5		
			7	22.59	22.70	22.50	2	23.5	22.59	22.70	22.50	2	23.5		
			13	22.57	22.69	22.50	2	23.5	22.57	22.69	22.50	2	23.5		
		25	0	22.57	22.68	22.59	2	23.5	22.57	22.68	22.59	2	23.5		
			0	23.05	22.86	22.98	2	23.5	23.05	22.86	22.98	2	23.5		
			12	22.89	22.81	22.97	2	23.5	22.89	22.81	22.97	2	23.5		
3 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				26705	26865	27025	MPR	Tune-up Limit	26705	26865	27025	MPR	Tune-up Limit		
				815.5 MHz	831.5 MHz	847.5 MHz			815.5 MHz	831.5 MHz	847.5 MHz				
		8	0	24.81	24.80	24.68	0	25.5	24.81	24.80	24.68	0	25.5		
			4	24.79	24.83	24.72	0	25.5	24.79	24.83	24.72	0	25.5		
			7	24.65	24.79	24.61	0	25.5	24.65	24.79	24.61	0	25.5		
			14	23.61	23.73	23.53	1	24.5	23.61	23.73	23.53	1	24.5		
	16QAM	8	0	23.53	23.72	23.52	1	24.5	23.53	23.72	23.52	1	24.5		
			4	23.54	23.72	23.52	1	24.5	23.54	23.72	23.52	1	24.5		
			7	23.54	23.72	23.52	1	24.5	23.54	23.72	23.52	1	24.5		
		15	0	23.72	23.79	23.64	1	24.5	23.72	23.79	23.64	1	24.5		
			0	24.06	24.14	23.97	1	24.5	24.06	24.14	23.97	1	24.5		
	64QAM	15	8	24.07	24.21	23.98	1	24.5	24.07	24.21	23.98	1	24.5		
			14	23.93	24.16	23.88	1	24.5	23.93	24.16	23.88	1	24.5		
			0	22.64	22.66	22.52	2	23.5	22.64	22.66	22.52	2	23.5		
		8	4	22.55	22.64	22.51	2	23.5	22.55	22.64	22.51	2	23.5		
			7	22.57	22.65	22.50	2	23.5	22.57	22.65	22.50	2	23.5		
			0	22.61	22.69	22.53	2	23.5	22.61	22.69	22.53	2	23.5		
	64QAM	8	0	22.83	22.73	22.71	2	23.5	22.83	22.73	22.71	2	23.5		
			4	22.88	22.77	22.77	2	23.5	22.88	22.77	22.77	2	23.5		
			14	22.75	22.71	22.63	2	23.5	22.75	22.71	22.63	2	23.5		
		8	0	21.50	21.50	21.50	3	22.5	21.50	21.50	21.50	3	22.5		
			4	21.50	21.50	21.50	3	22.5	21.50	21.50	21.50	3	22.5		
		7	21.50	21.50	21.50	3	22.5	21.50	21.50	21.50	3	22.5			
		0	21.50	21.50	21.50	3	22.5	21.50	21.50	21.50	3	22.5			

LTE Band 26 Measured Results (ANT1) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				26697	26865	27033	MPR	Tune-up Limit	26697	26865	27033	MPR	Tune-up Limit
				814.7 MHz	831.5 MHz	848.3 MHz			814.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.84	24.88	24.68	0	25.5	24.84	24.88	24.68	0	25.5
		1	3	24.84	24.88	24.65	0	25.5	24.84	24.88	24.65	0	25.5
		1	5	24.78	24.89	24.69	0	25.5	24.78	24.89	24.69	0	25.5
		3	0	24.63	24.59	24.58	0	25.5	24.63	24.59	24.58	0	25.5
		3	1	24.65	24.60	24.57	0	25.5	24.65	24.60	24.57	0	25.5
		3	3	24.62	24.59	24.50	0	25.5	24.62	24.59	24.50	0	25.5
		6	0	23.54	23.70	23.50	1	24.5	23.54	23.70	23.50	1	24.5
	16QAM	1	0	24.09	24.20	23.84	1	24.5	24.09	24.20	23.84	1	24.5
		1	3	24.05	24.23	23.82	1	24.5	24.05	24.23	23.82	1	24.5
		1	5	24.05	24.23	23.83	1	24.5	24.05	24.23	23.83	1	24.5
		3	0	23.76	23.82	23.54	1	24.5	23.76	23.82	23.54	1	24.5
		3	1	23.78	23.79	23.50	1	24.5	23.78	23.79	23.50	1	24.5
		3	3	23.76	23.80	23.53	1	24.5	23.76	23.80	23.53	1	24.5
		6	0	22.66	22.59	22.50	2	23.5	22.66	22.59	22.50	2	23.5
	64QAM	1	0	22.71	22.71	22.94	2	23.5	22.71	22.71	22.94	2	23.5
		1	3	22.68	22.70	22.86	2	23.5	22.68	22.70	22.86	2	23.5
		1	5	22.73	22.73	22.91	2	23.5	22.73	22.73	22.91	2	23.5
		3	0	22.50	22.50	22.50	2	23.5	22.50	22.50	22.50	2	23.5
		3	1	22.50	22.50	22.50	2	23.5	22.50	22.50	22.50	2	23.5
		3	3	22.50	22.50	22.50	2	23.5	22.50	22.50	22.50	2	23.5
		6	0	21.50	21.50	21.50	3	22.5	21.50	21.50	21.50	3	22.5

LTE Band 26 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				26740	26865	26990	MPR	Tune-up Limit	26740	26865	26990	MPR	Tune-up Limit		
				819 MHz	831.5 MHz	844 MHz			819 MHz	831.5 MHz	844 MHz				
10 MHz	QPSK	1	0	23.80	23.62	23.67	0	24.5	23.80	23.62	23.67	0	24.5		
		1	25	23.90	23.70	23.70	0	24.5	23.90	23.70	23.70	0	24.5		
		1	49	23.59	23.67	23.53	0	24.5	23.59	23.67	23.53	0	24.5		
		25	0	22.68	22.80	22.60	1	23.5	22.68	22.80	22.60	1	23.5		
		25	12	22.70	22.80	22.70	1	23.5	22.70	22.80	22.70	1	23.5		
		25	25	22.61	22.79	22.56	1	23.5	22.61	22.79	22.56	1	23.5		
	16QAM	50	0	22.50	22.50	22.50	1	23.5	22.50	22.50	22.50	1	23.5		
		1	0	23.29	23.11	22.95	1	23.5	23.29	23.11	22.95	1	23.5		
		1	25	23.06	23.22	22.83	1	23.5	23.06	23.22	22.83	1	23.5		
		1	49	23.05	23.16	22.92	1	23.5	23.05	23.16	22.92	1	23.5		
		25	0	21.76	21.89	21.66	2	22.5	21.76	21.89	21.66	2	22.5		
	64QAM	25	12	21.72	21.86	21.60	2	22.5	21.72	21.86	21.60	2	22.5		
		25	25	21.66	21.86	21.64	2	22.5	21.66	21.86	21.64	2	22.5		
		50	0	21.72	21.86	21.58	2	22.5	21.72	21.86	21.58	2	22.5		
		1	0	22.50	22.50	22.50	2	22.5	22.50	22.50	22.50	2	22.5		
		1	25	22.50	22.50	22.39	2	22.5	22.50	22.50	22.39	2	22.5		
		1	49	22.50	22.50	22.50	2	22.5	22.50	22.50	22.50	2	22.5		
		25	0	21.33	21.50	21.26	3	21.5	21.33	21.50	21.26	3	21.5		
		25	12	21.30	21.49	21.17	3	21.5	21.30	21.49	21.17	3	21.5		
		25	25	21.26	21.50	21.24	3	21.5	21.26	21.50	21.24	3	21.5		
		50	0	21.33	21.49	21.20	3	21.5	21.33	21.49	21.20	3.0	21.5		
5 MHz	QPSK	1	0	23.77	23.79	23.51	0	24.5	23.77	23.79	23.51	0	24.5		
		1	12	23.56	23.74	23.54	0	24.5	23.56	23.74	23.54	0	24.5		
		1	24	23.54	23.75	23.51	0	24.5	23.54	23.75	23.51	0	24.5		
		12	0	22.63	22.68	22.51	1	23.5	22.63	22.68	22.51	1	23.5		
		12	7	22.56	22.70	22.49	1	23.5	22.56	22.70	22.49	1	23.5		
		12	13	22.54	22.69	22.44	1	23.5	22.54	22.69	22.44	1	23.5		
		25	0	22.61	22.74	22.53	1	23.5	22.61	22.74	22.53	1	23.5		
	16QAM	1	0	23.24	23.17	22.92	1	23.5	23.24	23.17	22.92	1	23.5		
		1	12	23.14	23.14	22.99	1	23.5	23.14	23.14	22.99	1	23.5		
		1	24	23.09	23.13	22.95	1	23.5	23.09	23.13	22.95	1	23.5		
		12	0	21.73	21.78	21.56	2	22.5	21.73	21.78	21.56	2	22.5		
		12	7	21.70	21.78	21.55	2	22.5	21.70	21.78	21.55	2	22.5		
	64QAM	12	13	21.68	21.78	21.51	2	22.5	21.68	21.78	21.51	2	22.5		
		25	0	21.68	21.76	21.63	2	22.5	21.68	21.76	21.63	2	22.5		
		1	0	22.50	22.50	22.50	2	22.5	22.50	22.50	22.50	2	22.5		
		1	12	22.50	22.50	22.50	2	22.5	22.50	22.50	22.50	2	22.5		
		1	24	22.50	22.50	22.50	2	22.5	22.50	22.50	22.50	2	22.5		
		12	0	21.19	21.27	21.01	3	21.5	21.19	21.27	21.01	3	21.5		
		12	7	21.14	21.24	21.01	3	21.5	21.14	21.24	21.01	3	21.5		
		12	13	21.14	21.24	21.01	3	21.5	21.14	21.24	21.01	3	21.5		
		25	0	21.15	21.29	21.10	3	21.5	21.15	21.29	21.10	3	21.5		
3 MHz	QPSK	1	0	23.72	23.72	23.61	0	24.5	23.72	23.72	23.61	0	24.5		
		1	8	23.71	23.77	23.58	0	24.5	23.71	23.77	23.58	0	24.5		
		1	14	23.59	23.67	23.48	0	24.5	23.59	23.67	23.48	0	24.5		
		8	0	22.65	22.68	22.44	1	23.5	22.65	22.68	22.44	1	23.5		
		8	4	22.57	22.66	22.43	1	23.5	22.57	22.66	22.43	1	23.5		
		8	7	22.58	22.66	22.43	1	23.5	22.58	22.66	22.43	1	23.5		
		15	0	22.74	22.74	22.54	1	23.5	22.74	22.74	22.54	1	23.5		
	16QAM	1	0	23.10	23.09	22.86	1	23.5	23.10	23.09	22.86	1	23.5		
		1	8	23.14	23.15	22.87	1	23.5	23.14	23.15	22.87	1	23.5		
		1	14	23.01	23.12	22.74	1	23.5	23.01	23.12	22.74	1	23.5		
		8	0	21.70	21.66	21.47	2	22.5	21.70	21.66	21.47	2	22.5		
		8	4	21.62	21.65	21.45	2	22.5	21.62	21.65	21.45	2	22.5		
	64QAM	8	7	21.62	21.64	21.44	2	22.5	21.62	21.64	21.44	2	22.5		
		15	0	21.65	21.69	21.50	2	22.5	21.65	21.69	21.50	2	22.5		
		1	0	22.50	22.50	22.38	2	22.5	22.50	22.50	22.38	2	22.5		
		1	8	22.50	22.50	22.45	2	22.5	22.50	22.50	22.45	2	22.5		
		1	14	22.47	22.50	22.32	2	22.5	22.47	22.50	22.32	2	22.5		
		8	0	21.15	21.20	20.99	3	21.5	21.15	21.20	20.99	3	21.5		
		8	4	21.07	21.18	20.99	3	21.5	21.07	21.18	20.99	3	21.5		
		8	7	21.07	21.19	20.98	3	21.5	21.07	21.19	20.98	3	21.5		
		15	0	21.15	21.20	20.96	3	21.5	21.15	21.20	20.96	3	21.5		

LTE Band 26 Measured Results (ANT2) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				26697	26865	27033	MPR	Tune-up Limit	26697	26865	27033	MPR	Tune-up Limit
				814.7 MHz	831.5 MHz	848.3 MHz			814.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	23.83	23.83	23.50	0	24.5	23.83	23.83	23.50	0	24.5
		1	3	23.81	23.80	23.50	0	24.5	23.81	23.80	23.50	0	24.5
		1	5	23.79	23.82	23.50	0	24.5	23.79	23.82	23.50	0	24.5
		3	0	23.57	23.68	23.50	0	24.5	23.57	23.68	23.50	0	24.5
		3	1	23.57	23.65	23.50	0	24.5	23.57	23.65	23.50	0	24.5
		3	3	23.58	23.61	23.50	0	24.5	23.58	23.61	23.50	0	24.5
		6	0	22.68	22.67	22.50	1	23.5	22.68	22.67	22.50	1	23.5
	16QAM	1	0	23.16	23.07	22.50	1	23.5	23.16	23.07	22.50	1	23.5
		1	3	23.14	23.04	22.50	1	23.5	23.14	23.04	22.50	1	23.5
		1	5	23.14	23.07	22.50	1	23.5	23.14	23.07	22.50	1	23.5
		3	0	22.74	22.79	22.50	1	23.5	22.74	22.79	22.50	1	23.5
		3	1	22.76	22.77	22.50	1	23.5	22.76	22.77	22.50	1	23.5
		3	3	22.79	22.76	22.50	1	23.5	22.79	22.76	22.50	1	23.5
		6	0	21.60	21.64	21.50	2	22.5	21.60	21.64	21.50	2	22.5
	64QAM	1	0	22.50	22.50	22.50	2	22.5	22.50	22.50	22.50	2	22.5
		1	3	22.50	22.50	22.50	2	22.5	22.50	22.50	22.50	2	22.5
		1	5	22.50	22.50	22.38	2	22.5	22.50	22.50	22.38	2	22.5
		3	0	22.38	22.48	22.08	2	22.5	22.38	22.48	22.08	2	22.5
		3	1	22.38	22.44	22.06	2	22.5	22.38	22.44	22.06	2	22.5
		3	3	22.41	22.46	22.06	2	22.5	22.41	22.46	22.06	2	22.5
		6	0	21.24	21.23	20.95	3	21.5	21.24	21.23	20.95	3	21.5

LTE Band 30 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				27710	2310 MHz	MPR	Tune-up Limit	27710	2310 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0		23.50	0	23.5		21.35	0	21.7
		1	25		23.50	0	23.5		21.35	0	21.7
		1	49		23.50	0	23.5		21.32	0	21.7
		25	0		23.50	0	23.5		21.27	0	21.7
		25	12		23.50	0	23.5		21.29	0	21.7
		25	25		23.50	0	23.5		21.32	0	21.7
	16QAM	50	0		23.50	0	23.5		21.23	0	21.7
		1	0		23.50	0	23.5		21.68	0	21.7
		1	25		23.50	0	23.5		21.65	0	21.7
		1	49		23.50	0	23.5		21.59	0	21.7
	64QAM	25	0		22.71	0	23.5		21.23	0	21.7
		25	12		22.73	0	23.5		21.25	0	21.7
		25	25		22.72	0	23.5		21.27	0	21.7
		50	0		22.73	0	23.5		21.25	0	21.7
		1	0		22.74	0	23.5		21.66	0	21.7
		1	25		22.76	0	23.5		21.70	0	21.7
		1	49		22.73	0	23.5		21.65	0	21.7
		25	0		21.59	1	22.5		21.40	0	21.7
		25	12		21.60	1	22.5		21.42	0	21.7
		25	25		21.62	1	22.5		21.42	0	21.7
		50	0		21.61	1	22.5		21.42	0	21.7
BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				27710	2310 MHz	MPR	Tune-up Limit	27710	2310 MHz	MPR	Tune-up Limit
5 MHz	QPSK	1	0		23.50	0	23.5		21.21	0	21.7
		1	12		23.50	0	23.5		21.24	0	21.7
		1	24		23.50	0	23.5		21.26	0	21.7
		12	0		23.50	0	23.5		21.10	0	21.7
		12	7		23.50	0	23.5		21.11	0	21.7
		12	13		23.49	0	23.5		21.13	0	21.7
	16QAM	25	0		23.50	0	23.5		21.15	0	21.7
		1	0		23.50	0	23.5		21.65	0	21.7
		1	12		23.50	0	23.5		21.68	0	21.7
		1	24		23.50	0	23.5		21.64	0	21.7
		12	0		22.62	0	23.5		21.15	0	21.7
	64QAM	12	7		22.65	0	23.5		21.10	0	21.7
		12	13		22.65	0	23.5		21.11	0	21.7
		25	0		22.63	0	23.5		21.11	0	21.7
		1	0		22.96	0	23.5		21.69	0	21.7
		1	12		22.94	0	23.5		21.70	0	21.7
		1	24		23.00	0	23.5		21.65	0	21.7
		12	0		21.50	1	22.5		21.40	0	21.7
		12	7		21.50	1	22.5		21.42	0	21.7
		12	13		21.50	1	22.5		21.42	0	21.7
		25	0		21.50	1	22.5		21.42	0	21.7

LTE Band 30 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				27710	2310 MHz	MPR	Tune-up Limit	27710	2310 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0		20.25	0.0	20.5		20.25	0.0	20.5
		1	24		20.50	0.0	20.5		20.50	0.0	20.5
		1	49		20.22	0.0	20.5		20.22	0.0	20.5
		25	0		20.12	0.0	20.5		20.12	0.0	20.5
		25	12		20.50	0.0	20.5		20.50	0.0	20.5
		25	25		20.13	0.0	20.5		20.13	0.0	20.5
	16QAM	50	0		20.50	0.0	20.5		20.50	0.0	20.5
		1	0		20.50	0.0	20.5		20.50	0.0	20.5
		1	25		20.50	0.0	20.5		20.50	0.0	20.5
		1	49		20.50	0.0	20.5		20.50	0.0	20.5
		25	0		20.15	0.0	20.5		20.15	0.0	20.5
	64QAM	25	12		20.14	0.0	20.5		20.14	0.0	20.5
		25	25		20.09	0.0	20.5		20.09	0.0	20.5
		50	0		20.09	0.0	20.5		20.09	0.0	20.5
		1	0		20.50	0.0	20.5		20.50	0.0	20.5
5 MHz	QPSK	1	25		20.50	0.0	20.5		20.50	0.0	20.5
		1	49		20.49	0.0	20.5		20.49	0.0	20.5
		25	0		19.30	0.3	20.3		19.30	0.3	20.3
		25	12		19.29	0.3	20.3		19.29	0.3	20.3
		25	25		19.29	0.3	20.3		19.29	0.3	20.3
		50	0		19.35	0.3	20.3		19.35	0.3	20.3
	16QAM	1	0		20.50	0.0	20.5		20.50	0.0	20.5
		1	12		20.32	0.0	20.5		20.32	0.0	20.5
		1	24		20.23	0.0	20.5		20.23	0.0	20.5
		12	0		20.19	0.0	20.5		20.19	0.0	20.5
		12	7		20.17	0.0	20.5		20.17	0.0	20.5
	64QAM	12	13		20.08	0.0	20.5		20.08	0.0	20.5
		25	0		20.13	0.0	20.5		20.13	0.0	20.5
		1	0		20.50	0.0	20.5		20.50	0.0	20.5
		1	12		20.50	0.0	20.5		20.50	0.0	20.5
		1	24		20.50	0.0	20.5		20.50	0.0	20.5
		12	0		20.18	0.0	20.5		20.18	0.0	20.5
		12	7		20.14	0.0	20.5		20.14	0.0	20.5
		12	13		20.05	0.0	20.5		20.05	0.0	20.5
		25	0		20.13	0.0	20.5		20.13	0.0	20.5

LTE Band 30 Measured Results (ANT3)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				27710	2310 MHz	MPR	Tune-up Limit	27710	2310 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0	23.50	0	0	23.5	19.70	0	20	
		1	25	23.50	0	0	23.5	19.91	0	20	
		1	49	23.50	0	0	23.5	19.42	0	20	
		25	0	22.70	0	0	23.5	19.48	0	20	
		25	12	22.75	0	0	23.5	19.78	0	20	
		25	25	22.69	0	0	23.5	19.49	0	20	
	16QAM	50	0	22.76	0	0	23.5	19.77	0	20	
		1	0	23.20	0	0	23.5	19.97	0	20	
		1	25	23.09	0	0	23.5	19.96	0	20	
		1	49	22.82	0	0	23.5	19.73	0	20	
	64QAM	25	0	21.83	1	1	22.5	19.51	0	20	
		25	12	21.87	1	1	22.5	19.57	0	20	
		25	25	21.79	1	1	22.5	19.51	0	20	
		50	0	21.82	1	1	22.5	19.49	0	20	
		1	0	21.86	1	1	22.5	19.95	0	20	
		1	25	21.62	1	1	22.5	19.92	0	20	
		1	49	21.62	1	1	22.5	19.89	0	20	
		25	0	20.58	2	2	21.5	19.60	0	20	
		25	12	20.50	2	2	21.5	19.51	0	20	
		25	25	20.50	2	2	21.5	19.53	0	20	
		50	0	20.50	2	2	21.5	19.52	0	20	
BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				27710	2310 MHz	MPR	Tune-up Limit	27710	2310 MHz	MPR	Tune-up Limit
5 MHz	QPSK	1	0	23.50	0	0	23.5	19.54	0	20	
		1	12	23.50	0	0	23.5	19.55	0	20	
		1	24	23.50	0	0	23.5	19.57	0	20	
		12	0	22.61	0	0	23.5	19.40	0	20	
		12	7	22.68	0	0	23.5	19.45	0	20	
		12	13	22.59	0	0	23.5	19.41	0	20	
	16QAM	25	0	22.62	0	0	23.5	19.44	0	20	
		1	0	23.01	0	0	23.5	19.91	0	20	
		1	12	22.96	0	0	23.5	19.92	0	20	
		1	24	23.00	0	0	23.5	19.93	0	20	
	64QAM	12	0	21.65	1	1	22.5	19.33	0	20	
		12	7	21.73	1	1	22.5	19.38	0	20	
		12	13	21.65	1	1	22.5	19.34	0	20	
		25	0	21.61	1	1	22.5	19.41	0	20	
		1	0	21.88	1	1	22.5	19.97	0	20	
		1	12	21.70	1	1	22.5	19.99	0	20	
		1	24	21.66	1	1	22.5	19.93	0	20	
		12	0	20.50	2	2	21.5	19.76	0	20	
		12	7	20.50	2	2	21.5	19.64	0	20	
		12	13	20.50	2	2	21.5	19.64	0	20	
		25	0	20.50	2	2	21.5	19.67	0	20	

LTE Band 30 Measured Results (ANT4)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				27710	2310 MHz	MPR	Tune-up Limit	27710	2310 MHz	MPR	Tune-up Limit
10 MHz	QPSK	1	0		17.40	0	18.2		19.00	0	19.5
		1	25		17.50	0	18.2		19.00	0	19.5
		1	49		17.43	0	18.2		19.00	0	19.5
		25	0		17.36	0	18.2		19.00	0	19.5
		25	12		17.40	0	18.2		19.00	0	19.5
		25	25		17.37	0	18.2		19.00	0	19.5
	16QAM	50	0		17.50	0	18.2		18.90	0	19.5
		1	0		18.05	0	18.2		19.50	0	19.5
		1	25		18.04	0	18.2		19.50	0	19.5
		1	49		17.98	0	18.2		19.50	0	19.5
	64QAM	25	0		17.61	0	18.2		19.14	0	19.5
		25	12		17.62	0	18.2		19.14	0	19.5
		25	25		17.60	0	18.2		19.05	0	19.5
		50	0		17.59	0	18.2		19.03	0	19.5
		1	0		17.93	0	18.2		19.50	0	19.5
		1	25		17.95	0	18.2		19.50	0	19.5
		1	49		17.83	0	18.2		19.50	0	19.5
		25	0		17.64	0	18.2		19.11	0	19.5
		25	12		17.62	0	18.2		19.10	0	19.5
		25	25		17.52	0	18.2		19.20	0	19.5
		50	0		17.53	0	18.2		19.12	0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)				Power Mode B (dBm)			
				27710	2310 MHz	MPR	Tune-up Limit	27710	2310 MHz	MPR	Tune-up Limit
5 MHz	QPSK	1	0		17.70	0	18.2		19.17	0	19.5
		1	12		17.58	0	18.2		19.10	0	19.5
		1	24		17.68	0	18.2		19.21	0	19.5
		12	0		17.64	0	18.2		19.07	0	19.5
		12	7		17.58	0	18.2		19.06	0	19.5
		12	13		17.59	0	18.2		19.12	0	19.5
	16QAM	25	0		17.61	0	18.2		19.02	0	19.5
		1	0		18.09	0	18.2		19.50	0	19.5
		1	12		17.98	0	18.2		19.50	0	19.5
		1	24		18.11	0	18.2		19.50	0	19.5
		12	0		17.69	0	18.2		19.06	0	19.5
		12	7		17.63	0	18.2		19.09	0	19.5
	64QAM	12	13		17.65	0	18.2		19.14	0	19.5
		25	0		17.65	0	18.2		19.01	0	19.5
		1	0		17.92	0	18.2		19.50	0	19.5
		1	12		17.80	0	18.2		19.50	0	19.5
		1	24		17.95	0	18.2		19.50	0	19.5
		12	0		17.71	0	18.2		19.08	0	19.5
		12	7		17.65	0	18.2		18.96	0	19.5
		12	13		17.67	0	18.2		19.02	0	19.5
		25	0		17.63	0	18.2		19.02	0	19.5

LTE Band 41 Power Class 3 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)							
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz				
20 MHz	QPSK	1	0	24.81	24.93	24.95	24.80	24.83	0	25.5	23.61	23.75	23.77	23.44	23.46	0	24		
		1	49	24.90	24.95	24.96	24.85	24.85	0	25.5	23.65	23.75	23.69	23.32	23.46	0	24		
		1	99	24.74	24.90	24.68	24.62	24.72	0	25.5	23.70	23.83	23.63	23.34	23.58	0	24		
		50	0	23.73	23.85	23.84	23.73	23.78	1	24.5	23.53	23.66	23.64	23.34	23.42	0	24		
		50	24	23.76	23.86	23.85	23.75	23.82	1	24.5	23.60	23.67	23.62	23.25	23.45	0	24		
		50	50	23.73	23.83	23.82	23.60	23.76	1	24.5	23.60	23.69	23.61	23.25	23.44	0	24		
		100	0	23.82	23.89	23.83	23.67	23.77	1	24.5	23.65	23.71	23.66	23.29	23.48	0	24		
	16QAM	1	0	23.99	24.20	24.21	23.96	24.13	1	24.5	23.78	23.93	23.86	23.54	23.68	0	24		
		1	49	24.00	24.24	24.06	23.82	24.04	1	24.5	23.79	23.93	23.79	23.46	23.61	0	24		
		1	99	23.96	24.23	23.95	23.82	24.12	1	24.5	23.85	23.74	23.72	23.49	23.79	0	24		
		50	0	22.80	23.05	23.01	22.78	22.84	2	23.5	22.52	22.64	22.62	22.50	22.50	0.5	23.5		
		50	24	22.84	23.04	22.96	22.69	22.88	2	23.5	22.58	22.64	22.59	22.50	22.50	0.5	23.5		
		50	50	22.81	23.03	22.94	22.65	22.83	2	23.5	22.59	22.68	22.58	22.50	22.50	0.5	23.5		
		100	0	22.89	23.09	23.01	22.73	22.91	2	23.5	22.64	22.71	22.64	22.50	22.50	0.5	23.5		
	64QAM	1	0	22.98	22.92	22.65	22.75	22.89	2	23.5	23.10	23.09	22.79	22.96	23.10	0.5	23.5		
		1	49	22.84	22.93	22.68	22.65	22.78	2	23.5	23.00	23.04	22.82	22.84	22.95	0.5	23.5		
		1	99	22.93	22.92	22.65	22.72	22.80	2	23.5	23.05	23.03	22.73	22.81	22.92	0.5	23.5		
		50	0	21.67	21.61	21.54	21.50	21.50	3	22.5	21.81	21.78	21.70	21.77	21.64	1.5	22.5		
		50	24	21.62	21.61	21.52	21.50	21.50	3	22.5	21.75	21.76	21.66	21.72	21.64	1.5	22.5		
		50	50	21.66	21.58	21.50	21.50	21.51	3	22.5	21.78	21.69	21.61	21.68	21.67	1.5	22.5		
		100	0	21.67	21.64	21.56	21.53	21.50	3	22.5	21.81	21.80	21.70	21.69	21.66	1.5	22.5		
15 MHz	QPSK	1	0	24.90	25.01	24.97	24.75	24.76	0	25.5	23.61	23.72	23.79	23.47	23.48	0	24		
		1	37	24.94	24.91	24.83	24.65	24.83	0	25.5	23.66	23.75	23.39	23.54	23.54	0	24		
		1	74	24.87	24.86	24.74	24.60	24.70	0	25.5	23.65	23.77	23.74	23.37	23.53	0	24		
		36	0	23.90	23.93	23.85	23.70	23.73	1	24.5	23.58	23.65	23.62	23.38	23.36	0	24		
		36	20	23.84	24.00	23.84	23.64	23.74	1	24.5	23.60	23.67	23.62	23.31	23.36	0	24		
		36	39	23.84	23.95	23.80	23.61	23.77	1	24.5	23.60	23.67	23.60	23.25	23.41	0	24		
		75	0	23.81	23.91	23.80	23.66	23.72	1	24.5	23.63	23.69	23.64	23.28	23.45	0	24		
	16QAM	1	0	23.95	24.11	24.14	23.86	23.87	1	24.5	23.71	23.72	23.77	23.49	23.45	0	24		
		1	37	24.05	24.05	24.03	23.76	23.93	1	24.5	23.73	23.75	23.76	23.45	23.52	0	24		
		1	74	23.99	24.04	23.96	23.72	23.91	1	24.5	23.69	23.76	23.72	23.38	23.54	0	24		
		36	0	22.96	23.03	23.00	22.75	22.80	2	23.5	22.57	22.67	22.66	22.50	22.50	0.5	23.5		
		36	20	22.95	23.03	22.98	22.70	22.80	2	23.5	22.58	22.70	22.67	22.50	22.50	0.5	23.5		
		36	39	22.92	23.02	22.93	22.64	22.83	2	23.5	22.57	22.71	22.64	22.50	22.50	0.5	23.5		
		75	0	22.97	23.06	22.99	22.70	22.90	2	23.5	22.61	22.74	22.69	22.50	22.50	0.5	23.5		
	64QAM	1	0	22.86	22.70	22.73	22.70	22.65	2	23.5	23.04	22.91	22.98	22.93	22.87	0.5	23.5		
		1	37	22.78	22.74	22.76	22.63	22.63	2	23.5	22.99	22.93	22.85	22.83	22.87	0.5	23.5		
		1	74	22.84	22.68	22.70	22.64	22.62	2	23.5	23.02	22.84	22.85	22.78	22.81	0.5	23.5		
		36	0	21.59	21.57	21.52	21.52	21.50	3	22.5	21.80	21.78	21.73	21.72	21.62	1.5	22.5		
		36	20	21.57	21.59	21.53	21.50	21.50	3	22.5	21.78	21.80	21.72	21.67	21.68	1.5	22.5		
		36	39	21.61	21.54	21.50	21.50	21.50	3	22.5	21.78	21.72	21.69	21.65	21.64	1.5	22.5		
		75	0	21.60	21.60	21.54	21.50	21.50	3	22.5	21.73	21.81	21.74	21.69	21.68	1.5	22.5		
10 MHz	QPSK	1	0	24.97	25.02	24.99	24.78	24.87	0	25.5	23.67	23.80	23.78	23.45	23.57	0	24		
		1	25	24.92	25.00	24.90	24.60	24.73	0	25.5	23.71	23.77	23.73	23.35	23.52	0	24		
		1	49	24.92	25.01	24.90	24.62	24.81	0	25.5	23.76	23.83	23.75	23.37	23.58	0	24		
		25	0	23.91	23.97	23.92	23.69	23.74	1	24.5	23.65	23.69	23.66	23.36	23.45	0	24		
		25	12	23.88	23.97	23.89	23.60	23.71	1	24.5	23.64	23.69	23.65	23.29	23.43	0	24		
		25	25	23.88	23.98	23.88	23.60	23.79	1	24.5	23.63	23.72	23.65	23.29	23.44	0	24		
		50	0	23.91	24.01	23.90	23.64	23.81	1	24.5	23.61	23.71	23.63	23.33	23.47	0	24		
	16QAM	1	0	24.06	24.12	24.13	23.90	23.88	1	24.5	23.71	23.81	23.85	23.55	23.58	0	24		
		1	25	24.05	24.07	24.04	23.75	23.84	1	24.5	23.79	23.78	23.78	23.48	23.48	0	24		
		1	49	24.09	24.13	24.01	23.78	23.88	1	24.5	23.83	23.82	23.80	23.49	23.58	0	24		
		25	0	22.95	23.06	22.98	22.73	22.79	2	23.5	22.62	22.70	22.67	22.50	22.50	0.5	23.5		
		25	12	22.93	23.05	22.95	22.66	22.77	2	23.5	22.63	22.72	22.65	22.50	22.50	0.5	23.5		
		25	25	22.93	23.06	22.94	22.66	22.84	2	23.5	22.64	22.73	22.65	22.50	22.50	0.5	23.5		
		50	0	22.96	23.07	22.97	22.69	22.88	2	23.5	22.66	22.75	22.68	22.50	22.54	0.5	23.5		
	64QAM	1	0	22.95	22.81	22.82	22.71	22.69	2	23.5	23.08	22.93	22.98	22.86	22.77	0.5	23.5		
		1	25	22.83	22.80	22.74	22.62	22.70	2	23.5	22.98	22.90	22.93	22.75	22.82	0.5	23.5		
		1	49	22.93	22.79	22.77	22.67	22.76	2	23.5	23.01	22.90	22.83	22.77	22.89	0.5	23.5		
		25	0	21.67	21.65	21.56	21.57	21.53	3	22.5	21.80	21.78	21.71	21.72	21.67	1.5	22.5		
		25	12	21.64	21.64	21.54	21.50	21.51	3	22.5	21.75	21.76	21.67</td						

LTE Band 41 Power Class 3 Measured Results (ANT1) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)							
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz				
5 MHz	QPSK	1	0	25.04	25.02	24.99	24.75	24.79	0	25.5	23.70	23.69	23.70	23.45	23.47	0	24		
		1	12	24.98	24.98	24.96	24.59	24.81	0	25.5	23.65	23.67	23.68	23.33	23.46	0	24		
		1	24	24.98	25.02	24.93	24.62	24.84	0	25.5	23.69	23.72	23.69	23.39	23.50	0	24		
		12	0	23.76	23.81	23.80	23.57	23.62	1	24.5	23.48	23.50	23.47	23.24	23.28	0	24		
		12	7	23.74	23.79	23.79	23.50	23.61	1	24.5	23.48	23.51	23.47	23.17	23.26	0	24		
		12	13	23.74	23.79	23.79	23.50	23.67	1	24.5	23.49	23.51	23.45	23.17	23.30	0	24		
		25	0	23.84	23.90	23.87	23.57	23.78	1	24.5	23.57	23.59	23.56	23.23	23.40	0	24		
	16QAM	1	0	24.10	24.20	24.06	23.84	24.08	1	24.5	23.77	23.79	23.87	23.42	23.58	0	24		
		1	12	24.03	24.16	24.03	23.71	24.04	1	24.5	23.68	23.72	23.84	23.35	23.55	0	24		
		1	24	24.05	24.18	24.03	23.75	24.05	1	24.5	23.77	23.77	23.84	23.42	23.59	0	24		
		12	0	22.74	22.76	22.75	22.50	22.57	2	23.5	22.50	22.50	22.50	22.50	22.50	0.5	23.5		
		12	7	22.71	22.75	22.75	22.50	22.55	2	23.5	22.50	22.50	22.50	22.50	22.50	0.5	23.5		
		12	13	22.69	22.74	22.74	22.50	22.62	2	23.5	22.50	22.50	22.50	22.50	22.50	0.5	23.5		
		25	0	22.78	22.81	22.78	22.53	22.71	2	23.5	22.50	22.50	22.50	22.50	22.50	0.5	23.5		
	64QAM	1	0	22.84	22.79	22.83	22.67	22.66	2	23.5	22.95	22.88	22.93	22.80	22.80	0.5	23.5		
		1	12	22.79	22.77	22.78	22.59	22.62	2	23.5	22.92	22.86	22.85	22.77	22.71	0.5	23.5		
		1	24	22.87	22.79	22.80	22.60	22.65	2	23.5	22.96	22.87	22.94	22.79	22.79	0.5	23.5		
		12	0	21.50	21.50	21.50	21.50	21.50	3	22.5	21.55	21.57	21.50	21.53	21.50	1.5	22.5		
		12	7	21.50	21.50	21.50	21.50	21.50	3	22.5	21.54	21.56	21.50	21.50	21.50	1.5	22.5		
		12	13	21.50	21.50	21.50	21.50	21.50	3	22.5	21.57	21.50	21.50	21.50	21.50	1.5	22.5		
		25	0	21.50	21.52	21.50	21.50	21.50	3	22.5	21.59	21.61	21.57	21.50	21.50	1.5	22.5		

