FCC 47 CFR § 2.1093
IEEE Std 1528-2013

SAR EVALUATION REPORT

FOR

GSM/CDMA/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n/ac and NFC

MODEL NUMBER: SM-A125U, SM-A125U1/DS, SM-S127DL

FCC ID: A3LSMA125U

REPORT NUMBER: 4789793179-S1V2

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Prepared for
SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Prepared by

UL Korea, Ltd.

26th floor, 152, Teheran-ro, Gangnam-gu Seoul, 06236, Korea

Suwon Test Site: UL Korea, Ltd. Suwon Laboratory
218 Maeyeong-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16675, Korea
TEL: (031) 337-9902
FAX: (031) 213-5433

IAS ACCREDITED

Testing Laboratory

TL-637

Revision History

Rev.	Date	Revisions	Revised By
V1	3/2/2021	Initial Issue	--
V2	3/8/2021	Added GPRS SAR in Head exposure condition -Sec.1, Sec.1.1, Sec.8, Sec.10.1, Sec.10.2, Sec.12.1, Sec.12.1 -Appendix B. Revised tune-up limit in Sec.10.9. Added straddle channel power in LTE Band 26 in Sec.9.4.	Sunghoon.kim

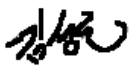
Table of Contents

1. Attestation of Test Results

Applicant Name		SAMSUNG ELECTRONICS CO.,LTD.			
FCC ID		A3LSMA125U			
Model Number		SM-A125U, SM-A125U1/DS, SM-S127DL			
Applicable Standards		FCC 47 CFR § 2.1093 IEEE Std 1528-2013 Published RF exposure KDB procedures			
Exposure Category		SAR Limits (W/Kg)			
		Peak spatial-average (1g of tissue)		Product Specific 10g (10g of tissue)	
General population / Uncontrolled exposure		1.6		4.0	
RF Exposure Conditions		Equipment Class - The Highest Reported SAR (W/kg)			
		PCE	DTS	NII	DSS
Head		1.14	0.27	0.10	< 0.10
Body-worn		1.20	0.33	0.32	< 0.10
Hotspot		1.34	0.84	0.20	< 0.10
Product Specific 10g		2.54	N/A	0.74	N/A
Simultaneous TX	Head	1.41	1.41	1.28	1.28
	Body-worn	1.53	1.53	1.52	1.52
	Hotspot	1.59	1.59	1.55	1.55
	Product Specific 10g	3.28	N/A	3.28	N/A
Date Tested		2/15/2021 to 3/8/2021			
Test Results		Pass			

UL Korea, Ltd. 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 Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. 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 IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released By:	Prepared By:
	
Justin Park Operations Leader UL Korea, Ltd. Suwon Laboratory	Sunghoon Kim Test Engineer UL Korea, Ltd. Suwon Laboratory

1.1. The Highest Reported SAR for RF exposure conditions for each bands

Equipment Class	Band	The Highest Reported SAR (W/kg)			
		1g of tissue			10g of tissue
		Head Exposure condition	Body-worn Exposure condition	Hotspot Exposure condition	Product Specific Exposure condition
PCE	GSM 850	0.390	0.503	0.791	N/A
	GSM 1900	0.159	0.321	0.669	N/A
	WCDMA Band II	0.424	0.862	1.058	1.743
	WCDMA Band IV	0.351	0.621	0.631	N/A
	WCDMA Band V	0.341	0.362	0.712	N/A
	CDMA BC0	0.361	0.287	0.766	N/A
	CDMA BC1	0.081	0.107	0.180	N/A
	CDMA BC10	0.108	0.156	0.216	N/A
	LTE Band 2	N/A	N/A	N/A	N/A
	LTE Band 4	N/A	N/A	**1.341**	**2.538**
	LTE Band 5	N/A	N/A	N/A	N/A
	LTE Band 7	**1.141**	1.055	0.623	1.624
	LTE Band 12	0.244	0.424	0.475	N/A
	LTE Band 13	0.327	0.441	0.605	N/A
	LTE Band 14	0.301	0.360	0.558	N/A
	LTE Band 25	0.325	0.562	1.165	N/A
	LTE Band 26	0.245	0.288	0.647	N/A
	LTE Band 30	0.653	1.172	0.696	1.607
	LTE Band 38	0.570	N/A	0.631	N/A
	LTE Band 41	0.941	**1.199**	1.104	1.544
	LTE Band 66	0.302	0.531	0.778	N/A
	LTE Band 71	0.201	0.384	0.458	N/A
DTS	2.4GHz WLAN	**0.271**	**0.333**	**0.842**	N/A
UNII	5GHz WLAN	**0.101**	**0.316**	**0.195**	**0.737**
DSS	Bluetooth	**0.040**	**0.001**	**0.009**	N/A

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, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 648474 D04 Handset SAR v01r03
- 690783 D01 SAR Listings on Grants 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
- 941225 D07 UMPC Mini Tablet v01r02
- 971168 D01 Power Meas License Digital System v03r01

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

- TCB workshop October, 2014; RF Exposure Procedures Update (Overlapping LTE Bands)
- TCB workshop October, 2014; RF Exposure Procedures Update (Other LTE Considerations)
- TCB workshop October, 2016; RF Exposure Procedures (Bluetooth Duty Factor)
- TCB workshop October, 2016; RF Exposure Procedures (DUT Holder Perturbations)
- TCB workshop May, 2017; RF Exposure Procedures (LTE Test Conditions)
- TCB workshop May, 2017; RF Exposure Procedures (LTE Band 41 Power Class 2)
- TCB workshop November, 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- TCB workshop April, 2018; Page 3, RF Exposure Procedures (LTE DL CA SAR Test Exclusion Update)
- TCB workshop April, 2019 Page 19, RF Exposure Procedures (Tissue Simulating Liquids (TSL))

3. Facilities and Accreditation

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

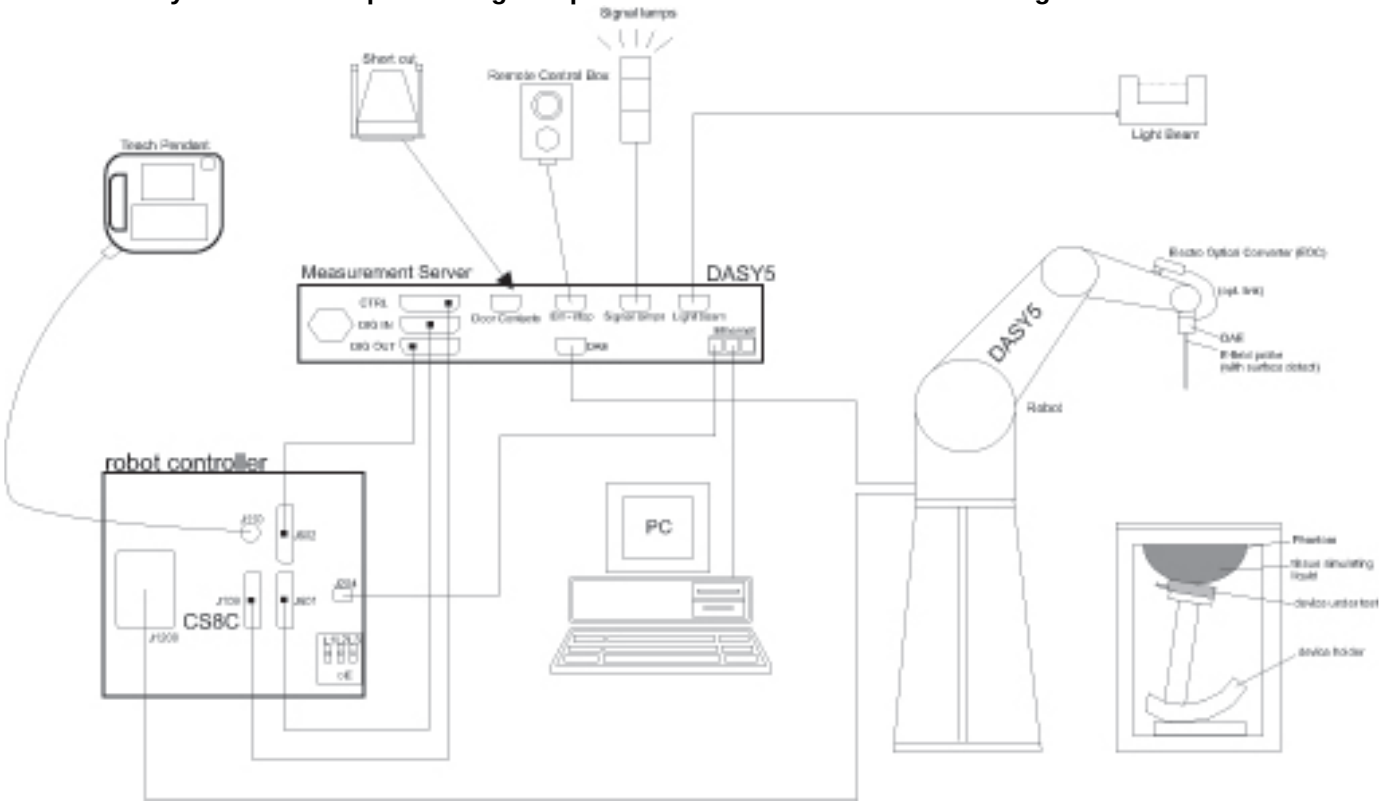
Suwon
SAR 1 Room
SAR 3 Room
SAR 4 Room
SAR 5 Room

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.
The full scope of accreditation can be viewed at https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf.

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

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

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

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

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: Power drift measurement

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

Step 5: Z-Scan (FCC only)

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

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	E5071C	MY46522054	8-4-2021
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-17-2021
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	LKM	DTM3000	3424	8-11-2021

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Agilent	N5181A	MY50145882	8-4-2021
Power Sensor	Agilent	U2000A	MY60180020	9-9-2021
Power Sensor	Agilent	U2000A	MY54260007	8-7-2021
Power Amplifier	EXODUS	1410025-AMP2027-10003	10003	8-4-2021
Directional Coupler	Agilent	772D	MY52180193	8-4-2021
Directional Coupler	Agilent	778D	MY52180432	8-4-2021
Low Pass Filter	MICROLAB	LA-15N	3943	8-4-2021
Low Pass Filter	FILTRON	L14012FL	1410003S	8-4-2021
Low Pass Filter	MICROLAB	LA-60N	3942	8-4-2021
Attenuator	Agilent	8491B/003	MY39271969	12-3-2021
Attenuator	Agilent	8491B/010	MY39271981	9-9-2021
Attenuator	Agilent	8491B/020	MY39271973	9-9-2021
E-Field Probe	SPEAG	EX3DV4	7376	7-31-2021
E-Field Probe	SPEAG	EX3DV4	7313	2-25-2021
E-Field Probe	SPEAG	EX3DV4	7330	2-21-2021
E-Field Probe	SPEAG	EX3DV4	7545	11-23-2021
E-Field Probe	SPEAG	EX3DV4	7314	5-29-2021
E-Field Probe	SPEAG	EX3DV4	3871	8-28-2021
Data Acquisition Electronics	SPEAG	DAE4	1468	8-25-2021
Data Acquisition Electronics	SPEAG	DAE4	1494	7-23-2021
Data Acquisition Electronics	SPEAG	DAE4	1591	8-25-2021
Data Acquisition Electronics	SPEAG	DAE4	1343	8-25-2021
System Validation Dipole	SPEAG	D750V3	1122	2-24-2022
System Validation Dipole	SPEAG	D835V2	4d174	2-24-2022
System Validation Dipole	SPEAG	D1750V2	1125	2-21-2022
System Validation Dipole	SPEAG	D1900V2	5d199	3-19-2022
System Validation Dipole	SPEAG	D2300V2	1090	11-18-2022
System Validation Dipole	SPEAG	D2450V2	939	7-25-2021
System Validation Dipole	SPEAG	D2600V2	1097	9-19-2021
System Validation Dipole	SPEAG	D5GHzV2	1209	2-27-2022
Thermometer	Lutron	MHB-382SD	AH.50215	8-11-2021
Thermometer	Lutron	MHB-382SD	AH.50213	8-11-2021
Thermometer	Lutron	MHB-382SD	AH.91463	8-11-2021

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	150313	8-4-2021
Base Station Simulator	R & S	CMW500	150314	8-4-2021
Base Station Simulator	R & S	CMW500	162790	8-4-2021
Wireless Connectivity Tester	R & S	CMW270	100982	8-3-2021

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations. (D1750V2 (SN : 1125), D2450V2 (SN : 939), D2600V2 (SN : 1097))
3. For E-Field probes (SN : 7313, SN : 7330), It only used within Cal.Due.Date.

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 ≤ 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.

5.1. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedures 1, Clause 4.4.2 in IEC Guide 115:2007.

6. Device Under Test (DUT) Information

6.1. DUT Description

Device Dimension	Refer to Appendix A.		
Back Cover	☒ The Back Cover is not removable.		
Battery Options	☒ The rechargeable battery is not user accessible		
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz) ☒ Mobile Hotspot (Wi-Fi 5.8 GHz_UNII-3 (Ch.149(20MHz)/Ch.151(40MHz)/Ch.155(80MHz)))		
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other ☒ Wi-Fi Direct (Wi-Fi 2.4 GHz) ☒ Wi-Fi Direct (Wi-Fi 5.2 GHz_UNII-1, Wi-Fi 5.8 GHz_UNII-3)		
Test Sample Information	**No.**	**S/N**	**Notes**
		R38R2005D2Z	Main Conducted
		R38NC03K93J	Main Conducted
		4200624adc56a755	Main Conducted
		350344480104882	Main Conducted
		R38R100SMVZ	Wi-Fi & BT Conducted
		R38R2005DQB	SAR
		4200d129cc38b717	SAR
		R38R100DFPF	SAR
		R38R100DJ2K	SAR
		R38R100DJ0N	SAR
		R38R100SNCZ	SAR
		R38R100SPGN	SAR
		R38R2005H0P	SAR

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: ☐ Class 8 - 1 Up, 4 Down ☐ Class 10 - 2 Up, 4 Down ☐ Class 12 - 4 Up, 4 Down ☒ Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
CDMA (CDMA2000)	BC0 BC1 BC10	1xRTT (Voice & Data) 1xEV-DO Rel.0 1xEV-DO Rev.A		100%
	Does this device support SV-DO (1xRTT-1xEVDO)? ☐ Yes ☒ No			
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Category 24) HSUPA (Category 6) DC-HSDPA (Category 24) HSPA+ (DL only)		100%
LTE	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 7 FDD Band 12 FDD Band 13 FDD Band 14 FDD Band 25 FDD Band 26 FDD Bans 29 (DL only) FDD Band 30 TDD Band 38 TDD Band 41$_{\text{Power Class 3}}$ TDD Band 41$_{\text{Power Class 2}}$ FDD Band 66 FDD Band 71	QPSK 16QAM 64QAM Rel. 12 Carrier Aggregation (2 Uplink and 2 Downlinks)		100% (FDD) 63.3% (TDD) Power Class 3 43.3% (TDD) Power Class 2
	TDD Band 41(2CC)			
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20)		99.8% (802.11b)
	5 GHz	802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (VHT20) 802.11ac (VHT40) 802.11ac (VHT80)		98.4% (802.11a) 96.4% (802.11ac (VHT80))
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No			
	Does this device support Band gap channel(s)? ☒ Yes ☐ No			
Bluetooth	2.4 GHz	Version 5.0 LE		76.8% (DH5)
NFC	13.56 MHz	Type A/B/F		N/A[3]

Notes:

1. The Bluetooth protocol is considered source-based averaging. Bluetooth GFSK (DH5) was verified to have the highest duty cycle of 76.8% and was considered and used for SAR Testing.
2. Duty cycle for Wi-Fi is referenced from the DTS and UNII report.
3. This device supports Power Class 2(HPUE) and Power Class 3 for LTE Band 41. And LTE Band 41-2CC is only support Power Class 3.
4. Measured Duty Cycle is not required due to SAR test exemption.