LTE Band 41 Power Class 3 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)								
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit			
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz					
20 MHz	QPSK	1	0	20.96	20.88	20.89	20.87	20.90	0	21.5	22.15	22.13	22.00	22.00	22.00	0.0	22.5			
		1	49	21.50	21.50	21.50	21.50	21.50	0	21.5	22.17	22.15	22.04	22.03	22.08	0.0	22.5			
		1	99	20.99	21.00	20.96	20.88	20.94	0	21.5	22.15	22.10	22.00	22.00	22.00	0.0	22.5			
		50	0	20.84	20.80	20.82	20.73	20.79	0	21.5	21.32	21.28	21.30	21.30	21.29	0.3	22.3			
		50	24	21.50	21.50	21.50	21.50	21.50	0	21.5	21.34	21.31	21.30	21.30	21.31	0.3	22.3			
		50	50	20.87	20.85	20.80	20.73	20.84	0	21.5	21.34	21.30	21.30	21.30	21.30	0.3	22.3			
	16QAM	100	0	21.50	21.50	21.50	21.50	21.50	0	21.5	21.39	21.36	21.30	21.30	21.38	0.3	22.3			
		1	0	21.00	21.10	20.96	20.94	21.12	0	21.5	21.49	21.60	21.51	21.45	21.68	0.3	22.3			
		1	49	21.08	21.11	20.96	20.91	21.01	0	21.5	21.58	21.60	21.43	21.42	21.53	0.3	22.3			
		1	99	21.13	21.21	21.08	20.92	21.11	0	21.5	21.58	21.76	21.50	21.43	21.65	0.3	22.3			
		50	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.35	20.37	20.30	20.30	20.28	1.3	21.3			
		50	24	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.36	20.40	20.28	20.30	20.32	1.3	21.3			
	64QAM	50	50	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.37	20.43	20.28	20.30	20.33	1.3	21.3			
		100	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.41	20.44	20.34	20.26	20.37	1.3	21.3			
15 MHz	QPSK	1	0	21.06	21.06	20.71	20.84	20.98	0.3	21.3	21.10	20.86	20.67	20.88	20.91	1.3	21.3			
		1	49	20.97	20.87	20.66	20.81	20.91	0.3	21.3	20.94	20.87	20.60	20.81	20.70	1.3	21.3			
		1	99	20.96	20.88	20.62	20.77	20.86	0.3	21.3	21.06	20.78	20.69	20.88	20.76	1.3	21.3			
		50	0	19.83	19.68	19.59	19.65	19.60	1.3	20.3	19.68	19.65	19.53	19.63	19.57	2.3	20.3			
		50	24	19.77	19.66	19.52	19.65	19.62	1.3	20.3	19.64	19.64	19.49	19.61	19.59	2.3	20.3			
		50	50	19.78	19.59	19.57	19.63	19.58	1.3	20.3	19.67	19.58	19.54	19.60	19.54	2.3	20.3			
	16QAM	100	0	19.82	19.69	19.58	19.67	19.65	1.3	20.3	19.66	19.69	19.55	19.63	19.61	2.3	20.3			
		1	0	21.01	20.98	20.90	20.84	20.81	0	21.5	22.01	21.95	21.77	22.11	0.0	22.5				
		1	37	21.00	20.92	20.82	20.81	20.92	0	21.5	21.99	21.97	21.92	21.75	22.10	0.0	22.5			
		1	74	20.98	20.93	20.81	20.79	20.91	0	21.5	22.00	21.97	21.89	21.75	22.07	0.0	22.5			
		36	0	20.91	20.81	20.76	20.72	20.76	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
		36	20	20.93	20.84	20.76	20.74	20.77	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
	64QAM	36	39	20.93	20.85	20.75	20.73	20.83	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
		75	0	20.89	20.86	20.77	20.76	20.87	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
		1	0	21.01	20.93	20.93	20.89	20.89	0	21.5	21.29	21.30	21.27	21.30	21.30	0.3	22.3			
		1	37	21.10	20.94	20.85	20.85	20.96	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
		1	74	21.08	20.95	20.81	20.81	20.90	0	21.5	21.29	21.30	21.27	21.30	21.30	0.3	22.3			
		36	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	0.3	21.3			
	64QAM	36	20	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	0.3	21.3			
		36	39	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	0.3	21.3			
		75	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	0.3	21.3			
		1	0	21.00	20.78	20.74	20.82	20.82	0.3	21.3	20.88	20.78	20.77	20.73	20.75	1.3	21.3			
		1	37	20.89	20.83	20.79	20.75	20.80	0.3	21.3	20.80	20.81	20.74	20.81	20.81	1.3	21.3			
		1	74	20.89	20.72	20.74	20.72	20.73	0.3	21.3	20.86	20.88	20.72	20.73	20.69	1.3	21.3			
	64QAM	36	0	19.75	19.65	19.55	19.57	19.57	1.3	20.3	19.71	19.61	19.52	19.61	19.52	2.3	20.3			
		36	20	19.73	19.64	19.54	19.60	19.56	1.3	20.3	19.70	19.62	19.51	19.62	19.51	2.3	20.3			
		36	39	19.69	19.56	19.57	19.60	19.59	1.3	20.3	19.66	19.53	19.57	19.60	19.56	2.3	20.3			
		75	0	19.76	19.66	19.55	19.63	19.63	1.3	20.3	19.70	19.62	19.54	19.61	19.61	2.3	20.3			
10 MHz	QPSK	1	0	20.50	20.50	20.50	20.78	20.89	0	21.5	22.02	21.98	21.91	21.82	21.92	0.0	22.5			
		1	25	20.50	20.50	20.76	20.84	20.84	0	21.5	22.02	21.98	21.87	21.78	21.88	0.0	22.5			
		1	49	20.50	20.50	20.50	20.78	20.93	0	21.5	22.07	22.03	21.89	21.82	21.99	0.0	22.5			
		25	0	20.50	20.50	20.68	20.78	20.78	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
		25	12	20.50	20.50	20.67	20.76	20.76	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
		25	25	20.50	20.50	20.68	20.84	20.84	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
	16QAM	50	0	20.50	20.50	20.76	20.86	20.86	0	21.5	21.30	21.30	21.30	21.30	21.30	0.3	22.3			
		1	0	20.60	20.50	20.80	20.82	21.00	0	21.5	21.39	21.30	21.26	21.30	21.30	0.3	22.3			
		1	25	20.62	20.50	20.88	20.76	20.94	0	21.5	21.38	21.28	21.30	21.30	21.30	0.3	22.3			
		1	49	20.60	20.50	20.86	20.80	21.05	0	21.5	21.42	21.30	21.30	21.30	21.30	21.27	0.3	22.3		
		25	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.25	20.25	20.25	20.25	20.25	1.3	21.3			
		25	12	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.25	20.25	20.25	20.25	20.25	1.3	21.3			
	64QAM	25	25	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.25	20.25	20.25	20.25	20.25	1.3	21.3			
		50	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.25	20.25	20.25	20.25	20.25	2.3	20.3			
		1	0	21.02	20.82	20.85	20.76	20.74	0.3	21.3	20.94	20.88	20.81	20						

LTE Band 41 Power Class 3 Measured Results (ANT2) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)							
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz				
5 MHz	QPSK	1	0	21.22	21.06	20.98	20.50	20.69	0	21.5	21.95	21.89	21.82	21.75	21.82	0.0	22.5		
		1	12	21.03	21.02	20.94	20.50	20.73	0	21.5	21.93	21.88	21.76	21.73	21.85	0.0	22.5		
		1	24	21.02	21.06	20.97	20.50	20.75	0	21.5	21.95	21.94	21.81	21.76	21.89	0.0	22.5		
		12	0	20.81	20.80	20.79	20.50	20.50	0	21.5	21.25	21.25	21.25	21.25	21.25	0.3	22.3		
		12	7	20.80	20.80	20.78	20.50	20.50	0	21.5	21.25	21.25	21.25	21.25	21.25	0.3	22.3		
		12	13	20.87	20.87	20.78	20.50	20.55	0	21.5	21.25	21.25	21.25	21.25	21.25	0.3	22.3		
		25	0	20.93	20.96	20.86	20.50	20.65	0	21.5	21.25	21.25	21.25	21.25	21.25	0.3	22.3		
	16QAM	1	0	21.22	21.25	21.06	20.53	20.86	0	21.5	21.26	21.25	21.27	21.25	21.25	0.3	22.3		
		1	12	21.13	21.24	20.95	20.52	20.91	0	21.5	21.25	21.25	21.25	21.25	21.25	0.3	22.3		
		1	24	21.13	21.25	21.03	20.67	20.62	0	21.5	21.29	21.25	21.28	21.25	21.25	0.3	22.3		
		12	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	1.3	21.3		
		12	7	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	1.3	21.3		
		12	13	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	1.3	21.3		
		25	0	20.30	20.30	20.30	20.30	20.30	0.3	21.3	20.30	20.30	20.30	20.30	20.30	1.3	21.3		
	64QAM	1	0	20.85	20.85	20.69	20.70	20.72	0.3	21.3	20.99	20.80	20.68	20.77	20.60	1.3	21.3		
		1	12	20.77	20.73	20.72	20.65	20.79	0.3	21.3	20.98	20.76	20.72	20.72	20.59	1.3	21.3		
		1	24	20.78	20.80	20.76	20.70	20.87	0.3	21.3	20.87	20.69	20.82	20.78	20.68	1.3	21.3		
		12	0	19.52	19.37	19.32	19.35	19.30	1.3	20.3	19.49	19.39	19.28	19.28	19.30	2.3	20.3		
		12	7	19.47	19.38	19.29	19.32	19.30	1.3	20.3	19.42	19.39	19.32	19.29	19.26	2.3	20.3		
		12	13	19.48	19.33	19.30	19.35	19.28	1.3	20.3	19.41	19.34	19.35	19.37	19.33	2.3	20.3		
		25	0	19.53	19.53	19.38	19.44	19.46	1.3	20.3	19.61	19.51	19.37	19.47	19.41	2.3	20.3		

LTE Band 41 Power Class 3 Measured Results (ANT3)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)							
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz				
20 MHz	QPSK	1	0	25.09	25.08	25.15	25.27	25.18	0	25.5	23.72	23.76	23.61	23.77	23.52	0	24		
		1	49	25.50	25.50	25.50	25.50	25.50	0	25.5	24.00	24.00	23.72	24.00	24.00	0	24		
		1	99	25.06	24.91	25.35	25.29	25.17	0	25.5	23.74	23.62	23.65	23.84	23.71	0	24		
		50	0	23.82	23.99	24.23	24.25	24.12	1	24.5	23.39	23.60	23.49	23.68	23.46	0	24		
		50	24	24.50	24.50	24.50	24.50	24.50	1	24.5	24.00	24.00	23.62	23.25	23.20	0	24		
		50	50	24.03	23.89	24.25	24.18	24.11	1	24.5	23.58	23.50	23.50	23.74	23.59	0	24		
	16QAM	100	0	24.50	24.50	24.50	24.50	24.50	1	24.5	24.00	24.00	23.56	23.22	23.12	0	24		
		1	0	24.30	24.41	24.36	24.47	24.43	1	24.5	23.86	23.99	23.72	23.92	23.78	0	24		
		1	49	24.10	24.30	24.39	24.41	24.45	1	24.5	23.65	23.88	23.68	23.93	23.77	0	24		
		1	99	24.31	24.31	24.50	24.50	24.50	1	24.5	23.85	23.82	23.78	23.99	23.95	0	24		
		50	0	22.84	23.07	23.24	23.27	23.22	2	23.5	22.50	22.61	22.57	22.72	22.50	0.5	23.5		
		50	24	22.90	23.06	23.21	23.21	23.25	2	23.5	22.50	22.60	22.57	22.78	22.58	0.5	23.5		
	64QAM	100	0	22.93	23.10	23.25	23.28	23.24	2	23.5	22.50	22.57	22.60	22.82	22.62	0.5	23.5		
		1	0	23.50	23.50	23.50	23.50	23.50	2	23.5	23.18	23.30	23.17	23.35	23.42	0.5	23.5		
		1	49	23.50	23.50	23.50	23.50	23.50	2	23.5	23.00	23.14	23.12	23.21	23.34	0.5	23.5		
		1	99	23.50	23.50	23.50	23.50	23.50	2	23.5	23.18	23.10	23.20	23.26	23.36	0.5	23.5		
		50	0	22.18	22.45	22.50	22.50	22.50	3	22.5	21.67	21.90	22.03	22.08	22.07	1.5	22.5		
		50	24	22.24	22.36	22.50	22.50	22.50	3	22.5	21.75	21.84	21.98	21.97	22.08	1.5	22.5		
		100	0	22.23	22.37	22.50	22.50	22.50	3	22.5	21.75	21.86	22.03	22.01	22.11	1.5	22.5		
15 MHz	QPSK	1	0	25.06	25.04	25.05	25.15	25.04	0	25.5	23.62	23.68	23.58	23.74	23.47	0	24		
		1	37	24.93	25.01	25.08	25.05	25.07	0	25.5	23.49	23.66	23.60	23.80	23.61	0	24		
		1	74	25.04	24.93	25.10	25.04	25.06	0	25.5	23.66	23.59	23.56	23.80	23.69	0	24		
		36	0	23.75	24.00	24.06	24.11	24.03	1	24.5	23.29	23.59	23.47	23.65	23.42	0	24		
		36	20	23.89	23.98	24.06	24.07	24.03	1	24.5	23.42	23.57	23.52	23.72	23.46	0	24		
		36	39	23.95	23.93	24.11	24.06	24.06	1	24.5	23.47	23.49	23.50	23.72	23.50	0	24		
	16QAM	75	0	23.84	24.00	24.08	24.08	24.08	1	24.5	23.43	23.59	23.54	23.75	23.54	0	24		
		1	0	24.17	24.13	24.22	24.27	24.14	1	24.5	23.69	23.73	23.65	23.80	23.49	0	24		
		1	37	24.09	24.12	24.26	24.24	24.22	1	24.5	23.58	23.69	23.69	23.87	23.63	0	24		
		1	74	24.27	24.27	24.27	24.27	24.27	1	24.5	23.75	23.62	23.62	23.88	23.71	0	24		
		36	0	22.79	23.04	23.17	23.23	23.14	2	23.5	22.50	22.64	22.50	22.69	22.50	0.5	23.5		
		36	20	22.93	23.03	23.18	23.16	23.14	2	23.5	22.50	22.60	22.52	22.77	22.50	0.5	23.5		
	64QAM	36	39	23.01	22.95	23.22	23.15	23.17	2	23.5	22.50	22.53	22.54	22.76	22.54	0.5	23.5		
		75	0	22.95	23.05	23.20	23.17	23.22	2	23.5	22.50	22.64	22.58	22.78	22.59	0.5	23.5		
		1	0	23.50	23.50	23.50	23.50	23.50	2	23.5	23.06	23.06	23.06	23.27	23.22	0.5	23.5		
		1	37	23.48	23.48	23.50	23.50	23.50	2	23.5	22.95	22.98	22.98	23.11	23.20	0.5	23.5		
		1	74	23.50	23.46	23.50	23.50	23.50	2	23.5	23.07	22.87	23.23	23.12	23.16	0.5	23.5		
		36	0	22.09	22.43	22.49	22.50	22.50	3	22.5	21.58	21.87	22.00	22.02	22.01	1.5	22.5		
	10 MHz	36	20	22.21	22.36	22.47	22.43	22.50	3	22.5	21.71	21.83	21.98	21.92	21.99	1.5	22.5		
		36	39	22.27	22.24	22.50	22.40	22.50	3	22.5	21.78	21.74	22.02	21.89	22.00	1.5	22.5		
		75	0	22.20	22.31	22.49	22.45	22.50	3	22.5	21.74	21.83	22.00	21.94	22.03	1.5	22.5		

LTE Band 41 Power Class 3 Measured Results (ANT3) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)							
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz				
5 MHz	QPSK	1	0	24.98	25.09	25.25	25.26	25.19	0	25.5	23.50	23.65	23.58	23.77	23.58	0	24		
		1	12	25.04	25.05	25.18	25.18	25.17	0	25.5	23.49	23.62	23.60	23.78	23.58	0	24		
		1	24	25.13	25.05	25.26	25.20	25.19	0	25.5	23.58	23.59	23.64	23.83	23.58	0	24		
		12	0	23.86	23.95	24.02	24.10	24.05	1	24.5	23.30	23.48	23.36	23.60	23.34	0	24		
		12	7	23.89	23.95	24.00	24.02	24.03	1	24.5	23.32	23.47	23.40	23.63	23.32	0	24		
		12	13	23.92	23.88	24.01	24.02	24.09	1	24.5	23.34	23.40	23.41	23.63	23.39	0	24		
		25	0	23.97	24.03	24.10	24.09	24.17	1	24.5	23.41	23.55	23.52	23.71	23.48	0	24		
	16QAM	1	0	24.08	24.22	24.45	24.32	24.36	1	24.5	23.53	23.77	23.80	23.83	23.66	0	24		
		1	12	24.14	24.20	24.41	24.25	24.36	1	24.5	23.55	23.74	23.81	23.81	23.63	0	24		
		1	24	24.22	24.17	24.50	24.24	24.38	1	24.5	23.66	23.71	23.84	23.88	23.66	0	24		
		12	0	22.83	22.89	23.00	23.06	23.00	2	23.5	22.50	22.50	22.50	22.56	22.50	0.5	23.5		
		12	7	22.84	22.89	23.00	22.98	22.98	2	23.5	22.50	22.50	22.50	22.61	22.50	0.5	23.5		
		12	13	22.87	22.83	22.99	22.99	23.05	2	23.5	22.50	22.50	22.50	22.61	22.50	0.5	23.5		
		25	0	22.89	22.97	23.06	23.01	23.12	2	23.5	22.50	22.50	22.50	22.62	22.50	0.5	23.5		
	64QAM	1	0	23.38	23.45	23.50	23.50	23.50	2	23.5	22.89	23.01	23.31	23.22	23.17	0.5	23.5		
		1	12	23.48	23.43	23.50	23.50	23.50	2	23.5	22.95	22.97	23.23	23.11	23.18	0.5	23.5		
		1	24	23.50	23.38	23.50	23.50	23.50	2	23.5	23.07	22.93	23.30	23.16	23.18	0.5	23.5		
		12	0	22.09	22.18	22.27	22.41	22.33	3	22.5	21.58	21.62	21.79	21.87	21.84	1.5	22.5		
		12	7	22.04	22.12	22.26	22.29	22.29	3	22.5	21.57	21.63	21.76	21.78	21.79	1.5	22.5		
		12	13	22.05	22.03	22.24	22.27	22.35	3	22.5	21.60	21.60	21.76	21.77	21.84	1.5	22.5		
		25	0	22.12	22.20	22.39	22.34	22.44	3	22.5	21.66	21.71	21.89	21.83	21.94	1.5	22.5		

LTE Band 41 Power Class 3 Measured Results (ANT4)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)							
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz				
20 MHz	QPSK	1	0	19.40	19.20	19.27	19.30	19.40	0	19.5	21.61	21.35	21.30	21.40	21.50	0	21.7		
		1	49	19.50	19.50	19.40	19.50	19.40	0	19.5	21.70	21.70	21.70	21.70	21.70	0	21.7		
		1	99	19.20	19.08	19.31	19.46	19.32	0	19.5	21.34	21.27	21.41	21.60	21.46	0	21.7		
		50	0	19.49	19.08	19.15	19.25	19.29	0	19.5	21.54	21.21	21.21	21.36	21.38	0	21.7		
		50	24	19.50	19.50	19.20	19.50	19.50	0	19.5	21.70	21.60	21.60	21.70	21.70	0	21.7		
		50	50	19.34	18.98	19.18	19.30	19.25	0	19.5	21.44	21.14	21.28	21.44	21.35	0	21.7		
	16QAM	100	0	19.50	19.50	19.50	19.50	19.50	0	19.5	21.70	21.60	21.70	21.70	21.70	0	21.7		
		1	0	19.50	19.32	19.47	19.44	19.50	0	19.5	21.70	21.56	21.37	21.54	21.70	0	21.7		
		1	49	19.50	19.18	19.47	19.49	19.42	0	19.5	21.69	21.51	21.45	21.65	21.65	0	21.7		
		1	99	19.35	19.14	19.50	19.39	19.30	0	19.5	21.50	21.51	21.57	21.70	21.68	0	21.7		
		50	0	19.47	19.10	19.15	19.25	19.29	0	19.5	21.56	21.22	21.21	21.36	21.37	0	21.7		
		50	24	19.48	19.03	19.17	19.32	19.27	0	19.5	21.55	21.17	21.25	21.43	21.35	0	21.7		
	64QAM	100	0	19.47	19.07	19.21	19.36	19.31	0	19.5	21.56	21.21	21.30	21.47	21.39	0	21.7		
		1	0	19.50	19.50	19.24	19.40	19.50	0	19.5	21.70	21.70	21.70	21.69	21.70	0	21.7		
		1	49	19.50	19.37	19.29	19.50	19.50	0	19.5	21.70	21.70	21.70	21.61	21.70	0	21.7		
		1	99	19.38	19.34	19.27	19.50	19.50	0	19.5	21.70	21.64	21.70	21.70	21.70	0	21.7		
		50	0	19.50	19.13	19.13	19.25	19.32	0	19.5	21.14	20.67	20.76	20.71	20.91	0.2	21.5		
		50	24	19.49	19.07	19.17	19.31	19.30	0	19.5	21.11	20.65	20.76	20.65	20.88	0.2	21.5		
		100	0	19.49	19.10	19.22	19.35	19.33	0	19.5	21.09	20.66	20.78	20.68	20.93	0.2	21.5		
15 MHz	QPSK	1	0	19.50	19.14	19.23	19.28	19.41	0	19.5	21.70	21.30	21.26	21.40	21.50	0	21.7		
		1	37	19.50	19.10	19.27	19.39	19.37	0	19.5	21.68	21.28	21.33	21.53	21.48	0	21.7		
		1	74	19.25	19.03	19.25	19.43	19.31	0	19.5	21.46	21.27	21.31	21.60	21.45	0	21.7		
		36	0	19.43	19.05	19.13	19.24	19.29	0	19.5	21.61	21.19	21.17	21.34	21.38	0	21.7		
		36	20	19.44	19.00	19.21	19.32	19.29	0	19.5	21.56	21.16	21.26	21.42	21.35	0	21.7		
		36	39	19.34	18.94	19.19	19.31	19.26	0	19.5	21.47	21.10	21.24	21.41	21.34	0	21.7		
	16QAM	75	0	19.44	19.03	19.23	19.34	19.30	0	19.5	21.55	21.18	21.27	21.45	21.38	0	21.7		
		1	0	19.50	19.16	19.28	19.36	19.43	0	19.5	21.50	21.42	21.31	21.53	21.51	0	21.7		
		1	37	19.50	19.11	19.32	19.47	19.36	0	19.5	21.68	21.34	21.36	21.67	21.49	0	21.7		
		1	74	19.28	19.06	19.28	19.50	19.32	0	19.5	21.46	21.30	21.40	21.50	21.46	0	21.7		
		36	0	19.42	19.04	19.11	19.23	19.25	0	19.5	21.51	21.20	21.15	21.41	21.33	0	21.7		
		36	20	19.42	18.99	19.17	19.31	19.27	0	19.5	21.53	21.16	21.21	21.44	21.35	0	21.7		
	64QAM	36	39	19.34	18.94	19.15	19.29	19.24	0	19.5	21.45	21.08	21.21	21.42	21.32	0	21.7		
		75	0	19.45	19.06	19.21	19.31	19.28	0	19.5	21.55	21.19	21.25	21.44	21.37	0	21.7		
10 MHz	QPSK	1	0	19.50	19.27	19.30	19.41	19.41	0	19.5	21.70	21.70	21.68	21.65	21.70	0	21.7		
		1	25	19.50	19.20	19.36	19.44	19.37	0	19.5	21.70	21.66	21.67	21.66	21.70	0	21.7		
		1	49	19.36	19.11	19.27	19.39	19.37	0	19.5	21.70	21.52	21.27	21.48	21.64	0	21.7		
		25	0	19.42	19.03	19.09	19.22	19.28	0	19.5	21.57	21.18	21.23	21.40	21.39	0	21.7		
		25	12	19.44	19.04	19.16	19.27	19.26	0	19.5	21.57	21.19	21.28	21.43	21.37	0	21.7		
		25	25	19.34	18.98	19.16	19.29	19.27	0	19.5	21.51	21.15	21.29	21.45	21.38	0	21.7		
	16QAM	50	0	19.46	19.07	19.19	19.29	19.29	0	19.5	21.60	21.22	21.32	21.47	21.40	0	21.7		
		1	0	19.50	19.28	19.25	19.43	19.41	0	19.5	21.45	21.43	21.40	21.59	21.53	0	21.7		
		1	25	19.50	19.17	19.25	19.44	19.40	0	19.5	21.50	21.37	21.42	21.65	21.43	0	21.7		
		1	49	19.45	19.14	19.28	19.48	19.38	0	19.5	21.65	21.33	21.42	21.66	21.51	0	21.7		
		25	0	19.41	19.02	19.08	19.21	19.27	0	19.5	21.57	21.20	21.22	21.40	21.38	0	21.7		
		25	12	19.42	19.03	19.14	19.27	19.25	0	19.5	21.56	21.21	21.28	21.45	21.36	0	21.7		
	64QAM	25	25	19.32	18.97	19.15	19.28	19.26	0	19.5	21.49	21.17	21.29	21.46	21.38	0	21.7		
		50	0	19.44	19.07	19.17	19.29	19.27	0	19.5	21.58	21.23	21.30	21.47	21.39	0	21.7		
		1	0	19.50	19.33	19.37	19.47	19.50	0	19.5	21.70	21.62	21.66	21.62	21.70	0	21.7		
		1	25	19.50	19.26	19.37	19.50	19.43	0	19.5	21.70	21.62	21.69	21.62	21.70	0	21.7		
		1	49	19.50	19.24	19.40	19.49	19.41	0	19.5	21.70	21.53	21.67	21.53	21.70	0	21.7		
		25	0	19.45	19.10	19.14	19.23	19.31	0	19.5	21.14	20.62	20.74	20.62	20.97	0.2	21.5		
		25	12	19.44	19.10	19.17	19.28	19.28	0	19.5	21.15	20.60	20.81	20.60	20.94	0.2	21.5		
		25	25	19.40	19.05	19.19	19.29	19.29	0	19.5	21.06	20.54	20.80	20.54	20.94	0.2	21.5		
		50	0	19.46	19.14	19.21	19.30	19.29	0	19.5	21.16	20.64	20.82	20.64	20.97	0.2	21.5		

LTE Band 41 Power Class 3 Measured Results (ANT4) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)								Power Mode B (dBm)							
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz				
5 MHz	QPSK	1	0	19.50	19.09	19.21	19.29	19.35	0	19.5	21.68	21.27	21.32	21.45	21.44	0	21.7		
		1	12	19.50	19.08	19.22	19.33	19.29	0	19.5	21.66	21.27	21.37	21.51	21.38	0	21.7		
		1	24	19.50	19.05	19.24	19.38	19.34	0	19.5	21.59	21.26	21.40	21.55	21.38	0	21.7		
		12	0	19.34	18.94	19.01	19.10	19.17	0	19.5	21.46	21.09	21.15	21.28	21.21	0	21.7		
		12	7	19.36	18.94	19.04	19.15	19.16	0	19.5	21.49	21.08	21.20	21.36	21.19	0	21.7		
	16QAM	12	13	19.34	18.88	19.04	19.16	19.15	0	19.5	21.45	21.04	21.21	21.36	21.20	0	21.7		
		25	0	19.46	19.02	19.14	19.24	19.20	0	19.5	21.58	21.19	21.28	21.40	21.30	0	21.7		
		1	0	19.50	19.25	19.35	19.35	19.41	0	19.5	21.50	21.52	21.34	21.60	21.60	0	21.7		
		1	12	19.50	19.22	19.39	19.38	19.36	0	19.5	21.70	21.44	21.38	21.64	21.60	0	21.7		
		1	24	19.50	19.18	19.41	19.45	19.38	0	19.5	21.66	21.49	21.41	21.62	21.60	0	21.7		
20 MHz	16QAM	12	0	19.28	18.90	18.95	19.08	19.09	0	19.5	21.43	21.07	21.10	21.20	21.19	0	21.7		
		12	7	19.33	18.90	18.98	19.12	19.06	0	19.5	21.44	21.04	21.15	21.24	21.13	0	21.7		
		12	13	19.31	18.84	18.99	19.12	19.06	0	19.5	21.39	20.99	21.14	21.26	21.13	0	21.7		
		25	0	19.37	18.97	19.05	19.16	19.15	0	19.5	21.53	21.12	21.19	21.33	21.22	0	21.7		
		1	0	19.50	19.19	19.28	19.42	19.38	0	19.5	21.63	21.47	21.63	21.65	21.63	0	21.7		
	64QAM	1	12	19.50	19.16	19.28	19.44	19.36	0	19.5	21.60	21.37	21.60	21.64	21.60	0	21.7		
		1	24	19.50	19.13	19.33	19.49	19.40	0	19.5	21.68	21.50	21.68	21.64	21.68	0	21.7		
		12	0	19.18	18.88	18.86	18.97	19.03	0	19.5	20.88	20.50	20.56	20.50	20.71	0.2	21.5		
		12	7	19.24	18.85	18.91	19.07	19.05	0	19.5	20.93	20.50	20.57	20.50	20.72	0.2	21.5		
		12	13	19.24	18.79	18.92	19.07	19.05	0	19.5	20.93	20.50	20.60	20.50	20.68	0.2	21.5		
		25	0	19.34	18.92	19.05	19.14	19.12	0	19.5	21.02	20.50	20.66	20.50	20.84	0.2	21.5		

LTE Band 66 Measured Results (ANT1)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				132072	132322	132572	MPR	Tune-up Limit	132072	132322	132572	MPR	Tune-up Limit
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	24.50	24.50	24.50	0	25.5	17.74	17.60	17.40	0	18
		1	49	24.50	24.50	24.50	0	25.5	17.62	17.65	17.57	0	18
		1	99	24.50	24.50	24.50	0	25.5	17.64	17.60	17.46	0	18
		50	0	23.50	23.50	23.50	1	24.5	17.66	17.59	17.56	0	18
		50	24	23.50	23.50	23.50	1	24.5	17.59	17.60	17.48	0	18
	16QAM	50	50	23.50	23.50	23.50	1	24.5	17.53	17.60	17.49	0	18
		100	0	23.50	23.50	23.50	1	24.5	17.66	17.69	17.55	0	18
		1	0	23.79	23.87	23.78	1	24.5	18.00	18.00	18.00	0	18
		1	49	23.80	23.77	23.57	1	24.5	17.94	17.97	17.88	0	18
		1	99	23.81	23.81	23.67	1	24.5	17.96	18.00	17.87	0	18
	64QAM	50	0	22.63	22.63	22.52	2	23.5	17.64	17.59	17.55	0	18
		50	24	22.61	22.64	22.50	2	23.5	17.62	17.62	17.50	0	18
		50	50	22.57	22.62	22.50	2	23.5	17.55	17.63	17.48	0	18
		100	0	22.67	22.68	22.50	2	23.5	17.67	17.70	17.53	0	18
		1	0	22.60	22.88	22.71	2	23.5	17.72	17.86	17.90	0	18
15 MHz	QPSK	1	49	22.58	22.79	22.65	2	23.5	17.68	17.72	17.69	0	18
		1	99	22.61	22.80	22.78	2	23.5	17.80	17.86	17.74	0	18
		36	0	21.61	21.55	21.50	3	22.5	17.63	17.57	17.51	0	18
		36	24	21.57	21.50	21.50	3	22.5	17.59	17.61	17.47	0	18
		36	50	21.51	21.50	21.50	3	22.5	17.54	17.61	17.49	0	18
	16QAM	100	0	21.62	21.57	21.50	3	22.5	17.66	17.66	17.51	0	18
		1	0	22.60	22.88	22.71	2	23.5	17.72	17.86	17.90	0	18
		1	37	23.72	23.74	23.70	1	24.5	17.93	17.95	17.86	0	18
		1	74	23.68	23.76	23.73	1	24.5	17.87	18.00	17.83	0	18
		36	0	22.60	22.65	22.54	2	23.5	17.60	17.57	17.54	0	18
	64QAM	36	20	22.57	22.67	22.58	2	23.5	17.58	17.62	17.56	0	18
		36	39	22.56	22.68	22.54	2	23.5	17.55	17.63	17.50	0	18
		75	0	22.60	22.68	22.59	2	23.5	17.62	17.65	17.57	0	18
		1	0	22.76	22.72	22.50	2	23.5	17.98	17.99	18.00	0	18
		1	37	22.81	22.67	22.56	2	23.5	18.00	18.00	17.96	0	18
10 MHz	QPSK	1	74	22.72	22.63	22.60	2	23.5	17.91	18.00	17.81	0	18
		36	0	21.57	21.55	21.50	3	22.5	17.62	17.57	17.56	0	18
		36	20	21.58	21.59	21.50	3	22.5	17.64	17.65	17.57	0	18
		36	39	21.56	21.56	21.50	3	22.5	17.64	17.64	17.51	0	18
		75	0	21.60	21.53	21.50	3	22.5	17.65	17.63	17.58	0	18
	16QAM	1	0	22.76	22.72	22.50	2	23.5	17.98	17.99	18.00	0	18
		1	37	22.81	22.67	22.56	2	23.5	18.00	18.00	17.96	0	18
		1	74	22.72	22.63	22.60	2	23.5	17.91	18.00	17.81	0	18
		36	0	21.57	21.55	21.50	3	22.5	17.62	17.57	17.56	0	18
		36	20	21.58	21.59	21.50	3	22.5	17.64	17.65	17.57	0	18
	64QAM	36	39	21.56	21.56	21.50	3	22.5	17.64	17.64	17.51	0	18
		75	0	21.60	21.53	21.50	3	22.5	17.65	17.63	17.58	0	18

LTE Band 66 Measured Results (ANT1) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)						
				131997	132322	132647	MPR	Tune-up Limit	131997	132322	132647	MPR	Tune-up Limit		
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz				
5 MHz	QPSK	1	0	24.50	24.50	24.50	0	25.5	17.61	17.59	17.58	0	18		
		1	12	24.50	24.50	24.50	0	25.5	17.65	17.57	17.54	0	18		
		1	24	24.50	24.50	24.50	0	25.5	17.66	17.66	17.60	0	18		
		12	0	23.50	23.56	23.50	1	24.5	17.52	17.51	17.44	0	18		
		12	7	23.50	23.54	23.50	1	24.5	17.56	17.51	17.44	0	18		
		12	13	23.50	23.54	23.50	1	24.5	17.55	17.52	17.44	0	18		
	16QAM	25	0	23.50	23.58	23.50	1	24.5	17.59	17.55	17.48	0	18		
		1	0	23.85	23.93	23.81	1	24.5	18.00	18.00	17.95	0	18		
		1	12	23.83	23.86	23.82	1	24.5	17.97	17.96	17.91	0	18		
		1	24	23.84	23.90	23.87	1	24.5	18.00	17.99	17.97	0	18		
		12	0	22.54	22.67	22.50	2	23.5	17.45	17.44	17.36	0	18		
		12	7	22.58	22.62	22.50	2	23.5	17.50	17.43	17.34	0	18		
	64QAM	12	13	22.58	22.64	22.50	2	23.5	17.49	17.44	17.35	0	18		
		25	0	22.57	22.59	22.51	2	23.5	17.56	17.49	17.40	0	18		
		1	0	22.70	22.77	22.81	2	23.5	17.82	17.81	17.82	0	18		
		1	12	22.71	22.70	22.74	2	23.5	17.86	17.77	17.79	0	18		
		1	24	22.72	22.78	22.78	2	23.5	17.87	17.80	17.87	0	18		
		12	0	21.50	21.50	21.50	3	22.5	17.48	17.46	17.43	0	18		
		12	7	21.50	21.50	21.50	3	22.5	17.53	17.46	17.42	0	18		
		12	13	21.50	21.50	21.50	3	22.5	17.52	17.47	17.41	0	18		
		25	0	21.50	21.50	21.50	3	22.5	17.52	17.45	17.40	0	18		
3 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)						
				131987	132322	132657	MPR	Tune-up Limit	131987	132322	132657	MPR	Tune-up Limit		
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz				
				1	0	24.50	24.50	24.50	0	25.5	17.62	17.62	17.50	0	18
				1	8	24.50	24.50	24.50	0	25.5	17.58	17.59	17.49	0	18
				1	14	24.50	24.50	24.50	0	25.5	17.58	17.56	17.47	0	18
	16QAM	RB Allocation	RB offset	8	0	23.50	23.56	23.50	1	24.5	17.40	17.41	17.30	0	18
				8	4	23.50	23.54	23.50	1	24.5	17.38	17.40	17.30	0	18
				8	7	23.50	23.54	23.50	1	24.5	17.39	17.41	17.30	0	18
				15	0	23.50	23.58	23.50	1	24.5	17.48	17.49	17.38	0	18
				1	0	23.85	23.93	23.81	1	24.5	17.78	17.80	17.74	0	18
				1	8	23.83	23.86	23.82	1	24.5	17.79	17.83	17.75	0	18
	64QAM	RB Allocation	RB offset	1	14	23.84	23.90	23.87	1	24.5	17.79	17.83	17.75	0	18
				8	0	22.54	22.67	22.50	2	23.5	17.37	17.39	17.27	0	18
				8	4	22.58	22.62	22.50	2	23.5	17.35	17.37	17.26	0	18
				8	7	22.58	22.64	22.50	2	23.5	17.37	17.37	17.27	0	18
				15	0	22.57	22.59	22.51	2	23.5	17.37	17.40	17.30	0	18
				1	0	22.53	22.65	22.50	2	23.5	17.56	17.58	17.58	0	18
				1	8	22.60	22.61	22.60	2	23.5	17.67	17.68	17.59	0	18
				1	14	22.55	22.61	22.53	2	23.5	17.70	17.61	17.62	0	18
				8	0	21.50	21.50	21.50	3	22.5	17.31	17.29	17.19	0	18
				8	4	21.50	21.50	21.50	3	22.5	17.31	17.29	17.21	0	18
				8	7	21.50	21.50	21.50	3	22.5	17.30	17.31	17.20	0	18
				15	0	21.50	21.50	21.50	3	22.5	17.36	17.28	17.26	0	18
1.4 MHz	QPSK	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)						
				131979	132322	132665	MPR	Tune-up Limit	131979	132322	132665	MPR	Tune-up Limit		
				1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz				
				1	0	24.50	24.50	24.50	0	25.5	17.62	17.66	17.52	0	18
				1	3	24.50	24.50	24.50	0	25.5	17.57	17.63	17.49	0	18
				1	5	24.50	24.50	24.50	0	25.5	17.62	17.68	17.52	0	18
	16QAM	RB Allocation	RB offset	3	0	24.50	24.50	24.50	0	25.5	17.49	17.45	17.26	0	18
				3	1	24.50	24.50	24.50	0	25.5	17.48	17.45	17.25	0	18
				3	3	24.50	24.50	24.50	0	25.5	17.50	17.44	17.23	0	18
				6	0	23.50	23.58	23.50	1	24.5	17.44	17.33	17.16	0	18
				1	0	23.85	23.93	23.81	1	24.5	17.90	17.82	17.72	0	18
				1	3	23.83	23.86	23.82	1	24.5	17.85	17.76	17.69	0	18
	64QAM	RB Allocation	RB offset	1	5	23.84	23.90	23.87	1	24.5	17.86	17.83	17.75	0	18
				3	0	23.50	23.50	23.50	1	24.5	17.59	17.51	17.40	0	18
				3	1	23.50	23.50	23.50	1	24.5	17.59	17.51	17.39	0	18
				3	3	23.50	23.50	23.50	1	24.5	17.49	17.41	17.21	0	18
				6	0	23.50	23.50	22.51	2	23.5	17.49	17.41	17.29	0	18
				1	0	23.16	22.74	22.71	2	23.5	17.73	17.76	17.66	0	18
				1	3	22.77	22.72	22.70	2	23.5	17.71	17.71	17.66	0	18
				1	5	22.68	22.69	22.72	2	23.5	17.77	17.81	17.66	0	18
				3	0	22.64	22.67	22.65	2	23.5	17.52	17.48	17.41	0	18
				3	1	22.64	22.67	22.64	2	23.5	17.49	17.43	17.41	0	18
				3	3	22.65	22.66	22.62	2	23.5	17.48	17.45	17.39	0	18
				6	0	22.50	22.50	22.50	3	22.5	17.34	17.35	17.28	0	18

LTE Band 66 Measured Results (ANT2)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						Reduced Average Power (dBm)					
				132072	132322	132572	MPR	Tune-up Limit	132072	132322	132572	MPR	Tune-up Limit		
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz				
20 MHz	QPSK	1	0	20.20	20.20	20.20	0	20.2	18.59	18.30	18.20	0	19		
		1	49	20.20	20.20	20.20	0	20.2	18.60	18.30	18.30	0	19		
		1	99	20.20	20.20	20.20	0	20.2	18.43	18.29	18.25	0	19		
		50	0	20.00	20.20	20.00	0	20.2	18.20	18.20	18.10	0	19		
		50	24	20.00	20.20	20.00	0	20.2	18.30	18.20	18.20	0	19		
	16QAM	50	50	20.00	20.20	20.00	0	20.2	18.30	18.18	18.10	0	19		
		100	0	20.00	20.20	20.00	0	20.2	18.30	18.30	18.30	0	19		
		1	0	20.00	20.20	20.00	0	20.2	18.95	18.81	18.87	0	19		
		1	49	20.00	20.20	20.00	0	20.2	18.91	18.74	18.76	0	19		
		1	99	20.00	20.20	20.00	0	20.2	18.78	18.77	18.78	0	19		
	64QAM	50	0	20.00	20.20	20.00	0	20.2	18.56	18.42	18.43	0	19		
		50	24	20.00	20.20	20.00	0	20.2	18.55	18.42	18.43	0	19		
		50	50	20.00	20.20	20.00	0	20.2	18.46	18.38	18.42	0	19		
		100	0	20.00	20.20	20.00	0	20.2	18.60	18.46	18.48	0	19		
		1	0	20.00	20.20	20.00	0	20.2	18.71	18.58	18.60	0	19		
15 MHz	QPSK	1	49	20.00	20.20	20.00	0	20.2	18.64	18.51	18.51	0	19		
		1	99	20.00	20.20	20.00	0	20.2	18.53	18.54	18.49	0	19		
		36	0	20.20	20.20	20.20	0	20.2	18.52	18.40	18.45	0	19		
		36	20	20.20	20.20	20.20	0	20.2	18.53	18.42	18.45	0	19		
		36	39	20.20	20.20	20.20	0	20.2	18.51	18.43	18.44	0	19		
		75	0	20.20	20.20	20.20	0	20.2	18.54	18.44	18.48	0	19		
	16QAM	1	0	20.20	20.20	20.20	0	20.2	18.81	18.69	18.73	0	19		
		1	37	20.20	20.20	20.20	0	20.2	18.79	18.71	18.73	0	19		
		1	74	20.20	20.20	20.20	0	20.2	18.69	18.70	18.68	0	19		
		36	0	20.20	20.20	20.20	0	20.2	18.51	18.42	18.45	0	19		
		36	20	20.20	20.20	20.20	0	20.2	18.52	18.43	18.45	0	19		
		36	39	20.20	20.20	20.20	0	20.2	18.51	18.45	18.43	0	19		
		75	0	20.20	20.20	20.20	0	20.2	18.54	18.45	18.47	0	19		
		1	0	20.20	20.20	20.20	0	20.2	18.87	18.74	18.76	0	19		
	64QAM	1	37	20.20	20.20	20.20	0	20.2	18.86	18.74	18.75	0	19		
		1	74	20.20	20.20	20.20	0	20.2	18.75	18.71	18.70	0	19		
		36	0	19.75	19.71	19.86	0	20.2	18.53	18.42	18.46	0	19		
		36	20	19.76	19.78	19.83	0	20.2	18.55	18.45	18.45	0	19		
		36	39	19.69	19.78	19.81	0	20.2	18.54	18.44	18.45	0	19		
		75	0	19.76	19.75	19.84	0	20.2	18.56	18.44	18.48	0	19		
		1	0	20.20	20.20	20.20	0	20.2	18.82	18.74	18.85	0	19		
10 MHz	QPSK	1	0	20.20	20.20	20.20	0	20.2	18.62	18.50	18.55	0	19		
		1	25	20.20	20.20	20.20	0	20.2	18.59	18.48	18.53	0	19		
		1	49	20.20	20.20	20.20	0	20.2	18.63	18.49	18.51	0	19		
		25	0	20.20	20.20	20.20	0	20.2	18.57	18.47	18.50	0	19		
		25	12	20.20	20.20	20.20	0	20.2	18.56	18.47	18.49	0	19		
		25	25	20.20	20.20	20.20	0	20.2	18.58	18.49	18.51	0	19		
		50	0	20.20	20.20	20.20	0	20.2	18.58	18.48	18.51	0	19		
	16QAM	1	0	20.20	20.20	20.20	0	20.2	18.91	18.78	18.85	0	19		
		1	25	20.20	20.20	20.20	0	20.2	18.87	18.78	18.83	0	19		
		1	49	20.20	20.20	20.20	0	20.2	18.91	18.76	18.77	0	19		
		25	0	20.20	20.20	20.20	0	20.2	18.59	18.49	18.52	0	19		
		25	12	20.20	20.20	20.20	0	20.2	18.58	18.49	18.52	0	19		
		25	25	20.20	20.20	20.20	0	20.2	18.59	18.51	18.53	0	19		
		50	0	20.20	20.20	20.20	0	20.2	18.58	18.49	18.53	0	19		
	64QAM	1	0	20.20	20.20	20.20	0	20.2	18.76	18.63	18.69	0	19		
		1	25	20.20	20.20	20.20	0	20.2	18.74	18.62	18.65	0	19		
		1	49	20.20	20.20	20.20	0	20.2	18.78	18.61	18.66	0	19		
		25	0	19.93	19.77	19.83	0	20.2	18.59	18.49	18.54	0	19		
		25	12	19.90	19.75	19.81	0	20.2	18.59	18.50	18.52	0	19		
		25	25	19.90	19.76	19.82	0	20.2	18.61	18.53	18.54	0	19		
		50	0	19.89	19.77	19.82	0	20.2	18.60	18.50	18.54	0	19		

LTE Band 66 Measured Results (ANT2) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				131997	132322	132647	MPR	Tune-up Limit	131997	132322	132647	MPR	Tune-up Limit
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	20.20	20.20	20.20	0	20.2	18.56	18.42	18.51	0	19
		1	12	20.20	20.20	20.20	0	20.2	18.54	18.41	18.48	0	19
		1	24	20.20	20.20	20.20	0	20.2	18.58	18.46	18.45	0	19
		12	0	20.20	20.20	20.20	0	20.2	18.48	18.34	18.41	0	19
		12	7	20.20	20.20	20.20	0	20.2	18.46	18.33	18.40	0	19
		12	13	20.20	20.20	20.20	0	20.2	18.45	18.33	18.34	0	19
	16QAM	25	0	20.20	20.20	20.20	0	20.2	18.48	18.37	18.46	0	19
		1	0	20.20	20.20	20.20	0	20.2	18.94	18.81	18.92	0	19
		1	12	20.20	20.20	20.20	0	20.2	18.91	18.78	18.89	0	19
		1	24	20.20	20.20	20.20	0	20.2	18.95	18.85	18.83	0	19
		12	0	20.20	20.20	20.20	0	20.2	18.41	18.30	18.36	0	19
		12	7	20.20	20.20	20.20	0	20.2	18.41	18.29	18.36	0	19
	64QAM	12	13	20.20	20.20	20.20	0	20.2	18.41	18.29	18.29	0	19
		25	0	20.20	20.20	20.20	0	20.2	18.46	18.36	18.43	0	19
3 MHz	QPSK	1	0	20.20	20.20	20.20	0	20.2	18.77	18.66	18.76	0	19
		1	8	20.20	20.20	20.20	0	20.2	18.72	18.63	18.73	0	19
		1	14	20.20	20.20	20.20	0	20.2	18.78	18.72	18.65	0	19
		8	0	20.20	20.20	20.20	0	20.2	18.34	18.23	18.30	0	19
		8	4	20.20	20.20	20.20	0	20.2	18.32	18.23	18.23	0	19
		8	7	20.20	20.20	20.20	0	20.2	18.33	18.23	18.23	0	19
	16QAM	15	0	20.20	20.20	20.20	0	20.2	18.41	18.31	18.31	0	19
		1	0	20.20	20.20	20.20	0	20.2	18.73	18.59	18.66	0	19
		1	8	20.20	20.20	20.20	0	20.2	18.72	18.62	18.67	0	19
		1	14	20.20	20.20	20.20	0	20.2	18.71	18.59	18.56	0	19
		8	0	20.20	20.20	20.20	0	20.2	18.30	18.20	18.28	0	19
		8	4	20.20	20.20	20.20	0	20.2	18.28	18.19	18.19	0	19
	64QAM	8	7	20.20	20.20	20.20	0	20.2	18.29	18.20	18.21	0	19
		15	0	20.20	20.20	20.20	0	20.2	18.33	18.23	18.22	0	19
1.4 MHz	QPSK	1	0	20.20	20.20	20.20	0	20.2	18.68	18.53	18.50	0	19
		1	3	20.20	20.20	20.20	0	20.2	18.59	18.52	18.52	0	19
		1	5	20.20	20.20	20.20	0	20.2	18.57	18.52	18.61	0	19
		3	0	20.20	20.20	20.20	0	20.2	18.58	18.53	18.53	0	19
		3	1	20.20	20.20	20.20	0	20.2	18.58	18.52	18.52	0	19
		3	3	20.20	20.20	20.20	0	20.2	18.53	18.52	18.52	0	19
	16QAM	6	0	20.20	20.20	20.20	0	20.2	18.54	18.54	18.53	0	19
		1	0	20.20	20.20	20.20	0	20.2	18.85	18.81	18.85	0	19
		1	3	20.20	20.20	20.20	0	20.2	18.83	18.82	18.84	0	19
		1	5	20.20	20.20	20.20	0	20.2	18.78	18.78	18.82	0	19
		3	0	20.20	20.20	20.20	0	20.2	18.67	18.66	18.68	0	19
		3	1	20.20	20.20	20.20	0	20.2	18.67	18.67	18.70	0	19
	64QAM	3	3	20.20	20.20	20.20	0	20.2	18.67	18.67	18.68	0	19
		6	0	20.20	20.20	20.20	0	20.2	18.61	18.64	18.61	0	19
		1	0	20.20	20.20	20.20	0	20.2	18.70	18.73	18.77	0	19
		1	3	20.20	20.20	20.20	0	20.2	18.70	18.69	18.73	0	19
		1	5	20.20	20.20	20.20	0	20.2	18.66	18.68	18.72	0	19
		3	0	20.20	20.20	20.20	0	20.2	18.64	18.64	18.64	0	19
		3	1	20.20	20.20	20.20	0	20.2	18.63	18.60	18.63	0	19
		3	3	20.20	20.20	20.20	0	20.2	18.60	18.59	18.64	0	19
		6	0	19.69	20.20	20.20	0	20.2	18.61	18.53	18.63	0	19

LTE Band 66 Measured Results (ANT3)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				132072	132322	132572	MPR	Tune-up Limit	132072	132322	132572	MPR	Tune-up Limit		
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz				
20 MHz	QPSK	1	0	24.00	24.00	24.00	0	25	21.17	21.38	21.17	0	22		
		1	49	24.00	24.00	24.00	0	25	21.81	21.85	21.94	0	22		
		1	99	24.00	24.00	24.00	0	25	21.05	21.22	21.45	0	22		
		50	0	23.00	23.00	23.00	1	24	21.15	21.16	21.08	0	22		
		50	24	23.00	23.00	23.00	1	24	21.69	21.80	22.00	0	22		
		50	50	23.00	23.00	23.00	1	24	21.05	21.08	21.25	0	22		
	16QAM	100	0	23.00	23.00	23.00	1	24	21.76	21.91	22.00	0	22		
		1	0	23.06	23.43	23.18	1	24	21.51	21.77	21.52	0	22		
		1	49	23.14	23.17	23.14	1	24	21.49	21.57	21.49	0	22		
		1	99	23.04	23.26	23.46	1	24	21.39	21.63	21.80	0	22		
		50	0	22.00	22.02	22.00	2	23	21.10	21.20	21.01	0	22		
		50	24	22.00	22.00	22.00	2	23	21.10	21.15	21.10	0	22		
	64QAM	50	50	22.00	22.07	22.07	2	23	21.00	21.15	21.18	0	22		
		100	0	22.02	22.03	22.05	2	23	21.14	21.16	21.17	0	22		
		1	0	22.60	22.94	22.54	2	23	21.73	21.89	22.00	0	22		
		1	49	22.60	22.67	22.48	2	23	21.56	21.96	22.00	0	22		
		1	99	22.47	22.68	22.75	2	23	21.62	22.00	22.00	0	22		
		50	0	21.34	21.49	21.41	3	22	21.03	21.05	21.34	0	22		
15 MHz	QPSK	50	24	21.33	21.44	21.48	3	22	21.01	21.15	21.26	0	22		
		50	50	21.20	21.40	21.53	3	22	21.03	21.25	21.14	0	22		
		100	0	21.37	21.45	21.54	3	22	21.07	21.23	21.32	0	22		
	16QAM	1	0	24.00	24.00	24.00	0	25	21.11	21.29	21.13	0	22		
		1	37	24.00	24.00	24.00	0	25	21.12	21.16	21.29	0	22		
		1	74	24.00	24.00	24.00	0	25	21.02	21.16	21.45	0	22		
		36	0	23.00	23.00	23.00	1	24	21.10	21.20	21.11	0	22		
		36	20	23.00	23.00	23.00	1	24	21.13	21.16	21.19	0	22		
		36	39	23.00	23.00	23.00	1	24	21.15	21.19	21.26	0	22		
	64QAM	75	0	23.00	23.00	23.00	1	24	21.08	21.19	21.22	0	22		
		1	0	23.00	23.27	23.11	1	24	21.34	21.63	21.47	0	22		
		1	37	23.01	23.19	23.25	1	24	21.36	21.51	21.61	0	22		
		1	74	23.00	23.19	23.41	1	24	21.30	21.50	21.77	0	22		
		36	0	22.00	22.00	22.00	2	23	21.08	21.20	21.12	0	22		
		36	20	22.00	22.00	22.07	2	23	21.12	21.16	21.25	0	22		
	64QAM	36	39	22.00	22.02	22.15	2	23	21.14	21.18	21.31	0	22		
		75	0	22.00	22.01	22.12	2	23	21.14	21.13	21.29	0	22		
		1	0	22.60	22.86	22.56	2	23	21.89	21.82	22.00	0	22		
		1	37	22.53	22.67	22.76	2	23	21.82	21.94	21.92	0	22		
		1	74	22.46	22.67	22.85	2	23	21.82	22.00	21.86	0	22		
		36	0	21.38	21.48	21.45	3	22	21.06	21.11	21.36	0	22		
10 MHz	QPSK	36	20	21.39	21.44	21.58	3	22	21.07	21.24	21.20	0	22		
		36	39	21.40	21.47	21.63	3	22	21.06	21.29	21.16	0	22		
		75	0	21.39	21.46	21.58	3	22	21.09	21.22	21.19	0	22		
	16QAM	1	0	24.00	24.00	24.00	0	25	21.14	21.21	21.22	0	22		
		1	25	24.00	24.00	24.00	0	25	21.12	21.12	21.25	0	22		
		1	49	24.00	24.00	24.06	0	25	21.20	21.16	21.46	0	22		
		25	0	23.00	23.00	23.00	1	24	21.08	21.13	21.24	0	22		
		25	12	23.00	23.00	23.00	1	24	21.08	21.13	21.24	0	22		
		25	25	23.00	23.00	23.03	1	24	21.11	21.16	21.31	0	22		
	64QAM	50	0	23.00	23.00	23.01	1	24	21.10	21.14	21.30	0	22		
		1	0	23.06	23.27	23.25	1	24	21.40	21.52	21.51	0	22		
		1	25	23.01	23.20	23.25	1	24	21.39	21.48	21.58	0	22		
		1	49	23.12	23.21	23.51	1	24	21.46	21.48	21.77	0	22		
		25	0	22.00	22.00	22.06	2	23	21.10	21.14	21.25	0	22		
		25	12	22.00	22.00	22.05	2	23	21.10	21.14	21.25	0	22		
	64QAM	25	25	22.00	22.04	22.15	2	23	21.14	21.18	21.33	0	22		
		50	0	22.00	22.00	22.13	2	23	21.11	21.13	21.30	0	22		
		1	0	22.52	22.69	22.72	2	23	21.74	21.82	22.00	0	22		
		1	25	22.48	22.59	22.72	2	23	21.66	21.88	21.88	0	22		
		1	49	22.53	22.66	22.89	2	23	21.68	22.00	22.00	0	22		
		25	0	21.35	21.44	21.60	3	22	21.08	21.16	21.23	0	22		
		25	12	21.35	21.46	21.58	3	22	21.05	21.16	21.19	0	22		
		25	25	21.36	21.47	21.66	3	22	21.06	21.27	21.22	0	22		
		50	0	21.35	21.45	21.65	3	22	21.07	21.19	21.22	0	22		

LTE Band 66 Measured Results (ANT3) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				131997	132322	132647	MPR	Tune-up Limit	131997	132322	132647	MPR	Tune-up Limit
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	24.00	24.00	24.00	0	25	21.06	21.10	21.29	0	22
		1	12	24.00	24.00	24.00	0	25	21.01	21.08	21.26	0	22
		1	24	24.00	24.00	24.10	0	25	21.06	21.15	21.38	0	22
		12	0	23.00	23.00	23.00	1	24	21.00	21.01	21.19	0	22
		12	7	23.00	23.00	23.00	1	24	21.00	21.02	21.18	0	22
		12	13	23.00	23.00	23.03	1	24	21.00	21.02	21.27	0	22
	16QAM	25	0	23.00	23.00	23.02	1	24	21.00	21.04	21.23	0	22
		1	0	23.24	23.22	23.43	1	24	21.42	21.38	21.69	0	22
		1	12	23.20	23.20	23.46	1	24	21.41	21.37	21.69	0	22
		1	24	23.24	23.27	23.54	1	24	21.46	21.42	21.82	0	22
		12	0	22.00	22.00	22.08	2	23	21.00	21.00	21.20	0	22
		12	7	22.00	22.00	22.11	2	23	21.00	21.00	21.18	0	22
	64QAM	12	13	22.00	22.00	22.20	2	23	21.00	21.00	21.26	0	22
		25	0	22.00	22.00	22.11	2	23	21.00	21.00	21.17	0	22
		1	0	22.56	22.62	22.93	2	23	21.80	21.92	21.96	0	22
		1	12	22.52	22.52	22.95	2	23	21.73	21.91	21.96	0	22
		1	24	22.59	22.65	23.00	2	23	21.75	21.97	22.00	0	22
		12	0	21.08	21.26	21.48	3	22	21.00	21.00	21.00	0	22
3 MHz	QPSK	12	7	21.09	21.27	21.45	3	22	21.00	21.00	21.00	0	22
		12	13	21.09	21.26	21.55	3	22	21.00	21.01	21.00	0	22
		25	0	21.17	21.26	21.51	3	22	21.00	21.05	21.07	0	22
	16QAM	1	0	24.00	24.00	24.04	0	25	21.08	21.04	21.21	0	22
		1	8	24.00	24.00	24.12	0	25	21.09	21.08	21.35	0	22
		1	14	24.00	24.00	24.08	0	25	21.05	21.04	21.29	0	22
		8	0	23.00	23.00	23.00	1	24	21.00	21.00	21.08	0	22
		8	4	23.00	23.00	23.01	1	24	21.00	21.00	21.14	0	22
		8	7	23.00	23.00	23.02	1	24	21.00	21.00	21.14	0	22
	64QAM	15	0	23.00	23.00	23.15	1	24	21.00	21.06	21.26	0	22
		1	0	23.09	23.19	23.36	1	24	21.19	21.33	21.48	0	22
		1	8	23.14	23.20	23.52	1	24	21.27	21.38	21.62	0	22
		1	14	23.09	23.21	23.40	1	24	21.18	21.34	21.58	0	22
		8	0	22.00	22.00	22.00	2	23	21.00	21.00	21.07	0	22
		8	4	22.00	22.00	22.05	2	23	21.00	21.00	21.12	0	22
	64QAM	8	7	22.00	22.00	22.06	2	23	21.00	21.00	21.14	0	22
		15	0	22.00	22.00	22.06	2	23	21.00	21.00	21.15	0	22
		1	0	22.35	22.55	22.54	2	23	21.63	21.66	21.77	0	22
		1	8	22.40	22.57	22.81	2	23	21.65	21.77	21.86	0	22
		1	14	22.35	22.43	22.76	2	23	21.61	21.78	21.83	0	22
		8	0	21.06	21.21	21.42	3	22	21.00	21.00	21.00	0	22
1.4 MHz	QPSK	8	4	21.01	21.21	21.47	3	22	21.00	21.00	21.00	0	22
		8	7	21.04	21.21	21.41	3	22	21.00	21.00	21.00	0	22
		15	0	21.00	21.26	21.51	3	22	21.00	21.00	21.00	0	22
	16QAM	1	0	24.08	24.04	24.24	0	25	21.07	21.13	21.38	0	22
		1	3	24.01	24.02	24.20	0	25	21.03	21.11	21.37	0	22
		1	5	24.03	24.05	24.23	0	25	21.08	21.14	21.39	0	22
		3	0	24.00	24.00	24.08	0	25	21.00	21.00	21.26	0	22
		3	1	24.00	24.00	24.10	0	25	21.00	21.00	21.27	0	22
		3	3	24.00	24.00	24.10	0	25	21.00	21.00	21.27	0	22
	64QAM	6	0	23.00	23.00	23.10	1	24	21.00	21.00	21.20	0	22
		1	0	23.30	23.32	23.47	1	24	21.36	21.37	21.57	0	22
		1	3	23.20	23.27	23.43	1	24	21.30	21.34	21.55	0	22
		1	5	23.23	23.31	23.45	1	24	21.34	21.35	21.61	0	22
		3	0	23.00	23.02	23.17	1	24	21.00	21.06	21.28	0	22
		3	1	23.00	23.01	23.11	1	24	21.00	21.06	21.28	0	22
		3	3	23.00	23.02	23.12	1	24	21.00	21.05	21.26	0	22
		6	0	22.00	22.00	22.08	2	23	21.00	21.00	21.18	0	22
	64QAM	1	0	22.50	22.65	22.65	2	23	21.68	22.00	21.83	0	22
		1	3	22.42	23.00	23.00	2	23	21.62	22.00	21.83	0	22
		1	5	22.37	23.00	23.00	2	23	21.69	22.00	21.88	0	22
		3	0	22.14	22.63	22.63	2	23	21.48	21.60	21.54	0	22
		3	1	22.17	22.62	22.62	2	23	21.47	21.61	21.54	0	22
		3	3	22.16	22.63	22.63	2	23	21.47	21.60	21.54	0	22
		6	0	21.10	21.53	21.53	3	22	21.00	21.00	21.00	0	22

LTE Band 66 Measured Results (ANT4)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)						Power Mode B (dBm)					
				132072	132322	132572	MPR	Tune-up Limit	132072	132322	132572	MPR	Tune-up Limit		
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz				
20 MHz	QPSK	1	0	21.50	21.50	21.50	0	22.5	21.50	21.50	21.50	0	22.5		
		1	49	22.50	22.50	22.50	0	22.5	22.30	22.30	22.50	0	22.5		
		1	99	21.50	21.50	21.50	0	22.5	21.50	21.50	21.66	0	22.5		
		50	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		50	24	21.30	21.70	21.80	0.5	22	21.30	21.70	21.60	0.5	22		
		50	50	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		100	0	21.10	21.40	21.60	0.5	22	21.10	21.40	21.60	0.5	22		
	16QAM	1	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		1	49	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		1	99	21.00	21.00	21.08	0.5	22	21.00	21.00	21.08	0.5	22		
		50	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		50	24	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		50	50	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		100	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
	64QAM	1	0	20.72	20.29	20.38	1.5	21	20.72	20.29	20.38	1.5	21		
		1	49	20.70	20.26	20.33	1.5	21	20.70	20.26	20.33	1.5	21		
		1	99	20.71	20.62	20.60	1.5	21	20.71	20.62	20.60	1.5	21		
		50	0	19.38	19.17	19.22	2.5	20	19.38	19.17	19.22	2.5	20		
		50	24	19.38	19.34	19.35	2.5	20	19.38	19.34	19.35	2.5	20		
		50	50	19.46	19.48	19.50	2.5	20	19.46	19.48	19.50	2.5	20		
		100	0	19.48	19.39	19.35	2.5	20	19.48	19.39	19.35	2.5	20		
15 MHz	QPSK	1	0	21.50	21.55	21.52	0	22.5	21.50	21.55	21.52	0	22.5		
		1	37	21.51	21.57	21.66	0	22.5	21.51	21.57	21.66	0	22.5		
		1	74	21.50	21.51	21.78	0	22.5	21.50	21.51	21.78	0	22.5		
		36	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		36	20	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		36	39	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		75	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
	16QAM	1	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		1	37	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		1	74	21.00	21.00	21.14	0.5	22	21.00	21.00	21.14	0.5	22		
		36	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		36	20	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		36	39	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		75	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
	64QAM	1	0	20.62	20.46	20.52	1.5	21	20.62	20.46	20.52	1.5	21		
		1	37	20.69	20.53	20.69	1.5	21	20.69	20.53	20.69	1.5	21		
		1	74	20.63	20.79	20.77	1.5	21	20.63	20.79	20.77	1.5	21		
		36	0	19.40	19.17	19.16	2.5	20	19.40	19.17	19.16	2.5	20		
		36	20	19.40	19.31	19.28	2.5	20	19.40	19.31	19.28	2.5	20		
		36	39	19.41	19.45	19.40	2.5	20	19.41	19.45	19.40	2.5	20		
		75	0	19.40	19.40	19.35	2.5	20	19.40	19.40	19.35	2.5	20		
10 MHz	QPSK	1	0	21.52	21.64	21.68	0	22.5	21.52	21.64	21.68	0	22.5		
		1	25	21.52	21.63	21.72	0	22.5	21.52	21.63	21.72	0	22.5		
		1	49	21.60	21.58	21.91	0	22.5	21.60	21.58	21.91	0	22.5		
		25	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		25	12	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		25	25	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		50	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
	16QAM	1	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		1	25	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22		
		1	49	21.00	21.00	21.24	0.5	22	21.00	21.00	21.24	0.5	22		
		25	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		25	12	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		25	25	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
		50	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21		
	64QAM	1	0	20.64	20.30	20.39	1.5	21	20.64	20.30	20.39	1.5	21		
		1	25	20.62	20.34	20.50	1.5	21	20.62	20.34	20.50	1.5	21		
		1	49	20.77	20.64	20.72	1.5	21	20.77	20.64	20.72	1.5	21		
		25	0	19.43	19.24	19.33	2.5	20	19.43	19.24	19.33	2.5	20		
		25	12	19.43	19.30	19.37	2.5	20	19.43	19.30	19.37	2.5	20		
		25	25	19.45	19.43	19.45	2.5	20	19.45	19.43	19.45	2.5	20		
		50	0	19.45	19.35	19.38	2.5	20	19.45	19.35	19.38	2.5	20		

LTE Band 66 Measured Results (ANT4) (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Power Mode A (dBm)					Power Mode B (dBm)				
				131997	132322	132647	MPR	Tune-up Limit	131997	132322	132647	MPR	Tune-up Limit
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	21.56	21.66	21.82	0	22.5	21.56	21.66	21.82	0	22.5
		1	12	21.50	21.65	21.83	0	22.5	21.50	21.65	21.83	0	22.5
		1	24	21.58	21.73	21.94	0	22.5	21.58	21.73	21.94	0	22.5
		12	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		12	7	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		12	13	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
	16QAM	25	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		1	0	21.00	21.01	21.19	0.5	22	21.00	21.01	21.19	0.5	22
		1	12	21.00	21.00	21.18	0.5	22	21.00	21.00	21.18	0.5	22
		1	24	21.00	21.00	21.30	0.5	22	21.00	21.00	21.30	0.5	22
		12	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
		12	7	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
	64QAM	12	13	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
		25	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
		1	0	20.70	20.49	20.48	1.5	21	20.70	20.49	20.48	1.5	21
		1	12	20.67	20.57	20.46	1.5	21	20.67	20.57	20.46	1.5	21
		1	24	20.68	20.67	20.65	1.5	21	20.68	20.67	20.65	1.5	21
		12	0	19.20	19.14	19.14	2.5	20	19.20	19.14	19.14	2.5	20
3 MHz	QPSK	12	7	19.22	19.05	19.05	2.5	20	19.22	19.05	19.05	2.5	20
		12	13	19.23	19.18	19.11	2.5	20	19.23	19.18	19.11	2.5	20
		25	0	19.31	19.17	19.20	2.5	20	19.31	19.17	19.20	2.5	20
	16QAM	1	0	21.55	21.56	21.81	0	22.5	21.55	21.56	21.81	0	22.5
		1	8	21.61	21.60	21.93	0	22.5	21.61	21.60	21.93	0	22.5
		1	14	21.55	21.56	21.85	0	22.5	21.55	21.56	21.85	0	22.5
		8	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		8	4	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		8	7	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
	64QAM	15	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		1	0	21.00	21.00	21.05	0.5	22	21.00	21.00	21.05	0.5	22
		1	8	21.00	21.00	21.10	0.5	22	21.00	21.00	21.10	0.5	22
		1	14	21.00	21.00	21.08	0.5	22	21.00	21.00	21.08	0.5	22
		8	0	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
		8	4	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
1.4 MHz	QPSK	8	7	20.00	20.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
		8	15	19.16	19.12	19.13	2.5	20	19.16	19.12	19.13	2.5	20
		1	0	20.23	20.33	20.16	1.5	21	20.23	20.33	20.16	1.5	21
		1	8	20.51	20.33	20.12	1.5	21	20.51	20.33	20.12	1.5	21
		1	14	20.44	20.42	20.20	1.5	21	20.44	20.42	20.20	1.5	21
		15	0	19.21	19.05	19.94	2.5	20	19.21	19.05	19.94	2.5	20
	16QAM	8	4	19.19	19.04	19.13	2.5	20	19.19	19.04	19.13	2.5	20
		8	7	19.22	19.13	19.18	2.5	20	19.22	19.13	19.18	2.5	20
		15	0	19.16	19.12	19.13	2.5	20	19.16	19.12	19.13	2.5	20
		1	0	21.68	21.66	21.83	0	22.5	21.68	21.66	21.83	0	22.5
		1	3	21.64	21.65	21.81	0	22.5	21.64	21.65	21.81	0	22.5
		1	5	21.61	21.67	21.85	0	22.5	21.61	21.67	21.85	0	22.5
	64QAM	3	0	21.50	21.50	21.71	0	22.5	21.50	21.50	21.71	0	22.5
		3	1	21.50	21.50	21.72	0	22.5	21.50	21.50	21.72	0	22.5
		3	3	21.50	21.50	21.71	0	22.5	21.50	21.50	21.71	0	22.5
		6	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		1	0	21.00	21.00	21.07	0.5	22	21.00	21.00	21.07	0.5	22
		1	3	21.00	21.00	21.04	0.5	22	21.00	21.00	21.04	0.5	22
	64QAM	1	5	21.00	21.00	21.01	0.5	22	21.00	21.00	21.01	0.5	22
		3	0	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		3	1	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		3	3	21.00	21.00	21.00	0.5	22	21.00	21.00	21.00	0.5	22
		6	0	21.00	21.00	20.00	1.5	21	20.00	20.00	20.00	1.5	21
		1	0	20.34	20.64	20.39	1.5	21	20.34	20.64	20.39	1.5	21

9.5. 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.

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

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

Where M_A is defined as follows

$M_A =$	8.2	$; 0 \leq A < 0.025$
	9.2 – 40A	$; 0.025 \leq A < 0.05$
	8 – 16A	$; 0.05 \leq A < 0.25$
	4.83 – 3.33A	$; 0.25 \leq A \leq 0.4$
	3.83 – 0.83A	$; 0.4 \leq A \leq 1$

and M_{IM5} is defined as follows

$M_{IM5} =$	4.5	$; \Delta_{IM5} < 1.5 * \text{BW}_{\text{Channel_CA}}$
	6.0	$; 1.5 * \text{BW}_{\text{Channel_CA}} \leq \Delta_{IM5} < \text{BW}_{\text{Channel_CA}}/2 + \Delta_{f_{OOB}}$
	M_A	$; \Delta_{IM5} \geq \text{BW}_{\text{Channel_CA}}/2 + \Delta_{f_{OOB}}$

Where

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

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

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

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 for those E-UTRA bands where maximum possible $W_{\text{GAP}} \leq 42.2$ MHz as follows

$$\text{MPR} = \text{CEIL}\{M_N, 0.5\}$$

Where M_N is defined as follows

$M_N =$	-0.125N + 18.25	$; 2 \leq N \leq 50$
	-0.0333 N + 13.67	$; 50 < N \leq 200$

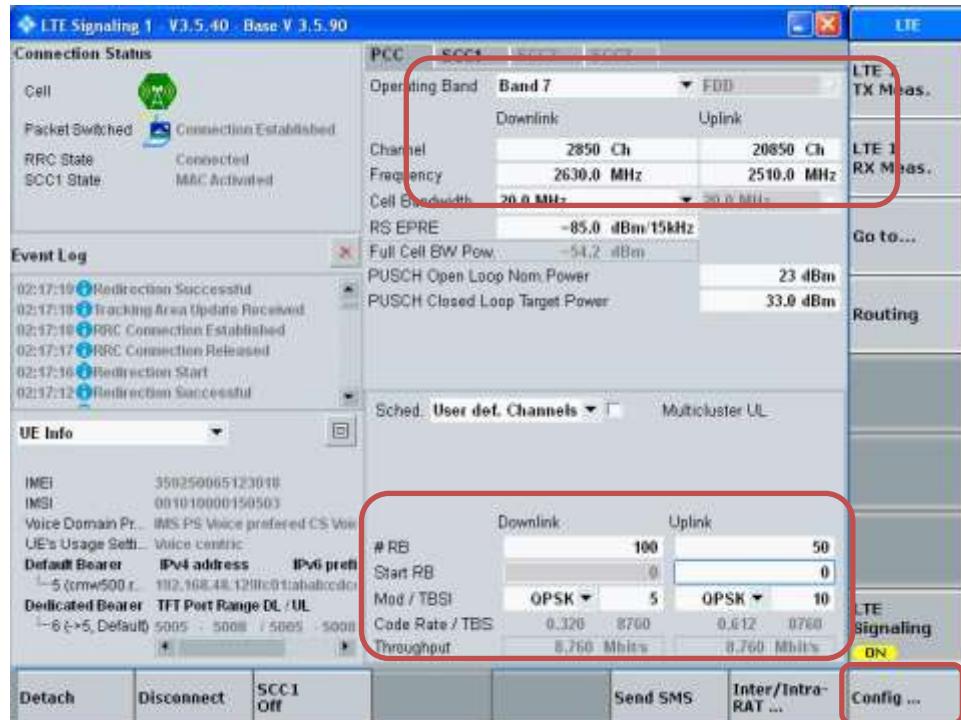
Where $N = N_{\text{RB_alloc}}$ is the number of allocated resource blocks.

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

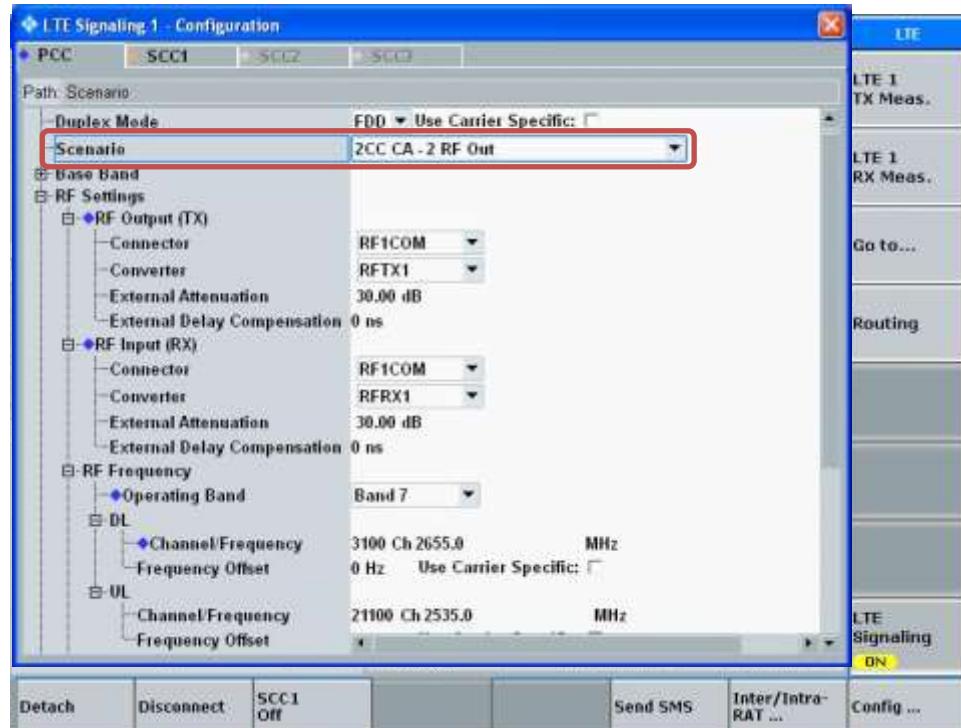
LTE Carrier Aggregation Test Signal Set-up Procedure**(Use normal LTE set-up procedure in addition with the following steps)**

Set to CMW-500 with following parameters:

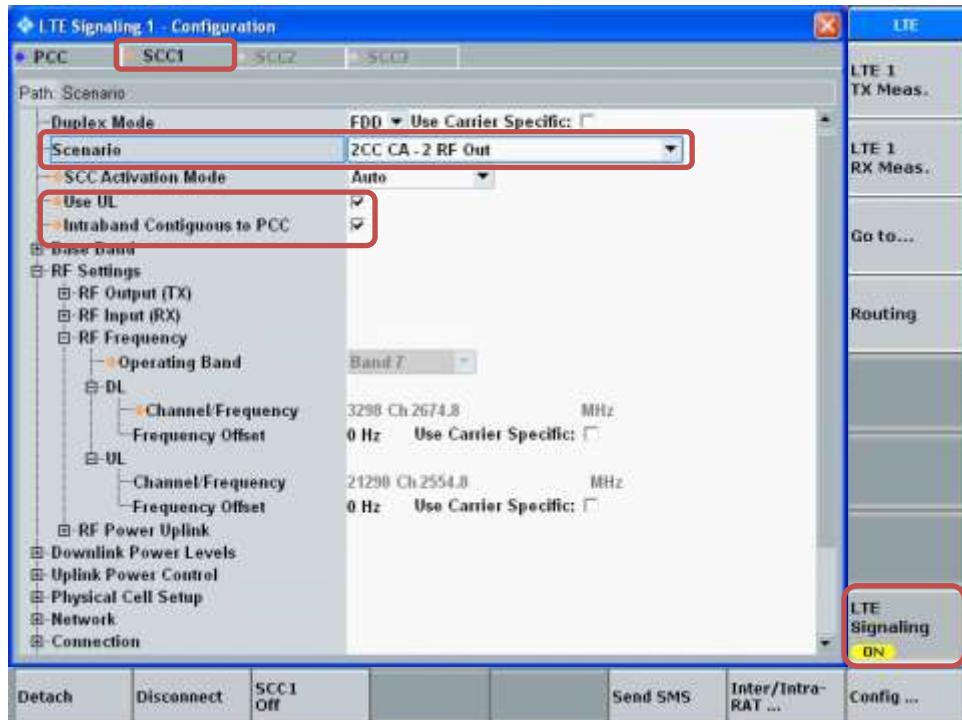
- PCC tab:
 - Select the testing Operating Band, Channel, Frequency, Cell Bandwidth, Uplink RBs
- Go to "Config...."