6.3. Nominal and Maximum Output Power

KDB 447498 sec.4.1. 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

RF Air interface	Antenna	Mode	Time Slots	Max. RF Output Power (dBm)	
				Tune-up Limit	Frame Pwr
GSM850	Main 1 Ant.	Voice	1	**34.0**	**25.0**
		GPRS	1	**34.0**	**25.0**
		GPRS	2	**32.5**	**26.5**
		GPRS	3	**30.5**	**26.2**
		GPRS	4	**29.5**	**26.5**
		EGPRS	1	**27.5**	**18.5**
		EGPRS	2	**26.5**	**20.5**
		EGPRS	3	**24.5**	**20.2**
		EGPRS	4	**23.5**	**20.5**
GSM1900	Main 1 Ant.	Voice	1	**30.5**	**21.5**
		GPRS	1	**30.5**	**21.5**
		GPRS	2	**29.5**	**23.5**
		GPRS	3	**27.5**	**23.2**
		GPRS	4	**26.5**	**23.5**
		EGPRS	1	**26.5**	**17.5**
		EGPRS	2	**25.5**	**19.5**
		EGPRS	3	**23.8**	**19.5**
		EGPRS	4	**22.5**	**19.5**

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)	Reduced. RF Output Power (dBm)	
				Hotspot back-off	Proximity sensor & Earjack back-off
W-CDMA Band Ⅱ	Main 1 Ant.	R99	**25.0**	**23.0**	**20.0**
		HSDPA	**24.5**	**22.5**	**19.5**
		HSUPA	**23.0**	**21.0**	**18.0**
		DC-HSDPA	**24.0**	**22.0**	**19.0**
W-CDMA Band Ⅳ	Main 1 Ant.	R99	**25.0**	**23.0**	
		HSDPA	**23.5**	**21.0**	
		HSUPA	**22.5**	**20.0**	
		DC-HSDPA	**24.0**	**21.0**	
W-CDMA Band V	Main 1 Ant.	R99	**25.0**		
		HSDPA	**24.0**		
		HSUPA	**22.5**		
		DC-HSDPA	**24.0**		

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)	Reduced. RF Output Power (dBm)	
				Hotspot back-off	Proximity sensor & Earjack back-off
CDMA BC0	Main 1 Ant.	1xRTT	**25.0**		
		1xEVDO Rel.0	**25.0**		
		1xEVDO Rev.A	**25.0**		
CDMA BC1	Main 1 Ant.	1xRTT	**25.0**		**21.0**
		1xEVDO Rel.0	**25.0**		**21.0**
		1xEVDO Rev.A	**25.0**		**21.0**
CDMA BC10	Main 1 Ant.	1xRTT	**26.0**		
		1xEVDO Rel.0	**26.0**		
		1xEVDO Rev.A	**26.0**		

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)	Reduced. RF Output Power (dBm)		
				Hotspot back-off	Proximity sensor & Earjack back-off	RCV back-off
LTE Band 2	Main 1 Ant.	QPSK	**25.0**		**23.0**	
LTE Band 4	Main 1 Ant.	QPSK	**25.0**		**23.0**	
LTE Band 5	Main 1 Ant.	QPSK	**25.0**			
LTE Band 7	Main 2 Ant.	QPSK	**20.0**	**15.5**	**16.0**	**18.5**
LTE Band 12	Main 1 Ant.	QPSK	**25.0**			
LTE Band 13	Main 1 Ant.	QPSK	**25.0**			
LTE Band 14	Main 1 Ant.	QPSK	**25.0**			
LTE Band 25	Main 1 Ant.	QPSK	**25.0**		**23.0**	
LTE Band 26	Main 1 Ant.	QPSK	**25.0**			
LTE Band 30	Main 2 Ant.	QPSK	**23.0**	**18.0**	**18.5**	**19.0**
LTE Band 38	Main 2 Ant.	QPSK	**24.0**	**21.0**	**16.0**	**20.0**
LTE Band 41-PC3	Main 2 Ant.	QPSK	**24.0**	**18.0**	**18.0**	**19.0**
LTE Band 41-PC2	Main 2 Ant.	QPSK	**27.0**	**21.0**	**21.0**	**22.0**
LTE Band 66	Main 1 Ant.	QPSK	**25.0**	**24.0**	**23.0**	
LTE Band 71	Main 1 Ant.	QPSK	**25.0**			

RF Air interface	Mode	WLAN mode power (dBm)	
		Max. RF Output Power	Reduced RF Output Power
WiFi 2.4 GHz (Ch.1)	802.11b	**22.0**	**14.0**
	802.11g	**18.0**	**14.0**
	802.11n HT20	**18.0**	**14.0**
WiFi 2.4 GHz (Ch.2 - Ch.10)	802.11b	**23.0**	**14.0**
	802.11g	**21.0**	**14.0**
	802.11n HT20	**21.0**	**14.0**
WiFi 2.4 GHz (Ch.11)	802.11b	**23.0**	**14.0**
	802.11g	**19.0**	**14.0**
	802.11n HT20	**19.0**	**14.0**
WiFi 2.4 GHz (Ch.12)	802.11b	**9.0**	**9.0**
	802.11g	**9.0**	**9.0**
	802.11n HT20	**9.0**	**9.0**
WiFi 2.4 GHz (Ch.13)	802.11b	**9.0**	**9.0**
	802.11g	**9.0**	**9.0**
	802.11n HT20	**9.0**	**9.0**
WiFi 5 GHz (UNII-1)	802.11a	**19.0**	**13.0**
	802.11n HT20	**19.0**	**13.0**
	802.11n HT40	**17.0**	**13.0**
	802.11ac VHT20	**19.0**	**13.0**
	802.11ac VHT40	**17.0**	**13.0**
	802.11ac VHT80	**16.0**	**13.0**
Bluetooth BR		**9.0**	
Bluetooth EDR		**7.0**	
Bluetooth LE		**6.0**	

Note(s):.

1. This device uses an independent fixed level power reduction mechanism for WLAN mode operations during RCV operation. Detailed descriptions of the power reduction mechanism are included in the operational description.

6.4. Power Back-off Operation

This device supports multiple power back-off modes: WWAN (Hotspot), WWAN (Proximity sensor), WWAN (ear-jack) WWAN (RCV) and WLAN (RCV). Each of the power back-off operates within specific exposure conditions for certain technologies. For full details on how each power back-off mode operates, refer to the Operational Description.

Power Back-off mode	Technologies Supported	Exposure Conditions Active			
		Head	Body-worn	Hotspot	Product Specific 10-g
WWAN (Hotspot)	W-CDMA B2/4 LTE B7/30/38/41/66	N/A	N/A	✓	N/A
WWAN (Proximity sensor)	W-CDMA B2/4 CDMA BC1 LTE B2/4/7/25/30/38/41/66	N/A	N/A	N/A	✓
WWAN (Ear-jack)	W-CDMA B2/4 CDMA BC1 LTE B2/4/7/25/30/38/41/66	N/A	✓	N/A	✓
WWAN (RCV)	LTE B7/30/38/41	✓	N/A	N/A	N/A
WLAN (RCV)	Wi-Fi 2.4GHz Wi-Fi 5GHz	✓	N/A	N/A	N/A

Note(s):
1. WWAN Back-off priority: RCV → Ear-jack → Proximity Sensor → Hotspot
2. Body-worn SAR with ear-jack connected is not required due to Body-worn measured at max power is not over 1.2 W/kg.

Product Specific 10g Adjusted SAR Calculation

Wireless technologies	Max Tune-up Limit (dBm)	Reduced Tune-Up Limit (dBm)	Power Factor	Reported SAR Limit (W/kg)
W-CDMA B2	25.0	23.0	1.58	0.757
W-CDMA B4	25.0	23.0	1.58	0.757
LTE B7	20.0	15.5	2.82	0.426
LTE B30	23.0	18.0	3.16	0.379
LTE B38	24.0	21.0	2.00	0.601
LTE B41	24.0	18.0	3.98	0.301
LTE B66	25.0	24.0	1.26	0.953

Note(s):
1. Tune-up limit powers for GSM 1900 are frame power(dBm).
2. Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is < 1.2 W/kg. Therefore, Extremity SAR testing is not required for this band in accordance with KDB 648474 §2.5 b. Refer to §10 for Reported SAR results. If the Reported SAR 1g value in §10 is less than the Reported SAR Limit listed above, then Extremity SAR is not required.
3. LTE 50% RB is scaled up to the Max Tune-Up Limit with MPR included.
4. For Reported SAR limit in above table, it was calculated using Max tune-up Limit & Reduced Tune-up limit & Reported SAR 1.2 W/kg. (Reported SAR Limit = 1.2 W/kg / Power factor, Power factor = 10^((Max tune-up limit – Reduced tune-up limit)/10)

6.5. General LTE SAR Test and Reporting Considerations

Item	Description						
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	18700/ 1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5	18607/ 1850.7
	Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
	High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19185/ 1908.5	19193/ 1909.3
	Band 4	Frequency range: 1710 - 1755 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5	19957/ 1710.7
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
	High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5	20393/ 1754.3
	Band 5	Frequency range: 824 - 849 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			20450/ 829	20425/ 826.5	20415/ 825.5	20407/ 824.7
	Mid			20525/ 836.5	20525/ 836.5	20525/ 836.5	20525/ 836.5
	High			20600/ 844	20625/ 846.5	20635/ 847.5	20643/ 848.3
	Band 7	Frequency range: 2500 – 2570 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20850/ 2510	20850/ 2507.5	20800/ 2505	20775/ 2502.5		
	Mid	21100/ 2535	21100/ 2535	21100/ 2535	21100/ 2535		
	High	21350/ 2560	21375/ 2562.5	21400/ 2565	21425/ 2567.5		
	Band 12	Frequency range: 699 – 716 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			23060/ 704	23035/ 701.5	23025/ 700.5	23017/ 699.7
	Mid			23095/ 707.5	23095/ 707.5	23095/ 707.5	23095/ 707.5
	High			23130/ 711	23155/ 713.5	23165/ 714.5	23173/ 715.3
	Band 13	Frequency range: 777 - 787 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23205/ 779.5		
	Mid			23230/ 782	23230/ 782		
	High				23255/ 784.5		

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies

Band 14	Frequency range: 788 – 798 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low				23305/ 790.5		
Mid			23330/ 793.0	23330/ 793.0		
High				23355/ 795.5		

Band 25	Frequency range: 1850 - 1915 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					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low		26765/ 821.5	26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7
Mid		26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5
High		26965/ 841.5	26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3

Band 30	Frequency range: 2305 – 2315 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low				27685/ 2307.5		
Mid			27710/ 2310	27710/ 2310		
High				27735/ 2312.5		

Band 38	Frequency range: 2570 – 2620 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	37850/ 2580	37825/ 2577.5	37800/ 2575	37775/ 2572.5		
Mid	38000/ 2595	38000/ 2595	38000/ 2595	38000/ 2595		
High	38150/ 2610	38175/ 2612.5	38200/ 2615	38225/ 2617.5		

Band 41	Frequency range: 2496 - 2690 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					

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

General LTE SAR Test and Reporting Considerations (Continued)

<table>
<tr><td rowspan="5">Frequency range, Channel Bandwidth, Numbers and Frequencies</td><td rowspan="2">Band 71</td><td colspan="6">Frequency range: 663 – 698 MHz</td></tr>
<tr><td colspan="6">Channel Bandwidth</td></tr>
<tr><td>20 MHz</td><td>15 MHz</td><td>10 MHz</td><td>5 MHz</td><td>3 MHz</td><td>1.4 MHz</td></tr>
<tr><td>Low</td><td>133222/ 673</td><td>133197/ 670.5</td><td>133172/ 668</td><td>133147/ 665.5</td><td></td><td></td></tr>
<tr><td>Mid</td><td>133297/ 680.5</td><td>133297/ 680.5</td><td>133297/ 680.5</td><td>133297/ 680.5</td><td></td><td></td></tr>
<tr><td></td><td>High</td><td>133372/ 688</td><td>133397/ 690.5</td><td>133422/ 693</td><td>133447/ 695.5</td><td></td><td></td></tr>
<tr><td>LTE transmitter and antenna implementation</td><td colspan="7">Refer to Appendix A.</td></tr>
<tr><td>Maximum power reduction (MPR)</td><td colspan="7">
Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<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>
<tr><td>QPSK</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>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>16 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>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>64 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>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr>
</table>
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
</td></tr>
<tr><td>Power reduction</td><td colspan="7">Yes</td></tr>
<tr><td>Spectrum plots for RB configurations</td><td colspan="7">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.</td></tr>
</table>

Notes:

1. 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.
2. LTE Band 41 test channels in accordance with October 2014 TCB workshop for all channels bandwidths.
3. SAR Testing for LTE was performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

6.6. 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	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Calculated Duty Cycle

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

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

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

Note(s):
This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% duty cycle. Only LTE Band 41 Power Class 2 was used configuration 1 at 43.3% duty cycle for SAR testing.