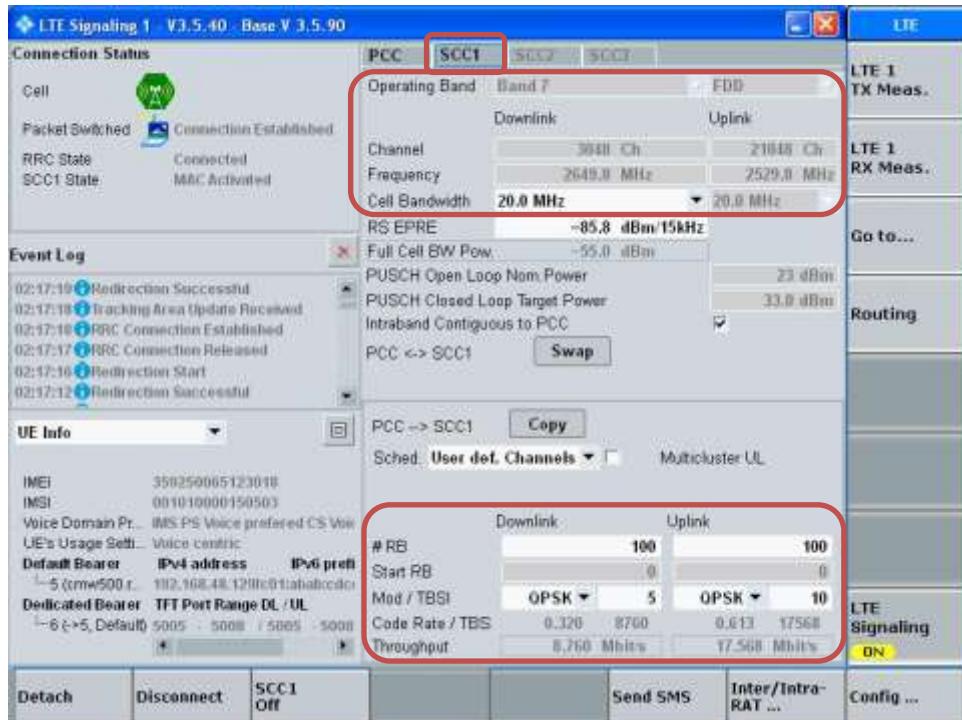
- Go to "Scenario"
- Set to "2CC CA – 2 RF Out"



- Select “SCC1” tab
- Go to “Scenario”
- Set to “2CC CA – 2 RF Out”
- Enable “Use UL”
- Enable “Intraband Contiguous to PCC”
- Select “LTE Signaling” button

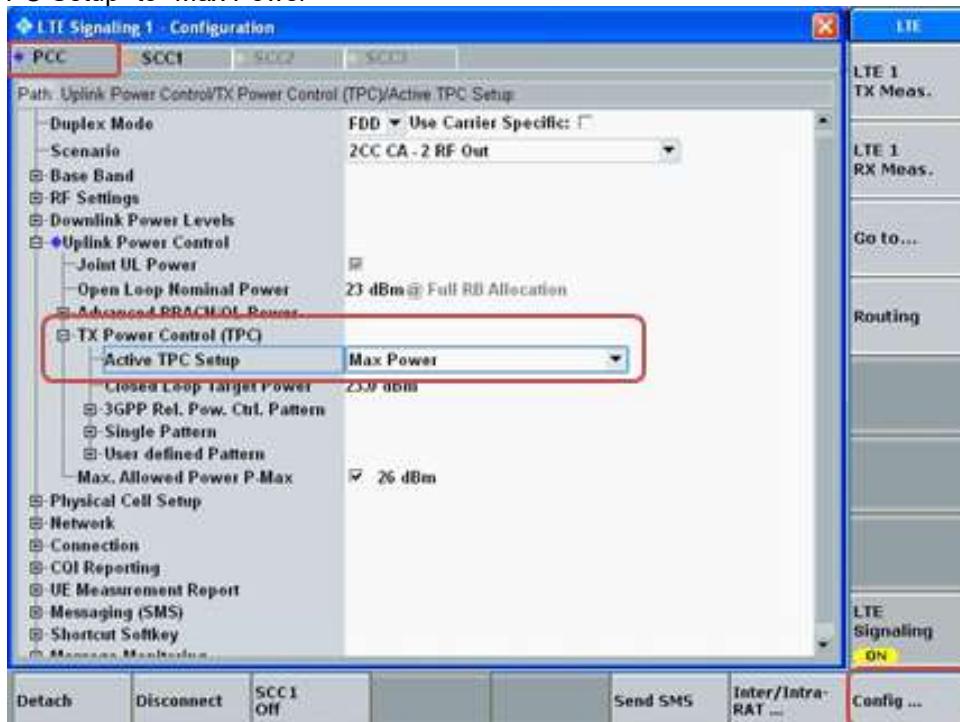


- Select “SCC1” tab
 - Select the testing Cell Bandwidth, Uplink RBs

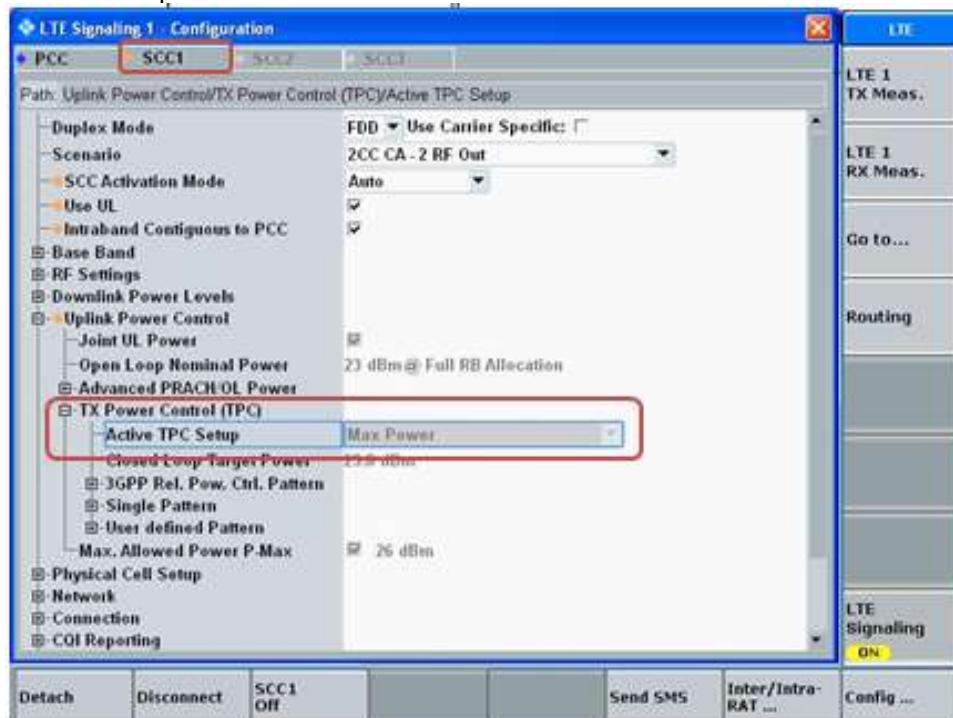


Max Power Setting

- Select “Config ...” button
- Select PCC tab
- Set “Active TPC Setup” to “Max Power”



- Select SCC1 tab
- Verify that “Active TPC Setup” is set to “Max Power”



View TX Power

- Go to “Display”
- Select “Select View...”
- Select “Spectrum Emission Mask”



LTE Up-Link Carrier Aggregation

Maximum Output Power (Tune-up Limit) for LTE UL Carrier Aggregation

UL CA shall be tested based on the worst-case SAR configuration determined from non-CA SAR testing result. The channel BW, channel number, RB allocation, etc. would be selected to allow contiguous CA of PCC and SCC. Uplink output power for UL CA is the total power measured across the PCC and SCC.

UL CA power measurements were performed for each antennas (ANT1, ANT2, ANT3, and ANT4) at with QPSK modulation based on the worst-case standalone SAR. The tune-up limits are provided in table below.

The UL CA mode power measurements represent the total power across both carriers. Measurements were made for all supported PCC bandwidths using the channel/RB combination resulting in the highest standalone output power at the least MPR (0 dB). SCCs were set to use configurations similar to the PCC to establish conservative or worst case equivalent SAR test conditions (highest maximum power with MPR of 0 dB).

The standalone power measurement is the power for the PCC in the non-CA mode (i.e. single carrier power). In all cases the UL CA power is less than or equal to the standalone power, which is in accordance with the tune-up limits in table below.

According to November 2017 TCB workshop, Uplink CA SAR Test Guidance as follows:

- a) When the maximum output for UL CA is \leq standalone LTE mode (without CA)
 - PCC is configured according to the highest standalone SAR configuration tested
 - SCC and subsequent CCs are configured according to procedures used for power measurement and parameters (BW, RB etc.) similar to that used for the PCC
- b) When the Reported SAR for UL CA configuration, described above, is $> 1.2 \text{ W/kg}$, UL CA SAR is also required for all required test channels(PCC based)
- c) UL CA SAR is also required for standalone SAR configurations $> 1.2 \text{ W/kg}$ when they are scaled to the UL CA power level

SAR measurement is not required for the 16QAM and 64QAM. When primary mode and the adjusted SAR is $\leq 1.2 \text{ W/kg}$ and secondary mode is $\leq \frac{1}{4} \text{ dB}$ higher than the primary mode

Intra-Band Contiguous	Mode	Maximum Output Power (Tune-up Limit) (dBm)							
		ANT1		ANT2		ANT3		ANT4	
		Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
CA_7C	QPSK	25.00	21.50	19.70	21.50	24.50	21.00	18.00	18.70
CA_41C (PC3)	QPSK	25.00	24.00	21.50	22.50	24.50	24.00	19.50	21.70

LTE CA 7C Measured Results

RF Exposure Conditions	Antenna	E-UTRA CA configuration (BCS)	Modulation	Bands		UL											
				PCC	SCC	PCC				SCC				Standalone (dBm)	PCC+SCC		
				1st	2nd	BW	RB	Offset	Freq	BW	RB	Offset	Freq		Tune-Up Limit	CA Power (Total PCC+SCC)	Delta
Body	ANT 1	CA_7C	QPSK	7C	7C	20	1	99	2510	20	1	0	2529.8	21.4	21.5	21.1	-0.3
Body	ANT 1	CA_7C	QPSK	7C	7C	20	1	99	2525.1	20	1	0	2544.9	21.3	21.5	21.1	-0.2
Body	ANT 1	CA_7C	QPSK	7C	7C	20	1	99	2540.2	20	1	0	2560	21.3	21.5	21.2	-0.1
Head	ANT 2	CA_7C	QPSK	7C	7C	20	1	99	2510	20	1	0	2529.8	19.6	19.7	19.5	-0.1
Head	ANT 2	CA_7C	QPSK	7C	7C	20	1	99	2525.1	20	1	0	2544.9	19.7	19.7	19.5	-0.2
Head	ANT 2	CA_7C	QPSK	7C	7C	20	1	99	2540.2	20	1	0	2560	19.6	19.7	19.5	-0.1
Body	ANT 3	CA_7C	QPSK	7C	7C	20	1	99	2510	20	1	0	2529.8	20.7	21.0	20.2	-0.5
Body	ANT 3	CA_7C	QPSK	7C	7C	20	1	99	2525.1	20	1	0	2544.9	20.7	21.0	20.3	-0.4
Body	ANT 3	CA_7C	QPSK	7C	7C	20	1	99	2540.2	20	1	0	2560	20.7	21.0	20.3	-0.4
Head	ANT 4	CA_7C	QPSK	7C	7C	20	1	99	2510	20	1	0	2529.8	17.7	18.0	17.4	-0.3
Head	ANT 4	CA_7C	QPSK	7C	7C	20	1	99	2525.1	20	1	0	2544.9	17.5	18.0	17.5	0.0
Head	ANT 4	CA_7C	QPSK	7C	7C	20	1	99	2540.2	20	1	0	2560	17.5	18.0	17.5	0.0

Note(s):

Standalone power is reference from Sec. 9.4 - LTE B7 power.

LTE CA 41C (PC3) Measured Results

RF Exposure Conditions	Antenna	E-UTRA CA configuration (BCS)	Modulation	Bands		UL											
				PCC	SCC	PCC				SCC				Standalone (dBm)	PCC+SCC		
				1st	2nd	BW	RB	Offset	Freq	BW	RB	Offset	Freq		Tune-Up Limit	CA Power (Total PCC+SCC)	Delta
Body	ANT 1	CA_41C	QPSK	41C	41C	20	1	99	2506	20	1	0	2525.8	23.8	24.0	23.70	-0.1
Body	ANT 1	CA_41C	QPSK	41C	41C	20	1	99	2539.6	20	1	0	2559.4	23.8	24.0	23.80	0.0
Body	ANT 1	CA_41C	QPSK	41C	41C	20	1	99	2583.1	20	1	0	2602.9	23.8	24.0	23.80	0.0
Body	ANT 1	CA_41C	QPSK	41C	41C	20	1	99	2626.6	20	1	0	2646.4	23.8	24.0	23.80	0.0
Body	ANT 1	CA_41C	QPSK	41C	41C	20	1	99	2660.2	20	1	0	2680	23.8	24.0	23.70	-0.1
Head	ANT 2	CA_41C	QPSK	41C	41C	20	1	99	2506	20	1	0	2525.8	21.5	21.5	21.30	-0.2
Head	ANT 2	CA_41C	QPSK	41C	41C	20	1	99	2539.6	20	1	0	2559.4	21.4	21.5	21.30	-0.1
Head	ANT 2	CA_41C	QPSK	41C	41C	20	1	99	2583.1	20	1	0	2602.9	21.5	21.5	21.40	-0.1
Head	ANT 2	CA_41C	QPSK	41C	41C	20	1	99	2626.6	20	1	0	2646.4	21.5	21.5	21.40	-0.1
Head	ANT 2	CA_41C	QPSK	41C	41C	20	1	99	2660.2	20	1	0	2680	21.5	21.5	21.30	-0.2
Body	ANT 3	CA_41C	QPSK	41C	41C	20	1	99	2506	20	1	0	2525.8	23.8	24.0	23.40	-0.4
Body	ANT 3	CA_41C	QPSK	41C	41C	20	1	99	2539.6	20	1	0	2559.4	23.6	24.0	23.50	-0.1
Body	ANT 3	CA_41C	QPSK	41C	41C	20	1	99	2583.1	20	1	0	2602.9	23.6	24.0	23.60	0.0
Body	ANT 3	CA_41C	QPSK	41C	41C	20	1	99	2626.6	20	1	0	2646.4	23.8	24.0	23.50	-0.3
Body	ANT 3	CA_41C	QPSK	41C	41C	20	1	99	2660.2	20	1	0	2680	23.7	24.0	23.50	-0.2
Head	ANT 4	CA_41C	QPSK	41C	41C	20	1	99	2506	20	1	0	2525.8	19.4	19.5	19.30	-0.1
Head	ANT 4	CA_41C	QPSK	41C	41C	20	1	99	2539.6	20	1	0	2559.4	19.5	19.5	19.30	-0.2
Head	ANT 4	CA_41C	QPSK	41C	41C	20	1	99	2583.1	20	1	0	2602.9	19.5	19.5	19.30	-0.2
Head	ANT 4	CA_41C	QPSK	41C	41C	20	1	99	2626.6	20	1	0	2646.4	19.5	19.5	19.40	-0.1
Head	ANT 4	CA_41C	QPSK	41C	41C	20	1	99	2660.2	20	1	0	2680	19.4	19.5	19.40	0.0

Note(s):

Standalone power is reference from Sec. 9.4 - LTE B41 power.

LTE Down-Link Carrier Aggregation

The tables below show the supported frequency bands of the device for DL Inter-band and DL Intra-band combinations.

Power measurements were performed on the channel with the highest maximum output power from Tune-up Procedure on ANT1 antenna.

When carrier aggregation is limited to downlink only, uplink maximum output power (single carrier) is measured for the supported combinations of downlink carrier aggregation listed in the table below. In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs (far right most configuration highlighted in the table below).

Index	2CC	Restriction	Completely Covered by Measurement Superset	Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset
Intra-Band Contiguous				Inter-Band				Inter-Band			
2CC # 1	CA_2C		No	3CC # 1	CA_2A-2A-4A-5A		No	4CC # 1	CA_2A-4A-5A-30A		No
2CC # 2	CA_5B		4CC #5	3CC # 2	CA_2A-2A-4A-12A		No	4CC # 2	CA_2A-4A-12A-30A		No
2CC # 3	CA_7B		No	3CC # 3	CA_2A-2A-5A-30A		No	4CC # 3	CA_2A-4A-29A-30A	B29 SCC Only	No
2CC # 4	CA_7C		No	3CC # 4	CA_2A-2A-5A-66A		No	4CC # 4	CA_2A-5A-30A-66A		No
2CC # 5	CA_12B		3CC #20	3CC # 5	CA_2A-2A-5A-66B		No	4CC # 5	CA_2A-5B-30A-66A		No
2CC # 6	CA_38C		No	3CC # 6	CA_2A-2A-5A-66C		No	4CC # 6	CA_2A-12A-30A-66A		No
2CC # 7	CA_41C		No	3CC # 7	CA_2A-2A-12A-30A		No	4CC # 7	CA_2A-14A-30A-66A		No
2CC # 8	CA_41D		No	3CC # 8	CA_2A-2A-12A-66A		No	4CC # 8	CA_2A-29A-30A-66A	B29 SCC Only	No
2CC # 9	CA_41E		No	3CC # 9	CA_2A-2A-13A-66A		No				
2CC # 10	CA_46C	B46 SCC Only	3CC #35	3CC # 10	CA_2A-2A-14A-66A		No				
2CC # 11	CA_46D	B46 SCC Only	3CC #37	3CC # 11	CA_2A-2A-29A-30A	B29 SCC Only	No				
2CC # 12	CA_46E	B46 SCC Only	B46 DL Only	3CC # 12	CA_2A-2A-30A-66A		No				
2CC # 13	CA_66B		3CC #5	3CC # 13	CA_2A-4A-4A-5A		No				
2CC # 14	CA_66C		3CC #6	3CC # 14	CA_2A-4A-4A-12A		No				
2CC # 15	CA_66D		No	3CC # 15	CA_2A-4A-5A		4CC #1				
Intra-Band Non-Contiguous				3CC # 16	CA_2A-4A-5B		No				
2CC # 16	CA_2A-2A		3CC #1	3CC # 17	CA_2A-4A-5B		No				
2CC # 17	CA_4A-4A		3CC #13	3CC # 18	CA_2A-4A-12A		4CC #2				
2CC # 18	CA_7A-7A		No	3CC # 19	CA_2A-4A-12A		4CC #2				
2CC # 19	CA_25A-25A		No	3CC # 20	CA_2A-4A-12B		No				
2CC # 20	CA_41A-41A		No	3CC # 21	CA_2A-4A-12B		No				
2CC # 21	CA_41A-41C		No	3CC # 22	CA_2A-4A-13A		No				
2CC # 22	CA_41A-41C		No	3CC # 23	CA_2A-4A-13A		No				
2CC # 23	CA_41A-41D		No	3CC # 24	CA_2A-4A-29A	B29 SCC Only	4CC #2				
2CC # 24	CA_41C-41C		No	3CC # 25	CA_2A-4A-30A		4CC #2				
2CC # 25	CA_41C-41D		No	3CC # 26	CA_2A-5A-30A		4CC #1				
2CC # 26	CA_46A-46A	B46 SCC Only	B46 DL Only	3CC # 27	CA_2A-5A-66A		4CC #4				
2CC # 27	CA_46A-46C	B46 SCC Only	B46 DL Only	3CC # 28	CA_2A-5A-66A		4CC #4				
2CC # 28	CA_46A-46D	B46 SCC Only	B46 DL Only	3CC # 29	CA_2A-5A-66B		No				
2CC # 29	CA_66A-66A		3CC #38	3CC # 30	CA_2A-5A-66C		No				
2CC # 30	CA_66A-66B		No	3CC # 31	CA_2A-46A-66A	B46 SCC Only	No				
2CC # 31	CA_66A-66C		No	3CC # 32	CA_2A-46A-66A	B46 SCC Only	No				
Inter-Band				3CC # 33	CA_2A-46C-66A	B46 SCC Only	No				
2CC # 32	CA_2A-2A-4A		3CC #1	3CC # 34	CA_2A-46C-66A	B46 SCC Only	No				
2CC # 33	CA_2A-2A-4A-4A		No	3CC # 35	CA_2A-46D-66A	B46 SCC Only	No				
2CC # 34	CA_2A-2A-5A		3CC #3	3CC # 36	CA_2A-5A-66A-66A		4CC #4				
2CC # 35	CA_2A-2A-12A		3CC #7	3CC # 37	CA_2A-5B-30A		4CC #5				
2CC # 36	CA_2A-2A-12B		No	3CC # 38	CA_2A-5B-66A		4CC #5				
2CC # 37	CA_2A-2A-13A		3CC #9	3CC # 39	CA_2A-5B-66A		4CC #5				
2CC # 38	CA_2A-2A-14A		3CC #10	3CC # 40	CA_2A-5B-66A-66A		4CC #5				
2CC # 39	CA_2A-2A-29A	B29 SCC Only	3CC #11	3CC # 41	CA_2A-5B-66C		No				
2CC # 40	CA_2A-2A-30A		3CC #12	3CC # 42	CA_2A-12A-30A		4CC #6				
2CC # 41	CA_2A-2A-46A	B46 SCC Only	No	3CC # 43	CA_2A-12A-66A		4CC #6				
2CC # 42	CA_2A-2A-46C	B46 SCC Only	No	3CC # 44	CA_2A-12A-66A		4CC #6				
2CC # 43	CA_2A-2A-46D	B46 SCC Only	No	3CC # 45	CA_2A-12A-66A-66A		4CC #6				

2CC #	44	CA_2A-2A-66A		3CC #4	3CC #	46	CA_2A-12A-66C		No
2CC #	45	CA_2A-2A-66A-66A		No	3CC #	47	CA_2A-13A-46A	B46 SCC Only	No
2CC #	46	CA_2A-2A-66A-66B		No	3CC #	48	CA_2A-13A-46C	B46 SCC Only	No
2CC #	47	CA_2A-2A-66A-66C		No	3CC #	49	CA_2A-13A-46D	B46 SCC Only	No
2CC #	48	CA_2A-2A-66B		3CC #5	3CC #	50	CA_2A-13A-66A		No
2CC #	49	CA_2A-2A-66C		3CC #6	3CC #	51	CA_2A-13A-66A		No
2CC #	50	CA_2A-4A		3CC #1	3CC #	52	CA_2A-13A-66A-66A		No
2CC #	51	CA_2A-4A		3CC #1	3CC #	53	CA_2A-13A-66B		No
2CC #	52	CA_2A-4A-4A		3CC #13	3CC #	54	CA_2A-13A-66C		No
2CC #	53	CA_2A-5A		3CC #1	3CC #	55	CA_2A-14A-30A		4CC #7
2CC #	54	CA_2A-5B		3CC #16	3CC #	56	CA_2A-14A-66A		4CC #7
2CC #	55	CA_2A-12A		3CC #18	3CC #	57	CA_2A-14A-66A		4CC #7
2CC #	56	CA_2A-12B		3CC #20	3CC #	58	CA_2A-14A-66A-66A		4CC #7
2CC #	57	CA_2A-13A		3CC #22	3CC #	59	CA_2A-29A-30A	B29 SCC Only	4CC #8
2CC #	58	CA_2A-14A		3CC #10	3CC #	60	CA_2A-29A-66A	B29 SCC Only	4CC #8
2CC #	59	CA_2A-17A		No	3CC #	61	CA_2A-29A-66A	B29 SCC Only	4CC #8
2CC #	60	CA_2A-29A	B29 SCC Only	3CC #11	3CC #	62	CA_2A-30A-66A		4CC #8
2CC #	61	CA_2A-30A		3CC #12	3CC #	63	CA_2A-30A-66A		4CC #8
2CC #	62	CA_2A-46A		3CC #33	3CC #	64	CA_2A-30A-66A		4CC #8
2CC #	63	CA_2A-46A-46A	B46 SCC Only	No	3CC #	65	CA_4A-4A-5A-30A		4CC #1
2CC #	64	CA_2A-46A-46C	B46 SCC Only	No	3CC #	66	CA_4A-4A-12A-30A		4CC #2
2CC #	65	CA_2A-46A-46D	B46 SCC Only	No	3CC #	67	CA_4A-5A-30A		4CC #1
2CC #	66	CA_2A-46C	B46 SCC Only	2CC #66	3CC #	68	CA_4A-7A-12A		No
2CC #	67	CA_2A-46D	B46 SCC Only	2CC #67	3CC #	69	CA_4A-12A-30A		4CC #2
2CC #	68	CA_2A-46E	B46 SCC Only	No	3CC #	70	CA_4A-29A-30A	B29 SCC Only	4CC #2
2CC #	69	CA_2A-66A		3CC #52	3CC #	71	CA_5A-30A-66A		No
2CC #	70	CA_2A-66B		3CC #55	3CC #	72	CA_5A-30A-66A-66A		No
2CC #	71	CA_2A-66B		3CC #55	3CC #	73	CA_5B-30A-66A		No
2CC #	72	CA_2A-66C		3CC #56	3CC #	74	CA_5B-30A-66A-66A		No
2CC #	73	CA_2A-66C		3CC #56	3CC #	75	CA_12A-30A-66A		4CC #6
2CC #	74	CA_2A-66A-66A		3CC #38	3CC #	76	CA_12A-30A-66A-66A		4CC #6
2CC #	75	CA_2A-66A-66B		No	3CC #	77	CA_13A-46A-66A	B46 SCC Only	No
2CC #	76	CA_2A-66A-66C		No	3CC #	78	CA_13A-46C-66A	B46 SCC Only	No
2CC #	77	CA_2C-5A		No	3CC #	79	CA_13A-46D-66A	B46 SCC Only	No
2CC #	78	CA_2C-12A		No	3CC #	80	CA_14A-30A-66A		4CC #7
2CC #	79	CA_2C-29A	B29 SCC Only	No	3CC #	81	CA_14A-30A-66A-66A		4CC #7
2CC #	80	CA_2C-30A		No	3CC #	82	CA_29A-30A-66A	B29 SCC Only	4CC #8
2CC #	81	CA_2C-30A		No					
2CC #	82	CA_2C-66A		No					
2CC #	83	CA_2C-66A		No					
2CC #	84	CA_4A-4A-5A		3CC #13					
2CC #	85	CA_4A-4A-5B		No					
2CC #	86	CA_4A-4A-7A		No					
2CC #	87	CA_4A-4A-12A		3CC #14					
2CC #	88	CA_4A-4A-12B		No					
2CC #	89	CA_4A-4A-13A		No					
2CC #	90	CA_4A-4A-29A	B29 SCC Only	No					
2CC #	91	CA_4A-4A-30A		3CC #69					
2CC #	92	CA_4A-5A		3CC #1					
2CC #	93	CA_4A-5B		3CC #16					
2CC #	94	CA_4A-7A		2CC #100					
2CC #	95	CA_4A-7A		2CC #100					
2CC #	96	CA_4A-7A-7A		No					
2CC #	97	CA_4A-12A		3CC #2					
2CC #	98	CA_4A-12B		3CC #20					
2CC #	99	CA_4A-13A		3CC #22					
2CC #	100	CA_4A-17A		No					
2CC #	101	CA_4A-29A	B29 SCC Only	3CC #24					
2CC #	102	CA_4A-30A		3CC #25					
2CC #	103	CA_4A-30A		3CC #25					
2CC #	104	CA_4A-46A	B46 SCC Only	No					

2CC #	105	CA_4A-46A-46A	B46 SCC Only	No
2CC #	106	CA_4A-46A-46C	B46 SCC Only	No
2CC #	107	CA_4A-46A-46D	B46 SCC Only	No
2CC #	108	CA_4A-46C	B46 SCC Only	No
2CC #	109	CA_4A-46D	B46 SCC Only	No
2CC #	110	CA_5A-7A		No
2CC #	111	CA_5A-25A		No
2CC #	112	CA_5A-30A		3CC #3
2CC #	113	CA_5A-41A		No
2CC #	114	CA_5A-46A	B46 SCC Only	No
2CC #	115	CA_5A-46C	B46 SCC Only	No
2CC #	116	CA_5A-46D	B46 SCC Only	No
2CC #	117	CA_5A-66A		3CC #4
2CC #	118	CA_5A-66B		3CC #5
2CC #	119	CA_5A-66C		3CC #6
2CC #	120	CA_5A-66D		No
2CC #	121	CA_5A-66A-66A		3CC #27
2CC #	122	CA_5A-66A-66B		No
2CC #	123	CA_5A-66A-66C		No
2CC #	124	CA_5B-30A		3CC #39
2CC #	125	CA_5B-66A		3CC #40
2CC #	126	CA_5B-66A-66A		3CC #42
2CC #	127	CA_5B-66C		3CC #43
2CC #	128	CA_7A-12A		No
2CC #	129	CA_7A-46A	B46 SCC Only	No
2CC #	130	CA_7A-46C	B46 SCC Only	No
2CC #	131	CA_7A-46D	B46 SCC Only	No
2CC #	132	CA_7A-66A		No
2CC #	133	CA_7A-66A		No
2CC #	134	CA_12A-30A		3CC #7
2CC #	135	CA_12A-66A		3CC #8
2CC #	136	CA_12A-66A-66A		3CC #80
2CC #	137	CA_12A-66C		3CC #48
2CC #	138	CA_13A-46A	B46 SCC Only	3CC #49
2CC #	139	CA_13A-46C	B46 SCC Only	3CC #50
2CC #	140	CA_13A-46D	B46 SCC Only	3CC #51
2CC #	141	CA_13A-46E	B46 SCC Only	No
2CC #	142	CA_13A-66A		3CC #54
2CC #	143	CA_13A-66A-66A		3CC #54
2CC #	144	CA_13A-66A-66B		No
2CC #	145	CA_13A-66A-66C		No
2CC #	146	CA_13A-66B		3CC #55
2CC #	147	CA_13A-66C		3CC #56
2CC #	148	CA_14A-30A		3CC #57
2CC #	149	CA_14A-66A		3CC #58
2CC #	150	CA_14A-66A-66A		3CC #60
2CC #	151	CA_25A-26A		No
2CC #	152	CA_25A-25A-26A		No
2CC #	153	CA_29A-30A	B29 SCC Only	3CC #61
2CC #	154	CA_29A-66A	B29 SCC Only	3CC #62
2CC #	155	CA_29A-66A-66A	B29 SCC Only	No
2CC #	156	CA_30A-66A		3CC #64
2CC #	157	CA_30A-66A		3CC #64
2CC #	158	CA_30A-66A-66A		3CC #76
2CC #	159	CA_46A-46A-66A	B46 SCC Only	B46 DL Only
2CC #	160	CA_46A-46C-66A	B46 SCC Only	B46 DL Only
2CC #	161	CA_46A-46D-66A	B46 SCC Only	B46 DL Only
2CC #	162	CA_46A-66A	B46 SCC Only	B46 DL Only
2CC #	163	CA_46A-66A-66A	B46 SCC Only	B46 DL Only
2CC #	164	CA_46C-66A	B46 SCC Only	B46 DL Only
2CC #	165	CA_46C-66A-66A	B46 SCC Only	B46 DL Only

2CC #	166	CA_46D-66A	B46 SCC Only	B46 DL Only	
2CC #	167	CA_46D-66A-66A	B46 SCC Only	B46 DL Only	
2CC #	168	CA_46E-66A	B46 SCC Only	B46 DL Only	

In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the CA configuration with the largest aggregated DL CA BW in each frequency band, independently for contiguous and non-contiguous CA; however, if the same frequency band is used for both contiguous and non-contiguous CA, power measurement was performed using the configuration with the largest aggregated BW and maximum output power among contiguous and non-contiguous CA.

DL Intra-Band Contiguous Measured Results

E-UTRA CA configuration (BCS)	3GPP Rel. #	CC1 (UL)					CC2 (DL)					CC3 (DL)					CC4 (DL)					CC5 (DL)				
		Mode	BW (MHz)	Channel	Freq (MHz)	RB,Offset	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta			
CA_2C	12	QPSK	20	18801	1870.1	1,49	20	999	1969.9										40	0	24.41	24.38	-0.03			
CA_7B	13	QPSK	15	21076	2532.6	1,49	5	3169	2661.9										20	0	24.43	24.39	-0.04			
CA_7C	13	QPSK	20	21001	2525.1	1,49	20	3199	2664.9										40	0	24.40	24.35	-0.05			
CA_38C	11	QPSK	20	37901	2585.1	1,49	20	38099	2604.9									40	0	24.39	24.32	-0.07				
CA_41C	13	QPSK	20	40521	2583.1	1,49	20	40719	2602.9									40	0	24.46	24.39	-0.07				
CA_41D	12	QPSK	20	40422	2573.2	1,49	20	40620	2593	20	40818	2612.8							60	0	24.45	24.40	-0.05			
CA_41E	14	QPSK	20	40890	2620	1,49	20	41090	2640	20	41290	2660	20	41490	2680					80	0	24.45	24.39	-0.06		
CA_46E	14	QPSK	20	50490	5520	1,49	20	50688	5539.8	20	50889	5559.9	20	51090	5580					80	0	DL only	DL only	DL only		
CA_66D	14	QPSK	20	132224	1735.2	1,49	20	66886	2155	20	67084	2174.8								60	0	24.53	24.48	-0.05		

DL Intra-Band Non-Contiguous Measured Results

E-UTRA CA configuration	3GPP Rel. #	CC1 (UL)					CC2 (DL)					CC3 (DL)					CC4 (DL)					CC5 (DL)				
		Mode	BW (MHz)	Channel	Freq (MHz)	RB,Offset	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta			
CA_7A-7A	12	QPSK	20	20850	2510	1,49	20	3350	2680										40	0	24.63	24.58	-0.05			
CA_25A-25A	12	QPSK	20	26140	1860	1,49	20	8590	1985										40	0	24.69	24.61	-0.08			
CA_41A-41A	12	QPSK	20	39750	2506	1,49	20	41490	2680										40	0	24.52	24.49	-0.03			
CA_41A-41C	12	QPSK	20	39750	2506	1,49	20	41292	2660.2	20	41490	2680							60	0	24.52	24.48	-0.04			
CA_41A-41D	13	QPSK	20	39750	2506	1,49	20	41094	2640.4	20	41292	2660.2	20	41490	2680					80	0	24.52	24.46	-0.06		
CA_41C-41C	13	QPSK	20	39750	2506	1,49	20	39948	2525.8	20	41292	2660.2	20	41490	2680					80	0	24.52	24.45	-0.07		
CA_41C-41D	14	QPSK	20	40521	2583.1	1,49	20	40719	2602.9	20	39750	2506	20	39948	2525.8	20	40146	2545.6	100	0	24.52	24.46	-0.06			
CA_66A-66B	14	QPSK	20	132072	1720	1,49	10	67187	2185.1	10	67286	2195							40	0	24.30	24.25	-0.05			
CA_66A-66C	14	QPSK	20	132072	1720	1,49	20	67038	2170.2	20	67236	2190							60	0	24.30	24.23	-0.07			

DL Inter-Band (2 Bands) Measured Results

E-UTRA CA configuration	3GPP Rel. #	CC1 (UL)				CC2 (DL)				CC3 (DL)				CC4 (DL)				CC5 (DL)					
		Mode	BW (MHz)	Channel	Freq (MHz)	RB_Offset	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta
CA_2A-2A-4A-4A	13	QPSK	20	18700	1860	1,49	20	1100	1980	20	2050	2120	20	2300	2145				80	0	24.48	24.30	-0.18
CA_2A-2A-12B	13	QPSK	20	18700	1860	1,49	20	1100	1980	5	5048	732.8	10	5120	740				55	0	24.48	24.35	-0.13
CA_2A-2A-46A	15	QPSK	20	18700	1860	1,49	20	1100	1980	20	50690	5540							60	0	24.48	24.40	-0.08
CA_2A-2A-46C	15	QPSK	20	18700	1860	1,49	20	1100	1980	20	50692	5540.2	20	50890	5560				80	0	24.48	24.42	-0.06
CA_2A-2A-46D	15	QPSK	20	18700	1860	1,49	20	1100	1980	20	50492	5520.2	20	50690	5540	20	50888	5559.8	100	0	24.48	24.37	-0.11
CA_2A-2A-66A-66A	14	QPSK	20	18700	1860	1,49	20	1100	1980	20	66536	2120	20	67236	2190				80	0	24.48	24.38	-0.10
CA_2A-2A-66A-66B	14	QPSK	20	18700	1860	1,49	20	1100	1980	20	66536	2120	10	67187	2185.1	10	67286	2195	80	0	24.48	24.41	-0.07
CA_2A-2A-66A-66C	14	QPSK	20	18700	1860	1,49	20	1100	1980	20	66536	2120	20	67038	2170.2	20	67236	2190	100	0	24.48	24.40	-0.08
CA_2A-17A	11	QPSK	20	18900	1880	1,49	10	5790	740										30	0	24.44	24.35	-0.09
CA_2A-46A-46A	14	QPSK	20	18900	1880	1,49	20	46890	5160	20	53430	5905							60	0	24.44	24.38	-0.06
CA_2A-46A-46C	14	QPSK	20	18900	1880	1,49	20	50690	5540	20	50692	5540.2	20	50890	5560				80	0	24.44	24.39	-0.05
CA_2A-46A-46D	14	QPSK	20	18900	1880	1,49	20	50690	5540	20	50492	5520.2	20	50690	5540	20	50888	5559.8	100	0	24.44	24.36	-0.08
CA_2A-46E	15	QPSK	20	18900	1880	1,49	20	50490	5520	20	50688	5539.8	20	50889	5559.9	20	51090	5580	100	0	24.44	24.41	-0.03
CA_2A-66A-66B	14	QPSK	20	18900	1880	1,49	20	66536	2120	10	67187	2185.1	10	67286	2195				60	0	24.44	24.37	-0.07
CA_2A-66A-66C	14	QPSK	20	18900	1880	1,49	20	66536	2120	20	67038	2170.2	20	67236	2190				80	0	24.44	24.38	-0.06
CA_2C-5A	13	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	2525	881.5							50	0	24.40	24.30	-0.10
CA_2C-12A	13	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	5095	737.5							50	0	24.40	24.32	-0.08
CA_2C-29A	12	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	9715	722.5							50	0	24.40	24.31	-0.09
CA_2C-30A	13	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	9820	2355							50	0	24.40	24.28	-0.12
CA_2C-30A	13	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	9820	2355							50	0	24.40	24.35	-0.05
CA_2C-66A	15	QPSK	20	18801	1870.1	1,49	20	999	1969.9	20	66786	2145							60	0	24.40	24.38	-0.02
CA_2C-66A	15	QPSK	20	18801	1870.1	1,49	20	999	1969.9	20	66786	2145							60	0	24.40	24.37	-0.03
CA_4A-4A-5B	14	QPSK	20	20050	1720	1,49	20	2300	2145	5	2510	880	3	2549	883.9				48	0	24.47	24.43	-0.04
CA_4A-4A-7A	12	QPSK	20	20050	1720	1,49	20	2300	2145	20	3100	2655							60	0	24.47	24.42	-0.05
CA_4A-4A-12B	14	QPSK	20	20050	1720	1,49	20	2300	2145	5	5048	732.8	10	5120	740				55	0	24.47	24.39	-0.08
CA_4A-4A-13A	12	QPSK	20	20050	1720	1,49	20	2300	2145	10	5230	751							50	0	24.47	24.40	-0.07
CA_4A-4A-29A	13	QPSK	20	20050	1720	1,49	20	2300	2145	10	9715	722.5							50	0	24.47	24.36	-0.11
CA_4A-7A-7A	12	QPSK	20	20175	1732.5	1,49	20	2850	2630	20	3350	2680							60	0	24.49	24.46	-0.03
CA_4A-17A	11	QPSK	20	20175	1732.5	1,49	10	5790	740									30	0	24.49	24.36	-0.13	
CA_4A-46A	13	QPSK	20	20175	1732.5	1,49	20	50690	5540									40	0	24.49	24.32	-0.17	
CA_4A-46A-46A	14	QPSK	20	20175	1732.5	1,49	20	46890	5160	20	53430	5905						60	0	24.49	24.41	-0.08	
CA_4A-46A-46C	14	QPSK	20	20175	1732.5	1,49	20	50690	5540	20	50692	5540.2	20	50890	5560				80	0	24.49	24.43	-0.06
CA_4A-46A-46D	14	QPSK	20	20175	1732.5	1,49	20	50690	5540	20	50690	5540	20	50690	5540	20	50888	5559.8	100	0	24.49	24.40	-0.09
CA_4A-46C	14	QPSK	20	20175	1732.5	1,49	20	50692	5540.2	20	50890	5560							60	0	24.49	24.45	-0.04
CA_4A-46D	14	QPSK	20	20175	1732.5	1,49	20	50492	5520.2	20	50690	5540	20	50888	5559.8				80	0	24.49	24.43	-0.06
CA_5A-5A	12	QPSK	10	20525	836.5	1,24	20	3100	2655										30	0	24.54	24.49	-0.05
CA_5A-25A	12	QPSK	10	20525	836.5	1,24	20	8365	1962.5										30	0	24.54	24.46	-0.08
CA_5A-41A	14	QPSK	10	20525	836.5	1,24	20	40620	2593										30	0	24.54	24.43	-0.11
CA_5A-46A	14	QPSK	10	20525	836.5	1,24	20	50690	5540										30	0	24.54	24.42	-0.12
CA_5A-46C	14	QPSK	10	20525	836.5	1,24	20	50692	5540.2	20	50890	5560							50	0	24.54	24.46	-0.08
CA_5A-46D	14	QPSK	10	20525	836.5	1,24	20	50492	5520.2	20	50690	5540	20	50888	5559.8				70	0	24.54	24.44	-0.10
CA_5A-66D	14	QPSK	10	20525	836.5	1,24	20	66688	2135.2	20	66886	2155	20	67084	2174.8				70	0	24.54	24.43	-0.11
CA_5A-66A-66B	14	QPSK	10	20525	836.5	1,24	20	66536	2120	10	67187	2185.1	10	67286	2195				50	0	24.54	24.46	-0.08
CA_5A-66A-66C	14	QPSK	10	20525	836.5	1,24	20	66536	2120	20	67038	2170.2	20	67236	2190				70	0	24.54	24.50	-0.04
CA_7A-12A	12	QPSK	20	21100	2535	1,49	10	5095	737.5										30	0	24.55	24.46	-0.09
CA_7A-46A	13	QPSK	20	21100	2535	1,49	20	50690	5540										40	0	24.55	24.43	-0.12
CA_7A-46C	14	QPSK	20	21100	2535	1,49	20	50692	5540.2	20	50890	5560							60	0	24.55	24.41	-0.14
CA_7A-46D	14	QPSK	20	21100	2535	1,49	20	50492	5520.2	20	50690	5540	20	50888	5559.8				80	0	24.55	24.40	-0.15
CA_7A-66A	14	QPSK	20	21100	2535	1,49	20	66786	2145									40	0	24.55	24.48	-0.07	
CA_7A-66A	14	QPSK	20	21100	2535	1,49	20	66786	2145									40	0	24.55	24.48	-0.07	
CA_13A-46E	14	QPSK	10	23230	782	1,24	20	50490	5520	20	50688	5539.8	20	50889	5559.9	20	51090	5580	90	0	24.57	24.50	-0.07
CA_13A-66A-66B	14	QPSK	10	23230	782	1,24	20	66536	2120	10	67187	2185.1	10	67286	2195				50	0	24.57	24.50	-0.07
CA_13A-66A-66C	14	QPSK	10	23230	782	1,24	20	66536	2120	20	67038	2170.2	20	67236	2190				70	0	24.57	24.51	-0.06
CA_25A-26A	13	QPSK	20	26365	1882.5	1,49	10	88															

DL Inter-Band (3 Bands) Measured Results

E-UTRA CA configuration	3GPP Rel. #	CC1 (UL)					CC2 (DL)			CC3 (DL)			CC4 (DL)			CC5 (DL)							
		Mode	BW (MHz)	Channel	Freq (MHz)	RB_Offset	BW (MHz)	Channel	Freq (MHz)	Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta									
CA_2A-2A-4A-5A	13	QPSK	20	18900	1880	1,49	20	1100	1980	20	2175	2132.5	10	2525	881.5				70	0	24.52	24.40	-0.12
CA_2A-2A-4A-12A	13	QPSK	20	18900	1880	1,49	20	1100	1980	20	2175	2132.5	10	5095	737.5				70	0	24.52	24.42	-0.10
CA_2A-2A-5A-30A	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	10	9820	2355				60	0	24.52	24.41	-0.11
CA_2A-2A-5A-66A	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	20	66786	2145				70	0	24.52	24.42	-0.10
CA_2A-2A-5A-66B	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	10	66837	2150.1	10	66936	2160	70	0	24.52	24.43	-0.09
CA_2A-2A-5A-66C	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	20	66787	2145.1	20	66985	2164.9	90	0	24.52	24.40	-0.12
CA_2A-2A-12A-30A	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	5095	737.5	10	9820	2355				60	0	24.52	24.49	-0.03
CA_2A-2A-12A-66A	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	5095	737.5	20	66786	2145				70	0	24.52	24.46	-0.06
CA_2A-2A-13A-66A	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	5230	751	20	66786	2145				70	0	24.52	24.43	-0.09
CA_2A-2A-29A-30A	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	9715	722.5	10	9820	2355				60	0	24.52	24.40	-0.12
CA_2A-2A-30A-66A	14	QPSK	20	18900	1880	1,49	20	1100	1980	10	9820	2355	20	66786	2145				70	0	24.52	24.44	-0.08
CA_2A-4A-4A-5A	13	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	2175	2132.5	10	2525	881.5				70	0	24.52	24.45	-0.07
CA_2A-4A-4A-12A	13	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	2175	2132.5	10	5095	737.5				70	0	24.52	24.46	-0.06
CA_2A-2A-4A-5B	14	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	2476	876.6	10	2575	886.5				60	0	24.52	24.38	-0.14
CA_2A-4A-12B	14	QPSK	20	18900	1880	1,49	20	2175	2132.5	5	5048	732.8	10	5120	740				55	0	24.52	24.39	-0.13
CA_2A-4A-13A	12	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	5230	751						50	0	24.52	24.41	-0.11	
CA_2A-5A-66B	14	QPSK	20	18900	1880	1,49	10	2525	881.5	10	66837	2150.1	10	66936	2160				50	0	24.52	24.38	-0.14
CA_2A-5A-66C	14	QPSK	20	18900	1880	1,49	10	2525	881.5	20	66787	2145.1	20	66985	2164.9				70	0	24.52	24.40	-0.12
CA_2A-5B-66C	14	QPSK	20	18900	1880	1,49	10	2476	876.6	10	2575	886.5	20	66787	2145.1	20	66985	2164.9	80	0	24.52	24.42	-0.10
CA_2A-12A-66C	14	QPSK	20	18900	1880	1,49	10	5095	737.5	20	66787	2145.1	20	66985	2164.9				70	0	24.52	24.43	-0.09
CA_2A-13A-46A	15	QPSK	20	18900	1880	1,49	10	5230	751	20	50690	5540						50	0	24.52	24.41	-0.11	
CA_2A-13A-46C	15	QPSK	20	18900	1880	1,49	10	5230	751	20	50692	5540.2	20	50890	5560				70	0	24.52	24.38	-0.14
CA_2A-13A-46D	15	QPSK	20	18900	1880	1,49	10	5230	751	20	50492	5520.2	20	50690	5540	20	50888	5559.8	90	0	24.52	24.36	-0.16
CA_2A-13A-66A	14	QPSK	20	18900	1880	1,49	10	5230	751	20	66786	2145						50	0	24.52	24.40	-0.12	
CA_2A-13A-66A	14	QPSK	20	18900	1880	1,49	10	5230	751	20	66786	2145						50	0	24.52	24.43	-0.09	
CA_2A-13A-66A-66A	14	QPSK	20	18900	1880	1,49	10	5230	751	20	66536	2120	20	67236	2190				70	0	24.52	24.45	-0.07
CA_2A-13A-66B	14	QPSK	20	18900	1880	1,49	10	5230	751	10	66837	2150.1	10	66936	2160				50	0	24.52	24.39	-0.13
CA_2A-13A-66C	14	QPSK	20	18900	1880	1,49	10	5230	751	20	66787	2145.1	20	66985	2164.9				70	0	24.52	24.42	-0.10
CA_2A-46A-66A	14	QPSK	20	18900	1880	1,49	20	50692	5540.2	20	50890	5560	20	66786	2145				60	0	24.52	24.45	-0.07
CA_2A-46D-66A	14	QPSK	20	18900	1880	1,49	20	50492	5520.2	20	50690	5540	20	50888	5559.8	20	66786	2145	100	0	24.52	24.46	-0.06
CA_4A-7A-12A	12	QPSK	20	20175	1732.5	1,49	20	3100	2655	10	5095	737.5						50	0	24.48	24.39	-0.09	
CA_5A-30A-66A	14	QPSK	10	20525	836.5	1,24	10	9820	2355	20	66786	2145						40	0	24.58	24.50	-0.08	
CA_5A-30A-66A-66A	14	QPSK	10	20525	836.5	1,24	10	9820	2355	20	66536	2120	20	67236	2190				60	0	24.58	24.52	-0.06
CA_5B-30A-66A	14	QPSK	10	20476	831.6	1,24	10	2575	886.5	10	9820	2355	20	66786	2145				50	0	24.58	24.51	-0.07
CA_5B-30A-66A-66A	15	QPSK	10	20476	831.6	1,24	10	2575	886.5	10	9820	2355	20	66536	2120	20	67236	2190	70	0	24.58	24.53	-0.05
CA_13A-46A-66A	15	QPSK	10	23230	782	1,24	20	50690	5540	20	66786	2145						50	0	24.60	24.57	-0.03	
CA_13A-46C-66A	15	QPSK	10	23230	782	1,24	20	50692	5540.2	20	50890	5560	20	66786	2145				70	0	24.60	24.56	-0.04
CA_13A-46D-66A	15	QPSK	10	23230	782	1,24	20	50492	5520.2	20	50690	5540	20	50888	5559.8	20	66786	2145	90	0	24.60	24.52	-0.08

DL Inter-Band (4 Bands) Measured Results

E-UTRA CA configuration	3GPP Rel. #	CC1 (UL)					CC2 (DL)			CC3 (DL)			CC4 (DL)			CC5 (DL)							
		Mode	BW (MHz)	Channel	Freq (MHz)	RB_Offset	BW (MHz)	Channel	Freq (MHz)	Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta									
CA_2A-4A-5A-30A	13	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	2525	881.5	10	9820	2355				60	0	24.53	24.50	-0.03
CA_2A-4A-12A-30A	13	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	5095	737.5	10	9820	2355				60	0	24.53	24.47	-0.06
CA_2A-4A-29A-30A	13	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	9820	2355	10	9820	2355				60	0	24.53	24.46	-0.07
CA_2A-5A-30A-66A	14	QPSK	20	18900	1880	1,49	10	2525	881.5	10	9820	2355	20	66786	2145				60	0	24.53	24.51	-0.02
CA_2A-5B-30A-66A	14	QPSK	20	18900	1880	1,49	10	2476	876.6	10	2575	886.5	10	9820	2355	20	66786	2145	70	0	24.53	24.45	-0.08
CA_2A-12A-30A-66A	14	QPSK	20	18900	1880	1,49	10	5095	737.5	10	9820	2355	20	66786	2145				60	0	24.53	24.45	-0.08
CA_2A-14A-30A-66A	15	QPSK	20	18900	1880	1,49	10	5330	763	10	9820	2355	20	66786	2145				60	0	24.53	24.43	-0.10
CA_2A-29A-30A-66A	15	QPSK	20	18900	1880	1,49	10	9715	722.5	10</td													

9.6. Wi-Fi 2.4 GHz (DTS Band)

Wi-Fi 2.4 GHz (P_{cell_OFF} and P_{cell_ON})

SAR testing is not required for OFDM mode(s) when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

According to KDB publication 248227 D01, simultaneous SAR provisions in KDB Publication 447498 D01 apply to determine simultaneous transmission SAR test exclusion for Wi-Fi MIMO. If the sum of 1-g single transmission chain SAR measurements is < 1.6 W/kg and/or the MIMO output power is equal or less than a single chain, then no additional SAR measurements for simultaneously at the specified maximum output power of MIMO operation.

For 2.4 GHz band, there are two use cases:

- P_{Cell_ON} : This will be used when both WWAN and Wi-Fi radios are ON.
- P_{Cell_OFF} : This will be used when only Wi-Fi radio is ON

Mode	Channel	Frequency	Pcell ON				Pcell OFF			
			ANT3		ANT4		ANT3		ANT4	
			Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
802.11b DSSS (SISO)	1	2412	20.50	16.00	15.50	16.00	20.50	20.00	19.00	19.50
	2	2417	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	3	2422	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	4	2427	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	5	2432	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	6	2437	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	7	2442	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	8	2447	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	9	2452	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	10	2457	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	11	2462	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	12	2467	20.50	16.00	15.50	16.00	20.50	20.00	19.00	19.50
	13	2472	19.00	16.00	15.50	16.00	19.00	19.00	19.00	19.00
802.11g/n OFDM (SISO)	1	2412	17.50	16.00	15.50	16.00	17.50	17.50	17.50	17.50
	2	2417	19.50	16.00	15.50	16.00	19.50	19.50	19.00	19.50
	3	2422	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	4	2427	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	5	2432	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	6	2437	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	7	2442	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	8	2447	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	9	2452	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	10	2457	19.50	16.00	15.50	16.00	19.50	19.50	19.00	19.50
	11	2462	17.50	16.00	15.50	16.00	17.50	17.50	17.50	17.50
	12	2467	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50
	13	2472	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
802.11n OFDM (MIMO)	1	2412	16.50	16.00	15.50	16.00	16.50	16.50	16.50	16.50
	2	2417	18.50	16.00	15.50	16.00	18.50	18.50	18.50	18.50
	3	2422	20.00	16.00	15.50	16.00	20.00	20.00	19.00	19.50
	4	2427	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	5	2432	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	6	2437	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	7	2442	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	8	2447	22.00	16.00	15.50	16.00	22.00	20.00	19.00	19.50
	9	2452	20.00	16.00	15.50	16.00	20.00	20.00	19.00	19.50
	10	2457	18.50	16.00	15.50	16.00	18.50	18.50	18.50	18.50
	11	2462	16.50	16.00	15.50	16.00	16.50	16.50	16.50	16.50
	12	2467	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50
	13	2472	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00

Wi-Fi 2.4 GHz Measured Results

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

SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

SAR testing is not required for OFDM mode(s) when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is $\leq 1.2 \text{ W/kg}$.

Power Mode	Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
						Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
Pcell ON	ANT3	DSSS 802.11b	1 Mbps	1	2412	20.50	20.50	Yes	16.00	16.00	Yes
				2	2417	22.00	22.00		16.00	16.00	
				6	2437	22.00	22.00		16.00	16.00	
				11	2462	22.00	22.00		16.00	16.00	
				12	2467	20.50	20.50		16.00	16.00	
				13	2472	19.00	19.00		16.00	16.00	
	ANT4	DSSS 802.11b	1 Mbps	1	2412	15.50	15.50	Yes	16.00	16.00	Yes
				6	2437	15.50	15.50		16.00	16.00	
				11	2462	15.45	15.50		16.00	16.00	
				12	2467	15.40	15.50		16.00	16.00	
				13	2472	15.45	15.50		16.00	16.00	
Power Mode	Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
						Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
Pcell OFF	ANT3	DSSS 802.11b	1 Mbps	1	2412	20.50	20.50	Yes	20.00	20.00	Yes
				2	2417	22.00	22.00		20.00	20.00	
				6	2437	22.00	22.00		20.00	20.00	
				11	2462	22.00	22.00		20.00	20.00	
				12	2467	20.50	20.50		20.00	20.00	
				13	2472	19.00	19.00		20.00	19.00	
	ANT4	DSSS 802.11b	1 Mbps	1	2412	19.00	19.00	Yes	19.50	19.50	Yes
				6	2437	19.00	19.00		19.50	19.50	
				11	2462	19.00	19.00		19.50	19.50	
				12	2467	19.00	19.00		19.50	19.50	
				13	2472	19.00	19.00		19.50	19.50	

9.7. Wi-Fi 5 GHz (U-NII Bands)

Wi-Fi 5 GHz ($P_{cell\ OFF}$ and $P_{cell\ ON}$)

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

When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

According to KDB publication 248227 D01, simultaneous SAR provisions in KDB Publication 447498 D01 apply to determine simultaneous transmission SAR test exclusion for Wi-Fi MIMO. If the sum of 1-g single transmission chain SAR measurements is <1.6 W/kg and/or the MIMO output power is equal or less than a single chain, then no additional SAR measurements for simultaneously at the specified maximum output power of MIMO operation.

For 5GHz band, there are two use cases:

- $P_{Cell\ ON}$: This will be used when both WWAN and Wi-Fi radios are ON.
- $P_{Cell\ OFF}$: This will be used when only Wi-Fi radio is ON

Mode	Bandwidth	Channel	Frequency	$P_{cell\ OFF}$				$P_{cell\ ON}$			
				ANT5		ANT6		ANT5		ANT6	
				Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
U-NII-1 5.2 GHz (SISO)	802.11a/n/ac 20 MHz	36	5180	20.00	17.50	20.00	20.00	20.00	12.50	18.50	18.50
		40	5200	21.00	17.50	21.00	21.00	21.00	12.50	18.50	18.50
		44	5220	21.00	17.50	21.00	21.00	21.00	12.50	18.50	18.50
		48	5240	21.00	17.50	21.00	21.00	21.00	12.50	18.50	18.50
	802.11n/ac 40 MHz	38	5190	18.50	17.50	18.50	18.50	18.50	12.50	18.50	18.50
		46	5230	22.00	17.50	22.00	22.00	22.00	12.50	18.50	18.50
	802.11ac 80 MHz	42	5210	17.50	17.50	17.50	17.50	17.50	12.50	17.50	17.50
U-NII-2A 5.3 GHz (SISO)	802.11a/n/ac 20 MHz	52	5260	21.00	17.50	21.00	21.00	21.00	12.00	17.50	17.50
		56	5280	21.00	17.50	21.00	21.00	21.00	12.00	17.50	17.50
		60	5300	21.00	17.50	21.00	21.00	21.00	12.00	17.50	17.50
		64	5320	19.00	17.50	19.00	19.00	19.00	12.00	17.50	17.50
	802.11n/ac 40 MHz	54	5270	22.00	17.50	21.00	21.00	22.00	12.00	17.50	17.50
		62	5310	17.50	17.50	17.50	17.50	17.50	12.00	17.50	17.50
	802.11ac 80 MHz	58	5290	17.50	17.50	17.50	17.50	17.50	12.00	17.50	17.50
Mode	Bandwidth	Channel	Frequency	$P_{cell\ OFF}$				$P_{cell\ ON}$			
				ANT5		ANT6		ANT5		ANT6	
				Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
U-NII-2C 5.5 GHz (SISO)	802.11a/n/ac 20 MHz	100	5500	19.00	17.00	19.00	17.00	19.00	12.00	15.50	13.50
		104	5520	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		108	5540	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		112	5560	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		116	5580	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		120	5600	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		124	5620	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		128	5640	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
	802.11n/ac 40 MHz	132	5660	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		136	5680	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
		140	5700	19.00	17.00	19.00	17.00	19.00	12.00	15.50	13.50
		144	5720	21.00	17.00	19.50	17.00	21.00	12.00	15.50	13.50
	802.11ac 80 MHz	102	5510	17.50	17.00	17.50	17.00	17.50	12.00	15.50	13.50
		110	5550	22.00	17.00	19.50	17.00	22.00	12.00	15.50	13.50
		118	5590	22.00	17.00	19.50	17.00	22.00	12.00	15.50	13.50
		126	5630	22.00	17.00	19.50	17.00	22.00	12.00	15.50	13.50
		134	5670	22.00	17.00	19.50	17.00	22.00	12.00	15.50	13.50
		142	5710	22.00	17.00	19.50	17.00	22.00	12.00	15.50	13.50
		106	5530	17.50	17.00	17.50	17.00	17.50	12.00	15.50	13.50
		122	5610	22.00	17.00	19.50	17.00	22.00	12.00	15.50	13.50
		138	5690	22.00	17.00	19.50	17.00	22.00	12.00	15.50	13.50
Mode	Bandwidth	Channel	Frequency	$P_{cell\ OFF}$				$P_{cell\ ON}$			
				ANT5		ANT6		ANT5		ANT6	
				Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
U-NII-3 5.8 GHz (SISO)	802.11a/n/ac 20 MHz	149	5745	22.50	17.50	22.00	18.00	22.50	12.00	18.25	14.50
		153	5765	22.50	17.50	22.00	18.00	22.50	12.00	18.25	14.50
		157	5785	22.50	17.50	22.00	18.00	22.50	12.00	18.25	14.50
		161	5805	22.50	17.50	22.00	18.00	22.50	12.00	18.25	14.50
	802.11n/ac 40 MHz	165	5825	22.50	17.50	22.00	18.00	22.50	12.00	18.25	14.50
		151	5755	22.00	17.50	22.00	18.00	22.00	12.00	18.25	14.50
		159	5795	22.00	17.50	22.00	18.00	22.00	12.00	18.25	14.50
	802.11ac 80 MHz	155	5775	22.00	17.50	22.00	18.00	22.00	12.00	18.25	14.50

Mode	Bandwidth	Channel	Frequency	Pcell OFF				Pcell ON			
				ANT5		ANT6		ANT5		ANT6	
				Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
U-NII-1 5.2 GHz (MIMO)	802.11n/ac 20 MHz	36	5180	18.00	17.50	18.00	18.00	18.00	12.50	18.00	18.00
		40	5200	18.00	17.50	18.00	18.00	18.00	12.50	18.00	18.00
		44	5220	18.00	17.50	18.00	18.00	18.00	12.50	18.00	18.00
		48	5240	18.00	17.50	18.00	18.00	18.00	12.50	18.00	18.00
	802.11n/ac 40 MHz	38	5190	18.00	17.50	18.00	18.00	18.00	12.50	18.00	18.00
		46	5230	20.00	17.50	20.00	20.00	20.00	12.50	18.50	18.50
	802.11ac 80 MHz	42	5210	17.50	17.50	17.50	17.50	17.50	12.50	17.50	17.50
	52	5260	18.00	17.50	18.00	18.00	18.00	12.00	17.50	17.50	
U-NII-2A 5.3 GHz (MIMO)	802.11n/ac 20 MHz	56	5280	18.00	17.50	18.00	18.00	18.00	12.00	17.50	17.50
		60	5300	18.00	17.50	18.00	18.00	18.00	12.00	17.50	17.50
		64	5320	18.00	17.50	18.00	18.00	18.00	12.00	17.50	17.50
		54	5270	20.00	17.50	20.00	20.00	20.00	12.00	17.50	17.50
	802.11n/ac 40 MHz	62	5310	17.00	17.00	17.00	17.00	17.00	12.00	17.00	17.00
		58	5290	16.50	16.50	16.50	16.50	16.50	12.00	16.50	16.50
	802.11ac 80 MHz			Pcell OFF				Pcell ON			
	ANT5		ANT6		ANT5		ANT6				
U-NII-2C 5.5 GHz (MIMO)	802.11n/ac 20 MHz	100	5500	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		104	5520	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		108	5540	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		112	5560	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		116	5580	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		120	5600	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		124	5620	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		128	5640	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		132	5660	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		136	5680	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
	802.11n/ac 40 MHz	140	5700	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		144	5720	18.00	17.00	18.00	17.00	18.00	12.00	15.50	13.50
		102	5510	17.00	17.00	17.00	17.00	17.00	12.00	15.50	13.50
		110	5550	20.00	17.00	19.50	17.00	20.00	12.00	15.50	13.50
	802.11n/ac 80 MHz	118	5590	20.00	17.00	19.50	17.00	20.00	12.00	15.50	13.50
		126	5630	20.00	17.00	19.50	17.00	20.00	12.00	15.50	13.50
		134	5670	20.00	17.00	19.50	17.00	20.00	12.00	15.50	13.50
		142	5710	20.00	17.00	19.50	17.00	20.00	12.00	15.50	13.50
	802.11ac 80 MHz	106	5530	16.50	16.50	16.50	16.50	16.50	12.00	15.50	13.50
		122	5610	20.00	17.00	19.50	17.00	20.00	12.00	15.50	13.50
		138	5690	20.00	17.00	19.50	17.00	20.00	12.00	15.50	13.50
U-NII-3 5.8 GHz (MIMO)	802.11n/ac 20 MHz	149	5745	22.50	18.00	22.00	18.50	22.50	12.00	18.25	14.50
		153	5765	22.50	18.00	22.00	18.50	22.50	12.00	18.25	14.50
		157	5785	22.50	18.00	22.00	18.50	22.50	12.00	18.25	14.50
		161	5805	22.50	18.00	22.00	18.50	22.50	12.00	18.25	14.50
		165	5825	22.50	18.00	22.00	18.50	22.50	12.00	18.25	14.50
	802.11n/ac 40 MHz	151	5755	22.00	18.00	22.00	18.50	22.00	12.00	18.25	14.50
		159	5795	22.00	18.00	22.00	18.50	22.00	12.00	18.25	14.50
	802.11ac 80 MHz	155	5775	22.00	18.00	22.00	18.50	22.00	12.00	18.25	14.50

Wi-Fi 5 GHz Measured Results

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

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

SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

Power Mode	Antenna	Mode	Mode	Ch #	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)			
						Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	
Pcell OFF	ANT5	U-NII-2A	802.11n HT40	54	5270	22.00	22.00	Yes				
				62	5310	17.50	17.50					
		U-NII-2A	802.11ac VHT80	58	5290				17.50	17.50	Yes	
		U-NII-2C	802.11ac VHT80	106	5530	17.50	17.50	Yes	17.00	17.00	Yes	
				122	5610	22.00	22.00		17.00	17.00		
				138	5690	22.00	22.00		17.00	17.00		
		U-NII-3	802.11a HT20	149	5745	22.00	22.50	Yes				
				157	5785	22.00	22.50					
				165	5825	22.00	22.50					
	ANT6	U-NII-1	802.11n HT40	155	5775				17.50	17.50	Yes	
				38	5190	18.50	18.50	Yes	18.50	18.50	Yes	
		U-NII-2C	802.11ac VHT80	46	5230	22.00	22.00		22.00	22.00		
				106	5530	17.50	17.50	Yes	17.00	17.00	Yes	
				122	5610	19.50	19.50		17.00	17.00		
		U-NII-3	802.11ac VHT80	138	5690	19.50	19.50		17.00	17.00		
				155	5775	22.00	22.00	Yes	18.00	18.00	Yes	
Pcell ON	ANT5	U-NII-1	802.11ac VHT80	42	5210				12.50	12.50	Yes	
		U-NII-2A	802.11n HT40	54	5270	22.00	22.00	Yes				
				62	5310	17.50	17.50					
		U-NII-2C	802.11ac VHT80	106	5530	17.50	17.50	Yes	12.00	12.00	Yes	
				122	5610	22.00	22.00		12.00	12.00		
				138	5690	22.00	22.00		12.00	12.00		
		U-NII-3	802.11a HT20	149	5745	22.00	22.50	Yes				
				157	5785	22.00	22.50					
				165	5825	22.00	22.50					
	ANT6	U-NII-1	802.11n HT40	155	5775				12.00	12.00	Yes	
				38	5190	18.50	18.50	Yes	18.50	18.50	Yes	
		U-NII-2C	802.11ac VHT80	46	5230	18.50	18.50		18.50	18.50		
				106	5530	15.50	15.50	Yes	13.40	13.50	Yes	
				122	5610	15.50	15.50		13.50	13.50		
		U-NII-3	802.11ac VHT80	138	5690	15.50	15.50		13.50	13.50		
				155	5775	18.20	18.25	Yes	14.40	14.50	Yes	

9.8. Bluetooth

From October 2016 TCB workshop, this device power and SAR measured is performed with test software, the duty cycle is 100%.

Bluetooth (P_{low} , P_{high} , and $P_{standalone}$)

For Bluetooth, there are three use cases:

- Bluetooth P_{low} is used with Wi-Fi and WWAN antennas are active.
- Bluetooth P_{high} is used when Wi-Fi antenna is active and WWAN antenna is inactive or with Wi-Fi inactive and WWAN antenna is active.
- Bluetooth $P_{standalone}$ is used with Wi-Fi and WWAN antennas are inactive.

Mode	Maximum Output Power (Tune-up Limit) (dBm)											
	Bluetooth P_{low}				Bluetooth P_{high}				Bluetooth $P_{standalone}$			
	ANT3		ANT4		ANT3		ANT4		ANT3		ANT4	
	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B	Mode A	Mode B
GFSK	11.0	10.5	10.0	10.0	20.0	14.5	13.5	14.0	20.0	17.0	16.0	16.5
EDR	7.5	7.5	7.5	7.5	17.5	14.5	13.5	14.0	17.5	17.0	16.0	16.5
LE	10.0	10.0	10.0	10.0	20.0	14.5	13.5	14.0	20.0	17.0	16.0	16.5
HDR	8.0	8.0	8.0	8.0	16.0	14.5	13.5	14.0	16.0	16.0	16.0	16.0

Bluetooth Measured Results

SAR measurement is not required for the 8PSK, BLE, and HDR. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

Power Mode	Antenna	Mode	Ch #	Freq. (MHz)	Power Mode A (dBm)			Power Mode B (dBm)		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
Bluetooth P_{low}	ANT3	GFSK	0	2402	11.00	11.00	Yes	10.50	10.50	Yes
			39	2441	11.00	11.00		10.50	10.50	
			78	2480	11.00	11.00		10.50	10.50	
	ANT4	GFSK	0	2402	10.00	10.00	Yes	10.00	10.00	Yes
			39	2441	10.00	10.00		10.00	10.00	
			78	2480	10.00	10.00		10.00	10.00	
Bluetooth P_{high}	ANT3	GFSK	0	2402	20.00	20.00	Yes	14.50	14.50	Yes
			39	2441	20.00	20.00		14.50	14.50	
			78	2480	20.00	20.00		14.50	14.50	
	ANT4	GFSK	0	2402	13.50	13.50	Yes	14.00	14.00	Yes
			39	2441	13.50	13.50		14.00	14.00	
			78	2480	13.50	13.50		14.00	14.00	
Bluetooth $P_{standalone}$	ANT3	GFSK	0	2402	20.00	20.00	Yes	17.00	17.00	Yes
			39	2441	20.00	20.00		17.00	17.00	
			78	2480	20.00	20.00		17.00	17.00	
	ANT4	GFSK	0	2402	16.00	16.00	Yes	16.50	16.50	Yes
			39	2441	16.00	16.00		16.50	16.50	
			78	2480	16.00	16.00		16.50	16.50	

Duty Factor Measured Results

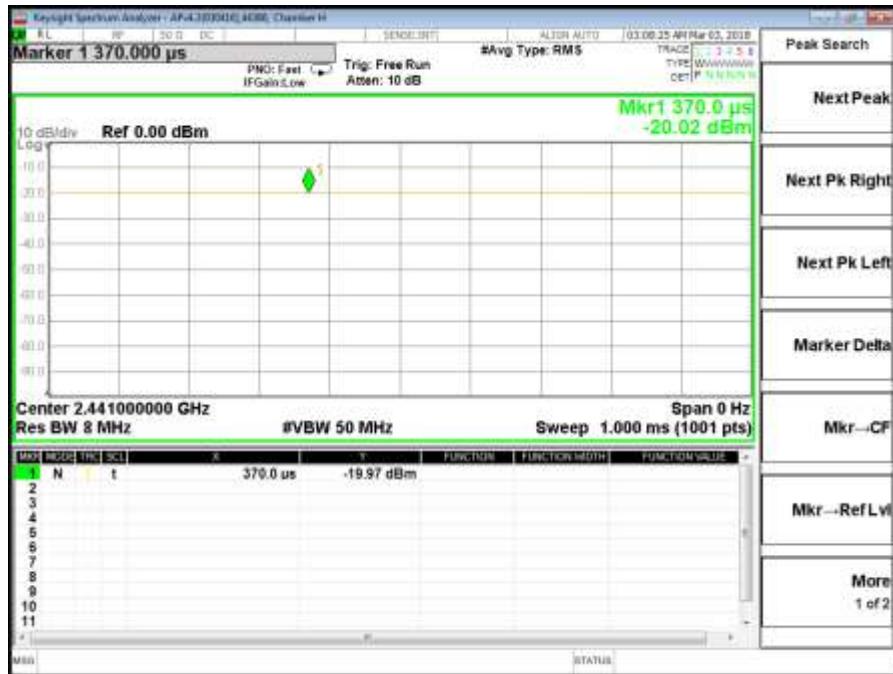
Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
GFSK	DH5	1	1	100.00%	1.00

Note(s):

Duty Cycle = (T on / period) * 100%

Duty Cycle plots

GFSK



10. Measured and Reported (Scaled) SAR Results

SAR Testing was performed based on the power measurement results from Sec. 9. Output power from both power modes: Mode A and Mode B were applied for each respective antenna. Mode A power is used when the device is used against the user's head, or away from the body. Mode B is used when the device is used in a body-worn configuration by the user.

Test Tables were organized and labeled by antenna, ANT1, ANT2, ANT3 and ANT4 for WWAN technologies. And for Wi-Fi/Bluetooth technologies, Test Tables were organized and labeled by power configuration and antenna ANT3 and ANT4 (Wi-Fi/BT 2.4 GHz), ANT5, ANT6 (Wi-Fi 5 GHz), Applicable SAR Test Reductions have been applied accordingly following the SAR KDB Procedure as follows:

SAR Test Reduction criteria are as follows:

- Reported SAR(W/kg) for WWAN = Measured SAR *Tune-up Scaling Factor
- Reported SAR(W/kg) for Wi-Fi and Bluetooth = Measured SAR * Tune-up scaling factor * Duty Cycle scaling factor
- Duty Cycle scaling factor = 1 / Duty cycle (%)

Per October 2016 TCB Workshop for DUT Holder Perturbations:

When the highest reported SAR of an antenna is > 1.2 W/kg for 1-g SAR and 3.0 W/kg for 10-g SAR, holder perturbation verification is required for each antenna, using the highest SAR configuration among all applicable frequency bands.

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:

- $\leq 0.8 \text{ W/kg}$ or 2.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\leq 100 \text{ MHz}$
- $\leq 0.6 \text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- $\leq 0.4 \text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200 \text{ MHz}$

KDB 648474 D04 Handset SAR:

With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Additional 1-g SAR testing at 5 mm is not required when hotspot mode 10-g extremity SAR is not required for the surfaces and edges; since all 1-g reported SAR $< 1.2 \text{ W/kg}$.

KDB 941225 D01 SAR test for 3G SAR Test Reduction Procedure:

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

GSM Guidance

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Please refer to section 9. for GSM power verification.

SAR is not required for EDGE (8PSK) mode because the maximum output power and tune-up limit is $\leq 1/4\text{dB}$ higher than GPRS/EDGE (GMSK) or the adjusted SAR of the highest reported SAR of GPRS/EDGE (GMSK) is $\leq 1.2\text{W/kg}$.

W-CDMA Guidance

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC (Head) and other spreading codes and multiple DPCH_n configurations supported by the handset with 12.2 kbps RMC (Body-Worn Accessory) as the primary mode.

SAR measurement is not required for the HSDPA, HSUPA, DC-HSDPA and HSPA+. When primary mode and the adjusted SAR is $\leq 1.2 \text{ W/kg}$ and secondary mode is $\leq \frac{1}{4} \text{ dB}$ higher than the primary mode

CDMA 2000 Guidance

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode.

Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 D01 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH_n), with FCH only as the primary mode.

When VOIP is supported by Ev-Do devices for next to the ear use, head exposure SAR is required.

SAR measurement is not required for the 1xEVDO Rev. A, Rev. B and 1x-Advanced. When primary mode and the adjusted SAR is $\leq 1.2 \text{ W/kg}$ and secondary mode is $\leq 1/4 \text{ dB}$ higher than the primary mode

KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
- When the reported SAR is $> 0.8 \text{ W/kg}$, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
- Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are $> 0.8 \text{ W/kg}$. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation $< 1.45 \text{ W/kg}$.
- Testing for 16-QAM and 64-QAM modulation is not required because the reported SAR for QPSK is $< 1.45 \text{ W/Kg}$ and its output power is not more than 0.5 dB higher than that of QPSK.
- Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is $< 1.45 \text{ W/Kg}$ and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing; therefore, the requirement for H, M and L channels may not fully apply. Please refer to section 6.3. is determiner non-overlapping channels for LTE bands.

KDB 248227 D01 SAR meas for 802.11:

When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

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

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

- $\leq 0.4 \text{ W/kg}$, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.