6.7. LTE Carrier Aggregation

DL Inter-Band

E-UTRA CA configuration (BCS)	E-UTRA Band	Bandwidth						Max Aggregated BW
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
CA_2A-4A(0)(1)(2)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	40 MHz
	Band 4			Yes	Yes	Yes	Yes	
	Band 2			Yes	Yes			20 MHz
	Band 4			Yes	Yes			
	Band 2			Yes	Yes	Yes	Yes	40 MHz
	Band 4			Yes	Yes	Yes	Yes	
CA_2A-5A(0)(1)	Band 2			Yes	Yes	Yes	Yes	30 MHz
	Band 5			Yes	Yes			
	Band 2			Yes	Yes			20 MHz
	Band 5			Yes	Yes			
CA_2A-7A(0)	Band 2			Yes	Yes	Yes	Yes	40 MHz
	Band 7			Yes	Yes	Yes	Yes	
CA_2A-12A (0)(1)(2)	Band 2			Yes	Yes	Yes	Yes	30 MHz
	Band 12			Yes	Yes			
	Band 2			Yes	Yes	Yes	Yes	30 MHz
	Band 12		Yes	Yes	Yes			
	Band 2			Yes	Yes			20 MHz
	Band 12			Yes	Yes			
CA_2A-13A(0)(1)	Band 2			Yes	Yes	Yes	Yes	30 MHz
	Band 13				Yes			
	Band 2			Yes	Yes			20 MHz
	Band 13				Yes			
CA_2A-29A (0)(1)(2)	Band 2			Yes	Yes			20 MHz
	Band 29		Yes	Yes	Yes			
	Band 2			Yes	Yes			20 MHz
	Band 29			Yes	Yes			
	Band 2			Yes	Yes	Yes	Yes	30 MHz
	Band 29			Yes	Yes			
CA_2A-30A(0)(1)(2)	Band 2			Yes	Yes	Yes	Yes	30 MHz
	Band 30			Yes	Yes			
CA_2A-66A (0)(1)(2)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	40 MHz
	Band 66			Yes	Yes	Yes	Yes	
	Band 2			Yes	Yes			20 MHz
	Band 66			Yes	Yes			
	Band 2			Yes	Yes	Yes	Yes	40 MHz
	Band 66			Yes	Yes	Yes	Yes	
CA_2A-71A(0)(1)	Band 2			Yes	Yes	Yes	Yes	40 MHz
	Band 71			Yes	Yes	Yes	Yes	
	Band 2			Yes	Yes			20 MHz
	Band 71			Yes	Yes			
CA_4A-5A(0)(1)	Band 4			Yes	Yes			20 MHz
	Band 5			Yes	Yes			
	Band 4			Yes	Yes	Yes	Yes	30 MHz
	Band 5			Yes	Yes			
CA_4A-7A(0)(1)	Band 4			Yes	Yes			30 MHz
	Band 7			Yes	Yes	Yes	Yes	
	Band 4			Yes	Yes	Yes	Yes	40 MHz
	Band 7			Yes	Yes	Yes	Yes	

DL Inter-Band (Continued)

E-UTRA CA configuration (BCS)	E-UTRA Band	Bandwidth						Max Aggregated BW
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
CA_4A-12A (0)(1)(2)(3)(4)(5)	Band 4	Yes	Yes	Yes	Yes			20 MHz
	Band 12			Yes	Yes			
	Band 4	Yes	Yes	Yes	Yes	Yes	Yes	30 MHz
	Band 12			Yes	Yes			
	Band 4			Yes	Yes	Yes	Yes	30 MHz
	Band 12			Yes	Yes			
	Band 4			Yes	Yes			20 MHz
	Band 12			Yes	Yes			
	Band 4			Yes	Yes	Yes	Yes	30 MHz
	Band 12			Yes	Yes			
	Band 4			Yes	Yes	Yes		20 MHz
	Band 12			Yes				
CA_4A-13A(0)	Band 4			Yes	Yes	Yes	Yes	30 MHz
	Band 13				Yes			
CA_4A-71A(0)	Band 4			Yes	Yes	Yes	Yes	40 MHz
	Band 71			Yes	Yes	Yes	Yes	
CA_5A-7A(0)(1)	Band 5	Yes	Yes	Yes	Yes			30 MHz
	Band 7				Yes	Yes	Yes	
	Band 5			Yes	Yes			30 MHz
	Band 7				Yes	Yes	Yes	
CA_5A-30A(0)	Band 5			Yes	Yes			20 MHz
	Band 30			Yes	Yes			
CA_5A-66A(0)	Band 5			Yes	Yes			30 MHz
	Band 66			Yes	Yes	Yes	Yes	
CA_7A-12A(0)	Band 7			Yes	Yes	Yes	Yes	30 MHz
	Band 12			Yes	Yes			
CA_7A-66A(0)	Band 7			Yes	Yes	Yes	Yes	40 MHz
	Band 66			Yes	Yes	Yes	Yes	
CA_12A-30A(0)	Band 12			Yes	Yes			20 MHz
	Band 30			Yes	Yes			
CA_12A-66A(0)(1)(2)(3)(4)(5)	Band 12			Yes	Yes			20 MHz
	Band 66	Yes	Yes	Yes	Yes			
	Band 12			Yes	Yes			30 MHz
	Band 66	Yes	Yes	Yes	Yes	Yes	Yes	
	Band 12		Yes	Yes	Yes			30 MHz
	Band 66			Yes	Yes	Yes	Yes	
	Band 12			Yes	Yes			20 MHz
	Band 66			Yes	Yes			
	Band 12			Yes	Yes			30 MHz
	Band 66			Yes	Yes	Yes	Yes	
	Band 12			Yes				20 MHz
	Band 66			Yes	Yes	Yes		
CA_13A-66A(0)	Band 13			Yes	Yes			30 MHz
	Band 66			Yes	Yes	Yes	Yes	
CA_25A-41A(0)	Band 25			Yes	Yes	Yes	Yes	40 MHz
	Band 41			Yes	Yes	Yes	Yes	
CA_25A-26A(0)(1)(2)	Band 25		Yes	Yes	Yes	Yes	Yes	35 MHz
	Band 26	Yes	Yes	Yes	Yes	Yes		
	Band 25		Yes	Yes	Yes			20 MHz
	Band 26		Yes	Yes	Yes			
	Band 25			Yes	Yes			20 MHz
	Band 26			Yes	Yes			
CA_26A-41A(0)	Band 26			Yes	Yes	Yes		35 MHz
	Band 41			Yes	Yes	Yes	Yes	
CA_30A-29A(0)	Band 30			Yes	Yes			20 MHz
	Band 29			Yes	Yes			
CA_66A-71A(0)	Band 66			Yes	Yes	Yes	Yes	40 MHz
	Band 71			Yes	Yes	Yes	Yes	

DL Inter-Band (Non-Contiguous)

E-UTRA CA configuration (BCS)	E-UTRA Band	Allowed Channel BW Per Carrier (MHz)		Max Aggregated BW
		1st Carrier	2nd Carrier	
CA_2A-2A (0)	Band 2	5,10,15. 20	5,10,15. 20	40 MHz
CA_4A-4A (0)(1)	Band 4	5,10,15,20	5,10,15,20	40 MHz
	Band 4	5,10	5,10	20 MHz
CA_5A-5A (0)(1)	Band 5	5,10	5,10	20 MHz
	Band 5	3	5	8 MHz
CA_7A-7A (0)(1)(2)(3)	Band 7	5	15	40 MHz
		10	10,15	
		15	15,20	
		20	20	
	Band 7	5,10,15. 20	5,10,15. 20	40 MHz
	Band 7	5,10,15. 20	5,10	30 MHz
	Band 7	10,15,20	10,15,20	40 MHz
CA_25A-25A (0)(1)	Band 25	5,10	5,10	20 MHz
		5,10,15. 20	5,10,15. 20	40 MHz
CA_41A-41A (0)(1)	Band 41	10,15,20	10,15,20	40 MHz
		5,10,15. 20	5,10,15. 20	40 MHz
CA_66A-66A (0)	Band 66	5,10,15,20	5,10,15,20	40 MHz

UL/DL Intra-Band (Contiguous)

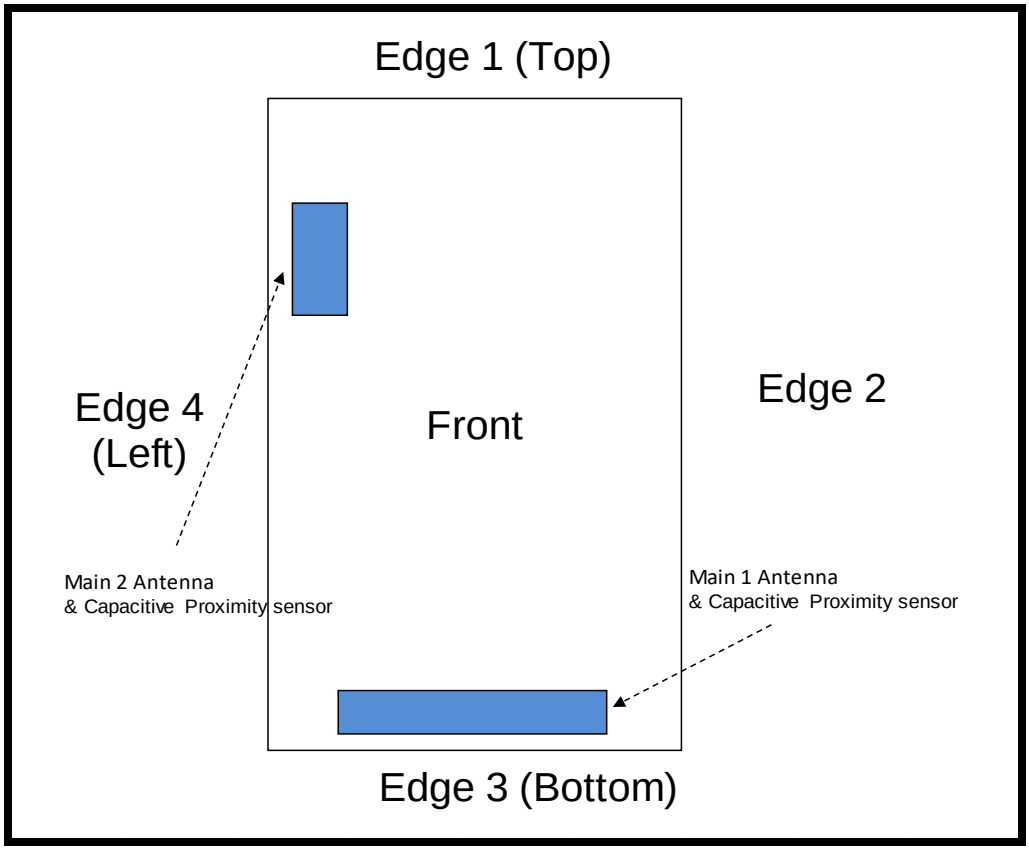
E-UTRA CA configuration (BCS)	E-UTRA Band	Allowed Channel BW Per Carrier (MHz)		Max Aggregated BW
		1st Carrier	2nd Carrier	
CA_2C (0)	Band 2	5	20	40 MHz
		10	15,20	
		15	10,15,20	
		20	5,10,15,20	
CA_5B (0)(1)	Band 5	5,10	10	20 MHz
		10	5	
	Band 5	3	5	8 MHz
		5	3	
CA_12B (0)	Band 12	5	5,10	15 MHz
CA_41C (0)(1)(2)(3)	Band 41	10	20	40 MHz
		15	15,20	
		20	10,15,20	
	Band 41	5,10	20	40 MHz
		15	15,20	
		20	5,10,15,20	
	Band 41	10	15,20	40 MHz
		15	10,15,20	
		20	10,15,20	
	Band 41	10	20	40 MHz
		20	20	
CA_66B (0)	Band 66	5	5,10,15	20 MHz
		10	5,10	
		15	5	
CA_66C (0)	Band 66	5	20	40 MHz
		10	15,20	
		15	10,15,20	
		20	5,10,15,20	

Note(s):

1. For supported channels, please refer to §6.5.
2. Only LTE CA_41C are support both UL/DL Intra band. other CA configurations are only support DL Intra band.

6.8. Proximity Sensor feature

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

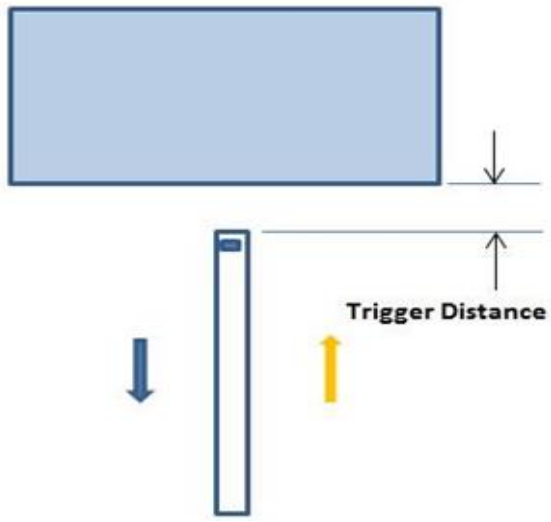


6.8.1. Proximity Sensor Triggering Distance (KDB 616217 §6.2)

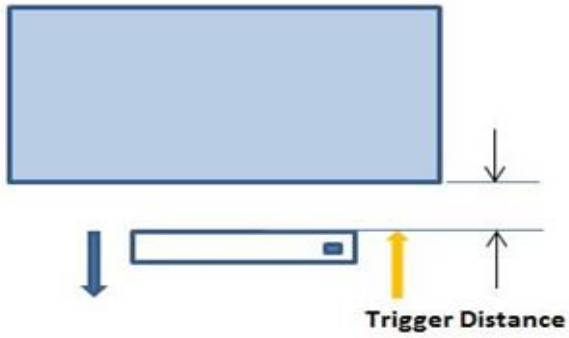
Rear and Edge 4 of the DUT was placed directly below the flat phantom. The DUT was moved toward the phantom in accordance with the steps outlined in KDB 616217 §6.2 to determine the trigger distance for enabling power reduction. The DUT was moved away from the phantom to determine the trigger distance for resuming full power.

The DUT featured a visual indicator on its display that showed the status of the proximity sensor (Triggered or not triggered). This was used to determine the status of the sensor during the proximity sensor assessment as monitoring the output power directly was not practical without affecting the measurement.

It was confirmed separately that the output power was altered according to the proximity sensor status indication. This was achieved by observing the proximity sensor status at the same time as monitoring the conducted power. Section 9 contains both the full and reduced conducted power measurements.



Proximity Sensor Trigger Distance Assessment
KDB 616217 §6.2, Edge 4



Proximity Sensor Trigger Distance Assessment
KDB 616217 §6.2, Rear

LEGEND

→ Direction of DUT travel for determination of power reduction triggering point

→ Direction of DUT travel for determination of full power resumption triggering point

Summary of Trigger Distances

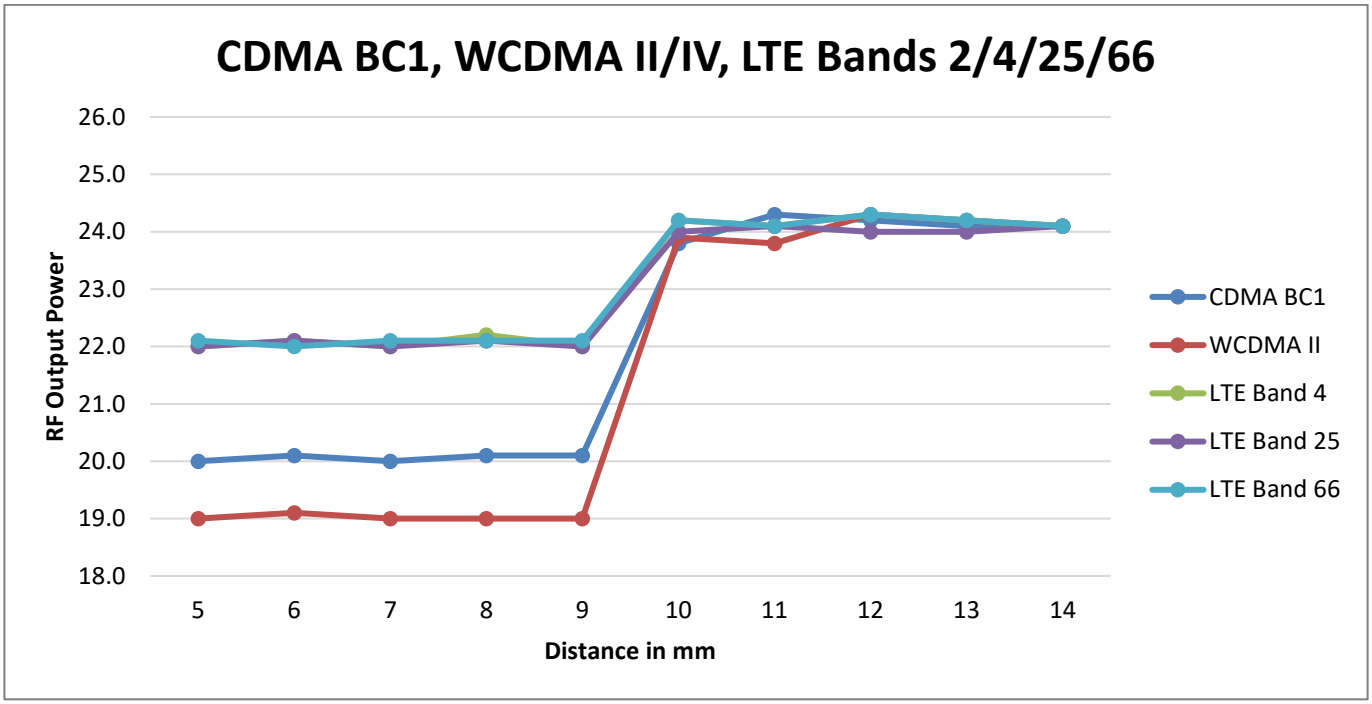
Tissue simulating liquid	Antenna	Trigger distance - Rear		Trigger distance – Edge 4	
		Moving toward phantom	Moving from phantom	Moving toward phantom	Moving from phantom
1750 Head	Main 1 Ant.	9 mm	9 mm	N/A	N/A
1900 Head	Main 1 Ant.	9 mm	9 mm	N/A	N/A
2300 Head	Main 2 Ant.	15 mm	15 mm	15 mm	15 mm
2600 Head	Main 2 Ant.	15 mm	15 mm	15 mm	15 mm

Proximity Sensor Triggering Distance Measurement Results

WWAN Bands for Main 1 Ant.

Rear, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

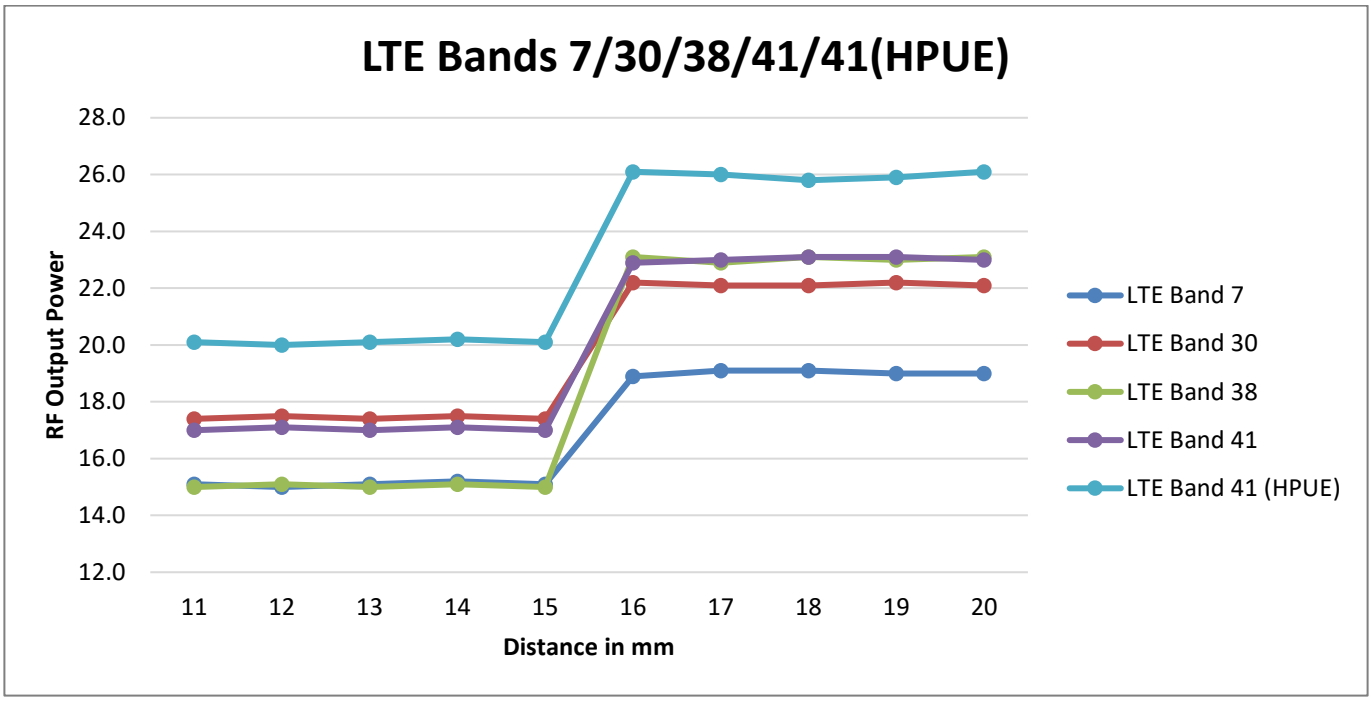
Distance to DUT vs. Output Power in dBm										
Distance (mm)	5	6	7	8	9	10	11	12	13	14
CDMA BC1	20.0	20.1	20.0	20.1	20.1	23.8	24.3	24.2	24.1	24.1
WCDMA II	19.0	19.1	19.0	19.0	19.0	23.9	23.8	24.3	24.2	24.1
WCDMA IV	22.0	22.1	22.0	22.1	22.0	23.9	23.8	24.3	24.2	24.1
LTE Band 2	22.0	22.1	22.0	22.1	22.0	24.2	24.1	23.8	24.3	24.2
LTE Band 4	22.0	22.1	22.0	22.2	22.0	24.2	24.1	24.3	24.2	24.1
LTE Band 25	22.0	22.1	22.0	22.1	22.0	24.0	24.1	24.0	24.0	24.1
LTE Band 66	22.1	22.0	22.1	22.1	22.1	24.2	24.1	24.3	24.2	24.1



WWAN Bands for Main 2 Ant.

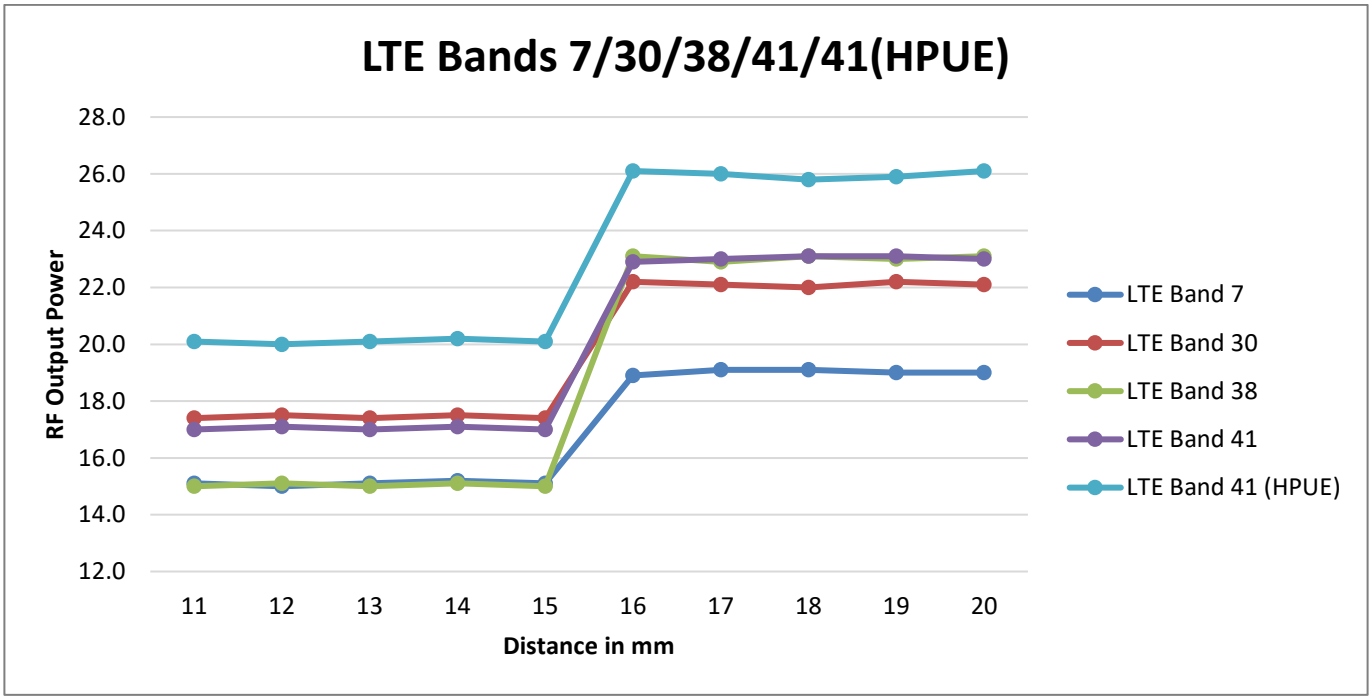
Rear, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	11	12	13	14	15	16	17	18	19	20
LTE Band 7	15.1	15.0	15.1	15.2	15.1	18.9	19.1	19.1	19.0	19.0
LTE Band 30	17.4	17.5	17.4	17.5	17.4	22.2	22.1	22.1	22.2	22.1
LTE Band 38	15.0	15.1	15.0	15.1	15.0	23.1	22.9	23.1	23.0	23.1
LTE Band 41	17.0	17.1	17.0	17.1	17.0	22.9	23.0	23.1	23.1	23.0
LTE Band 41 (HPUE)	20.1	20.0	20.1	20.2	20.1	26.1	26.0	25.8	25.9	26.1



Edge 4, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	11	12	13	14	15	16	17	18	19	20
LTE Band 7	15.1	15.0	15.1	15.2	15.1	18.9	19.1	19.1	19.0	19.0
LTE Band 30	17.4	17.5	17.4	17.5	17.4	22.2	22.1	22.0	22.2	22.1
LTE Band 38	15.0	15.1	15.0	15.1	15.0	23.1	22.9	23.1	23.0	23.1
LTE Band 41	17.0	17.1	17.0	17.1	17.0	22.9	23.0	23.1	23.1	23.0
LTE Band 41 (HPUE)	20.1	20.0	20.1	20.2	20.1	26.1	26.0	25.8	25.9	26.1



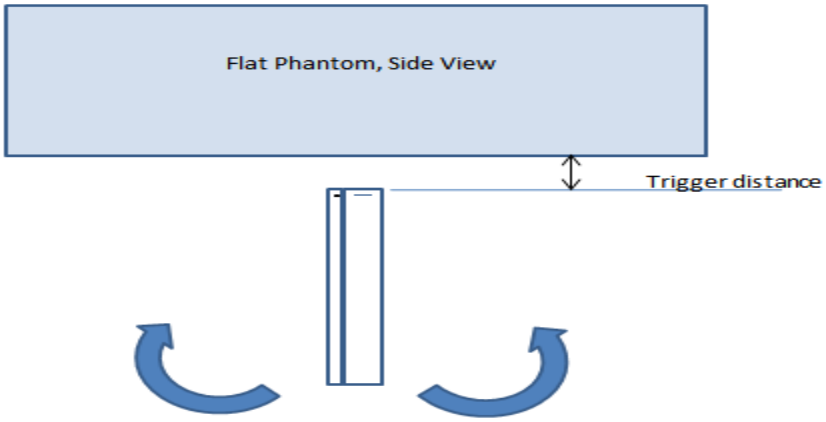
6.8.2. Proximity Sensor Coverage (KDB 616217 §6.3)

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

6.8.3. Proximity Sensor Tilt Angle Assessment (KDB 616217 §6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Edge 4 parallel to the base of the flat phantom for each band.

The EUT was rotated about Edge 3 for angles up to +/- 45°. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up to +/- 45°.



Proximity sensor tilt angle assessment (Edge 4) KDB 616217 §6.4

Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering (Edge 4)

Band (MHz)	Minimum trigger distance measured according to KDB 616217 §6.2	Minimum distance at which power reduction was maintained over +/-45°	Power reduction status										
			-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
2300	14 mm	14 mm	On	On	On	On	On	On	On	On	On	On	On
2600	14 mm	14 mm	On	On	On	On	On	On	On	On	On	On	On

6.8.4. Resulting test positions for SAR measurements

Wireless technologies	DUT Position	§6.2 Triggering Distance	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for SAR
WWAN Main 1 Ant.	Rear	9 mm	N/A	N/A	8 mm
WWAN Main 2 Ant.	Rear	15 mm	N/A	15 mm	14 mm
	Edge 4	15 mm	N/A	15 mm	14 mm

7. RF Exposure Conditions (Test Configurations)

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

Wireless technologies	RF Exposure Conditions	Antenaa	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN	Head	Main 1 Ant. & Main 2 Ant.	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	Main 1 Ant. & Main 2 Ant.	15 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
	Hotspot	Main 1 Ant.	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				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	
	Hotspot	Main 2 Ant.	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				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	
	Product Specific 10-g	Main 1 Ant. & Main 2 Ant.	0 mm	Rear	Refer to notes 2 & 3		
				Front			
				Edge 1 (Top)			
				Edge 2 (Right)			
				Edge 3 (Bottom)			
				Edge 4 (Left)			
2.4GHz WLAN/BT & 5GHz WLAN	Head	WiFi/BT 2.4G/BT Ant. & WiFi 5G Ant.	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		15 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
	Hotspot		10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				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	
	Product Specific 10-g		0 mm	Rear	Refer to notes 2 & 4		
				Front			
				Edge 1 (Top)			
				Edge 2 (Right)			
				Edge 3 (Bottom)			
				Edge 4 (Left)			

Notes:

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. For Phablet devices: When hotspot mode applies, Product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
3. For Phablet devices: When hotspot mode applies and power reduction applies to hotspot mode, Product specific 10-g SAR is required for each test position that has and adjusted SAR to maximum power that is > 1.2 W/kg.
4. For Phablet devices: When hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.

8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.
The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.
Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

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

SAR test were performed in All RF exposure conditions using Head tissue according to TCB workshop note of April. 2019.