- > 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions are tested.
 - For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
 - When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required test channels are considered.
 - The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.
- When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

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

10.1. GSM850

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	GPRS 2 Slots	Mode A	0	Left Touch	190	836.6	32.00	31.00	0.167	0.210	0.129	0.162		
					Left Tilt	190	836.6	32.00	31.00	0.102	0.128	0.079	0.099		
		GPRS 2 Slots	Mode B		Right Touch	190	836.6	32.00	31.00	0.196	0.247	0.150	0.189	1	
					Right Tilt	190	836.6	32.00	31.00	0.110	0.138	0.086	0.108		
	Body & Hotspot	GPRS 2 Slots		5	Rear	190	836.6	32.00	31.00	0.496	0.624	0.308	0.388	2	
					Front	190	836.6	32.00	31.00	0.270	0.340	0.177	0.223		
	Hotspot	GPRS 2 Slots	Mode B	5	Edge 2	190	836.6	32.00	31.00	0.394	0.496	0.254	0.320		
					Edge 3	190	836.6	32.00	31.00	0.177	0.223	0.082	0.103		
					Edge 4	190	836.6	32.00	31.00	0.189	0.238	0.121	0.152		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT2	Head	GPRS 2 Slots	Mode A	0	Left Touch	190	836.6	30.00	29.00	0.261	0.329	0.191	0.240		
					Left Tilt	190	836.6	30.00	29.00	0.191	0.240	0.118	0.149		
		GPRS 2 Slots	Mode B		Right Touch	190	836.6	30.00	29.00	0.353	0.444	0.243	0.306	3	
					Right Tilt	190	836.6	30.00	29.00	0.253	0.319	0.146	0.184		
	Body & Hotspot	GPRS 2 Slots	Mode B	5	Rear	190	836.6	30.00	29.00	0.284	0.358	0.167	0.210	4	
					Front	190	836.6	30.00	29.00	0.156	0.196	0.102	0.128		
	Hotspot	GPRS 2 Slots	Mode B	5	Edge 1	190	836.6	30.00	29.00	0.108	0.136	0.054	0.068		
					Edge 2	190	836.6	30.00	29.00	0.107	0.135	0.068	0.086		
					Edge 4	190	836.6	30.00	29.00	0.197	0.248	0.127	0.160		

10.2. GSM1900

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	GPRS 2 Slots	Mode A	0	Left Touch	661	1880.0	30.50	29.50	0.145	0.183	0.092	0.116		
					Left Tilt	661	1880.0	30.50	29.50	0.133	0.167	0.076	0.096		
		GPRS 2 Slots	Mode B		Right Touch	661	1880.0	30.50	29.50	0.322	0.405	0.192	0.242	5	
					Right Tilt	661	1880.0	30.50	29.50	0.101	0.127	0.061	0.077		
	Body & Hotspot	GPRS 2 Slots	Mode B	5	Rear	512	1850.2	27.50	27.40	0.839	0.859	0.395	0.404		
						661	1880.0	27.50	27.40	0.842	0.862	0.396	0.405	6	
		GPRS 2 Slots	Mode B		Front	661	1880.0	27.50	27.40	0.426	0.436	0.215	0.220		
					Edge 2	661	1880.0	27.50	27.40	0.643	0.658	0.284	0.291		
	Hotspot	GPRS 2 Slots	Mode B		Edge 3	661	1880.0	27.50	27.40	0.171	0.175	0.086	0.088		
					Edge 4	661	1880.0	27.50	27.40	0.017	0.017	0.009	0.009		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT2	Head	GPRS 2 Slots	Mode A	0	Left Touch	661	1880.0	26.50	26.50	0.221	0.221	0.119	0.119		
						661	1880.0	26.50	26.50	0.287	0.287	0.143	0.143		
					Right Touch	512	1850.2	26.50	26.50	0.840	0.840	0.414	0.414		
						661	1880.0	26.50	26.50	0.839	0.839	0.421	0.421		
					Right Tilt	810	1909.8	26.50	26.50	0.772	0.772	0.395	0.395		
						512	1850.2	26.50	26.50	0.838	0.838	0.372	0.372		
					Right Tilt	661	1880.0	26.50	26.50	0.869	0.869	0.384	0.384	7	
						810	1909.8	26.50	26.50	0.800	0.800	0.354	0.354		
	Body & Hotspot	GPRS 2 Slots	Mode B	5	Rear	512	1850.2	26.20	26.12	0.841	0.857	0.381	0.388		
						661	1880.0	26.20	26.13	0.868	0.882	0.385	0.391	8	
					Front	810	1909.8	26.20	26.06	0.838	0.865	0.367	0.379		
						661	1880.0	26.20	26.13	0.795	0.808	0.364	0.370		
	Hotspot	GPRS 2 Slots	Mode B	5	Edge 1	661	1880.0	26.20	26.13	0.532	0.541	0.213	0.216		
					Edge 2	661	1880.0	26.20	26.13	0.030	0.030	0.015	0.015		
					Edge 4	661	1880.0	26.20	26.13	0.340	0.346	0.185	0.188		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT3	Head	GPRS 2 Slots	Mode A	0	Left Touch	661	1880.0	30.00	29.10	0.294	0.362	0.182	0.224	9	
						661	1880.0	30.00	29.10	0.119	0.146	0.069	0.085		
		GPRS 2 Slots	Mode B		Right Touch	661	1880.0	30.00	29.10	0.134	0.165	0.088	0.108		
						661	1880.0	30.00	29.10	0.115	0.141	0.065	0.080		
	Body & Hotspot	GPRS 2 Slots	Mode B	5	Rear	512	1850.2	27.00	26.50	0.886	0.994	0.444	0.498	10	
						661	1880.0	27.00	26.60	0.876	0.961	0.433	0.475		
					Front	810	1909.8	27.00	26.60	0.845	0.927	0.412	0.452		
						661	1880.0	27.00	26.60	0.396	0.434	0.208	0.228		
	Hotspot	GPRS 2 Slots	Mode B	5	Edge 3	661	1880.0	27.00	26.60	0.312	0.342	0.171	0.187		
					Edge 4	661	1880.0	27.00	26.60	0.502	0.550	0.256	0.281		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT4	Head	GPRS 2 Slots	Mode A	0	Left Touch	512	1850.2	27.00	26.80	0.837	0.876	0.413	0.432		
						661	1880.0	27.00	26.60	0.712	0.781	0.366	0.401		
						810	1909.8	27.00	26.80	0.850	0.890	0.420	0.440	11	
					Left Tilt	661	1880.0	27.00	26.60	0.522	0.572	0.256	0.281		
		GPRS 2 Slots	Mode B		Right Touch	661	1880.0	27.00	26.60	0.260	0.285	0.151	0.166		
					Right Tilt	661	1880.0	27.00	26.60	0.173	0.190	0.091	0.100		
	Body & Hotspot	GPRS 2 Slots	Mode B	5	Rear	661	1880.0	27.50	27.50	0.562	0.562	0.290	0.290	12	
					Front	661	1880.0	27.50	27.50	0.234	0.234	0.127	0.127		
	Hotspot	GPRS 2 Slots	Mode B	5	Edge 1	661	1880.0	27.50	27.50	0.364	0.364	0.175	0.175		
					Edge 2	661	1880.0	27.50	27.50	0.731	0.731	0.339	0.339	13	

10.3. W-CDMA Band 2

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	9400	1880.0	25.50	24.50	0.207	0.261	0.131	0.165		
					Left Tilt	9400	1880.0	25.50	24.50	0.163	0.205	0.092	0.116		
					Right Touch	9400	1880.0	25.50	24.50	0.403	0.507	0.241	0.303	14	
					Right Tilt	9400	1880.0	25.50	24.50	0.133	0.167	0.084	0.106		
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	9262	1852.4	21.00	20.20	0.809	0.973	0.358	0.430		
						9400	1880.0	21.00	20.40	0.863	0.991	0.379	0.435		
					Front	9400	1880.0	21.00	20.40	0.496	0.569	0.236	0.271	15	
					Edge	9400	1880.0	21.00	20.40	0.631	0.724	0.282	0.324		
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5		9400	1880.0	21.00	20.40	0.254	0.292	0.124	0.142		
						9400	1880.0	21.00	20.40	0.042	0.048	0.021	0.024		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT2	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	9400	1880.0	18.50	18.50	0.289	0.289	0.155	0.155		
						9400	1880.0	18.50	18.50	0.267	0.267	0.135	0.135		
					Right Touch	9262	1852.4	18.50	18.50	0.691	0.691	0.354	0.354		
						9400	1880.0	18.50	18.50	0.828	0.828	0.415	0.415	16	
					Right Tilt	9538	1907.6	18.50	18.50	0.787	0.787	0.406	0.406		
						9262	1852.4	18.50	18.50	0.810	0.810	0.366	0.366		
					Rear	9400	1880.0	18.50	18.50	0.819	0.819	0.370	0.370		
						9538	1907.6	18.50	18.50	0.738	0.738	0.332	0.332		
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Front	9262	1852.4	17.70	17.50	0.619	0.648	0.286	0.299		
						9400	1880.0	17.70	17.70	0.802	0.802	0.335	0.335		
					Right Tilt	9538	1907.6	17.70	17.60	0.794	0.812	0.334	0.342	17	
						9400	1880.0	17.70	17.70	0.331	0.331	0.155	0.155		
					Front	9400	1880.0	17.70	17.70	0.229	0.229	0.122	0.122		
						9400	1880.0	17.70	17.70	0.229	0.229	0.122	0.122		
						9400	1880.0	17.70	17.70	0.229	0.229	0.122	0.122		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT3	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	9400	1880.0	25.00	24.00	0.412	0.519	0.256	0.322	18	
						9400	1880.0	25.00	24.00	0.161	0.203	0.097	0.122		
					Right Touch	9400	1880.0	25.00	24.00	0.244	0.307	0.160	0.201		
						9400	1880.0	25.00	24.00	0.168	0.211	0.095	0.120		
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	9262	1852.4	19.50	19.40	0.905	0.926	0.455	0.466		
						9400	1880.0	19.50	19.30	0.890	0.932	0.443	0.464	18	
					Front	9538	1907.6	19.50	19.30	0.867	0.908	0.425	0.445		
						9400	1880.0	19.50	19.30	0.363	0.380	0.187	0.196		
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 3	9400	1880.0	19.50	19.30	0.050	0.053	0.028	0.030		
						9400	1880.0	19.50	19.30	0.422	0.442	0.218	0.228		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT4	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	9400	1880.0	20.20	20.20	0.678	0.678	0.330	0.330	20	
						9400	1880.0	20.20	20.20	0.487	0.487	0.238	0.238		
					Right Touch	9400	1880.0	20.20	20.20	0.207	0.207	0.121	0.121		
						9400	1880.0	20.20	20.20	0.153	0.153	0.081	0.081		
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	9400	1880.0	20.50	20.20	0.403	0.432	0.219	0.235	21	
						9400	1880.0	20.50	20.20	0.303	0.325	0.164	0.176		
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 1	9400	1880.0	20.50	20.20	0.253	0.271	0.125	0.134		
						9400	1880.0	20.50	20.20	0.711	0.762	0.324	0.347	22	

10.4. W-CDMA Band 4

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT1	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	1413	1732.6	25.50	24.50	0.140	0.176	0.093	0.117	
					Left Tilt	1413	1732.6	25.50	24.50	0.117	0.147	0.073	0.092	
					Right Touch	1413	1732.6	25.50	24.50	0.291	0.366	0.182	0.229	23
					Right Tilt	1413	1732.6	25.50	24.50	0.102	0.128	0.068	0.086	
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	1413	1732.6	18.00	17.30	0.579	0.680	0.288	0.338	24
					Front	1413	1732.6	18.00	17.30	0.317	0.372	0.161	0.189	
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 2	1413	1732.6	18.00	17.30	0.185	0.217	0.102	0.120	
					1312	1712.4	18.00	17.30	0.723	0.849	0.340	0.399		
					1413	1732.6	18.00	17.30	0.849	0.997	0.387	0.455	25	
					1513	1752.6	18.00	17.40	0.795	0.913	0.363	0.417		
					Edge 4	1413	1732.6	18.00	17.30	0.018	0.021	0.011	0.013	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT2	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	1413	1732.6	20.20	20.20	0.382	0.382	0.193	0.193	
					Left Tilt	1413	1732.6	20.20	20.20	0.489	0.489	0.243	0.243	
					Right Touch	1312	1712.4	20.20	20.20	0.805	0.805	0.398	0.398	
						1413	1732.6	20.20	20.20	0.732	0.732	0.356	0.356	
					Right Tilt	1513	1752.6	20.20	20.00	0.649	0.680	0.315	0.330	
						1312	1712.4	20.20	20.20	0.854	0.854	0.404	0.404	
						1413	1732.6	20.20	20.20	0.881	0.881	0.417	0.417	26
						1513	1752.6	20.20	20.00	0.772	0.808	0.358	0.375	
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	1413	1732.6	19.00	18.50	0.695	0.780	0.321	0.360	27
					Front	1413	1732.6	19.00	18.50	0.366	0.411	0.181	0.203	
ANT3	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 1	1312	1712.4	19.00	18.80	0.857	0.897	0.393	0.412	28
						1413	1732.6	19.00	18.50	0.722	0.810	0.330	0.370	
					1513	1752.6	19.00	18.50	0.609	0.683	0.279	0.313		
					Edge 2	1413	1732.6	19.00	18.50	0.003	0.004	0.002	0.002	
					Edge 4	1413	1732.6	19.00	18.50	0.259	0.291	0.142	0.159	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT4	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	1413	1732.6	25.00	24.00	0.276	0.347	0.173	0.218	29
					Left Tilt	1413	1732.6	25.00	24.00	0.167	0.210	0.104	0.131	
					Right Touch	1413	1732.6	25.00	24.00	0.161	0.203	0.105	0.132	
					Right Tilt	1413	1732.6	25.00	24.00	0.111	0.140	0.070	0.088	
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	1312	1712.4	22.00	21.50	0.752	0.844	0.428	0.480	
						1413	1732.6	22.00	21.70	0.817	0.875	0.458	0.491	
					Front	1413	1732.6	22.00	21.70	0.884	0.947	0.487	0.522	30
					Edge 3	1413	1732.6	22.00	21.70	0.234	0.251	0.113	0.121	
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 4	1413	1732.6	22.00	21.70	0.536	0.574	0.291	0.312	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT4	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	1413	1732.6	22.50	22.00	0.684	0.767	0.360	0.404	31
					Left Tilt	1413	1732.6	22.50	22.00	0.396	0.444	0.189	0.212	
					Right Touch	1413	1732.6	22.50	22.00	0.179	0.201	0.099	0.111	
					Right Tilt	1413	1732.6	22.50	22.00	0.177	0.199	0.093	0.104	
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	1413	1732.6	22.50	22.50	0.353	0.353	0.190	0.190	32
					Front	1413	1732.6	22.50	22.50	0.280	0.280	0.151	0.151	
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 1	1413	1732.6	22.50	22.50	0.340	0.340	0.161	0.161	
					Edge 2	1413	1732.6	22.50	22.50	0.777	0.777	0.365	0.365	33

10.5. W-CDMA Band 5

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT1	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	4183	836.6	25.50	24.50	0.161	0.203	0.125	0.157	
					Left Tilt	4183	836.6	25.50	24.50	0.093	0.117	0.073	0.091	
					Right Touch	4183	836.6	25.50	24.50	0.192	0.242	0.148	0.186	34
					Right Tilt	4183	836.6	25.50	24.50	0.120	0.151	0.093	0.118	
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	4183	836.6	25.50	24.50	0.323	0.407	0.203	0.256	35
					Front	4183	836.6	25.50	24.50	0.224	0.282	0.146	0.184	
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 2	4183	836.6	25.50	24.50	0.160	0.201	0.103	0.130	
					Edge 3	4183	836.6	25.50	24.50	0.188	0.237	0.092	0.116	
					Edge 4	4183	836.6	25.50	24.50	0.153	0.193	0.081	0.102	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT2	Head	Rel 99 RMC 12.2 kbps	Mode A	0	Left Touch	4183	836.6	24.50	23.80	0.322	0.378	0.237	0.278	
					Left Tilt	4183	836.6	24.50	23.80	0.217	0.255	0.136	0.160	
					Right Touch	4183	836.6	24.50	23.80	0.422	0.496	0.281	0.330	36
					Right Tilt	4183	836.6	24.50	23.80	0.279	0.328	0.157	0.184	
	Body & Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Rear	4183	836.6	24.50	23.80	0.348	0.409	0.203	0.239	37
					Front	4183	836.6	24.50	23.80	0.147	0.173	0.101	0.119	
	Hotspot	Rel 99 RMC 12.2 kbps	Mode B	5	Edge 1	4183	836.6	24.50	23.80	0.127	0.149	0.063	0.074	
					Edge 2	4183	836.6	24.50	23.80	0.212	0.249	0.136	0.160	
					Edge 4	4183	836.6	24.50	23.80	0.329	0.387	0.212	0.249	

10.6. CDMA BC0

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	1xRTT RC3 SO55	Mode A	0	Left Touch	384	836.5	25.50	24.50	0.160	0.201	0.122	0.154		
					Left Tilt	384	836.5	25.50	24.50	0.097	0.122	0.076	0.096		
					Right Touch	384	836.5	25.50	24.50	0.197	0.248	0.151	0.190	38	
					Right Tilt	384	836.5	25.50	24.50	0.112	0.141	0.088	0.111		
	1xEVDO Rel. 0	Mode A	0	0	Left Touch	384	836.5	25.50	24.50	0.169	0.213	0.129	0.162		
					Left Tilt	384	836.5	25.50	24.50	0.101	0.127	0.078	0.098		
					Right Touch	384	836.5	25.50	24.50	0.190	0.239	0.147	0.185		
					Right Tilt	384	836.5	25.50	24.50	0.109	0.137	0.085	0.107		
	Body & Hotspot	1xRTT RC3 SO32	Mode B	5	Rear	384	836.5	25.50	24.50	0.308	0.388	0.194	0.244	39	
					Front	384	836.5	25.50	24.50	0.264	0.332	0.172	0.217		
	Hotspot	1xRTT RC3 SO32	Mode B	5	Edge 2	384	836.5	25.50	24.50	0.396	0.499	0.256	0.322	40	
					Edge 3	384	836.5	25.50	24.50	0.144	0.181	0.069	0.087		
					Edge 4	384	836.5	25.50	24.50	0.238	0.300	0.154	0.194		
ANT2	Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
									Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
	Head	1xRTT RC3 SO55	Mode A	0	Left Touch	384	836.5	24.50	23.80	0.348	0.409	0.256	0.301		
					Left Tilt	384	836.5	24.50	23.80	0.231	0.271	0.144	0.169		
					Right Touch	384	836.5	24.50	23.80	0.432	0.508	0.293	0.344	41	
					Right Tilt	384	836.5	24.50	23.80	0.303	0.356	0.168	0.197		
	1xEVDO Rel. 0	Mode A	0	0	Left Touch	384	836.5	24.50	23.80	0.306	0.360	0.219	0.257		
					Left Tilt	384	836.5	24.50	23.80	0.206	0.242	0.127	0.149		
					Right Touch	384	836.5	24.50	23.80	0.395	0.464	0.279	0.328		
					Right Tilt	384	836.5	24.50	23.80	0.284	0.334	0.162	0.190		
	Body & Hotspot	1xRTT RC3 SO32	Mode B	5	Rear	384	836.5	24.50	23.80	0.356	0.418	0.208	0.244	42	
					Front	384	836.5	24.50	23.80	0.160	0.188	0.106	0.125		
	Hotspot	1xRTT RC3 SO32	Mode B	5	Edge 1	384	836.5	24.50	23.80	0.126	0.148	0.061	0.072		
					Edge 2	384	836.5	24.50	23.80	0.131	0.154	0.084	0.099		
					Edge 4	384	836.5	24.50	23.80	0.240	0.282	0.155	0.182		

10.7. CDMA BC1

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	1xRTT RC3 SO55	Mode A	0	Left Touch	600	1880.0	25.50	24.50	0.193	0.243	0.122	0.154		
					Left Tilt	600	1880.0	25.50	24.50	0.170	0.214	0.096	0.121		
					Right Touch	600	1880.0	25.50	24.50	0.432	0.544	0.256	0.322	43	
					Right Tilt	600	1880.0	25.50	24.50	0.131	0.165	0.080	0.101		
	1xEVDO Rel. 0	Mode A	0		Left Touch	600	1880.0	25.50	24.50	0.198	0.249	0.125	0.157		
					Left Tilt	600	1880.0	25.50	24.50	0.185	0.233	0.104	0.131		
					Right Touch	600	1880.0	25.50	24.50	0.404	0.509	0.241	0.303		
					Right Tilt	600	1880.0	25.50	24.50	0.127	0.160	0.077	0.097		
	Body & Hotspot	1xRTT RC3 SO32	Mode B	5	Rear	25	1851.3	21.00	21.00	0.803	0.803	0.360	0.360		
						600	1880.0	21.00	21.00	0.861	0.861	0.383	0.383	44	
					Front	600	1880.0	21.00	21.00	0.820	0.820	0.361	0.361		
					Hotspot	1xRTT RC3 SO32	Edge 2	600	1880.0	21.00	21.00	0.780	0.780	0.340	0.340
					Hotspot	1xRTT RC3 SO32	Edge 3	600	1880.0	21.00	21.00	0.307	0.307	0.150	0.150
					Hotspot	1xRTT RC3 SO32	Edge 4	600	1880.0	21.00	21.00	0.047	0.047	0.025	0.025
ANT2	Head	1xRTT RC3 SO55	Mode A	0	Right Touch	Left Touch	600	1880.0	18.50	18.50	0.268	0.268	0.144	0.144	
						Left Tilt	600	1880.0	18.50	18.50	0.282	0.282	0.138	0.138	
						25	1851.3	18.50	18.50	0.782	0.782	0.382	0.382		
						600	1880.0	18.50	18.50	0.865	0.865	0.431	0.431	45	
						1175	1908.8	18.50	18.50	0.797	0.797	0.402	0.402		
						Right Tilt	600	1880.0	18.50	18.50	0.750	0.750	0.343	0.343	
						Left Touch	600	1880.0	18.50	18.50	0.391	0.391	0.214	0.214	
						Left Tilt	600	1880.0	18.50	18.50	0.158	0.158	0.088	0.088	
	Body & Hotspot	1xRTT RC3 SO32	Mode B	5	Rear	Right Touch	600	1880.0	18.50	18.50	0.400	0.400	0.209	0.209	
						Right Tilt	600	1880.0	18.50	18.50	0.545	0.545	0.255	0.255	
						25	1851.3	17.70	17.50	0.725	0.759	0.335	0.351		
						600	1880.0	17.70	17.60	0.849	0.869	0.389	0.398		
	Hotspot	1xRTT RC3 SO32	Mode B	5	Front	1175	1908.8	17.70	17.70	0.882	0.882	0.389	0.389	46	
						Front	600	1880.0	17.70	17.60	0.384	0.393	0.191	0.195	
					Edge 1	600	1880.0	17.70	17.60	0.664	0.679	0.283	0.290		
					Edge 2	600	1880.0	17.70	17.60	0.030	0.030	0.015	0.015		
					Edge 4	600	1880.0	17.70	17.60	0.465	0.476	0.235	0.240		

10.8. CDMA BC10

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT1	Head	1xRTT RC3 SO55	Mode A	0	Left Touch	560	820.0	25.50	24.50	0.133	0.167	0.102	0.128	
					Left Tilt	560	820.0	25.50	24.50	0.078	0.098	0.062	0.078	
					Right Touch	560	820.0	25.50	24.50	0.126	0.159	0.097	0.122	
					Right Tilt	560	820.0	25.50	24.50	0.064	0.081	0.051	0.064	
	1xEVDO Rel. 0	Mode A	0	0	Left Touch	560	820.0	25.50	24.50	0.121	0.152	0.093	0.117	
					Left Tilt	560	820.0	25.50	24.50	0.070	0.088	0.056	0.070	
					Right Touch	560	820.0	25.50	24.50	0.134	0.169	0.104	0.131	47
					Right Tilt	560	820.0	25.50	24.50	0.066	0.083	0.053	0.067	
	Body & Hotspot	1xRTT RC3 SO32	Mode B	5	Rear	560	820.0	25.50	24.50	0.330	0.415	0.205	0.258	48
					Front	560	820.0	25.50	24.50	0.181	0.228	0.120	0.151	
					Edge 2	560	820.0	25.50	24.50	0.361	0.454	0.234	0.295	49
ANT2	Head	1xRTT RC3 SO55	Mode A	0	Edge 3	560	820.0	25.50	24.50	0.115	0.145	0.057	0.072	
					Edge 4	560	820.0	25.50	24.50	0.215	0.271	0.139	0.175	
					Left Touch	560	820.0	24.50	23.80	0.295	0.347	0.221	0.260	
					Left Tilt	560	820.0	24.50	23.80	0.262	0.308	0.161	0.189	
	1xEVDO Rel. 0	Mode A	0	0	Right Touch	560	820.0	24.50	23.80	0.430	0.505	0.293	0.344	
					Right Tilt	560	820.0	24.50	23.80	0.358	0.421	0.193	0.227	
					Left Touch	560	820.0	24.50	23.80	0.338	0.397	0.255	0.300	
					Left Tilt	560	820.0	24.50	23.80	0.222	0.261	0.142	0.167	
	Body & Hotspot	1xRTT RC3 SO32	Mode B	5	Right Touch	560	820.0	24.50	23.80	0.432	0.508	0.307	0.361	50
					Right Tilt	560	820.0	24.50	23.80	0.315	0.370	0.175	0.206	
					Rear	560	820.0	24.50	23.80	0.330	0.388	0.197	0.231	51
	Hotspot	1xRTT RC3 SO32	Mode B	5	Front	560	820.0	24.50	23.80	0.193	0.227	0.145	0.170	
					Edge 1	560	820.0	24.50	23.80	0.119	0.140	0.063	0.074	
					Edge 2	560	820.0	24.50	23.80	0.252	0.296	0.164	0.193	
					Edge 4	560	820.0	24.50	23.80	0.366	0.430	0.239	0.281	52

10.9. LTE Band 7 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT1	Head	QPSK	Mode A	0	Left Touch	21100	2535.0	1	49	25.50	24.50	0.259	0.326	0.148	0.186	
					Left Tilt	21100	2535.0	1	49	25.50	24.50	0.197	0.247	0.112	0.141	
					Right Touch	21100	2535.0	1	49	25.50	24.50	0.546	0.687	0.292	0.368	53
					Right Tilt	21100	2535.0	1	49	25.50	24.50	0.155	0.195	0.076	0.096	
	Body & Hotspot	QPSK	Mode B	5	Rear	20850	2510.0	1	49	21.50	21.42	0.868	0.884	0.342	0.348	
						21100	2535.0	1	49	21.50	21.26	0.780	0.824	0.298	0.315	
						21350	2560.0	1	49	21.50	21.26	0.853	0.901	0.330	0.349	54
					Front	21100	2535.0	1	49	21.50	21.26	0.444	0.469	0.228	0.241	
					Edge 2	21100	2535.0	1	49	21.50	21.26	0.521	0.551	0.234	0.247	
					Edge 3	21100	2535.0	1	49	21.50	21.26	0.496	0.524	0.174	0.184	
					Edge 4	21100	2535.0	1	49	21.50	21.26	0.072	0.076	0.035	0.037	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT2	Head	QPSK	Mode A	0	Left Touch	21100	2535.0	1	49	19.70	19.70	0.721	0.721	0.302	0.302	
					Left Tilt	20850	2510.0	1	49	19.70	19.50	0.722	0.756	0.301	0.315	
					Right Touch	21100	2535.0	1	49	19.70	19.70	0.668	0.668	0.281	0.281	
					Right Tilt	21350	2560.0	1	49	19.70	19.70	0.667	0.698	0.280	0.293	
					Right Touch	20850	2510.0	1	49	19.70	19.70	0.878	0.878	0.352	0.352	
					Right Tilt	21100	2535.0	1	49	19.70	19.50	0.776	0.813	0.319	0.334	
					Right Tilt	21350	2560.0	1	49	19.70	19.70	0.873	0.873	0.358	0.358	
					Right Tilt	20850	2510.0	1	49	19.70	19.70	0.736	0.771	0.301	0.315	
	Body & Hotspot	QPSK	Mode B	5	Rear	20850	2510.0	1	49	21.50	21.50	0.869	0.869	0.353	0.353	
					Rear	21100	2535.0	1	49	21.50	21.50	0.807	0.845	0.330	0.346	
					Front	21100	2535.0	1	49	21.50	21.50	0.871	0.871	0.346	0.346	
					Front	21350	2560.0	1	49	21.50	21.50	0.882	0.882	0.350	0.350	
	Hotspot	QPSK	Mode B	5	Edge 1	20850	2510.0	1	49	21.50	21.10	0.810	0.810	0.308	0.308	56
					Edge 1	21100	2535.0	1	49	21.50	21.20	0.776	0.831	0.317	0.340	
					Edge 1	21350	2560.0	1	49	21.50	21.20	0.656	0.736	0.271	0.304	
					Edge 2	21100	2535.0	1	49	21.50	21.20	0.772	0.827	0.313	0.335	
					Edge 4	21100	2535.0	1	49	21.50	21.20	0.625	0.670	0.224	0.240	
					Edge 4	21350	2560.0	1	49	21.50	21.20	0.084	0.090	0.040	0.043	
					Edge 4	20850	2510.0	1	49	21.50	21.20	0.732	0.784	0.282	0.302	
					Edge 4	21100	2535.0	1	49	21.50	21.00	0.745	0.836	0.270	0.303	
					Edge 4	21350	2560.0	1	49	21.50	21.20	0.561	0.601	0.254	0.272	

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT3	Head	QPSK	Mode A	0	Left Touch	21100	2535.0	1	49	25.00	24.80	0.382	0.400	0.204	0.214	57	
					Left Tilt	21100	2535.0	1	49	25.00	24.80	0.244	0.255	0.118	0.124		
					Right Touch	21100	2535.0	1	49	25.00	24.80	0.225	0.236	0.113	0.118		
					Right Tilt	21100	2535.0	1	49	25.00	24.80	0.116	0.121	0.059	0.062		
	Body & Hotspot	QPSK	Mode B	5	Rear	20850	2510.0	1	49	21.00	20.75	0.909	0.963	0.377	0.399		
						21100	2535.0	1	49	21.00	20.75	0.900	0.953	0.369	0.391		
						21350	2560.0	1	49	21.00	20.75	0.771	0.817	0.311	0.329		
					Front	21100	2535.0	1	49	21.00	20.75	0.614	0.650	0.272	0.288		
					Edge 3	21100	2535.0	1	49	21.00	20.75	0.403	0.427	0.121	0.128		
					Edge 4	21100	2535.0	1	49	21.00	20.75	0.329	0.378	0.119	0.137		
					50	24	21.00	20.40	50	24	21.00	20.40	0.069	0.073	0.030	0.032	
					50	24	21.00	20.40	50	24	21.00	20.40	0.067	0.077	0.030	0.034	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT4	Head	QPSK	Mode A	0	Left Touch	20850	2510.0	1	49	18.00	18.00	0.748	0.748	0.335	0.335		
						21100	2535.0	1	49	18.00	17.90	0.691	0.707	0.324	0.332		
						21350	2560.0	1	49	18.00	17.40	0.752	0.863	0.335	0.385		
						21100	2535.0	50	24	18.00	17.50	0.792	0.889	0.370	0.415	59	
					Left Tilt	21100	2535.0	1	49	18.00	17.60	0.731	0.802	0.324	0.355		
					Right Touch	21100	2535.0	1	49	18.00	17.40	0.537	0.617	0.255	0.293		
					Right Tilt	21100	2535.0	1	49	18.00	17.40	0.538	0.604	0.254	0.285		
					50	24	18.00	17.50	50	24	18.00	17.50	0.189	0.217	0.100	0.115	
	Body & Hotspot	QPSK	Mode B	5	Rear	20850	2510.0	1	49	18.70	18.70	0.601	0.601	0.283	0.283		
						21100	2535.0	1	49	18.70	18.70	0.845	0.845	0.382	0.382	60	
					21350	2560.0	1	49	18.70	18.70	0.643	0.643	0.293	0.293			
					Front	21100	2535.0	1	49	18.70	18.70	0.482	0.482	0.243	0.243		
	Hotspot	QPSK	Mode B	5	Edge 1	21100	2535.0	1	49	18.70	18.70	0.276	0.276	0.102	0.102		
					50	24	18.70	18.70	50	24	18.70	18.70	0.261	0.261	0.096	0.096	
					Edge 2	21100	2535.0	1	49	18.70	18.70	0.588	0.588	0.274	0.274		
					50	24	18.70	18.70	50	24	18.70	18.70	0.637	0.637	0.271	0.271	

10.10. LTE Band 12 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	QPSK	Mode A	0	Left Touch	23095	707.5	1	24	25.50	24.79	0.186	0.219	0.146	0.172		
								25	12	24.50	23.72	0.141	0.169	0.112	0.134		
		QPSK	Mode A		Left Tilt	23095	707.5	1	24	25.50	24.79	0.114	0.134	0.091	0.107		
								25	12	24.50	23.72	0.067	0.080	0.044	0.053		
		QPSK	Mode A		Right Touch	23095	707.5	1	24	25.50	24.79	0.241	0.284	0.188	0.222	61	
								25	12	24.50	23.72	0.185	0.221	0.145	0.174		
		QPSK	Mode B	5	Right Tilt	23095	707.5	1	24	25.50	24.79	0.115	0.136	0.093	0.110		
								25	12	24.50	23.72	0.091	0.109	0.074	0.089		
	Body & Hotspot	QPSK	Mode B		Rear	23095	707.5	1	24	25.50	24.79	0.526	0.620	0.315	0.371	62	
								25	12	24.50	23.72	0.411	0.492	0.246	0.294		
		QPSK	Mode B		Front	23095	707.5	1	24	25.50	24.79	0.289	0.341	0.187	0.220		
								25	12	24.50	23.72	0.229	0.274	0.143	0.171		
	Hotspot	QPSK	Mode B		Edge 2	23095	707.5	1	24	25.50	24.79	0.605	0.713	0.406	0.479	63	
								25	12	24.50	23.72	0.480	0.574	0.323	0.386		
		QPSK	Mode B		Edge 3	23095	707.5	1	24	25.50	24.79	0.260	0.306	0.114	0.134		
								25	12	24.50	23.72	0.212	0.254	0.093	0.111		
		QPSK	Mode B		Edge 4	23095	707.5	1	24	25.50	24.79	0.230	0.271	0.153	0.180		
								25	12	24.50	23.72	0.182	0.218	0.122	0.146		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT2	Head	QPSK	Mode A	0	Left Touch	23095	707.5	1	24	24.50	23.50	0.282	0.355	0.213	0.268		
								25	12	23.50	22.50	0.217	0.273	0.166	0.209		
		QPSK	Mode A		Left Tilt	23095	707.5	1	24	24.50	23.50	0.277	0.349	0.178	0.224		
								25	12	23.50	22.50	0.228	0.287	0.146	0.184		
		QPSK	Mode B		Right Touch	23095	707.5	1	24	24.50	23.50	0.445	0.560	0.289	0.364	64	
								25	12	23.50	22.50	0.354	0.446	0.230	0.290		
		QPSK	Mode B	5	Right Tilt	23095	707.5	1	24	24.50	23.50	0.435	0.548	0.249	0.313		
								25	12	23.50	22.50	0.347	0.437	0.199	0.251		
	Body & Hotspot	QPSK	Mode B		Rear	23095	707.5	1	24	24.50	23.50	0.298	0.375	0.190	0.239	65	
								25	12	23.50	22.50	0.235	0.296	0.150	0.189		
		QPSK	Mode B		Front	23095	707.5	1	24	24.50	23.50	0.164	0.206	0.129	0.162		
								25	12	23.50	22.50	0.133	0.167	0.104	0.131		
	Hotspot	QPSK	Mode B		Edge 1	23095	707.5	1	24	24.50	23.50	0.100	0.126	0.051	0.064		
								25	12	23.50	22.50	0.079	0.099	0.041	0.052		
		QPSK	Mode B		Edge 2	23095	707.5	1	24	24.50	23.50	0.137	0.172	0.091	0.115		
								25	12	23.50	22.50	0.110	0.138	0.075	0.094		
		QPSK	Mode B		Edge 4	23095	707.5	1	24	24.50	23.50	0.320	0.403	0.215	0.271	66	
								25	12	23.50	22.50	0.257	0.324	0.174	0.219		

10.11. LTE Band 13 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	QPSK	Mode A	0	Left Touch	23230	782.0	1	24	25.50	24.60	0.217	0.267	0.166	0.204		
								25	12	24.50	23.50	0.167	0.210	0.128	0.161		
					Left Tilt	23230	782.0	1	24	25.50	24.60	0.149	0.183	0.117	0.144		
								25	12	24.50	23.50	0.118	0.149	0.093	0.117		
					Right Touch	23230	782.0	1	24	25.50	24.60	0.277	0.341	0.210	0.258	67	
				5	Right Tilt	23230	782.0	1	24	25.50	24.60	0.150	0.185	0.120	0.148		
								25	12	24.50	23.50	0.120	0.151	0.096	0.121		
	Body & Hotspot	QPSK	Mode B		Rear	23230	782.0	1	24	25.50	24.60	0.481	0.592	0.273	0.336		
								25	12	24.50	23.50	0.535	0.674	0.297	0.374	68	
					Front	23230	782.0	1	24	25.50	24.60	0.409	0.503	0.239	0.294		
								25	12	24.50	23.50	0.324	0.408	0.190	0.239		
ANT2	Hotspot	QPSK	Mode B	5	Edge 2	23230	782.0	1	24	25.50	24.60	0.745	0.917	0.492	0.605	69	
								25	12	24.50	23.50	0.607	0.764	0.400	0.504		
					Edge 3	23230	782.0	1	24	25.50	24.60	0.391	0.481	0.176	0.217		
								25	12	24.50	23.50	0.312	0.393	0.140	0.176		
					Edge 4	23230	782.0	1	24	25.50	24.60	0.268	0.330	0.177	0.218		
	Body & Hotspot	QPSK	Mode B					25	12	24.50	23.50	0.209	0.263	0.138	0.174		
					Rear	23230	782.0	1	24	24.50	23.50	0.304	0.383	0.220	0.277		
								25	12	23.50	22.50	0.236	0.297	0.171	0.215		
					Front	23230	782.0	1	24	24.50	23.50	0.263	0.331	0.170	0.214		
ANT2	Hotspot	QPSK	Mode B	5	Right Touch	23230	782.0	1	24	24.50	23.50	0.365	0.460	0.262	0.330	70	
								25	12	23.50	22.50	0.287	0.361	0.206	0.259		
					Right Tilt	23230	782.0	1	24	24.50	23.50	0.302	0.380	0.181	0.228		
								25	12	23.50	22.50	0.241	0.303	0.140	0.176		
								1	24	24.50	23.50	0.280	0.352	0.173	0.218	71	
	Body & Hotspot	QPSK	Mode B					25	12	23.50	22.50	0.221	0.278	0.136	0.171		
					Rear	23230	782.0	1	24	24.50	23.50	0.154	0.194	0.122	0.154		
								25	12	23.50	22.50	0.131	0.165	0.101	0.127		
					Front	23230	782.0	1	24	24.50	23.50	0.086	0.108	0.048	0.060		
ANT2	Hotspot	QPSK	Mode B	5	Edge 1	23230	782.0	1	24	24.50	23.50	0.073	0.092	0.040	0.050		
								25	12	23.50	22.50	0.278	0.350	0.183	0.230		
					Edge 2	23230	782.0	1	24	24.50	23.50	0.215	0.271	0.141	0.178		
								25	12	23.50	22.50	0.449	0.565	0.298	0.375	72	
					Edge 4	23230	782.0	1	24	24.50	23.50	0.370	0.466	0.244	0.307		

10.12. LTE Band 14 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	QPSK	Mode A	0	Left Touch	23330	793.0	1	24	25.50	24.70	0.210	0.253	0.161	0.194		
								25	12	24.50	23.59	0.164	0.202	0.126	0.155		
		QPSK	Mode A		Left Tilt	23330	793.0	1	24	25.50	24.70	0.148	0.178	0.115	0.138		
								25	12	24.50	23.59	0.125	0.154	0.097	0.120		
	Body & Hotspot	QPSK	Mode B		Right Touch	23330	793.0	1	24	25.50	24.70	0.260	0.313	0.197	0.237	73	
								25	12	24.50	23.59	0.208	0.257	0.158	0.195		
					Right Tilt	23330	793.0	1	24	25.50	24.70	0.155	0.187	0.122	0.147		
								25	12	24.50	23.59	0.124	0.153	0.099	0.122		
					Rear	23330	793.0	1	24	25.50	24.70	0.448	0.539	0.270	0.325	74	
								25	12	24.50	23.59	0.363	0.448	0.217	0.268		
ANT2	Hotspot	QPSK	Mode B	5	Front	23330	793.0	1	24	25.50	24.70	0.336	0.404	0.198	0.238		
								25	12	24.50	23.59	0.270	0.333	0.160	0.197		
					Edge 2	23330	793.0	1	24	25.50	24.70	0.613	0.738	0.405	0.487	75	
								25	12	24.50	23.59	0.495	0.611	0.326	0.402		
					Edge 3	23330	793.0	1	24	25.50	24.70	0.368	0.443	0.166	0.200		
								25	12	24.50	23.59	0.270	0.333	0.125	0.154		
					Edge 4	23330	793.0	1	24	25.50	24.70	0.438	0.527	0.289	0.348		
								25	12	24.50	23.59	0.338	0.417	0.224	0.276		
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
ANT2	Head	QPSK	Mode A	0	Left Touch	23330	793.0	1	24	24.50	23.50	0.261	0.329	0.191	0.240		
								25	12	23.50	22.50	0.219	0.276	0.161	0.203		
					Left Tilt	23330	793.0	1	24	24.50	23.50	0.227	0.286	0.142	0.179		
								25	12	23.50	22.50	0.181	0.228	0.113	0.142		
					Right Touch	23330	793.0	1	24	24.50	23.50	0.325	0.409	0.211	0.266	76	
								25	12	23.50	22.50	0.287	0.361	0.198	0.249		
					Right Tilt	23330	793.0	1	24	24.50	23.50	0.282	0.355	0.159	0.200		
								25	12	23.50	22.50	0.224	0.282	0.127	0.160		
	Body & Hotspot	QPSK	Mode B	5	Rear	23330	793.0	1	24	24.50	23.50	0.321	0.404	0.187	0.235	77	
								25	12	23.50	22.50	0.255	0.321	0.149	0.188		
					Front	23330	793.0	1	24	24.50	23.50	0.140	0.176	0.098	0.123		
								25	12	23.50	22.50	0.111	0.140	0.078	0.098		
					Edge 1	23330	793.0	1	24	24.50	23.50	0.081	0.102	0.044	0.055		
								25	12	23.50	22.50	0.057	0.072	0.031	0.039		
ANT2	Hotspot	QPSK	Mode B	5	Edge 2	23330	793.0	1	24	24.50	23.50	0.183	0.230	0.120	0.151		
								25	12	23.50	22.50	0.140	0.176	0.092	0.116		
					Edge 4	23330	793.0	1	24	24.50	23.50	0.264	0.332	0.173	0.218		
								25	12	23.50	22.50	0.212	0.267	0.139	0.175		

10.13. LTE Band 25 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT1	Head	QPSK	Mode A	0	Left Touch	26365	1882.5	1	49	25.50	24.50	0.193	0.243	0.123	0.155	
					Left Tilt	26365	1882.5	1	49	25.50	24.50	0.152	0.191	0.097	0.122	
					Right Touch	26365	1882.5	1	49	25.50	24.50	0.171	0.215	0.097	0.122	
					Right Tilt	26365	1882.5	1	49	25.50	24.50	0.125	0.157	0.077	0.097	
	Body & Hotspot	QPSK	Mode B	5	Rear	26140	1860.0	1	49	21.00	20.50	0.752	0.844	0.341	0.383	
						26365	1882.5	1	49	21.00	20.50	0.762	0.855	0.345	0.387	79
						26590	1905.0	1	49	21.00	20.70	0.725	0.813	0.327	0.367	
						26365	1882.5	1	49	21.00	20.50	0.727	0.816	0.325	0.365	
					Front	26365	1882.5	1	49	21.00	20.50	0.735	0.788	0.328	0.351	
					Edge 2	26365	1882.5	1	49	21.00	20.50	0.744	0.812	0.325	0.365	
					Edge 3	26365	1882.5	1	49	21.00	20.50	0.747	0.816	0.325	0.365	
					Edge 4	26365	1882.5	1	49	21.00	20.50	0.750	0.820	0.328	0.368	
	Hotspot	QPSK	Mode B	5	Edge 2	26365	1882.5	50	24	21.00	20.50	0.759	0.829	0.331	0.371	
					Edge 3	26365	1882.5	50	24	21.00	20.50	0.762	0.832	0.334	0.374	
					Edge 4	26365	1882.5	50	24	21.00	20.50	0.765	0.835	0.337	0.377	
					Edge 2	26365	1882.5	50	24	21.00	20.50	0.770	0.840	0.340	0.380	
					Edge 3	26365	1882.5	50	24	21.00	20.50	0.773	0.843	0.343	0.383	
					Edge 4	26365	1882.5	50	24	21.00	20.50	0.776	0.846	0.346	0.386	
					Edge 2	26365	1882.5	50	24	21.00	20.50	0.780	0.850	0.349	0.389	
					Edge 3	26365	1882.5	50	24	21.00	20.50	0.783	0.853	0.352	0.392	
					Edge 4	26365	1882.5	50	24	21.00	20.50	0.786	0.856	0.355	0.395	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT2	Head	QPSK	Mode A	0	Left Touch	26365	1882.5	1	49	18.50	18.50	0.250	0.250	0.132	0.132	
					Left Tilt	26365	1882.5	1	49	18.50	18.50	0.220	0.220	0.119	0.119	
					Right Touch	26140	1860.0	1	49	18.50	18.50	0.248	0.248	0.123	0.123	
					Right Tilt	26365	1882.5	1	49	18.50	18.50	0.264	0.264	0.131	0.131	
					Right Tilt	26365	1905.0	1	49	18.50	18.50	0.773	0.773	0.381	0.381	
					Right Tilt	26365	1882.5	1	49	18.50	18.50	0.827	0.827	0.411	0.411	80
					Right Tilt	26365	1882.5	50	24	18.50	18.50	0.787	0.787	0.404	0.404	
					Right Tilt	26365	1882.5	50	24	18.50	18.50	0.790	0.790	0.399	0.399	
	Body & Hotspot	QPSK	Mode B	5	Rear	26140	1860.0	1	49	17.70	17.50	0.651	0.682	0.296	0.310	
						26365	1882.5	1	49	17.70	17.50	0.748	0.783	0.335	0.351	
						26365	1882.5	1	49	17.70	17.50	0.771	0.807	0.338	0.354	81
						26365	1882.5	50	24	17.70	17.50	0.767	0.803	0.345	0.361	
					Front	26365	1882.5	100	0	17.70	17.50	0.745	0.780	0.326	0.341	
					Front	26365	1882.5	1	49	17.70	17.50	0.731	0.765	0.329	0.345	
					Front	26365	1882.5	50	24	17.70	17.67	0.752	0.757	0.344	0.360	
					Front	26365	1882.5	50	24	17.70	17.50	0.740	0.775	0.320	0.336	
	Hotspot	QPSK	Mode B	5	Edge 1	26365	1882.5	1	49	17.70	17.50	0.478	0.501	0.214	0.224	
					Edge 1	26365	1882.5	1	49	17.70	17.50	0.469	0.491	0.210	0.220	
					Edge 2	26365	1882.5	1	49	17.70	17.50	0.021	0.022	0.010	0.010	
					Edge 2	26365	1882.5	1	49	17.70	17.50	0.016	0.017	0.006	0.007	
	Hotspot	QPSK	Mode B	5	Edge 4	26365	1882.5	1	49	17.70	17.50	0.461	0.483	0.237	0.248	
					Edge 4	26365	1882.5	1	49	17.70	17.50	0.384	0.402	0.133	0.139	

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT3	Head	QPSK	Mode A	0	Left Touch	26365	1882.5	1	49	25.00	24.05	0.160	0.199	0.101	0.126	82
					Left Tilt	26365	1882.5	50	24	24.00	23.22	0.162	0.194	0.102	0.122	
					Right Touch	26365	1882.5	1	49	25.00	24.05	0.062	0.077	0.038	0.047	
					Right Tilt	26365	1882.5	50	24	24.00	23.22	0.073	0.091	0.047	0.059	
						26365	1882.5	1	49	25.00	24.05	0.054	0.067	0.030	0.037	
						26365	1882.5	50	24	24.00	23.22	0.057	0.068	0.031	0.037	
						26140	1860.0	1	49	19.70	19.70	0.968	0.968	0.486	0.486	
	Body & Hotspot	QPSK	Mode B	5	Rear	26365	1882.5	50	24	19.70	19.70	0.945	0.945	0.474	0.474	
								1	49	19.70	19.70	0.971	0.971	0.482	0.482	83
						26365	1882.5	50	24	19.70	19.70	0.948	0.948	0.473	0.473	
						26590	1905.0	100	0	19.70	19.70	0.941	0.941	0.467	0.467	
					Front	26365	1882.5	1	49	19.70	19.70	0.925	0.925	0.454	0.454	
						26365	1882.5	50	24	19.70	19.70	0.917	0.917	0.449	0.449	
						26365	1882.5	1	49	19.70	19.70	0.406	0.406	0.213	0.213	
	Hotspot	QPSK	Mode B	5	Edge 3	26365	1882.5	50	24	19.70	19.70	0.321	0.321	0.173	0.173	
					Edge 4	26365	1882.5	1	49	19.70	19.70	0.741	0.741	0.364	0.364	
						26365	1882.5	50	24	19.70	19.70	0.664	0.664	0.337	0.337	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT4	Head	QPSK	Mode A	0	Left Touch	26140	1860.0	1	49	20.20	19.70	0.697	0.782	0.352	0.395	
						26365	1882.5	1	49	20.20	19.70	0.722	0.810	0.353	0.396	
						26365	1882.5	50	24	20.20	19.70	0.697	0.782	0.342	0.384	
					Left Tilt	26365	1882.5	1	49	20.20	20.00	0.827	0.866	0.408	0.427	84
						26365	1882.5	50	24	20.20	19.70	0.497	0.558	0.257	0.288	
					Right Touch	26365	1882.5	1	49	20.20	19.70	0.217	0.243	0.126	0.141	
					Right Tilt	26365	1882.5	50	24	20.20	19.70	0.215	0.241	0.125	0.140	
	Body & Hotspot	QPSK	Mode B	5	Rear	26365	1882.5	1	49	20.50	20.20	0.612	0.656	0.329	0.353	85
						26365	1882.5	50	24	20.50	20.20	0.476	0.510	0.256	0.274	
					Front	26365	1882.5	1	49	20.50	20.20	0.441	0.473	0.236	0.253	
	Hotspot	QPSK	Mode B	5	Edge 1	26365	1882.5	1	49	20.50	20.20	0.349	0.374	0.188	0.201	
						26365	1882.5	50	24	20.50	20.20	0.324	0.347	0.157	0.168	
					Edge 2	26365	1882.5	1	49	20.50	20.20	0.731	0.783	0.335	0.359	86

10.14. LTE Band 26 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	QPSK	Mode A	0	Left Touch	26865	831.5	1	24	25.50	24.74	0.172	0.205	0.131	0.156		
					25			12	24.50	23.77	0.132	0.156	0.101	0.119			
					Left Tilt	26865	831.5	1	24	25.50	24.74	0.108	0.129	0.084	0.100		
		QPSK	Mode B		25			12	24.50	23.77	0.097	0.115	0.076	0.090			
					Right Touch	26865	831.5	1	24	25.50	24.74	0.192	0.228	0.149	0.177	87	
					25			12	24.50	23.77	0.146	0.173	0.113	0.134			
	Body & Hotspot	QPSK	Mode A	5	Right Tilt	26865	831.5	1	24	25.50	24.74	0.102	0.121	0.079	0.094		
					25			12	24.50	23.77	0.086	0.102	0.067	0.079			
					Rear	26865	831.5	1	24	25.50	24.50	0.351	0.442	0.215	0.271	88	
		QPSK	Mode B		25			12	24.50	23.50	0.347	0.437	0.212	0.267			
					Front	26865	831.5	1	24	25.50	24.50	0.178	0.224	0.115	0.145		
					25			12	24.50	23.50	0.172	0.217	0.112	0.141			
ANT2	Head	QPSK	Mode A	0	Edge 2	26865	831.5	1	24	25.50	24.50	0.293	0.369	0.189	0.238		
					25			12	24.50	23.50	0.305	0.384	0.196	0.247			
					Edge 3	26865	831.5	1	24	25.50	24.50	0.129	0.162	0.063	0.079		
		QPSK	Mode B		25			12	24.50	23.50	0.105	0.132	0.051	0.064			
					Edge 4	26865	831.5	1	24	25.50	24.50	0.250	0.315	0.160	0.201		
					25			12	24.50	23.50	0.198	0.249	0.126	0.159			
	Body & Hotspot	QPSK	Mode B	5	Left Touch	26865	831.5	1	24	24.50	23.70	0.328	0.394	0.239	0.287		
					25			12	23.50	22.80	0.257	0.302	0.186	0.219			
					Left Tilt	26865	831.5	1	24	24.50	23.70	0.214	0.257	0.133	0.160		
		QPSK	Mode B		25			12	23.50	22.80	0.172	0.202	0.107	0.126			
					Right Touch	26865	831.5	1	24	24.50	23.70	0.408	0.491	0.283	0.340	89	
					Right Tilt	26865	831.5	1	24	24.50	23.70	0.284	0.341	0.165	0.198		
		QPSK	Mode B		25			12	23.50	22.80	0.232	0.273	0.133	0.156			
					Rear	26865	831.5	1	24	24.50	23.70	0.320	0.385	0.184	0.221	90	
					25			12	23.50	22.80	0.259	0.304	0.151	0.177			
ANT2	Body & Hotspot	QPSK	Mode B	5	Front	26865	831.5	1	24	24.50	23.70	0.143	0.172	0.096	0.115		
					25			12	23.50	22.80	0.118	0.139	0.079	0.093			
					Edge 1	26865	831.5	1	24	24.50	23.70	0.120	0.144	0.057	0.069		
	Hotspot	QPSK	Mode B	5	25			12	23.50	22.80	0.098	0.115	0.049	0.057			
					Edge 2	26865	831.5	1	24	24.50	23.70	0.201	0.242	0.130	0.156		
					25			12	23.50	22.80	0.159	0.187	0.103	0.121			
	Hotspot	QPSK	Mode B	5	Edge 4	26865	831.5	1	24	24.50	23.70	0.264	0.317	0.171	0.206		
					25			12	23.50	22.80	0.214	0.251	0.138	0.162			

10.15. LTE Band 30 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT1	Head	QPSK	Mode A	0	Left Touch	27710	2310.0	1	24	23.50	23.50	0.255	0.255	0.145	0.145	
					Left Tilt	27710	2310.0	1	24	23.50	23.50	0.205	0.205	0.117	0.117	
					Right Touch	27710	2310.0	1	24	23.50	23.50	0.499	0.499	0.273	0.273	91
					Right Tilt	27710	2310.0	1	24	23.50	23.50	0.181	0.181	0.083	0.083	
	Body & Hotspot	QPSK	Mode B	5	Rear	27710	2310.0	1	24	21.70	21.30	0.803	0.880	0.345	0.378	
					Front	27710	2310.0	1	24	21.70	21.30	0.455	0.499	0.236	0.259	
					Edge 2	27710	2310.0	1	24	21.70	21.30	0.746	0.818	0.302	0.331	
					Edge 3	27710	2310.0	1	24	21.70	21.30	0.233	0.255	0.087	0.095	
	Hotspot	QPSK	Mode B	5	Edge 4	27710	2310.0	1	24	21.70	21.30	0.026	0.028	0.007	0.007	
					1	24	21.70	21.30	0.025	0.028	0.007	0.007				
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT2	Head	QPSK	Mode A	0	Left Touch	27710	2310.0	1	24	20.50	20.50	0.575	0.575	0.245	0.245	
					Left Tilt	27710	2310.0	1	24	20.50	20.50	0.564	0.564	0.240	0.240	
					Right Touch	27710	2310.0	1	24	20.50	20.50	0.756	0.756	0.309	0.309	
					Right Tilt	27710	2310.0	1	24	20.50	20.50	0.748	0.748	0.305	0.305	
	Body & Hotspot	QPSK	Mode B	5	Rear	27710	2310.0	1	24	20.50	20.50	0.881	0.881	0.377	0.377	
					Front	27710	2310.0	1	24	20.50	20.50	0.846	0.846	0.368	0.368	
					Edge 1	27710	2310.0	1	24	20.50	20.50	0.887	0.887	0.352	0.352	
					Edge 2	27710	2310.0	1	24	20.50	20.50	0.888	0.888	0.351	0.351	93
	Hotspot	QPSK	Mode B	5	Edge 4	27710	2310.0	1	24	20.50	20.50	0.552	0.552	0.256	0.256	
					1	24	20.50	20.50	0.545	0.545	0.252	0.252				

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT3	Head	QPSK	Mode A	0	Left Touch	27710	2310.0	1	24	23.50	23.50	0.317	0.317	0.177	0.177	95
					Left Tilt	27710	2310.0	1	24	23.50	22.75	0.249	0.296	0.138	0.164	
					Right Touch	27710	2310.0	1	24	23.50	23.50	0.135	0.135	0.069	0.069	
					Right Tilt	27710	2310.0	1	24	23.50	22.75	0.176	0.209	0.097	0.115	
	Body & Hotspot	QPSK	Mode B	5	Rear	27710	2310.0	1	24	20.00	19.91	0.898	0.917	0.392	0.400	
					Front	27710	2310.0	25	12	20.00	19.78	0.896	0.943	0.387	0.407	96
					Edge 3	27710	2310.0	1	24	20.00	19.91	0.624	0.637	0.308	0.314	
					Edge 4	27710	2310.0	25	12	20.00	19.78	0.630	0.663	0.307	0.323	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT4	Head	QPSK	Mode A	0	Left Touch	27710	2310.0	1	24	18.20	17.50	0.753	0.885	0.330	0.388	
					Left Tilt	27710	2310.0	25	12	18.20	17.40	0.736	0.885	0.323	0.388	
					Right Touch	27710	2310.0	50	0	18.20	17.50	0.754	0.886	0.330	0.388	97
					Right Tilt	27710	2310.0	1	24	18.20	17.50	0.394	0.463	0.188	0.221	
	Body & Hotspot	QPSK	Mode B	5	Rear	27710	2310.0	25	12	18.20	17.40	0.390	0.469	0.186	0.224	
					Front	27710	2310.0	1	24	18.20	17.50	0.169	0.199	0.081	0.095	
					Edge 1	27710	2310.0	25	12	18.20	17.40	0.167	0.201	0.081	0.097	
					Edge 2	27710	2310.0	1	24	18.20	17.50	0.130	0.153	0.064	0.075	
	Hotspot	QPSK	Mode B	5	Edge 1	27710	2310.0	25	12	18.20	17.40	0.127	0.153	0.062	0.075	
					Edge 2	27710	2310.0	1	24	19.50	19.00	0.131	0.147	0.059	0.066	
					Edge 2	27710	2310.0	25	12	19.50	19.00	0.119	0.134	0.043	0.048	

10.16. LTE Band 41 Power Class 3 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT1	Head	QPSK	Mode A	0	Left Touch	40620	2593.0	1	49	25.50	24.96	0.151	0.171	0.087	0.098	
								50	24	24.50	23.85	0.115	0.134	0.066	0.077	
					Left Tilt	40620	2593.0	1	49	25.50	24.96	0.126	0.143	0.062	0.070	
								50	24	24.50	23.85	0.090	0.105	0.044	0.051	
	Body & Hotspot	QPSK	Mode B	5	Right Touch	40620	2593.0	1	49	25.50	24.96	0.309	0.350	0.164	0.186	99
								50	24	24.50	23.85	0.243	0.282	0.127	0.148	
					Right Tilt	40620	2593.0	1	49	25.50	24.96	0.097	0.110	0.047	0.053	
								50	24	24.50	23.85	0.075	0.087	0.035	0.041	
					Rear	39750	2506.0	1	49	24.00	23.88	0.741	0.762	0.283	0.291	
								50	24	24.00	23.83	0.671	0.698	0.250	0.260	
						40185	2549.5	1	49	24.00	23.97	0.902	0.908	0.335	0.337	
								50	24	24.00	23.83	0.871	0.906	0.325	0.338	
						40620	2593.0	1	49	24.00	24.00	0.998	0.998	0.362	0.362	100
								50	24	24.00	23.85	0.895	0.926	0.319	0.330	
ANT2	Hotspot	QPSK	Mode B	5	Front	40620	2593.0	100	0	24.00	23.90	0.908	0.929	0.325	0.333	
						41055	2636.5	1	49	24.00	24.00	0.997	0.997	0.359	0.359	
						41490	2680.0	1	49	24.00	24.00	0.970	0.970	0.345	0.345	
							50	24	24.00	23.87	0.727	0.749	0.263	0.271		
					41490	2680.0	1	49	24.00	24.00	0.413	0.413	0.209	0.209		
	Edge 2	QPSK	Mode B	5	Front	40620	2593.0	1	49	24.00	24.00	0.413	0.413	0.194	0.201	
						40620	2593.0	1	49	24.00	24.00	0.725	0.725	0.316	0.316	
							50	24	24.00	23.85	0.671	0.695	0.292	0.302		
					40620	2593.0	1	49	24.00	24.00	0.531	0.531	0.193	0.193		
							50	24	24.00	23.85	0.509	0.527	0.181	0.187		
ANT2	Head	QPSK	Mode A	0	Edge 3	40620	2593.0	1	49	24.00	24.00	0.066	0.066	0.027	0.027	
						40620	2593.0	1	49	24.00	24.00	0.668	0.668	0.265	0.265	
					40620	2593.0	1	49	24.00	24.00	0.876	0.876	0.323	0.323		
					40620	2593.0	1	49	24.00	24.00	0.845	0.845	0.332	0.332		
					40620	2593.0	1	49	24.00	24.00	0.875	0.875	0.333	0.333		
					40620	2593.0	1	49	24.00	24.00	0.815	0.815	0.319	0.319		
					40620	2593.0	1	49	24.00	24.00	0.668	0.668	0.265	0.265		
					40620	2593.0	1	49	24.00	24.00	0.781	0.781	0.307	0.307		
					40620	2593.0	1	49	24.00	24.00	0.734	0.734	0.290	0.290		
					40620	2593.0	1	49	24.00	24.00	0.726	0.726	0.275	0.275		
	Body & Hotspot	QPSK	Mode B	5	Right Tilt	40620	2593.0	1	49	24.00	24.00	0.707	0.707	0.268	0.268	
						40620	2593.0	1	49	22.50	22.04	0.420	0.467	0.162	0.180	
						40620	2593.0	1	49	22.50	22.04	0.474	0.527	0.197	0.219	102
					40620	2593.0	1	49	22.50	22.04	0.370	0.460	0.153	0.190		
					40620	2593.0	1	49	22.50	22.04	0.416	0.518	0.182	0.227		
ANT2	Hotspot	QPSK	Mode B	5	Edge 1	39750	2506.0	1	49	22.50	22.17	0.570	0.615	0.211	0.228	
						40185	2549.5	1	49	22.50	22.15	0.699	0.758	0.249	0.270	
					40620	2593.0	1	49	22.50	22.04	0.755	0.839	0.263	0.292	103	
					40620	2593.0	1	49	22.50	21.30	0.599	0.745	0.211	0.263		
					40620	2593.0	1	49	22.50	22.08	0.649	0.714	0.224	0.247		
	Edge 2	QPSK	Mode B	5		40620	2593.0	1	49	22.50	22.04	0.078	0.087	0.032	0.036	
					40620	2593.0	1	49	22.50	21.30	0.054	0.067	0.021	0.026		
					40620	2593.0	1	49	22.50	22.04	0.526	0.585	0.231	0.257		
					40620	2593.0	1	49	22.50	21.30	0.416	0.518	0.182	0.227		
					40620	2593.0	1	49	22.50	22.04	0.416	0.518	0.182	0.227		

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT3	Head	QPSK	Mode A	0	Left Touch	40620	2593.0	1	49	25.50	25.50	0.210	0.210	0.110	0.110	104
					Left Tilt	40620	2593.0	50	24	24.50	24.50	0.165	0.165	0.086	0.086	
					Right Touch	40620	2593.0	1	49	25.50	25.50	0.161	0.161	0.081	0.081	
					Right Tilt	40620	2593.0	50	24	24.50	24.50	0.101	0.101	0.050	0.050	
	Body & Hotspot	QPSK	Mode B	5	Rear	39750	2506.0	1	49	24.00	24.00	0.993	0.993	0.426	0.426	
						40185	2549.5	50	24	24.00	24.00	0.957	0.957	0.401	0.401	
						40620	2593.0	1	49	24.00	23.72	0.879	0.938	0.388	0.388	
						41055	2636.5	50	24	24.00	23.70	0.923	0.989	0.360	0.360	
					Front	41490	2680.0	100	0	24.00	23.58	0.905	0.997	0.357	0.393	105
						39750	2506.0	1	49	24.00	24.00	0.970	0.970	0.447	0.447	
ANT4	Head	QPSK	Mode A	0	Left Touch	40185	2549.5	1	49	24.00	24.00	0.971	0.971	0.438	0.438	
						40620	2593.0	50	24	24.00	23.72	0.767	0.818	0.332	0.354	
						41055	2636.5	1	49	24.00	24.00	0.657	0.657	0.291	0.291	
						41490	2680.0	100	0	24.00	23.72	0.628	0.670	0.277	0.295	
					Left Tilt	40620	2593.0	1	49	24.00	23.72	0.587	0.626	0.272	0.290	
						41490	2680.0	50	24	24.00	23.70	0.506	0.542	0.242	0.259	
	Body & Hotspot	QPSK	Mode B	5	Edge 3	40620	2593.0	1	49	24.00	23.72	0.522	0.557	0.212	0.226	
						40620	2593.0	1	49	24.00	23.72	0.349	0.374	0.146	0.156	
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT4	Head	QPSK	Mode A	0	Left Touch	39750	2506.0	1	49	19.50	19.50	0.876	0.876	0.411	0.411	
						40185	2549.5	50	24	19.50	19.50	0.886	0.886	0.413	0.413	
						40620	2593.0	1	49	19.50	19.40	0.862	0.862	0.402	0.402	
						41055	2636.5	50	24	19.50	19.20	0.749	0.803	0.344	0.369	
					Left Tilt	41490	2680.0	100	0	19.50	19.50	0.847	0.847	0.387	0.387	
						40620	2593.0	1	49	19.50	19.50	0.856	0.856	0.381	0.381	
	Body & Hotspot	QPSK	Mode B	5	Right Touch	40620	2593.0	50	24	19.50	19.40	0.875	0.895	0.383	0.392	106
						40620	2593.0	1	49	19.50	19.40	0.829	0.829	0.371	0.371	
	Hotspot	QPSK	Mode B	5	Right Tilt	40620	2593.0	1	49	19.50	19.50	0.613	0.627	0.278	0.284	
						40620	2593.0	50	24	19.50	19.20	0.594	0.636	0.269	0.288	
	Body & Hotspot	QPSK	Mode B	5	Edge 1	40620	2593.0	1	49	19.50	19.40	0.243	0.249	0.124	0.127	
						40620	2593.0	50	24	19.50	19.20	0.221	0.237	0.115	0.123	
	Hotspot	QPSK	Mode B	5	Edge 2	40620	2593.0	1	49	19.50	19.40	0.212	0.217	0.111	0.114	
						40620	2593.0	50	24	19.50	19.20	0.207	0.222	0.108	0.116	

10.17. LTE Band 41 Power Class 2 (20MHz Bandwidth)

From May 2017 TCB Workshop, SAR tested were performed using Power Class 3. SAR test for Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for UL-DL configurations is 1 the duty cycle is 43.3%.

Additional SAR testing for Power Class 2 is not required when:

- The reported SAR vs. output power can be linearly scaled with < 10%
- Discrepancy between power classes and all reported SAR are < 1.4 W/kg

Reported SAR vs. Output Power linearly scaled

Antenna	RF Exposure Conditions	Power Class 2			Power Class 3				PC2 linearly scaled Reported SAR (W/kg)	Linearly scaled (<10%)
		Duty Cycle	Tune-up Power (dBm)	Frame Avg. Power (mW)	Duty Cycle	Tune-up Power (dBm)	Frame Avg. Power (mW)	Reported SAR (W/kg)		
ANT1	Head	43.3%	27.00	217.01	63.3%	25.50	224.60	0.350	0.338	3.38%
ANT3	Head	43.3%	26.50	193.41	63.3%	25.50	224.60	0.210	0.181	13.88%

Conclusion:

ANT3 SAR test for Power Class 2 is required base on the reported SAR vs. output power linearly scaled >10%.

LTE Band 41 Power Class 2 SAR Measured Results

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT3	Head	QPSK	0	Left Touch	40620	2593.0	1	49	26.5	26.5	0.138	0.138	0.076	0.076	159

10.18. LTE Band 66 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled		
ANT1	Head	QPSK	Mode A	0	Left Touch	132322	1745.0	1	49	25.50	24.50	0.136	0.171	0.090	0.113		
								50	24	24.50	23.50	0.107	0.135	0.071	0.089		
		QPSK	Mode A		Left Tilt	132322	1745.0	1	49	25.50	24.50	0.124	0.156	0.077	0.097		
								50	24	24.50	23.50	0.099	0.125	0.061	0.077		
	Body & Hotspot	QPSK	Mode B	5	Right Touch	132322	1745.0	1	49	25.50	24.50	0.281	0.354	0.176	0.222	108	
								50	24	24.50	23.50	0.230	0.290	0.144	0.181		
		QPSK	Mode B		Right Tilt	132322	1745.0	1	49	25.50	24.50	0.115	0.145	0.075	0.094		
								50	24	24.50	23.50	0.092	0.116	0.060	0.075		
	Hotspot	QPSK	Mode B		Rear	132322	1745.0	1	49	18.00	17.65	0.447	0.485	0.228	0.247		
								50	24	18.00	17.60	0.458	0.502	0.230	0.252	109	
		QPSK	Mode B		Front	132322	1745.0	1	49	18.00	17.65	0.282	0.306	0.141	0.153		
								50	24	18.00	17.60	0.284	0.311	0.142	0.156		
	Hotspot	QPSK	Mode B		Edge 2	132322	1745.0	1	49	18.00	17.65	0.171	0.185	0.095	0.103		
								50	24	18.00	17.60	0.170	0.186	0.095	0.104		
		QPSK	Mode B		Edge 3	132072	1720.0	1	49	18.00	17.62	0.783	0.855	0.367	0.401	110	
								50	24	18.00	17.59	0.754	0.829	0.352	0.387		
ANT2	ANT2	QPSK	Mode A	0	132322	1745.0	1	49	18.00	17.65	0.743	0.806	0.346	0.375			
								50	24	18.00	17.60	0.732	0.803	0.340	0.373		
					132572	1770.0	1	49	18.00	17.57	0.680	0.751	0.315	0.348			
								50	24	18.00	17.48	0.651	0.734	0.303	0.342		
					132322	1745.0	1	49	18.00	17.65	0.019	0.021	0.011	0.012			
								50	24	18.00	17.60	0.016	0.018	0.009	0.010		
					Left Touch	132322	1745.0	1	49	20.20	20.20	0.370	0.370	0.188	0.188		
								50	24	20.20	20.20	0.365	0.365	0.184	0.184		
					Left Tilt	132322	1745.0	1	49	20.20	20.20	0.476	0.476	0.233	0.233		
								50	24	20.20	20.20	0.459	0.459	0.225	0.225		
					Right Touch	132072	1720.0	1	49	20.20	20.20	0.866	0.866	0.423	0.423		
								50	24	20.20	20.00	0.844	0.884	0.414	0.434		
ANT2	ANT2	QPSK	Mode B	5	132322	1745.0	1	49	20.20	20.20	0.835	0.835	0.404	0.404			
								50	24	20.20	20.20	0.839	0.839	0.404	0.404		
					132572	1770.0	1	49	20.20	20.00	0.706	0.739	0.340	0.356			
								50	24	20.20	20.00	0.704	0.737	0.339	0.355		
					132072	1720.0	1	49	20.20	20.20	0.810	0.810	0.386	0.386			
								50	24	20.20	20.00	0.802	0.840	0.382	0.400		
					132322	1745.0	1	49	20.20	20.20	0.877	0.877	0.407	0.407			
								50	24	20.20	20.20	0.864	0.864	0.400	0.400		
					132572	1770.0	1	49	20.20	20.00	0.703	0.736	0.316	0.331			
								50	24	20.20	20.00	0.717	0.751	0.323	0.338		
	Body & Hotspot	QPSK	Mode B		Rear	132322	1745.0	1	49	19.00	18.30	0.572	0.672	0.262	0.308		
								50	24	19.00	18.20	0.572	0.688	0.263	0.316	112	
ANT2	ANT2	QPSK	Mode B	5	Front	132322	1745.0	1	49	19.00	18.30	0.187	0.220	0.097	0.114		
								50	24	19.00	18.20	0.183	0.220	0.095	0.114		
					Edge 1	132322	1745.0	1	49	19.00	18.30	0.669	0.786	0.309	0.363	113	
								50	24	19.00	18.20	0.643	0.773	0.295	0.355		
					Edge 2	132322	1745.0	1	49	19.00	18.30	0.006	0.007	0.004	0.005		
								50	24	19.00	18.20	0.004	0.005	0.003	0.003		
ANT2	ANT2	QPSK	Mode B	5	Edge 4	132322	1745.0	1	49	19.00	18.30	0.251	0.295	0.136	0.160		
								50	24	19.00	18.20	0.255	0.307	0.137	0.165		

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT3	Head	QPSK	Mode A	0	Left Touch	132322	1745.0	1	49	25.00	24.00	0.266	0.335	0.172	0.217	114
					Left Tilt	132322	1745.0	50	24	24.00	23.00	0.242	0.305	0.153	0.193	
					Right Touch	132322	1745.0	1	49	25.00	24.00	0.167	0.210	0.103	0.130	
					Right Tilt	132322	1745.0	50	24	24.00	23.00	0.150	0.189	0.092	0.116	
	Body & Hotspot	QPSK	Mode B	5	Rear	132072	1720.0	1	49	22.00	21.81	0.785	0.820	0.437	0.457	
						132322	1745.0	50	24	22.00	21.69	0.794	0.853	0.441	0.474	
						132572	1770.0	1	49	22.00	21.85	0.869	0.900	0.474	0.491	
					Front	132322	1745.0	50	24	22.00	21.91	0.857	0.875	0.472	0.482	
					Edge 3	132322	1745.0	1	49	22.00	21.94	0.957	0.970	0.515	0.522	115
					Edge 4	132322	1745.0	50	24	22.00	22.00	0.936	0.936	0.502	0.502	
ANT4	Head	QPSK	Mode A	0	Left Touch	132322	1745.0	1	49	22.00	21.85	0.237	0.245	0.113	0.117	
					Left Tilt	132322	1745.0	50	24	22.00	21.80	0.236	0.247	0.112	0.117	
					Right Touch	132322	1745.0	1	49	22.00	21.85	0.536	0.555	0.287	0.297	
					Right Tilt	132322	1745.0	50	24	22.00	21.80	0.622	0.651	0.334	0.350	
	Body & Hotspot	QPSK	Mode B	5	Rear	132322	1745.0	1	49	22.00	22.50	0.738	0.738	0.386	0.386	116
					Front	132322	1745.0	50	24	22.00	21.70	0.649	0.695	0.334	0.358	
					Edge 3	132322	1745.0	1	49	22.00	22.50	0.513	0.513	0.244	0.244	
					Edge 4	132322	1745.0	50	24	22.00	21.80	0.438	0.469	0.208	0.223	
					Edge 1	132322	1745.0	1	49	22.00	22.50	0.181	0.181	0.100	0.100	
					Edge 2	132072	1720.0	1	49	22.00	22.30	0.394	0.413	0.213	0.223	117
ANT4	Hotspot	QPSK	Mode B	5	Rear	132322	1745.0	50	24	22.00	21.70	0.330	0.354	0.177	0.190	
					Front	132322	1745.0	1	49	22.00	22.30	0.363	0.380	0.191	0.200	
					Edge 1	132322	1745.0	50	24	22.00	21.70	0.246	0.264	0.105	0.113	
					Edge 2	132322	1745.0	1	49	22.00	22.30	0.782	0.819	0.376	0.394	
					Edge 1	132572	1770.0	1	49	22.00	22.50	0.736	0.789	0.339	0.363	
					Edge 2	132322	1745.0	50	24	22.00	21.70	0.849	0.849	0.404	0.404	118

10.19. LTE-uplink 2CA Band 7 (20MHz + 20MHz BW)

SAR Testing was performed on each antenna – ANT1, ANT2, ANT3, and ANT4 – separately using the corresponding power modes: Mode A and Mode B. Mode A power was used when the DUT was tested on Head exposure condition. Mode B power was used when the DUT was tested on Body-worn & Hotspot exposure condition.

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT 1	Body	QPSK	Mode B	5	Rear	21152	2540.2	1	99	21350	2560.0	1	0	21.50	21.20	0.758	0.812	0.293	0.314	
ANT 2	Head	QPSK	Mode A	0	Left Tilt	21152	2540.2	1	99	21350	2560.0	1	0	19.70	19.50	0.825	0.864	0.309	0.324	160
ANT 3	Body	QPSK	Mode B	5	Rear	21001	2525.1	1	99	21199	2544.9	1	0	21.00	20.30	0.655	0.770	0.281	0.330	
ANT 4	Head	QPSK	Mode A	0	Left Touch	21152	2540.2	1	99	21350	2560.0	1	0	18.00	17.50	0.586	0.658	0.269	0.302	

10.20. LTE-uplink 2CA Band 41 PC3 (20MHz + 20MHz BW)

SAR Testing was performed on each antenna – ANT1, ANT2, ANT3, and ANT4 – separately using the corresponding power modes: Mode A and Mode B. Mode A power was used when the DUT was tested on Head exposure condition. Mode B power was used when the DUT was tested on Body-worn & Hotspot exposure condition.

From May 2017 TCB Workshop, HPUE Power Class 2 allows 26 ± 2 dBm and does not support uplink-downlink configurations 0 and 6 or inter-band CA

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT 1	Body	QPSK	Mode B	5	Rear	40521	2583.1	1	99	40719	2602.9	1	0	24.00	23.80	0.853	0.893	0.324	0.339	
ANT 2	Head	QPSK	Mode A	0	Left Tilt	40956	2626.6	1	99	41154	2646.4	1	0	21.50	21.40	0.814	0.833	0.316	0.323	
ANT 3	Body	QPSK	Mode B	5	Front	39750	2506.0	1	99	39948	2525.8	1	0	24.00	23.60	0.890	0.976	0.374	0.410	161
ANT 4	Head	QPSK	Mode A	0	Left Touch	41292	2660.2	1	99	41490	2680.0	1	0	19.50	19.40	0.823	0.842	0.370	0.379	

10.21. Wi-Fi (DTS Band)

When the 802.11b reported SAR of the highest measured maximum output power channel is $\leq 0.8 \text{ W/kg}$, no further SAR testing is required. If SAR is $> 0.8 \text{ W/kg}$ and $\leq 1.2 \text{ W/kg}$, SAR is required for the next highest measured output power channel. Finally, if SAR is $> 1.2 \text{ W/kg}$, SAR is required for the third channel.

SAR testing is not required for OFDM mode(s) when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is $\leq 1.2 \text{ W/kg}$.