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

Dielectric Property Measurements Results:
SAR 1 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-15-2021	Head 5250	e'	35.8100	Relative Permittivity (εr):	35.81	35.93	-0.34	5
		e''	15.8100	Conductivity (σ):	4.62	4.70	-1.85	5
	Head 5260	e'	35.7900	Relative Permittivity (ε_r):	35.79	35.92	-0.37	5
		e''	15.8100	Conductivity (σ):	4.62	4.71	-1.88	5
	Head 5600	e'	35.4400	Relative Permittivity (ε_r):	35.44	35.53	-0.26	5
		e''	16.0700	Conductivity (σ):	5.00	5.06	-1.11	5
	Head 5750	e'	35.3900	Relative Permittivity (ε_r):	35.39	35.36	0.08	5
		e''	16.2400	Conductivity (σ):	5.19	5.21	-0.41	5
	Head 5825	e'	35.3100	Relative Permittivity (ε_r):	35.31	35.30	0.03	5
		e''	16.2900	Conductivity (σ):	5.28	5.27	0.12	5
2-18-2021	Head 750	e'	43.5300	Relative Permittivity (ε_r):	43.53	41.96	3.74	5
		e''	21.5100	Conductivity (σ):	0.90	0.89	0.44	5
	Head 700	e'	44.2100	Relative Permittivity (ε_r):	44.21	42.22	4.72	5
		e''	21.8300	Conductivity (σ):	0.85	0.89	-4.45	5
	Head 795	e'	42.9500	Relative Permittivity (ε_r):	42.95	41.73	2.92	5
		e''	21.2400	Conductivity (σ):	0.94	0.90	4.73	5
2-21-2021	Head 750	e'	42.3800	Relative Permittivity (ε_r):	42.38	41.96	1.00	5
		e''	21.5600	Conductivity (σ):	0.90	0.89	0.67	5
	Head 700	e'	43.0400	Relative Permittivity (ε_r):	43.04	42.22	1.95	5
		e''	21.9600	Conductivity (σ):	0.85	0.89	-3.88	5
	Head 795	e'	41.8200	Relative Permittivity (ε_r):	41.82	41.73	0.21	5
		e''	21.1200	Conductivity (σ):	0.93	0.90	4.13	5
2-22-2021	Head 680	e'	44.3500	Relative Permittivity (ε_r):	44.35	42.32	4.80	5
		e''	22.4800	Conductivity (σ):	0.85	0.89	-4.25	5
	Head 750	e'	43.3600	Relative Permittivity (ε_r):	43.36	41.96	3.33	5
		e''	21.9800	Conductivity (σ):	0.92	0.89	2.64	5
	Head 700	e'	44.0600	Relative Permittivity (ε_r):	44.06	42.22	4.36	5
		e''	22.3200	Conductivity (σ):	0.87	0.89	-2.30	5

SAR 3 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-15-2021	Head 1750	e'	40.2300	Relative Permittivity (ϵ_r):	40.23	40.08	0.36	5
		e"	13.5100	Conductivity (σ):	1.31	1.37	-3.97	5
	Head 1710	e'	40.2700	Relative Permittivity (ϵ_r):	40.27	40.15	0.31	5
		e"	13.6400	Conductivity (σ):	1.30	1.35	-3.68	5
	Head 1755	e'	40.2300	Relative Permittivity (ϵ_r):	40.23	40.08	0.38	5
		e"	13.5000	Conductivity (σ):	1.32	1.37	-3.97	5
2-15-2021	Head 1900	e'	40.1500	Relative Permittivity (ϵ_r):	40.15	40.00	0.37	5
		e"	13.3100	Conductivity (σ):	1.41	1.40	0.44	5
	Head 1850	e'	40.2000	Relative Permittivity (ϵ_r):	40.20	40.00	0.50	5
		e"	13.3600	Conductivity (σ):	1.37	1.40	-1.84	5
	Head 1910	e'	40.1400	Relative Permittivity (ϵ_r):	40.14	40.00	0.35	5
		e"	13.3100	Conductivity (σ):	1.41	1.40	0.97	5
2-17-2021	Head 2600	e'	38.5000	Relative Permittivity (ϵ_r):	38.50	39.01	-1.31	5
		e"	13.3900	Conductivity (σ):	1.94	1.96	-1.35	5
	Head 2500	e'	38.6800	Relative Permittivity (ϵ_r):	38.68	39.14	-1.17	5
		e"	13.2800	Conductivity (σ):	1.85	1.85	-0.43	5
	Head 2700	e'	38.3100	Relative Permittivity (ϵ_r):	38.31	38.88	-1.48	5
		e"	13.4700	Conductivity (σ):	2.02	2.07	-2.32	5
2-19-2021	Head 1750	e'	41.3600	Relative Permittivity (ϵ_r):	41.36	40.08	3.18	5
		e"	13.5100	Conductivity (σ):	1.31	1.37	-3.97	5
	Head 1710	e'	41.4100	Relative Permittivity (ϵ_r):	41.41	40.15	3.15	5
		e"	13.5700	Conductivity (σ):	1.29	1.35	-4.17	5
	Head 1755	e'	41.3600	Relative Permittivity (ϵ_r):	41.36	40.08	3.20	5
		e"	13.5000	Conductivity (σ):	1.32	1.37	-3.97	5
2-19-2021	Head 1900	e'	41.1100	Relative Permittivity (ϵ_r):	41.11	40.00	2.78	5
		e"	13.3300	Conductivity (σ):	1.41	1.40	0.59	5
	Head 1850	e'	41.1900	Relative Permittivity (ϵ_r):	41.19	40.00	2.97	5
		e"	13.3800	Conductivity (σ):	1.38	1.40	-1.69	5
	Head 1910	e'	41.0800	Relative Permittivity (ϵ_r):	41.08	40.00	2.70	5
		e"	13.3300	Conductivity (σ):	1.42	1.40	1.12	5
2-22-2021	Head 1750	e'	40.5200	Relative Permittivity (ϵ_r):	40.52	40.08	1.09	5
		e"	13.9600	Conductivity (σ):	1.36	1.37	-0.77	5
	Head 1710	e'	40.5600	Relative Permittivity (ϵ_r):	40.56	40.15	1.03	5
		e"	14.0500	Conductivity (σ):	1.34	1.35	-0.78	5
	Head 1755	e'	40.5200	Relative Permittivity (ϵ_r):	40.52	40.08	1.11	5
		e"	13.9600	Conductivity (σ):	1.36	1.37	-0.69	5
2-22-2021	Head 1900	e'	40.4100	Relative Permittivity (ϵ_r):	40.41	40.00	1.02	5
		e"	13.8100	Conductivity (σ):	1.46	1.40	4.21	5
	Head 1850	e'	40.4500	Relative Permittivity (ϵ_r):	40.45	40.00	1.13	5
		e"	13.8000	Conductivity (σ):	1.42	1.40	1.40	5
	Head 1910	e'	40.3900	Relative Permittivity (ϵ_r):	40.39	40.00	0.98	5
		e"	13.8100	Conductivity (σ):	1.47	1.40	4.76	5
2-22-2021	Head 2200	e'	40.5000	Relative Permittivity (ϵ_r):	40.50	39.65	2.15	5
		e"	13.4800	Conductivity (σ):	1.65	1.58	4.64	5
	Head 2300	e'	40.3100	Relative Permittivity (ϵ_r):	40.31	39.47	2.12	5
		e"	13.4500	Conductivity (σ):	1.72	1.66	3.39	5
	Head 2400	e'	40.1600	Relative Permittivity (ϵ_r):	40.16	39.30	2.20	5
		e"	13.4000	Conductivity (σ):	1.79	1.75	2.09	5

SAR 3 Room (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-22-2021	Head 2600	e'	39.9200	Relative Permittivity (ϵ_r):	39.92	39.01	2.33	5
		e''	13.5100	Conductivity (σ):	1.95	1.96	-0.46	5
	Head 2500	e'	40.0600	Relative Permittivity (ϵ_r):	40.06	39.14	2.36	5
		e''	13.4300	Conductivity (σ):	1.87	1.85	0.69	5
	Head 2700	e'	39.7400	Relative Permittivity (ϵ_r):	39.74	38.88	2.20	5
		e''	13.6100	Conductivity (σ):	2.04	2.07	-1.31	5
2-22-2021	Head 5250	e'	35.2000	Relative Permittivity (ϵ_r):	35.20	35.93	-2.04	5
		e''	15.9400	Conductivity (σ):	4.65	4.70	-1.04	5
	Head 5260	e'	35.1700	Relative Permittivity (ϵ_r):	35.17	35.92	-2.09	5
		e''	15.9500	Conductivity (σ):	4.66	4.71	-1.01	5
	Head 5600	e'	34.4900	Relative Permittivity (ϵ_r):	34.49	35.53	-2.94	5
		e''	16.2300	Conductivity (σ):	5.05	5.06	-0.13	5
	Head 5750	e'	34.1900	Relative Permittivity (ϵ_r):	34.19	35.36	-3.32	5
		e''	16.3600	Conductivity (σ):	5.23	5.21	0.32	5
	Head 5825	e'	34.0600	Relative Permittivity (ϵ_r):	34.06	35.30	-3.51	5
		e''	16.4000	Conductivity (σ):	5.31	5.27	0.79	5
3-2-2021	Head 1750	e'	39.18	Relative Permittivity (ϵ_r):	39.18	40.08	-2.26	5
		e''	13.78	Conductivity (σ):	1.34	1.37	-2.05	5
	Head 1710	e'	39.23	Relative Permittivity (ϵ_r):	39.23	40.15	-2.28	5
		e''	13.86	Conductivity (σ):	1.32	1.35	-2.12	5
	Head 1755	e'	39.17	Relative Permittivity (ϵ_r):	39.17	40.08	-2.26	5
		e''	13.76	Conductivity (σ):	1.34	1.37	-2.12	5
3-7-2021	Head 1900	e'	40.9	Relative Permittivity (ϵ_r):	40.9	40	2.25	5
		e''	13.43	Conductivity (σ):	1.42	1.4	1.34	5
	Head 1850	e'	40.92	Relative Permittivity (ϵ_r):	40.92	40	2.3	5
		e''	13.5	Conductivity (σ):	1.39	1.4	-0.81	5
	Head 1910	e'	40.89	Relative Permittivity (ϵ_r):	40.89	40	2.23	5
		e''	13.43	Conductivity (σ):	1.43	1.4	1.88	5

SAR 4 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-15-2021	Head 2450	e'	38.2300	Relative Permittivity (ϵ_r):	38.23	39.20	-2.47	5
		e''	13.1700	Conductivity (σ):	1.79	1.80	-0.33	5
	Head 2400	e'	38.3700	Relative Permittivity (ϵ_r):	38.37	39.30	-2.36	5
		e''	13.0300	Conductivity (σ):	1.74	1.75	-0.73	5
	Head 2480	e'	38.1500	Relative Permittivity (ϵ_r):	38.15	39.16	-2.58	5
		e''	13.2600	Conductivity (σ):	1.83	1.83	-0.21	5
2-21-2021	Head 2600	e'	38.0000	Relative Permittivity (ϵ_r):	38.00	39.01	-2.59	5
		e''	14.0000	Conductivity (σ):	2.02	1.96	3.15	5
	Head 2500	e'	38.3500	Relative Permittivity (ϵ_r):	38.35	39.14	-2.01	5
		e''	13.7400	Conductivity (σ):	1.91	1.85	3.02	5
	Head 2700	e'	37.6200	Relative Permittivity (ϵ_r):	37.62	38.88	-3.25	5
		e''	14.2500	Conductivity (σ):	2.14	2.07	3.34	5
2-23-2021	Head 2450	e'	37.7600	Relative Permittivity (ϵ_r):	37.76	39.20	-3.67	5
		e''	13.5100	Conductivity (σ):	1.84	1.80	2.25	5
	Head 2400	e'	37.8500	Relative Permittivity (ϵ_r):	37.85	39.30	-3.68	5
		e''	13.3300	Conductivity (σ):	1.78	1.75	1.55	5
	Head 2480	e'	37.6500	Relative Permittivity (ϵ_r):	37.65	39.16	-3.86	5
		e''	13.5700	Conductivity (σ):	1.87	1.83	2.12	5
2-23-2021	Head 2600	e'	38.9300	Relative Permittivity (ϵ_r):	38.93	39.01	-0.21	5
		e''	14.0500	Conductivity (σ):	2.03	1.96	3.52	5
	Head 2500	e'	39.2800	Relative Permittivity (ϵ_r):	39.28	39.14	0.37	5
		e''	13.8000	Conductivity (σ):	1.92	1.85	3.47	5
	Head 2700	e'	38.5700	Relative Permittivity (ϵ_r):	38.57	38.88	-0.81	5
		e''	14.3000	Conductivity (σ):	2.15	2.07	3.70	5

SAR 5 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-15-2021	Head 835	e'	41.7500	Relative Permittivity (ε_r):	41.75	41.50	0.60	5
		e"	19.1800	Conductivity (σ):	0.89	0.90	-1.06	5
	Head 820	e'	41.7800	Relative Permittivity (ε_r):	41.78	41.60	0.43	5
		e"	19.3900	Conductivity (σ):	0.88	0.90	-1.60	5
	Head 850	e'	41.7000	Relative Permittivity (ε_r):	41.70	41.50	0.48	5
		e"	18.9800	Conductivity (σ):	0.90	0.92	-1.96	5
2-18-2021	Head 835	e'	42.1400	Relative Permittivity (ε_r):	42.14	41.50	1.54	5
		e"	20.0300	Conductivity (σ):	0.93	0.90	3.33	5
	Head 820	e'	42.2000	Relative Permittivity (ε_r):	42.20	41.60	1.44	5
		e"	20.2600	Conductivity (σ):	0.92	0.90	2.81	5
	Head 850	e'	42.1100	Relative Permittivity (ε_r):	42.11	41.50	1.47	5
		e"	19.8000	Conductivity (σ):	0.94	0.92	2.27	5
2-18-2021	Head 2450	e'	39.4600	Relative Permittivity (ε_r):	39.46	39.20	0.66	5
		e"	13.2300	Conductivity (σ):	1.80	1.80	0.13	5
	Head 2400	e'	39.5600	Relative Permittivity (ε_r):	39.56	39.30	0.67	5
		e"	13.2500	Conductivity (σ):	1.77	1.75	0.94	5
	Head 2480	e'	39.4000	Relative Permittivity (ε_r):	39.40	39.16	0.61	5
		e"	13.2200	Conductivity (σ):	1.82	1.83	-0.52	5
2-21-2021	Head 835	e'	42.2400	Relative Permittivity (ε_r):	42.24	41.50	1.78	5
		e"	18.9200	Conductivity (σ):	0.88	0.90	-2.40	5
	Head 820	e'	42.2800	Relative Permittivity (ε_r):	42.28	41.60	1.63	5
		e"	19.1600	Conductivity (σ):	0.87	0.90	-2.77	5
	Head 850	e'	42.2200	Relative Permittivity (ε_r):	42.22	41.50	1.73	5
		e"	18.6900	Conductivity (σ):	0.88	0.92	-3.46	5
2-23-2021	Head 1900	e'	38.8900	Relative Permittivity (ε_r):	38.89	40.00	-2.78	5
		e"	13.4700	Conductivity (σ):	1.42	1.40	1.65	5
	Head 1850	e'	38.9800	Relative Permittivity (ε_r):	38.98	40.00	-2.55	5
		e"	13.5300	Conductivity (σ):	1.39	1.40	-0.59	5
	Head 1910	e'	38.8700	Relative Permittivity (ε_r):	38.87	40.00	-2.83	5
		e"	13.4600	Conductivity (σ):	1.43	1.40	2.11	5
2-24-2021	Head 835	e'	42.3200	Relative Permittivity (ε_r):	42.32	41.50	1.98	5
		e"	18.8000	Conductivity (σ):	0.87	0.90	-3.02	5
	Head 820	e'	42.3600	Relative Permittivity (ε_r):	42.36	41.60	1.82	5
		e"	19.0400	Conductivity (σ):	0.87	0.90	-3.38	5
	Head 850	e'	42.3000	Relative Permittivity (ε_r):	42.30	41.50	1.93	5
		e"	18.5700	Conductivity (σ):	0.88	0.92	-4.08	5

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 2.5 mm.
  For 5 GHz band - Distance between probe sensors and phantom surface was set to 1.4 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

Reference Target SAR Values

The reference SAR values can be obtained from the calibration certificate of system validation dipoles.

System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (W/kg)	
				1g/10g	Head
D750V3	1122	2-24-2020	750	1g	8.54
				10g	5.59
D835V2	4d174	2-24-2020	835	1g	9.59
				10g	6.24
D1750V2	1125	2-21-2020	1750	1g	36.50
				10g	19.20
D1900V2	5d199	3-19-2020	1900	1g	40.50
				10g	21.00
D2300V2	1090	11-18-2020	2300	1g	48.80
				10g	23.40
D2450V2	939	7-25-2019	2450	1g	53.20
				10g	25.10
D2600V2	1097	9-19-2019	2600	1g	57.30
				10g	25.70
D5GHzV2	1209	2-27-2020	5250	1g	79.90
				10g	22.60
			5600	1g	83.60
				10g	23.60
			5750	1g	80.20
				10g	22.60

Note(s):

Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations. (D1750V2 (SN:1125), D2450V2 (SN : 939), D2600V2 (SN : 1097))

System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

SAR 1 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2-15-2021	D5GHzV2 (5250)	1209	Head	1g	7.73	77.3	79.90	-3.25	
				10g	2.21	22.1	22.60	-2.21	
2-15-2021	D5GHzV2 (5600)	1209	Head	1g	7.75	77.5	83.60	-7.30	
				10g	2.19	21.9	23.60	-7.20	
2-15-2021	D5GHzV2 (5750)	1209	Head	1g	7.36	73.6	80.20	-8.23	1,2
				10g	2.09	20.9	22.60	-7.52	
2-18-2021	D750V3	1122	Head	1g	0.85	8.5	8.54	-0.23	
				10g	0.57	5.7	5.59	2.15	
2-21-2021	D750V3	1122	Head	1g	0.85	8.5	8.54	-0.59	3,4
				10g	0.57	5.7	5.59	1.79	
2-22-2021	D750V3	1122	Head	1g	0.86	8.6	8.54	0.23	
				10g	0.57	5.7	5.59	2.50	

SAR 3 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2021-02-15	D1750V2	1125	Head	1g	3.55	35.5	36.50	-2.74	
				10g	1.91	19.1	19.20	-0.52	
2021-02-15	D1900V2	5d199	Head	1g	4.00	40.0	40.50	-1.23	
				10g	2.10	21.0	21.00	0.00	
2021-02-17	D2600V2	1097	Head	1g	5.57	55.7	57.30	-2.79	
				10g	2.53	25.3	25.70	-1.56	
2021-02-19	D1750V2	1125	Head	1g	3.46	34.6	36.50	-5.21	5,6
				10g	1.86	18.6	19.20	-3.12	
2021-02-19	D1900V2	5d199	Head	1g	3.98	39.8	40.50	-1.73	
				10g	2.09	20.9	21.00	-0.48	
2021-02-22	D1750V2	1125	Head	1g	3.66	36.6	36.50	0.27	
				10g	1.95	19.5	19.20	1.56	
2021-02-22	D1900V2	5d199	Head	1g	4.13	41.3	40.50	1.98	
				10g	2.14	21.4	21.00	1.90	
2021-02-22	D2300V2	1090	Head	1g	5.08	50.8	49.70	2.21	7,8
				10g	2.47	24.7	23.70	4.22	
2021-02-22	D2600V2	1097	Head	1g	5.89	58.9	57.30	2.79	9,10
				10g	2.67	26.7	25.70	3.89	
2021-02-22	D5GHzV2 (5250)	1209	Head	1g	8.51	85.1	79.90	6.51	
				10g	2.45	24.5	22.60	8.41	
2021-02-22	D5GHzV2 (5600)	1209	Head	1g	8.84	88.4	83.60	5.74	
				10g	2.52	25.2	23.60	6.78	
2021-02-22	D5GHzV2 (5750)	1209	Head	1g	8.05	80.5	80.20	0.37	
				10g	2.29	22.9	22.60	1.33	
2021-03-02	D1750V2	1125	Head	1g	3.55	35.5	36.5	-2.74	
				10g	1.93	19.3	19.2	0.52	
2021-03-07	D1900V2	5d199	Head	1g	3.95	39.5	40.50	-2.47	
				10g	2.08	20.8	21.00	-0.95	

SAR 4 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2-15-2021	D2450V2	939	Head	1g	5.56	55.6	53.20	4.51	11,12
				10g	2.47	24.7	25.10	-1.59	
2-21-2021	D2600V2	1097	Head	1g	5.86	58.6	57.30	2.27	
				10g	2.82	28.2	25.70	9.73	
2-23-2021	D2450V2	939	Head	1g	5.14	51.4	53.20	-3.38	
				10g	2.33	23.3	25.10	-7.17	
2-23-2021	D2600V2	1097	Head	1g	5.68	56.8	57.30	-0.87	
				10g	2.47	24.7	25.70	-3.89	

SAR 5 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2-15-2021	D835V2	4d174	Head	1g	0.95	9.5	9.59	-1.04	
				10g	0.63	6.3	6.24	1.60	
2-18-2021	D835V2	4d174	Head	1g	0.97	9.7	9.59	0.73	
				10g	0.64	6.4	6.24	2.24	
2-18-2021	D2450V2	939	Head	1g	5.30	53.0	53.20	-0.38	
				10g	2.50	25.0	25.10	-0.40	
2-21-2021	D835V2	4d174	Head	1g	0.99	9.9	9.59	2.82	13,14
				10g	0.65	6.5	6.24	4.33	
2-23-2021	D1900V2	5d199	Head	1g	4.19	41.9	40.50	3.46	15,16
				10g	2.20	22.0	21.00	4.76	
2-24-2021	D835V2	4d174	Head	1g	0.94	9.4	9.59	-1.56	
				10g	0.62	6.2	6.24	-0.32	

9. Conducted Output Power Measurements

9.1. GSM

Per KDB 941225 D01 3G SAR Procedures:

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.

GSM850 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			
					Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	128	824.2	33.2	24.1	34.0	25.0
			190	836.6	32.9	23.9		
			251	848.8	32.9	23.9		
GPRS (GMSK)	CS1	1	128	824.2	32.9	23.9	34.0	25.0
			190	836.6	32.9	23.8		
			251	848.8	32.9	23.9		
		2	128	824.2	32.1	26.1	32.5	26.5
			190	836.6	32.1	26.0		
			251	848.8	32.1	26.1		
		3	128	824.2	30.3	26.0	30.5	26.2
			190	836.6	30.2	25.9		
			251	848.8	30.2	25.9		
		4	128	824.2	29.2	26.2	29.5	**26.5**
			190	836.6	29.2	26.1		
			251	848.8	29.2	26.2		
EGPRS (8PSK)	MCS5	1	128	824.2	27.2	18.2	27.5	18.5
			190	836.6	27.3	18.2		
			251	848.8	27.3	18.2		
		2	128	824.2	26.3	20.3	26.5	20.5
			190	836.6	26.2	20.2		
			251	848.8	26.1	20.1		
		3	128	824.2	24.4	20.1	24.5	20.2
			190	836.6	24.1	19.9		
			251	848.8	24.2	20.0		
		4	128	824.2	23.2	20.2	23.5	20.5
			190	836.6	23.1	20.1		
			251	848.8	23.2	20.2		

Notes:

The worst-case configuration and mode for SAR testing is determined to be as follows:

- GMSK (GPRS) mode with 4 time slots for Max power, based on the Tune-up Procedure. Refer to §6.3.
- SAR is not required for EGPRS (8PSK) mode because the maximum output power and tune-up limit is ≤ 1/4dB higher than GMSK GPRS or the adjusted SAR of the highest reported SAR of GMSK GPRS is ≤ 1.2W/kg.

GSM1900 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			
					Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	512	1850.2	29.7	20.6	30.5	21.5
			661	1880.0	29.7	20.7		
			810	1909.8	29.7	20.7		
GPRS (GMSK)	CS1	1	512	1850.2	29.7	20.6	30.5	21.5
			661	1880.0	29.7	20.7		
			810	1909.8	29.7	20.6		
		2	512	1850.2	29.0	23.0	29.5	23.5
			661	1880.0	29.1	23.0		
			810	1909.8	29.0	23.0		
		3	512	1850.2	27.4	23.2	27.5	23.2
			661	1880.0	27.4	23.2		
			810	1909.8	27.4	23.1		
		4	512	1850.2	26.4	23.4	26.5	**23.5**
			661	1880.0	26.3	23.3		
			810	1909.8	26.3	23.3		
EGPRS (8PSK)	MCS5	1	512	1850.2	26.4	17.3	26.5	17.5
			661	1880.0	26.4	17.4		
			810	1909.8	26.2	17.2		
		2	512	1850.2	25.3	19.3	25.5	19.5
			661	1880.0	25.4	19.4		
			810	1909.8	25.2	19.2		
		3	512	1850.2	23.2	18.9	23.8	19.5
			661	1880.0	23.3	19.0		
			810	1909.8	23.2	18.9		
		4	512	1850.2	22.0	19.0	22.5	19.5
			661	1880.0	22.1	19.1		
			810	1909.8	21.9	18.9		

Notes:

The worst-case configuration and mode for SAR testing is determined to be as follows:

- GMSK (GPRS) mode with 4 time slots for Max power, based on the Tune-up Procedure. Refer to §6.3.
- SAR is not required for EGPRS (8PSK) mode because the maximum output power and tune-up limit is ≤ 1/4dB higher than GMSK GPRS or the adjusted SAR of the highest reported SAR of GMSK GPRS is ≤ 1.2W/kg.

9.2. W-CDMA

Release 99 Setup Procedures used to establish the test signals

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

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

HSDPA Setup Procedures used to establish the test signals

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

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

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

The following 5 Sub-tests were completed according to Release 6 procedures in table C,11.1.3 of 3GPP TS 34.121-1 v13.
A summary of these settings are illustrated below:

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

DC-HSDPA Setup Procedures used to establish the test signals

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

Table E.5.0: Levels for HSDPA connection setup

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

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

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

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

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

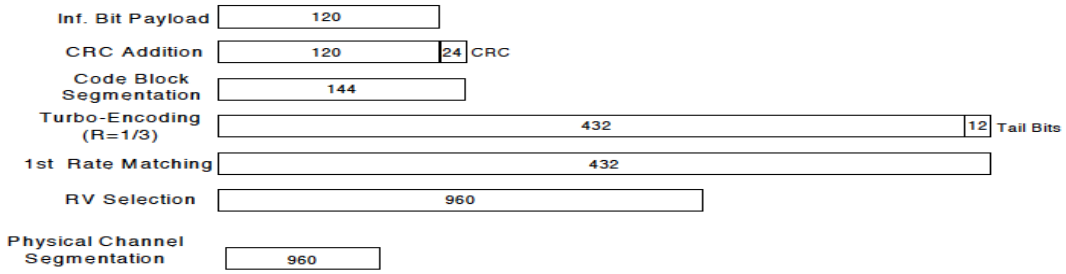


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

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

HSPA+

HSPA+ is only supported to down link. Therefore, the RF conducted power is not measured.

W-CDMA Band II Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			Reduced Average Power (dBm) Hotspot back-off			Reduced Average Power (dBm) Proximity sensor back-off		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	23.7	N/A	25.0	21.9	N/A	23.0	18.8	N/A	20.0
		9400	1880.0	23.8			21.8			18.7		
		9538	1907.6	24.1			22.0			18.9		
HSDPA	Subtest 1	9262	1852.4	22.9	0	24.5	21.0	0	22.5	17.8	0	19.5
		9400	1880.0	22.8			20.8			17.7		
		9538	1907.6	23.0			21.0			17.9		
	Subtest 2	9262	1852.4	22.8	0	24.5	20.9	0	22.5	17.7	0	19.5
		9400	1880.0	22.7			20.8			17.6		
		9538	1907.6	23.0			21.0			17.8		
	Subtest 3	9262	1852.4	22.3	0.5	24.0	20.4	0.5	22.0	17.2	0.5	19.0
		9400	1880.0	22.2			20.3			17.1		
		9538	1907.6	22.5			20.5			17.4		
	Subtest 4	9262	1852.4	22.3	0.5	24.0	20.4	0.5	22.0	17.2	0.5	19.0
		9400	1880.0	22.2			20.3			17.1		
		9538	1907.6	22.5			20.5			17.3		
HSUPA	Subtest 1	9262	1852.4	20.9	0	23.0	19.0	0	21.0	15.8	0	18.0
		9400	1880.0	20.7			18.8			15.6		
		9538	1907.6	20.9			18.9			15.8		
	Subtest 2	9262	1852.4	20.8	2	21.0	18.9	2	19.0	15.7	2	16.0
		9400	1880.0	20.7			18.7			15.6		
		9538	1907.6	20.9			18.9			15.7		
	Subtest 3	9262	1852.4	21.9	1	22.0	19.9	1	20.0	16.7	1	17.0
		9400	1880.0	21.7			19.8			16.6		
		9538	1907.6	21.9			20.0			16.7		
	Subtest 4	9262	1852.4	20.4	2	21.0	18.5	2	19.0	15.2	2	16.0
		9400	1880.0	20.2			18.3			15.1		
		9538	1907.6	20.4			18.5			15.3		
	Subtest 5	9262	1852.4	21.3	0	23.0	19.3	0	21.0	16.1	0	18.0
		9400	1880.0	21.2			19.3			17.2		
		9538	1907.6	21.3			19.3			17.3		
DC-HSDPA	Subtest 1	9262	1852.4	22.9	0	24.0	21.0	0	22.0	17.7	0	19.0
		9400	1880.0	22.8			20.8			17.6		
		9538	1907.6	23.0			21.0			17.8		
	Subtest 2	9262	1852.4	22.9	0	24.0	20.9	0	22.0	17.8	0	19.0
		9400	1880.0	22.8			20.8			17.6		
		9538	1907.6	23.0			21.1			17.8		
	Subtest 3	9262	1852.4	22.3	0.5	23.5	20.4	0.5	21.5	17.2	0.5	18.5
		9400	1880.0	22.2			20.3			17.1		
		9538	1907.6	22.5			20.6			17.3		
	Subtest 4	9262	1852.4	22.3	0.5	23.5	20.4	0.5	21.5	17.2	0.5	18.5
		9400	1880.0	22.2			20.3			17.1		
		9538	1907.6	22.5			20.5			17.3		

W-CDMA Band IV Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			Reduced Average Power (dBm) Hotspot back-off			Reduced Average Power (dBm) Proximity sensor back-off		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	23.6	N/A	25.0	22.0	N/A	23.0	21.7	N/A	23.0
		1413	1732.6	23.8			21.5			21.3		
		1513	1752.6	23.8			21.6			21.4		
HSDPA	Subtest 1	1312	1712.4	22.7	0	23.5	21.0	0	21.0	20.9	0	21.0
		1413	1732.6	22.8			20.5			20.5		
		1513	1752.6	22.8			20.6			20.6		
	Subtest 2	1312	1712.4	22.7	0	23.5	21.0	0	21.0	20.9	0	21.0
		1413	1732.6	22.8			20.4			20.4		
		1513	1752.6	22.7			20.5			20.5		
	Subtest 3	1312	1712.4	22.2	0.5	23.0	20.5	0.5	20.5	20.4	0.5	20.5
		1413	1732.6	22.3			19.9			19.9		
		1513	1752.6	22.2			20.0			20.0		
	Subtest 4	1312	1712.4	22.2	0.5	23.0	20.5	0.5	20.5	20.4	0.5	20.5
		1413	1732.6	22.2			19.9			19.9		
		1513	1752.6	22.2			20.0			20.0		
HSUPA	Subtest 1	1312	1712.4	20.7	0	22.5	19.0	0	20.0	18.9	0	20.0
		1413	1732.6	20.7			18.4			18.4		
		1513	1752.6	20.7			18.5			18.5		
	Subtest 2	1312	1712.4	20.9	1	21.5	19.0	1	19.0	18.9	1	19.0
		1413	1732.6	20.7			18.4			18.4		
		1513	1752.6	20.7			18.5			18.5		
	Subtest 3	1312	1712.4	21.7	0	22.5	20.0	0	20.0	19.9	0	20.0
		1413	1732.6	21.7			19.4			19.4		
		1513	1752.6	21.7			19.5			19.5		
	Subtest 4	1312	1712.4	20.2	1	21.5	18.5	1	19.0	18.4	1	19.0
		1413	1732.6	20.2			17.9			17.9		
		1513	1752.6	20.2			18.0			18.0		
	Subtest 5	1312	1712.4	21.1	0	22.5	19.4	0	20.0	19.4	0	20.0
		1413	1732.6	21.2			19.3			19.3		
		1513	1752.6	21.1			19.5			19.4		
DC-HSDPA	Subtest 1	1312	1712.4	22.7	0	24.0	21.0	0	21.0	21.0	0	21.0
		1413	1732.6	22.8			20.5			20.4		
		1513	1752.6	22.8			20.6			20.6		
	Subtest 2	1312	1712.4	22.7	0	24.0	21.0	0	21.0	20.9	0	21.0
		1413	1732.6	22.7			20.5			20.5		
		1513	1752.6	22.7			20.6			20.6		
	Subtest 3	1312	1712.4	22.1	0.5	23.5	20.5	0.5	20.5	20.4	0.5	20.5
		1413	1732.6	22.2			20.0			19.9		
		1513	1752.6	22.2			20.1			20.1		
	Subtest 4	1312	1712.4	22.2	0.5	23.5	20.5	0.5	20.5	20.4	0.5	20.5
		1413	1732.6	22.2			19.9			20.4		
		1513	1752.6	22.2			20.0			20.1		