ANT3 Power Mode A the $P_{\text{Cell_ON}}$ is same as $P_{\text{Cell_OFF}}$

Antenna	WWAN Power	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
											Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT3	Pcell OFF	Head	802.11b	Mode A	0	Left Touch	6	2437	0.274	100.0%	22.00	22.00	0.233	0.233	0.120	0.120	119
						Left Tilt	6	2437	0.109	100.0%	22.00	22.00					
						Right Touch	6	2437	0.246	100.0%	22.00	22.00					
						Right Tilt	6	2437	0.109	100.0%	22.00	22.00					
		Body & Hotspot	802.11b	Mode B	5	Rear	1	2412	1.88	100.0%	20.00	20.00	1.040	1.040	0.453	0.453	
							6	2437	1.15	100.0%	20.00	20.00	1.190	1.190	0.519	0.519	120
						Front	11	2462	1.6	100.0%	20.00	20.00	1.080	1.080	0.480	0.480	
						Front	6	2437	0.704	100.0%	20.00	20.00	0.635	0.635	0.339	0.339	
		Hotspot	802.11b	Mode B	5	Edge 3	6	2437	0.185	100.0%	20.00	20.00					
						Edge 4	6	2437	0.372	100.0%	20.00	20.00	0.150	0.150	0.063	0.063	
Antenna	WWAN Power	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT4	Pcell OFF	Head	802.11b	Mode A	0	Left Touch	1	2412	1.41	100.0%	19.00	19.00	1.040	1.040	0.475	0.475	
							6	2437	1.21	100.0%	19.00	19.00	1.010	1.010	0.454	0.454	
							11	2462	1.46	100.0%	19.00	19.00	1.120	1.120	0.519	0.519	121
						Left Tilt	1	2412	1.05	100.0%	19.00	19.00	0.692	0.692	0.306	0.306	
							6	2437	0.918	100.0%	19.00	19.00	0.706	0.706	0.300	0.300	
						Right Touch	6	2437	0.411	100.0%	19.00	19.00	0.343	0.343	0.174	0.174	
						Right Tilt	6	2437	0.309	100.0%	19.00	19.00					
		Body & Hotspot	802.11b	Mode B	5	Rear	1	2412	0.677	100.0%	19.50	19.50	0.754	0.754	0.350	0.350	
							6	2437	1.23	100.0%	19.50	19.50	0.940	0.940	0.429	0.429	122
		Hotspot	802.11b	Mode B	5	Front	6	2437	0.67	100.0%	19.50	19.50					
						Edge 1	6	2437	0.29	100.0%	19.50	19.50					
						Edge 2	6	2437	0.796	100.0%	19.50	19.50	0.480	0.480	0.241	0.241	
Antenna	WWAN Power	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT3	Pcell ON	Body & Hotspot	802.11b	Mode B	5	Rear	6	2437	0.510	100.0%	16.00	16.00	0.372	0.372	0.160	0.160	123
						Front	6	2437	0.427	100.0%	16.00	16.00	0.306	0.306	0.153	0.153	
		Hotspot	802.11b	Mode B	5	Edge 3	6	2437	0.189	100.0%	16.00	16.00					
						Edge 4	6	2437	0.121	100.0%	16.00	16.00					
Antenna	WWAN Power	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT4	Pcell ON	Head	802.11b	Mode A	0	Left Touch	6	2437	0.55	100.0%	15.50	15.50	0.458	0.458	0.199	0.199	124
						Left Tilt	6	2437	0.309	100.0%	15.50	15.50	0.311	0.311	0.144	0.144	
						Right Touch	6	2437	0.15	100.0%	15.50	15.50					
						Right Tilt	6	2437	0.167	100.0%	15.50	15.50					
		Body & Hotspot	802.11b	Mode B	5	Rear	6	2437	0.687	100.0%	16.00	16.00	0.491	0.491	0.214	0.214	125
						Front	6	2437	0.294	100.0%	16.00	16.00					
		Hotspot	802.11b	Mode B	5	Edge 1	6	2437	0.118	100.0%	16.00	16.00	0.231	0.231	0.108	0.108	
						Edge 2	6	2437	0.397	100.0%	16.00	16.00					

10.22. Wi-Fi (U-NII Band)

Antenna	WWAN Power	Band	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
												Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT5	Pcell OFF	U-NII-2A	Head	802.11n (HT40)	Mode A	0	Left Touch	54	5270	0.159	97.9%	22.00	22.00	0.065	0.066	0.016	0.016	126
							Left Tilt	54	5270	0.0377	97.9%	22.00	22.00					
							Right Touch	54	5270	0.0715	97.9%	22.00	22.00					
							Right Tilt	54	5270	0.0766	97.9%	22.00	22.00					
							Rear	58	5290	1.840	95.7%	17.50	17.50	1.070	1.118	0.295	0.308	127
		U-NII-2A	Body & Airplay	802.11ac (VHT80)	Mode B	5	Front	58	5290	0.082	95.7%	17.50	17.50					
							Edge 3	58	5290	0.382	95.7%	17.50	17.50	0.237	0.248	0.077	0.080	
			Airplay	802.11ac (VHT80)	Mode B	5	Edge 4	58	5290	0.086	95.7%	17.50	17.50					
		U-NII-2C	Head	802.11ac (VHT80)	Mode A	0	Left Touch	138	5690	0.157	95.7%	22.00	22.00	0.087	0.091	0.026	0.027	128
							Left Tilt	138	5690	0.069	95.7%	22.00	22.00					
							Right Touch	138	5690	0.077	95.7%	22.00	22.00					
							Right Tilt	138	5690	0.064	95.7%	22.00	22.00					
			Body & Airplay	802.11ac (VHT80)	Mode B	5	Rear	106	5530	1.390	95.7%	17.00	17.00	0.924	0.966	0.278	0.291	
							122	5610	1.660	95.7%	17.00	17.00	1.130	1.181	0.326	0.341	129	
							138	5690	1.390	95.7%	17.00	17.00	1.040	1.087	0.306	0.320		
							Front	138	5690	0.078	95.7%	17.00	17.00					
							Edge 3	138	5690	0.410	95.7%	17.00	17.00	0.199	0.208	0.067	0.070	
		U-NII-3	Head	802.11a	Mode A	0	Edge 4	138	5690	0.161	95.7%	17.00	17.00					
							Left Touch	157	5785	0.176	98.9%	22.50	22.00	0.098	0.111	0.027	0.031	130
							Left Tilt	157	5785	0.012	98.9%	22.50	22.00					
							Right Touch	157	5785	0.043	98.9%	22.50	22.00					
							Right Tilt	157	5785	0.049	98.9%	22.50	22.00					
			Body & Airplay	802.11ac (VHT80)	Mode B	5	Rear	155	5775	1.190	95.7%	17.50	17.50	1.120	1.171	0.328	0.343	131
							Front	155	5775	0.069	95.7%	17.50	17.50					
							Edge 3	155	5775	0.286	95.7%	17.50	17.50	0.125	0.131	0.045	0.047	
							Edge 4	155	5775	0.129	95.7%	17.50	17.50					
		U-NII-1	Head	802.11n (HT40)	Mode A	0	Left Touch	46	5230	0.662	97.9%	22.00	22.00					
							Left Tilt	46	5230	0.837	97.9%	22.00	22.00	0.431	0.440	0.118	0.121	
							Right Touch	38	5190	1.310	97.9%	18.50	18.50	0.794	0.811	0.219	0.224	
							Right Tilt	46	5230	1.970	97.9%	22.00	22.00	1.020	1.042	0.294	0.300	132
			Body & Airplay	802.11n (HT40)	Mode B	5	Rear	38	5190	0.864	97.9%	18.50	18.50	0.735	0.751	0.226	0.231	
							Front	46	5230	1.340	97.9%	22.00	22.00	0.809	0.826	0.246	0.251	133
							Edge 1	46	5230	0.703	97.9%	22.00	22.00	0.382	0.390	0.118	0.121	
							Edge 2	38	5190	1.100	97.9%	18.50	18.50	0.769	0.785	0.242	0.247	
							Edge 4	46	5230	1.570	97.9%	22.00	22.00	1.120	1.144	0.343	0.350	134
		U-NII-2C	Head	802.11ac (VHT80)	Mode A	0	Left Touch	138	5690	0.796	95.7%	19.50	19.50	0.420	0.439	0.134	0.140	
							Left Tilt	138	5690	0.662	95.7%	19.50	19.50					
							Right Touch	106	5530	1.130	95.7%	17.50	17.50	0.618	0.646	0.192	0.201	
							Right Tilt	122	5610	1.600	95.7%	19.50	19.50	0.911	0.952	0.274	0.286	
							Right Tilt	138	5690	1.940	95.7%	19.50	19.50	1.090	1.139	0.344	0.360	
			Body & Airplay	802.11ac (VHT80)	Mode B	5	Rear	106	5530	1.990	95.7%	17.00	17.00	0.983	1.027	0.286	0.299	
							Front	122	5610	1.690	95.7%	17.00	17.00	1.110	1.160	0.280	0.293	
							Edge 1	138	5690	0.453	95.7%	17.00	17.00	1.110	1.160	0.290	0.303	136
							Edge 2	122	5610	2.100	95.7%	17.00	17.00	1.040	1.087	0.331	0.346	
							Edge 4	138	5690	2.000	95.7%	17.00	17.00	1.050	1.098	0.324	0.339	
		U-NII-3	Head	802.11ac (VHT80)	Mode A	0	Left Touch	155	5775	0.701	95.7%	22.00	22.00					
							Left Tilt	155	5775	0.854	95.7%	22.00	22.00	0.522	0.546	0.147	0.154	
							Right Touch	155	5775	2.530	95.7%	22.00	22.00	1.050	1.098	0.334	0.349	137
							Right Tilt	155	5775	1.530	95.7%	22.00	22.00	0.749	0.783	0.207	0.216	
			Body & Airplay	802.11ac (VHT80)	Mode B	5	Rear	155	5775	2.540	95.7%	18.00	18.00	1.030	1.077	0.264	0.276	138
							Front	155	5775	0.567	95.7%	18.00	18.00	0.353	0.369	0.111	0.116	
							Edge 1	155	5775	0.413	95.7%	18.00	18.00	0.989	1.034	0.265	0.277	
							Edge 4	155	5775	1.420	95.7%	18.00	18.00	0.989	1.034	0.265	0.277	

ANT5 Power Mode A the P_{Cell_ON} is Same as P_{Cell_OFF}

Antenna	WWAN Power	Band	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
												Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled	
ANT5	Pcell ON	U-NII-1	Body & Airplay	802.11ac (VHT80)	Mode B	5	Rear	42	5210	0.613	95.7%	12.50	12.50	0.276	0.288	0.068	0.071	139
				Front			42	5210	0.0329	95.7%	12.50	12.50						
		U-NII-2C	Airplay	802.11ac (VHT80)	Mode B	5	Edge 3	42	5210	0.121	95.7%	12.50	12.50					
				Edge 4			42	5210	0.447	95.7%	12.50	12.50						
Antenna	WWAN Power	Band	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT5	Pcell ON	U-NII-2C	Body & Airplay	802.11ac (VHT80)	Mode B	5	Rear	138	5690	0.713	95.7%	12.00	12.00	0.312	0.326	0.085	0.089	140
				Front			138	5690	0.0636	95.7%	12.00	12.00						
		U-NII-3	Airplay	802.11ac (VHT80)	Mode B	5	Edge 3	138	5690	0.0759	95.7%	12.00	12.00					
				Edge 4			138	5690	0.353	95.7%	12.00	12.00						
Antenna	WWAN Power	Band	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT5	Pcell ON	U-NII-3	Body & Airplay	802.11ac (VHT80)	Mode B	5	Rear	155	5775	0.592	95.7%	12.00	12.00	0.305	0.319	0.086	0.090	141
				Front			155	5775	0.0308	95.7%	12.00	12.00						
		U-NII-1	Airplay	802.11ac (VHT80)	Mode B	5	Edge 3	155	5775	0.136	95.7%	12.00	12.00					
				Edge 4			155	5775	0.0285	95.7%	12.00	12.00						
Antenna	WWAN Power	Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT6	Pcell ON	U-NII-1	Head	802.11n (HT40)	Mode A	0	Left Touch	46	5230	0.137	97.9%	18.50	18.50					
				Left Tilt			46	5230	0.194	97.9%	18.50	18.50						
		U-NII-1	Body & Airplay	802.11n (HT40)	Mode B	5	Right Touch	46	5230	0.726	97.9%	18.50	18.50	0.387	0.395	0.103	0.105	142
				Right Tilt			46	5230	0.629	97.9%	18.50	18.50	0.288	0.294	0.083	0.085		
ANT6	Pcell ON	U-NII-2C	Head	802.11n (HT40)	Mode A	0	Rear	46	5230	1.02	97.9%	18.50	18.50	0.424	0.433	0.143	0.146	143
				Front			46	5230	0.388	97.9%	18.50	18.50						
		U-NII-2C	Airplay	802.11n (HT40)	Mode B	5	Edge 1	46	5230	0.442	97.9%	18.50	18.50					
				Edge 4			46	5230	0.836	97.9%	18.50	18.50	0.391	0.399	0.139	0.142		
Antenna	WWAN Power	Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT6	Pcell ON	U-NII-2C	Head	802.11ac (VHT80)	Mode A	0	Left Touch	138	5690	0.345	95.7%	15.50	15.50					
				Left Tilt			138	5690	0.316	95.7%	15.50	15.50						
		U-NII-1	Body & Airplay	802.11ac (VHT80)	Mode B	5	Right Touch	138	5690	0.879	95.7%	15.50	15.50	0.416	0.435	0.135	0.141	144
				Right Tilt			138	5690	0.762	95.7%	15.50	15.50	0.414	0.433	0.121	0.126		
ANT6	Pcell ON	U-NII-3	Head	802.11ac (VHT80)	Mode B	5	Rear	122	5610	0.851	95.7%	13.50	13.50	0.366	0.383	0.105	0.110	
				Front			122	5610	0.251	95.7%	13.50	13.50						
		U-NII-3	Airplay	802.11ac (VHT80)	Mode B	5	Edge 1	122	5610	0.172	95.7%	13.50	13.50					
				Edge 4			122	5610	0.638	95.7%	13.50	13.50	0.372	0.389	0.118	0.123	145	
Antenna	WWAN Power	Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
ANT6	Pcell ON	U-NII-3	Head	802.11ac (VHT80)	Mode A	0	Left Touch	155	5775	0.295	95.7%	18.25	18.20					
				Left Tilt			155	5775	0.411	95.7%	18.25	18.20						
		U-NII-3	Body & Airplay	802.11ac (VHT80)	Mode B	5	Right Touch	155	5775	1.230	95.7%	18.25	18.20	0.416	0.440	0.127	0.134	146
				Right Tilt			155	5775	0.838	95.7%	18.25	18.20	0.382	0.404	0.118	0.125		
ANT6	Pcell ON	U-NII-3	Airplay	802.11ac (VHT80)	Mode B	5	Rear	155	5775	1.12	95.7%	14.50	14.40	0.359	0.384	0.083	0.089	147
				Front			155	5775	0.158	95.7%	14.50	14.40						
		U-NII-3	Airplay	802.11ac (VHT80)	Mode B	5	Edge 1	155	5775	0.325	95.7%	14.50	14.40					
				Edge 4			155	5775	0.551	95.7%	14.50	14.40	0.275	0.294	0.086	0.092		

Note(s):

- For results listed with “-”, the SAR result is less than 0.001 W/kg.

10.23. Bluetooth

ANT3 Power Mode A the Phigh is same as Pstandalone

Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.		
									Tune-up Limit	Meas.	Meas.	Scaled	Meas.	Scaled			
ANT3 P _{low}	Head	GFSK	Mode A	0	Left Touch	39	2441	100.0%	11.00	11.00	0.046	0.046	0.015	0.015	148		
					Left Tilt	39	2441	100.0%	11.00	11.00	0.012	0.012	0.003	0.003			
		GFSK			Right Touch	39	2441	100.0%	11.00	11.00	0.034	0.034	0.014	0.014			
					Right Tilt	39	2441	100.0%	11.00	11.00	0.014	0.014	0.004	0.004			
	Body & Hotspot	GFSK	Mode B	5	Rear	39	2441	100.0%	10.50	10.50	0.092	0.092	0.038	0.038	149		
					Front	39	2441	100.0%	10.50	10.50	0.068	0.068	0.033	0.033			
	Hotspot	GFSK	Mode B	5	Edge 3	39	2441	100.0%	10.50	10.50	0.037	0.037	0.017	0.017			
					Edge 4	39	2441	100.0%	10.50	10.50	0.021	0.021	0.006	0.006			
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.		
ANT3 P _{high}	Body & Hotspot	GFSK	Mode B	5	Rear	39	2441	100.0%	14.50	14.50	0.220	0.220	0.094	0.094	150		
					Front	39	2441	100.0%	14.50	14.50	0.178	0.178	0.079	0.079			
	Hotspot	GFSK	Mode B	5	Edge 3	39	2441	100.0%	14.50	14.50	0.089	0.089	0.044	0.044			
					Edge 4	39	2441	100.0%	14.50	14.50	0.042	0.042	0.017	0.017			
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.		
ANT3 P _{standalone}	Head	GFSK	Mode A	0	Left Touch	39	2441	100.0%	20.00	20.00	0.244	0.244	0.119	0.119	151		
					Left Tilt	39	2441	100.0%	20.00	20.00	0.119	0.119	0.048	0.048			
		GFSK			Right Touch	39	2441	100.0%	20.00	20.00	0.241	0.241	0.116	0.116			
					Right Tilt	39	2441	100.0%	20.00	20.00	0.118	0.118	0.047	0.047			
	Body & Hotspot	GFSK	Mode B	5	Rear	39	2441	100.0%	17.00	17.00	0.417	0.417	0.166	0.166	152		
					Front	39	2441	100.0%	17.00	17.00	0.264	0.264	0.126	0.126			
	Hotspot	GFSK	Mode B	5	Edge 3	39	2441	100.0%	17.00	17.00	0.156	0.156	0.079	0.079			
					Edge 4	39	2441	100.0%	17.00	17.00	0.060	0.060	0.025	0.025			
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.		
ANT4 P _{low}	Head	GFSK	Mode A	0	Left Touch	39	2441	100.0%	10.00	10.00	0.082	0.082	0.035	0.035	153		
					Left Tilt	39	2441	100.0%	10.00	10.00	0.059	0.059	0.025	0.025			
		GFSK			Right Touch	39	2441	100.0%	10.00	10.00	0.024	0.024	0.011	0.011			
					Right Tilt	39	2441	100.0%	10.00	10.00	0.020	0.020	0.009	0.009			
	Body & Hotspot	GFSK	Mode B	5	Rear	39	2441	100.0%	10.00	10.00	0.081	0.081	0.036	0.036	154		
					Front	39	2441	100.0%	10.00	10.00	0.033	0.033	0.016	0.016			
	Hotspot	GFSK	Mode B	5	Edge 1	39	2441	100.0%	10.00	10.00	0.014	0.014	0.006	0.006			
					Edge 2	39	2441	100.0%	10.00	10.00	0.049	0.049	0.024	0.024			
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.		
ANT4 P _{high}	Head	GFSK	Mode A	0	Left Touch	39	2441	100.0%	13.50	13.50	0.186	0.186	0.084	0.084	155		
					Left Tilt	39	2441	100.0%	13.50	13.50	0.134	0.134	0.059	0.059			
		GFSK			Right Touch	39	2441	100.0%	13.50	13.50	0.060	0.060	0.029	0.029			
					Right Tilt	39	2441	100.0%	13.50	13.50	0.048	0.048	0.023	0.023			
	Body & Hotspot	GFSK	Mode B	5	Rear	39	2441	100.0%	14.00	14.00	0.236	0.236	0.102	0.102	156		
					Front	39	2441	100.0%	14.00	14.00	0.071	0.071	0.035	0.035			
	Hotspot	GFSK	Mode B	5	Edge 1	39	2441	100.0%	14.00	14.00	0.078	0.078	0.015	0.015			
					Edge 2	39	2441	100.0%	14.00	14.00	0.129	0.129	0.061	0.061			
Antenna	RF Exposure Conditions	Mode	Power Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.		
ANT4 P _{standalone}	Head	GFSK	Mode A	0	Left Touch	39	2441	100.0%	16.00	16.00	0.386	0.386	0.167	0.167	157		
					Left Tilt	39	2441	100.0%	16.00	16.00	0.226	0.226	0.103	0.103			
		GFSK			Right Touch	39	2441	100.0%	16.00	16.00	0.107	0.107	0.055	0.055			
					Right Tilt	39	2441	100.0%	16.00	16.00	0.086	0.086	0.042	0.042			
	Body & Hotspot	GFSK	Mode B	5	Rear	39	2441	100.0%	16.50	16.50	0.390	0.390	0.171	0.171	158		
					Front	39	2441	100.0%	16.50	16.50	0.153	0.153	0.079	0.079			
	Hotspot	GFSK	Mode B	5	Edge 1	39	2441	100.0%	16.50	16.50	0.089	0.089	0.033	0.033			
					Edge 2	39	2441	100.0%	16.50	16.50	0.185	0.185	0.088	0.088			

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 ($\sim 10\%$ 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	
						Measured SAR (W/kg)	Largest to Smallest SAR Ratio
700	LTE Band 12	Hotspot	Edge 2	No	0.605	N/A	N/A
	LTE Band 13	Hotspot	Edge 2	No	0.745	N/A	N/A
	LTE Band 14	Hotspot	Edge 2	No	0.613	N/A	N/A
850	GSM 850	Body	Rear	No	0.496	N/A	N/A
	WCDMA Band 5	Head	Right Touch	No	0.422	N/A	N/A
	CDMA BC10	Head	Right Touch	No	0.432	N/A	N/A
	CDMA BC0	Head	Right Touch	No	0.432	N/A	N/A
	LTE Band 26	Head	Right Touch	No	0.408	N/A	N/A
1700	WCDMA Band 4	Body	Rear	No	0.884	N/A	N/A
	LTE Band 66	Body	Rear	Yes	0.957	0.970	1.01
1900	GSM 1900	Body	Rear	No	0.886	N/A	N/A
	WCDMA Band 2	Body	Rear	No	0.905	N/A	N/A
	CDMA BC1	Body	Rear	No	0.882	N/A	N/A
	LTE Band 25	Body	Rear	Yes	0.971	0.902	1.08
2300	LTE Band 30	Body	Rear	Yes	0.898	0.927	1.03
2400	Wi-Fi 802.11b/g/n	Body	Rear	Yes	1.190	1.150	1.03
	BT	Body	Rear	No	0.417	N/A	N/A
2600	LTE Band 7	Body	Rear	No	0.909	N/A	N/A
	LTE Band 41	Body	Rear	Yes	0.998	0.957	1.04
5200	Wi-Fi 802.11a/n/ac	Head	Right Touch	Yes	1.020	1.040	1.02
5300	Wi-Fi 802.11a/n/ac	Airplay	Edge 4	Yes	1.110	1.180	1.06
5500	Wi-Fi 802.11a/n/ac	Body	Rear	Yes	1.130	1.100	1.03
5800	Wi-Fi 802.11a/n/ac	Body	Rear	Yes	1.120	1.080	1.04

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 .

12. Simultaneous Transmission Conditions

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:

$$\text{SPLSR} = (\text{SAR}_1 + \text{SAR}_2)^{1.5} / R_i$$

Where:

SAR₁ 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

SAR₂ 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

R_i 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:

$$(\text{SAR}_1 + \text{SAR}_2)^{1.5} / R_i \leq 0.04$$

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 **SAR₁** or **SAR₂**. 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 DASY 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.

DASY 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 DASY = 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.

According to KDB publication 248227 D01, simultaneous SAR provisions in KDB Publication 447498 D01 apply to determine simultaneous transmission SAR test exclusion for Wi-Fi MIMO. If the sum of 1-g single transmission chain SAR measurements is <1.6W/kg and/or the MIMO output power is equal or less than a single chain, then no additional SAR measurements for simultaneously at the specified maximum output power of MIMO operation.

In Airplay mode, the device uses same power and power control mechanism as Wi-Fi. Airplay is not supported in hotspot mode. Airplay utilize the same 802.11 modes, modulation, MIMO, Channel Bandwidth, etc. as Wi-Fi does. Therefore Airplay usage is categorized by the Wi-Fi SAR testing contained in Section 10.

The simultaneous transmission possibilities for this device are listed as below.

RF Exposure Condition	Item	Capable Transmit Configurations		
	1	WWAN OFF (CELLULAR ANTENNAS OFF)	+ (ANT5) Wi-Fi 5 GHz SISO	+ (ANT3) Bluetooth (P_{High})
	2		+ (ANT6) Wi-Fi 5 GHz SISO	+ (ANT3) Bluetooth (P_{High})
	3		+ Wi-Fi 5 GHz MIMO	+ (ANT3) Bluetooth (P_{High})
	4		+ (ANT5) Wi-Fi 5 GHz SISO	+ (ANT4) Bluetooth (P_{High})
	5		+ (ANT6) Wi-Fi 5 GHz SISO	+ (ANT4) Bluetooth (P_{High})
	6		+ Wi-Fi 5 GHz MIMO	+ (ANT4) Bluetooth (P_{High})
Head	7		+ (ANT3) Wi-Fi 2.4 GHz SISO	
	8		+ (ANT4) Wi-Fi 2.4 GHz SISO	
	9		+ Wi-Fi 2.4 GHz MIMO	
Body Worn Accessory	10			+ (ANT3) Bluetooth (P_{High})
	11			+ (ANT4) Bluetooth (P_{High})
Hotspot (for 2.4 GHz)	12	WWAN ON (CELLULAR ANTENNAS ON)	+ (ANT5) Wi-Fi 5 GHz SISO	
	13		+ (ANT6) Wi-Fi 5 GHz SISO	
Airplay (for 2.4/5 GHz)	14		+ Wi-Fi 5 GHz MIMO	
	15		+ (ANT5) Wi-Fi 5 GHz SISO	+ (ANT3) Bluetooth (P_{low})
	16		+ (ANT6) Wi-Fi 5 GHz SISO	+ (ANT3) Bluetooth (P_{low})
	17		+ Wi-Fi 5 GHz MIMO	+ (ANT3) Bluetooth (P_{low})
	18		+ (ANT5) Wi-Fi 5 GHz SISO	+ (ANT4) Bluetooth (P_{low})
	19		+ (ANT6) Wi-Fi 5 GHz SISO	+ (ANT4) Bluetooth (P_{low})
	20		+ Wi-Fi 5 GHz MIMO	+ (ANT4) Bluetooth (P_{low})

Note(s):

1. Wi-Fi 2.4GHz & Bluetooth cannot transmit simultaneously.
2. Wi-Fi 2.4GHz & Wi-Fi 5GHz cannot transmit simultaneously.
3. WWAN ANT1, ANT2, ANT3, and ANT4 cannot transmit simultaneously.
4. Bluetooth P_{low} is used with Wi-Fi and WWAN antennas are active.
5. Bluetooth P_{high} is used when Wi-Fi antenna is active and WWAN antenna is inactive or with Wi-Fi inactive and WWAN antenna is active.
6. Bluetooth $P_{standalone}$ is used with Wi-Fi and WWAN antennas are inactive.
7. Condition 3 is covered by conditions 1 and 2.
8. Condition 6 is covered by conditions 4 and 5.
9. Condition 17 is covered by conditions 15 and 16.
10. Condition 20 is covered by conditions 18 and 19.

12.1. Sum of the SAR for WWAN Cell-off & Wi-Fi & BT results

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				\sum 1-g SAR (W/kg)			
		1	2	3	4	1+3	1+4	2+3	2+4
		Wi-Fi 5G ANT5	Wi-Fi 5G ANT6	BT(P _{high}) ANT3	BT(P _{high}) ANT4				
Head	Left Touch	0.111	0.439	0.244	0.186	0.355	0.297	0.683	0.625
	Left Tilt	0.111	0.546	0.119	0.134	0.230	0.245	0.665	0.680
	Right Touch	0.111	1.139	0.241	0.060	0.352	0.171	1.380	1.199
	Right Tilt	0.111	1.181	0.118	0.048	0.229	0.159	1.299	1.229
Body-worn & Airplay	Rear	1.181	1.160	0.220	0.236	1.401	1.417	1.380	1.396
	Front	0.248	0.362	0.178	0.071	0.426	0.319	0.540	0.433
Airplay	Edge 1		0.382		0.078		0.078	0.382	0.460
	Edge 2				0.129		0.129		0.129
	Edge 3	0.248		0.089		0.337	0.248	0.089	
	Edge 4	0.248	1.144	0.042		0.290	0.248	1.186	1.144

12.2. Sum of the SAR for WWAN Cell-on(ANT1) & Wi-Fi & BT results

RF Exposure conditions	Test Position	Standalone SAR (W/kg)					\sum 1-g SAR (W/kg)			
		1	2	3	6	7	1+2	1+3	1+6	1+7
		WWAN Cell-on ANT1	Wi-Fi 2.4G ANT3	Wi-Fi 2.4G ANT4	BT(P _{high}) ANT3	BT(P _{high}) ANT4				
Head	Left Touch	0.326	0.233	0.458	0.244	0.186	0.559	0.784	0.570	0.512
	Left Tilt	0.290	0.233	0.311	0.119	0.134	0.523	0.601	0.409	0.424
	Right Touch	0.687	0.233	0.311	0.241	0.060	0.920	0.998	0.928	0.747
	Right Tilt	0.195	0.233	0.311	0.118	0.048	0.428	0.506	0.313	0.243
Body-worn & Hotspot	Rear	0.998	0.372	0.491	0.220	0.236	1.370	1.489	1.218	1.234
	Front	0.861	0.306	0.231	0.178	0.071	1.167	1.092	1.039	0.932
Hotspot	Edge 2	0.917		0.231		0.129	0.917	1.148	0.917	1.046
	Edge 3	0.997	0.306		0.089		1.303	0.997	1.086	0.997
	Edge 4	0.527	0.306		0.042		0.833	0.527	0.569	0.527
RF Exposure conditions	Test Position	Standalone SAR (W/kg)					\sum 1-g SAR (W/kg)			
		1	4	5	8	9	1+4+8	1+4+9	1+5+8	1+5+9
		WWAN Cell-on ANT1	Wi-Fi 5G ANT5	Wi-Fi 5G ANT6	BT(P _{low}) ANT3	BT(P _{low}) ANT4				
Head	Left Touch	0.326	0.111	0.433	0.046	0.082	0.483	0.519	0.805	0.841
	Left Tilt	0.290	0.111	0.433	0.012	0.059	0.413	0.460	0.735	0.782
	Right Touch	0.687	0.111	0.440	0.034	0.024	0.832	0.822	1.161	1.151
	Right Tilt	0.195	0.111	0.433	0.014	0.020	0.320	0.326	0.642	0.648
Body-worn & Airplay	Rear	0.998	0.326	0.433	0.092	0.081	1.416	1.405	1.523	1.512
	Front	0.861	0.326	0.399	0.068	0.033	1.255	1.220	1.328	1.293
Airplay	Edge 2	0.917				0.049	0.917	0.966	0.917	0.966
	Edge 3	0.997	0.326		0.037		1.360	1.323	1.034	0.997
	Edge 4	0.527	0.326	0.399	0.021		0.874	0.853	0.947	0.926

12.3. Sum of the SAR for WWAN Cell-on(ANT2) & Wi-Fi & BT results

RF Exposure conditions	Test Position	Standalone SAR (W/kg)					\sum 1-g SAR (W/kg)			
		1	2	3	6	7	1+2	1+3	1+6	1+7
		WWAN Cell-on ANT2	Wi-Fi 2.4G ANT3	Wi-Fi 2.4G ANT4	BT(P _{high}) ANT3	BT(P _{high}) ANT4				
Head	Left Touch	0.756	0.233	0.458	0.244	0.186	0.989	1.214	1.000	0.942
	Left Tilt	0.879	0.233	0.311	0.119	0.134	1.112	1.190	0.998	1.013
	Right Touch	0.884	0.233	0.311	0.241	0.060	1.117	1.195	1.125	0.944
	Right Tilt	0.890	0.233	0.311	0.118	0.048	1.123	1.201	1.008	0.938
Body-worn & Hotspot	Rear	0.882	0.372	0.491	0.220	0.236	1.254	1.373	1.102	1.118
	Front	0.808	0.306	0.231	0.178	0.071	1.114	1.039	0.986	0.879
Hotspot	Edge 1	0.897		0.231		0.078	0.897	1.128	0.897	0.975
	Edge 2	0.350		0.231		0.129	0.350	0.581	0.350	0.479
	Edge 4	0.619	0.306		0.042		0.925	0.619	0.662	0.619
RF Exposure conditions	Test Position	Standalone SAR (W/kg)					\sum 1-g SAR (W/kg)			
		1	4	5	8	9	1+4+8	1+4+9	1+5+8	1+5+9
		WWAN Cell-on ANT2	Wi-Fi 5G ANT5	Wi-Fi 5G ANT6	BT(P _{low}) ANT3	BT(P _{low}) ANT4				
Head	Left Touch	0.756	0.111	0.433	0.046	0.082	0.913	0.949	1.235	1.271
	Left Tilt	0.879	0.111	0.433	0.012	0.059	1.002	1.049	1.324	1.371
	Right Touch	0.884	0.111	0.440	0.034	0.024	1.029	1.019	1.358	1.348
	Right Tilt	0.890	0.111	0.433	0.014	0.020	1.015	1.021	1.337	1.343
Body-worn & Airplay	Rear	0.882	0.326	0.433	0.092	0.081	1.300	1.289	1.407	1.396
	Front	0.808	0.326	0.399	0.068	0.033	1.202	1.167	1.275	1.240
Airplay	Edge 1	0.897		0.399		0.014	0.897	0.911	1.296	1.310
	Edge 2	0.350				0.049	0.350	0.399	0.350	0.399
	Edge 4	0.619	0.326	0.399	0.021		0.966	0.945	1.039	1.018

12.4. Sum of the SAR for WWAN Cell-on(ANT3) & Wi-Fi & BT results

RF Exposure conditions	Test Position	Standalone SAR (W/kg)					\sum 1-g SAR (W/kg)			
		1	2	3	6	7	1+2	1+3	1+6	1+7
		WWAN Cell-on ANT3	Wi-Fi 2.4G ANT3	Wi-Fi 2.4G ANT4	BT(P _{high}) ANT3	BT(P _{high}) ANT4				
Head	Left Touch	0.519	0.233	0.458	0.244	0.186	0.752	0.977	0.763	0.705
	Left Tilt	0.255	0.233	0.311	0.119	0.134	0.488	0.566	0.374	0.389
	Right Touch	0.307	0.233	0.311	0.241	0.060	0.540	0.618	0.548	0.367
	Right Tilt	0.211	0.233	0.311	0.118	0.048	0.444	0.522	0.329	0.259
Body-worn & Hotspot	Rear	0.997	0.372	0.491	0.220	0.236	1.369	1.488	1.217	1.233
	Front	0.971	0.306	0.231	0.178	0.071	1.277	1.202	1.149	1.042
Hotspot	Edge 3	0.626	0.306		0.089		0.932	0.626	0.715	0.626
	Edge 4	0.741	0.306		0.042		1.047	0.741	0.783	0.741
RF Exposure conditions	Test Position	Standalone SAR (W/kg)					\sum 1-g SAR (W/kg)			
		1	4	5	8	9	1+4+8	1+4+9	1+5+8	1+5+9
		WWAN Cell-on ANT3	Wi-Fi 5G ANT5	Wi-Fi 5G ANT6	BT(P _{low}) ANT3	BT(P _{low}) ANT4				
Head	Left Touch	0.519	0.111	0.433	0.046	0.082	0.676	0.712	0.998	1.034
	Left Tilt	0.255	0.111	0.433	0.012	0.059	0.378	0.425	0.700	0.747
	Right Touch	0.307	0.111	0.440	0.034	0.024	0.452	0.442	0.781	0.771
	Right Tilt	0.211	0.111	0.433	0.014	0.020	0.336	0.342	0.658	0.664
Body-worn & Airplay	Rear	0.997	0.326	0.433	0.092	0.081	1.415	1.404	1.522	1.511
	Front	0.971	0.326	0.399	0.068	0.033	1.365	1.330	1.438	1.403
Airplay	Edge 3	0.626	0.326		0.037		0.989	0.952	0.663	0.626
	Edge 4	0.741	0.326	0.399	0.021		1.088	1.067	1.161	1.140

12.5. Sum of the SAR for WWAN Cell-on(ANT4) & Wi-Fi & BT results

RF Exposure conditions	Test Position	Standalone SAR (W/kg)					Σ 1-g SAR (W/kg)			
		1	2	3	6	7	1+2	1+3	1+6	1+7
		WWAN Cell-on ANT4	Wi-Fi 2.4G ANT3	Wi-Fi 2.4G ANT4	BT(P _{high}) ANT3	BT(P _{high}) ANT4				
Head	Left Touch	0.895	0.233	0.458	0.244	0.186	1.128	1.353	1.139	1.081
	Left Tilt	0.636	0.233	0.311	0.119	0.134	0.869	0.947	0.755	0.770
	Right Touch	0.285	0.233	0.311	0.241	0.060	0.518	0.596	0.526	0.345
	Right Tilt	0.222	0.233	0.311	0.118	0.048	0.455	0.533	0.340	0.270
Body-worn & Hotspot	Rear	0.886	0.372	0.491	0.220	0.236	1.258	1.377	1.106	1.122
	Front	0.558	0.306	0.231	0.178	0.071	0.864	0.789	0.736	0.629
Hotspot	Edge 1	0.592		0.231		0.078	0.592	0.823	0.592	0.670
	Edge 2	0.849		0.231		0.129	0.849	1.080	0.849	0.978
RF Exposure conditions	Test Position	Standalone SAR (W/kg)					Σ 1-g SAR (W/kg)			
		1	4	5	8	9	1+4+8	1+4+9	1+5+8	1+5+9
		WWAN Cell-on ANT4	Wi-Fi 5G ANT5	Wi-Fi 5G ANT6	BT(P _{Low}) ANT3	BT(P _{Low}) ANT4				
Head	Left Touch	0.895	0.111	0.433	0.046	0.082	1.052	1.088	1.374	1.410
	Left Tilt	0.636	0.111	0.433	0.012	0.059	0.759	0.806	1.081	1.128
	Right Touch	0.285	0.111	0.440	0.034	0.024	0.430	0.420	0.759	0.749
	Right Tilt	0.222	0.111	0.433	0.014	0.020	0.347	0.353	0.669	0.675
Body-worn & Airplay	Rear	0.886	0.326	0.433	0.092	0.081	1.304	1.293	1.411	1.400
	Front	0.558	0.326	0.399	0.068	0.033	0.952	0.917	1.025	0.990
Airplay	Edge 1	0.592		0.399		0.014	0.592	0.606	0.991	1.005
	Edge 2	0.849				0.049	0.849	0.898	0.849	0.898

Appendices

Refer to separated files for the following appendixes.

12204447-S1V1 Appendix A: SAR Setup Photos

12204447-S1V1 Appendix B: SAR System Check Plots

12204447-S1V1 Appendix C: Highest SAR Test Plots

12204447-S1V1 Appendix D: SAR Liquid Tissue Ingredients

12204447-S1V1 Appendix E: SAR Probe Calibration Certificates

12204447-S1V1 Appendix F: SAR Dipole Calibration Certificates

END OF REPORT