W-CDMA Band V Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.2	N/A	25.0
		4183	836.6	24.2		
		4233	846.6	24.2		
HSDPA	Subtest 1	4132	826.4	23.2	0	24.0
		4183	836.6	23.2		
		4233	846.6	23.3		
	Subtest 2	4132	826.4	23.2	0	24.0
		4183	836.6	23.2		
		4233	846.6	23.2		
	Subtest 3	4132	826.4	22.7	0.5	23.5
		4183	836.6	22.7		
		4233	846.6	22.7		
	Subtest 4	4132	826.4	22.7	0.5	23.5
		4183	836.6	22.6		
		4233	846.6	22.7		
HSUPA	Subtest 1	4132	826.4	21.2	0	22.5
		4183	836.6	21.2		
		4233	846.6	21.2		
	Subtest 2	4132	826.4	21.0	0	22.5
		4183	836.6	21.1		
		4233	846.6	21.2		
	Subtest 3	4132	826.4	22.2	0	22.5
		4183	836.6	22.1		
		4233	846.6	22.2		
	Subtest 4	4132	826.4	20.8	0	22.5
		4183	836.6	20.7		
		4233	846.6	20.7		
	Subtest 5	4132	826.4	21.6	0	22.5
		4183	836.6	21.6		
		4233	846.6	21.6		
DC-HSDPA	Subtest 1	4132	826.4	23.2	0	24.0
		4183	836.6	23.2		
		4233	846.6	23.2		
	Subtest 2	4132	826.4	23.2	0	24.0
		4183	836.6	23.2		
		4233	846.6	23.2		
	Subtest 3	4132	826.4	22.7	0.5	23.5
		4183	836.6	22.7		
		4233	846.6	22.7		
	Subtest 4	4132	826.4	22.7	0.5	23.5
		4183	836.6	22.6		
		4233	846.6	22.7		

9.3. CDMA

CDMA BC0 Measured Results

Mode		Channel	Freq. (MHz)	Maximum Average Power (dBm)	
				Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	1013	824.70	24.1	25.0
		384	836.52	24.0	
		777	848.31	24.2	
	RC3, SO55 (Loopback)	1013	824.70	24.1	
		384	836.52	24.1	
		777	848.31	24.2	
	RC3, SO32 (+F-SCH)	1013	824.70	24.1	
		384	836.52	24.0	
		777	848.31	24.2	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	1013	824.70	23.9	25.0
		384	836.52	23.9	
		777	848.31	24.2	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	1013	824.70	23.9	25.0
		384	836.52	23.9	
		777	848.31	23.9	

CDMA BC1 Measured Results

Mode		Channel	Freq. (MHz)	Maximum Average Power (dBm)		Reduced Average Power (dBm) Proximity sensor back-off	
				Measured Pwr	Tune-up Limit	Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	25	1851.25	24.5	25.0	19.6	21.0
		600	1880.00	24.6		19.3	
		1175	1908.75	24.6		19.7	
	RC3, SO55 (Loopback)	25	1851.25	24.5		19.6	
		600	1880.00	24.3		19.4	
		1175	1908.75	24.6		19.7	
	RC3, SO32 (+F-SCH)	25	1851.25	24.5		19.6	
		600	1880.00	24.4		19.3	
		1175	1908.75	24.6		19.7	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	25	1851.25	24.9	25.0	20.9	21.0
		600	1880.00	24.8		20.6	
		1175	1908.75	25.0		20.9	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	25	1851.25	24.9	25.0	20.7	21.0
		600	1880.00	24.5		20.2	
		1175	1908.75	24.5		20.6	

CDMA BC10 Measured Results

Mode		Channel	Freq. (MHz)	Maximum Average Power (dBm)	
				Measured Pwr	Tune-up Limit
1xRTT	RC1, SO55 (Loopback)	476	817.9	24.9	26.0
		580	820.5	25.0	
		684	823.1	24.7	
	RC3, SO55 (Loopback)	476	817.9	24.9	
		580	820.5	25.0	
		684	823.1	24.7	
	RC3, SO32 (+F-SCH)	476	817.9	24.6	
		580	820.5	24.7	
		684	823.1	24.7	
1xEv-Do Rel. 0	307.2 kbps (2 slot, QPSK)	476	817.9	24.8	26.0
		580	820.5	24.8	
		684	823.1	24.9	
1xEv-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	476	817.9	24.8	26.0
		580	820.5	24.9	
		684	823.1	24.8	

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 ≤ 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) in Head & Body-worn exposure conditions
- LTE Band 5 (824 – 849 MHz) is covered by LTE Band 26 (814 – 849 MHz)
- LTE Band 38 (2570 – 2620 MHz) is covered by LTE Band 41 (2496 – 2690 MHz) in Body-worn exposure condition

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.

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

SAR measurement is not required for Higher order modulations. When the highest maximum output power for Higher order modulations are ≤ 0.5 dB higher than the QPSK or when the reported SAR for QPSK configuration is ≤ 1.45 W/kg.

1. Max power

LTE Band 4 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				Measured Pwr (dBm)				
				20050	20175	20300		
				1720 MHz	1732.5 MHz	1745 MHz		
20 MHz	QPSK	1	0		23.1		0.0	25.0
		1	49		23.1		0.0	25.0
		1	99		22.7		0.0	25.0
		50	0		22.1		1.0	24.0
		50	24		22.0		1.0	24.0
		50	50		22.1		1.0	24.0
		100	0		22.6		1.0	24.0
	16QAM	1	0		22.6		1.0	24.0
		1	49		22.6		1.0	24.0
		1	99		22.1		1.0	24.0
		50	0		21.2		2.0	23.0
		50	24		21.1		2.0	23.0
		50	50		21.2		2.0	23.0
		100	0		21.2		2.0	23.0
	64QAM	1	0		21.4		2.0	23.0
		1	49		21.4		2.0	23.0
		1	99		21.0		2.0	23.0
		50	0		20.2		3.0	22.0
		50	24		20.1		3.0	22.0
		50	50		20.2		3.0	22.0
		100	0		20.2		3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20025	20175	20325		
				1717.5 MHz	1732.5 MHz	1747.5 MHz		
15 MHz	QPSK	1	0	23.9	23.1	22.9	0.0	25.0
		1	37	23.6	23.1	23.1	0.0	25.0
		1	74	23.1	22.7	22.9	0.0	25.0
		36	0	22.6	22.1	22.0	1.0	24.0
		36	20	22.5	22.1	22.0	1.0	24.0
		36	39	22.3	22.0	22.0	1.0	24.0
		75	0	22.4	22.0	22.0	1.0	24.0
	16QAM	1	0	22.9	22.1	22.3	1.0	24.0
		1	37	22.9	22.1	22.4	1.0	24.0
		1	74	22.5	21.8	22.3	1.0	24.0
		36	0	21.6	21.2	21.0	2.0	23.0
		36	20	21.5	21.1	21.0	2.0	23.0
		36	39	21.3	21.1	21.1	2.0	23.0
		75	0	21.5	21.1	21.0	2.0	23.0
	64QAM	1	0	22.1	21.8	21.7	2.0	23.0
		1	37	22.2	21.8	21.9	2.0	23.0
		1	74	21.5	21.5	21.7	2.0	23.0
		36	0	20.8	20.2	20.5	3.0	22.0
		36	20	21.0	20.1	20.5	3.0	22.0
		36	39	20.8	20.3	20.5	3.0	22.0
		75	0	20.9	20.4	20.5	3.0	22.0

LTE Band 4 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20000	20175	20350		
				1715 MHz	1732.5 MHz	1750 MHz		
10 MHz	QPSK	1	0	23.9	23.6	23.1	0.0	25.0
		1	25	23.9	23.5	23.0	0.0	25.0
		1	49	23.7	23.4	22.9	0.0	25.0
		25	0	23.0	22.5	22.0	1.0	24.0
		25	12	23.0	22.5	22.0	1.0	24.0
		25	25	22.8	22.5	22.0	1.0	24.0
		50	0	22.9	22.5	22.0	1.0	24.0
	16QAM	1	0	22.9	22.6	21.9	1.0	24.0
		1	25	22.9	22.4	22.2	1.0	24.0
		1	49	22.6	22.3	22.0	1.0	24.0
		25	0	22.0	21.3	21.4	2.0	23.0
		25	12	22.0	21.2	21.5	2.0	23.0
		25	25	21.8	21.2	21.4	2.0	23.0
		50	0	21.9	21.3	21.5	2.0	23.0
	64QAM	1	0	22.2	21.8	21.7	2.0	23.0
		1	25	22.1	21.8	21.9	2.0	23.0
		1	49	21.9	21.6	21.8	2.0	23.0
		25	0	21.2	20.7	20.7	3.0	22.0
		25	12	21.1	20.6	20.6	3.0	22.0
		25	25	21.0	20.7	20.6	3.0	22.0
		50	0	21.0	20.6	20.6	3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19975	20175	20375		
				1712.5 MHz	1732.5 MHz	1752.5 MHz		
5 MHz	QPSK	1	0	23.5	23.0	23.0	0.0	25.0
		1	12	23.7	23.2	23.3	0.0	25.0
		1	24	23.4	23.0	23.0	0.0	25.0
		12	0	22.6	22.0	22.1	1.0	24.0
		12	7	22.6	22.1	22.1	1.0	24.0
		12	13	22.6	22.1	22.1	1.0	24.0
		25	0	22.5	22.0	22.1	1.0	24.0
	16QAM	1	0	23.0	22.1	22.1	1.0	24.0
		1	12	23.2	22.3	22.4	1.0	24.0
		1	24	22.9	22.1	22.2	1.0	24.0
		12	0	21.7	21.1	21.3	2.0	23.0
		12	7	21.8	21.2	21.3	2.0	23.0
		12	13	21.7	21.2	21.2	2.0	23.0
		25	0	21.6	21.1	21.2	2.0	23.0
	64QAM	1	0	22.3	21.8	21.4	2.0	23.0
		1	12	22.4	21.9	21.7	2.0	23.0
		1	24	22.2	21.6	21.4	2.0	23.0
		12	0	21.0	20.6	20.7	3.0	22.0
		12	7	21.0	20.7	20.7	3.0	22.0
		12	13	21.0	20.6	20.6	3.0	22.0
		25	0	21.0	20.6	20.6	3.0	22.0

LTE Band 4 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19965	20175	20385		
				1711.5 MHz	1732.5 MHz	1753.5 MHz		
3 MHz	QPSK	1	0	23.6	23.1	23.0	0.0	25.0
		1	8	23.7	23.1	23.2	0.0	25.0
		1	14	23.6	23.0	23.0	0.0	25.0
		8	0	22.5	22.0	22.1	1.0	24.0
		8	4	22.6	22.0	22.1	1.0	24.0
		8	7	22.6	22.0	22.1	1.0	24.0
		15	0	22.5	22.0	22.1	1.0	24.0
	16QAM	1	0	22.9	22.2	22.0	1.0	24.0
		1	8	23.1	22.2	22.2	1.0	24.0
		1	14	22.9	22.0	22.0	1.0	24.0
		8	0	21.7	21.1	21.3	2.0	23.0
		8	4	21.7	21.2	21.3	2.0	23.0
		8	7	21.7	21.1	21.3	2.0	23.0
		15	0	21.6	21.1	21.2	2.0	23.0
	64QAM	1	0	22.2	21.7	21.9	2.0	23.0
		1	8	22.3	21.8	22.0	2.0	23.0
		1	14	22.2	21.6	21.8	2.0	23.0
		8	0	21.1	20.5	20.7	3.0	22.0
		8	4	21.1	20.5	20.7	3.0	22.0
		8	7	21.1	20.5	20.7	3.0	22.0
		15	0	21.1	20.6	20.6	3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19957	20175	20393		
				1710.7 MHz	1732.5 MHz	1754.3 MHz		
1.4 MHz	QPSK	1	0	23.9	23.0	23.0	0.0	25.0
		1	3	23.7	23.0	23.1	0.0	25.0
		1	5	23.5	22.9	23.0	0.0	25.0
		3	0	23.6	23.1	23.1	0.0	25.0
		3	1	23.7	23.1	23.2	0.0	25.0
		3	3	23.6	23.1	23.2	0.0	25.0
		6	0	23.0	22.0	22.1	1.0	24.0
	16QAM	1	0	22.6	22.2	22.4	1.0	24.0
		1	3	22.6	22.2	22.5	1.0	24.0
		1	5	22.5	22.1	22.4	1.0	24.0
		3	0	22.8	22.2	22.3	1.0	24.0
		3	1	22.8	22.2	22.4	1.0	24.0
		3	3	22.8	22.1	22.3	1.0	24.0
		6	0	21.8	21.2	21.1	2.0	23.0
	64QAM	1	0	22.4	21.6	21.7	2.0	23.0
		1	3	22.5	21.7	21.8	2.0	23.0
		1	5	22.4	21.6	21.7	2.0	23.0
		3	0	22.4	21.7	21.6	2.0	23.0
		3	1	22.4	21.8	21.6	2.0	23.0
		3	3	22.4	21.7	21.6	2.0	23.0
		6	0	21.1	20.8	20.7	3.0	22.0

LTE Band 7 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				20850	21100	21350		
				2510 MHz	2535 MHz	2560 MHz		
20 MHz	QPSK	1	0	18.3	18.5	18.5	0.0	20.0
		1	49	18.4	18.7	18.7	0.0	20.0
		1	99	18.0	18.4	18.4	0.0	20.0
		50	0	18.4	18.6	18.6	0.0	20.0
		50	24	18.6	18.7	18.6	0.0	20.0
		50	50	18.6	18.5	18.5	0.0	20.0
		100	0	18.7	18.6	18.5	0.0	20.0
	16QAM	1	0	19.2	19.1	18.9	0.0	20.0
		1	49	19.0	19.3	19.1	0.0	20.0
		1	99	18.6	19.0	18.8	0.0	20.0
		50	0	18.4	18.7	18.6	0.0	20.0
		50	24	18.5	18.7	18.6	0.0	20.0
		50	50	18.7	18.5	18.5	0.0	20.0
		100	0	18.6	18.6	18.6	0.0	20.0
	64QAM	1	0	19.4	18.9	19.8	0.0	20.0
		1	49	19.5	19.1	18.9	0.0	20.0
		1	99	19.2	18.8	18.6	0.0	20.0
		50	0	18.8	18.7	18.6	0.0	20.0
		50	24	18.8	18.7	18.6	0.0	20.0
		50	50	18.7	18.6	18.5	0.0	20.0
		100	0	18.7	18.6	18.5	0.0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20825	21100	21375		
				2507.5 MHz	2535 MHz	2562.5 MHz		
15 MHz	QPSK	1	0	18.8	18.2	18.1	0.0	20.0
		1	37	18.6	18.4	18.3	0.0	20.0
		1	74	18.1	18.1	18.0	0.0	20.0
		36	0	18.4	18.3	18.2	0.0	20.0
		36	20	18.4	18.2	18.2	0.0	20.0
		36	39	18.3	18.2	18.1	0.0	20.0
		75	0	18.3	18.2	18.1	0.0	20.0
	16QAM	1	0	18.4	18.6	18.5	0.0	20.0
		1	37	18.5	18.7	18.7	0.0	20.0
		1	74	18.2	18.4	18.4	0.0	20.0
		36	0	18.4	18.3	18.1	0.0	20.0
		36	20	18.3	18.3	18.1	0.0	20.0
		36	39	18.3	18.2	18.1	0.0	20.0
		75	0	18.3	18.2	18.1	0.0	20.0
	64QAM	1	0	19.0	18.5	18.2	0.0	20.0
		1	37	19.1	18.6	18.4	0.0	20.0
		1	74	18.7	18.4	18.1	0.0	20.0
		36	0	18.3	18.3	18.2	0.0	20.0
		36	20	18.3	18.3	18.3	0.0	20.0
		36	39	18.3	18.2	18.2	0.0	20.0
		75	0	18.4	18.2	18.2	0.0	20.0

LTE Band 7 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20800	21100	21400		
				2505 MHz	2535 MHz	2565 MHz		
10 MHz	QPSK	1	0	18.9	18.3	18.1	0.0	20.0
		1	25	18.9	18.6	18.2	0.0	20.0
		1	49	18.8	18.2	18.0	0.0	20.0
		25	0	18.8	18.7	18.2	0.0	20.0
		25	12	18.9	18.7	18.2	0.0	20.0
		25	25	18.9	18.7	18.1	0.0	20.0
		50	0	18.9	18.7	18.2	0.0	20.0
	16QAM	1	0	18.8	18.9	18.1	0.0	20.0
		1	25	18.5	18.9	18.2	0.0	20.0
		1	49	18.3	18.6	18.1	0.0	20.0
		25	0	18.4	18.3	18.3	0.0	20.0
		25	12	18.5	18.4	18.3	0.0	20.0
		25	25	18.4	18.3	18.2	0.0	20.0
		50	0	18.4	18.3	18.2	0.0	20.0
	64QAM	1	0	19.2	18.3	18.2	0.0	20.0
		1	25	19.2	18.4	18.4	0.0	20.0
		1	49	18.6	18.3	18.2	0.0	20.0
		25	0	18.4	18.3	18.2	0.0	20.0
		25	12	18.4	18.3	18.2	0.0	20.0
		25	25	18.4	18.3	18.1	0.0	20.0
		50	0	18.4	18.3	18.1	0.0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20775	21100	21425		
				2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	18.7	18.7	18.7	0.0	20.0
		1	12	18.8	18.8	18.9	0.0	20.0
		1	24	18.8	18.8	18.7	0.0	20.0
		12	0	18.8	18.7	18.7	0.0	20.0
		12	7	18.8	18.7	18.8	0.0	20.0
		12	13	18.8	18.8	18.7	0.0	20.0
		25	0	18.7	18.7	18.7	0.0	20.0
	16QAM	1	0	19.2	19.2	18.8	0.0	20.0
		1	12	19.3	19.2	19.1	0.0	20.0
		1	24	19.3	19.2	18.8	0.0	20.0
		12	0	18.9	18.9	18.8	0.0	20.0
		12	7	18.9	18.5	18.8	0.0	20.0
		12	13	18.9	18.4	18.8	0.0	20.0
		25	0	18.8	18.3	18.8	0.0	20.0
	64QAM	1	0	19.2	19.1	18.9	0.0	20.0
		1	12	19.3	19.1	19.0	0.0	20.0
		1	24	19.3	19.0	19.0	0.0	20.0
		12	0	18.7	18.4	18.6	0.0	20.0
		12	7	18.7	18.3	18.6	0.0	20.0
		12	13	18.8	18.3	18.6	0.0	20.0
		25	0	18.7	18.3	18.4	0.0	20.0

LTE Band 12 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				23060	23095	23130		
				704 MHz	707.5 MHz	711 MHz		
10 MHz	QPSK	1	0		23.4		0.0	25.0
		1	25		23.7		0.0	25.0
		1	49		23.5		0.0	25.0
		25	0		22.5		1.0	24.0
		25	12		22.6		1.0	24.0
		25	25		22.5		1.0	24.0
		50	0		22.6		1.0	24.0
	16QAM	1	0		22.5		1.0	24.0
		1	25		22.7		1.0	24.0
		1	49		22.6		1.0	24.0
		25	0		21.6		2.0	23.0
		25	12		21.7		2.0	23.0
		25	25		21.6		2.0	23.0
		50	0		21.6		2.0	23.0
	64QAM	1	0		22.1		2.0	23.0
		1	25		22.3		2.0	23.0
		1	49		22.2		2.0	23.0
		25	0		21.1		3.0	22.0
		25	12		21.1		3.0	22.0
		25	25		21.1		3.0	22.0
		50	0		21.0		3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23035	23095	23155		
				701.5 MHz	707.5 MHz	713.5 MHz		
5 MHz	QPSK	1	0	23.5	23.5	23.6	0.0	25.0
		1	12	23.6	23.8	23.9	0.0	25.0
		1	24	23.4	23.6	23.6	0.0	25.0
		12	0	22.4	22.6	22.6	1.0	24.0
		12	7	22.5	22.6	22.7	1.0	24.0
		12	13	22.6	22.6	22.7	1.0	24.0
		25	0	22.5	22.6	22.6	1.0	24.0
	16QAM	1	0	22.8	22.6	22.8	1.0	24.0
		1	12	23.1	22.9	23.0	1.0	24.0
		1	24	22.9	22.7	22.8	1.0	24.0
		12	0	21.5	21.6	21.7	2.0	23.0
		12	7	21.6	21.6	21.7	2.0	23.0
		12	13	21.7	21.6	21.7	2.0	23.0
		25	0	21.5	21.5	21.7	2.0	23.0
	64QAM	1	0	22.1	22.1	21.9	2.0	23.0
		1	12	22.4	22.5	22.2	2.0	23.0
		1	24	22.2	22.2	21.7	2.0	23.0
		12	0	20.8	21.1	20.9	3.0	22.0
		12	7	20.9	21.1	21.0	3.0	22.0
		12	13	21.0	21.1	21.0	3.0	22.0
		25	0	20.9	21.1	21.0	3.0	22.0

LTE Band 12 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	24.0	24.1	23.8	0.0	25.0
		1	8	24.1	24.2	23.8	0.0	25.0
		1	14	24.0	23.7	23.7	0.0	25.0
		8	0	22.8	22.7	22.7	1.0	24.0
		8	4	22.8	22.9	22.7	1.0	24.0
		8	7	22.8	22.9	22.7	1.0	24.0
		15	0	22.8	23.0	22.7	1.0	24.0
	16QAM	1	0	23.1	23.0	22.6	1.0	24.0
		1	8	23.2	23.2	22.8	1.0	24.0
		1	14	23.0	23.0	22.7	1.0	24.0
		8	0	21.9	22.0	21.8	2.0	23.0
		8	4	22.0	22.1	21.8	2.0	23.0
		8	7	22.0	22.1	21.8	2.0	23.0
		15	0	21.9	22.1	21.7	2.0	23.0
	64QAM	1	0	22.0	22.3	22.4	2.0	23.0
		1	8	22.1	22.4	22.6	2.0	23.0
		1	14	22.0	22.2	22.2	2.0	23.0
		8	0	20.9	21.0	21.0	3.0	22.0
		8	4	21.0	21.0	21.2	3.0	22.0
		8	7	21.0	21.0	21.1	3.0	22.0
		15	0	20.9	21.1	21.0	3.0	22.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23017	23095	23173		
				699.7 MHz	707.5 MHz	715.3 MHz		
1.4 MHz	QPSK	1	0	23.9	24.1	24.1	0.0	25.0
		1	3	24.0	24.2	24.1	0.0	25.0
		1	5	23.9	24.1	24.1	0.0	25.0
		3	0	24.0	24.2	23.8	0.0	25.0
		3	1	24.0	24.1	23.8	0.0	25.0
		3	3	24.0	24.0	23.8	0.0	25.0
		6	0	22.9	23.1	22.7	1.0	24.0
	16QAM	1	0	23.0	23.4	22.7	1.0	24.0
		1	3	23.1	23.5	22.8	1.0	24.0
		1	5	23.0	23.4	22.7	1.0	24.0
		3	0	23.0	23.3	22.9	1.0	24.0
		3	1	23.1	23.3	23.0	1.0	24.0
		3	3	23.0	23.3	23.0	1.0	24.0
		6	0	22.1	22.0	21.9	2.0	23.0
	64QAM	1	0	22.2	22.1	22.3	2.0	23.0
		1	3	22.4	22.3	22.4	2.0	23.0
		1	5	22.2	22.1	22.3	2.0	23.0
		3	0	22.2	22.2	22.1	2.0	23.0
		3	1	22.3	22.2	22.1	2.0	23.0
		3	3	22.2	22.2	21.9	2.0	23.0
		6	0	20.9	21.4	20.9	3.0	22.0

LTE Band 13 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				[redacted]	23230	[redacted]		
				[redacted]	782 MHz	[redacted]		
10 MHz	QPSK	1	0	[redacted]	23.7	[redacted]	0.0	25.0
		1	25	[redacted]	23.8	[redacted]	0.0	25.0
		1	49	[redacted]	23.6	[redacted]	0.0	25.0
		25	0	[redacted]	22.7	[redacted]	1.0	24.0
		25	12	[redacted]	22.8	[redacted]	1.0	24.0
		25	25	[redacted]	22.8	[redacted]	1.0	24.0
		50	0	[redacted]	22.8	[redacted]	1.0	24.0
	16QAM	1	0	[redacted]	22.6	[redacted]	1.0	24.0
		1	25	[redacted]	22.8	[redacted]	1.0	24.0
		1	49	[redacted]	22.6	[redacted]	1.0	24.0
		25	0	[redacted]	21.8	[redacted]	2.0	23.0
		25	12	[redacted]	21.9	[redacted]	2.0	23.0
		25	25	[redacted]	22.0	[redacted]	2.0	23.0
		50	0	[redacted]	22.0	[redacted]	2.0	23.0
	64QAM	1	0	[redacted]	22.2	[redacted]	2.0	23.0
		1	25	[redacted]	22.4	[redacted]	2.0	23.0
		1	49	[redacted]	22.2	[redacted]	2.0	23.0
		25	0	[redacted]	21.2	[redacted]	3.0	22.0
		25	12	[redacted]	21.3	[redacted]	3.0	22.0
		25	25	[redacted]	21.3	[redacted]	3.0	22.0
		50	0	[redacted]	21.3	[redacted]	3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23205	23230	23255		
				779.5 MHz	782 MHz	784.5 MHz		
5 MHz	QPSK	1	0	[redacted]	24.1	[redacted]	0.0	25.0
		1	12	[redacted]	24.3	[redacted]	0.0	25.0
		1	24	[redacted]	24.0	[redacted]	0.0	25.0
		12	0	[redacted]	23.1	[redacted]	1.0	24.0
		12	7	[redacted]	23.2	[redacted]	1.0	24.0
		12	13	[redacted]	23.2	[redacted]	1.0	24.0
		25	0	[redacted]	23.2	[redacted]	1.0	24.0
	16QAM	1	0	[redacted]	23.6	[redacted]	1.0	24.0
		1	12	[redacted]	23.8	[redacted]	1.0	24.0
		1	24	[redacted]	23.5	[redacted]	1.0	24.0
		12	0	[redacted]	22.3	[redacted]	2.0	23.0
		12	7	[redacted]	22.3	[redacted]	2.0	23.0
		12	13	[redacted]	22.3	[redacted]	2.0	23.0
		25	0	[redacted]	22.2	[redacted]	2.0	23.0
	64QAM	1	0	[redacted]	22.4	[redacted]	2.0	23.0
		1	12	[redacted]	22.6	[redacted]	2.0	23.0
		1	24	[redacted]	22.4	[redacted]	2.0	23.0
		12	0	[redacted]	21.0	[redacted]	3.0	22.0
		12	7	[redacted]	21.1	[redacted]	3.0	22.0
		12	13	[redacted]	21.1	[redacted]	3.0	22.0
		25	0	[redacted]	21.1	[redacted]	3.0	22.0

LTE Band 14 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
					23330			
					793 MHz			
10 MHz	QPSK	1	0		23.6		0.0	25.0
		1	25		23.7		0.0	25.0
		1	49		23.6		0.0	25.0
		25	0		22.7		1.0	24.0
		25	12		22.6		1.0	24.0
		25	25		22.7		1.0	24.0
		50	0		22.7		1.0	24.0
	16QAM	1	0		22.6		1.0	24.0
		1	25		22.7		1.0	24.0
		1	49		22.6		1.0	24.0
		25	0		21.7		2.0	23.0
		25	12		21.8		2.0	23.0
		25	25		21.8		2.0	23.0
		50	0		21.7		2.0	23.0
	64QAM	1	0		21.7		2.0	23.0
		1	25		21.8		2.0	23.0
		1	49		21.7		2.0	23.0
		25	0		20.7		3.0	22.0
		25	12		20.7		3.0	22.0
		25	25		20.7		3.0	22.0
		50	0		20.6		3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23305	23330	23355		
				790.5 MHz	793 MHz	795.5 MHz		
5 MHz	QPSK	1	0		23.6		0.0	25.0
		1	12		23.7		0.0	25.0
		1	24		23.5		0.0	25.0
		12	0		22.6		1.0	24.0
		12	7		22.6		1.0	24.0
		12	13		22.7		1.0	24.0
		25	0		22.6		1.0	24.0
	16QAM	1	0		23.0		1.0	24.0
		1	12		23.2		1.0	24.0
		1	24		23.0		1.0	24.0
		12	0		21.7		2.0	23.0
		12	7		21.8		2.0	23.0
		12	13		21.8		2.0	23.0
		25	0		21.7		2.0	23.0
	64QAM	1	0		22.3		2.0	23.0
		1	12		22.5		2.0	23.0
		1	24		22.2		2.0	23.0
		12	0		21.0		3.0	22.0
		12	7		21.0		3.0	22.0
		12	13		20.9		3.0	22.0
		25	0		20.8		3.0	22.0

LTE Band 25 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590		
				1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	24.3	24.2	24.3	0.0	25.0
		1	49	24.3	24.5	24.3	0.0	25.0
		1	99	24.4	23.9	24.0	0.0	25.0
		50	0	23.4	23.2	23.1	1.0	24.0
		50	24	23.4	23.5	23.1	1.0	24.0
		50	50	23.3	23.3	23.1	1.0	24.0
		100	0	23.2	23.3	23.2	1.0	24.0
	16QAM	1	0	23.4	23.4	23.1	1.0	24.0
		1	49	23.5	23.7	23.6	1.0	24.0
		1	99	23.3	23.3	23.3	1.0	24.0
		50	0	22.4	22.5	22.1	2.0	23.0
		50	24	22.5	22.7	22.3	2.0	23.0
		50	50	22.3	22.6	22.3	2.0	23.0
		100	0	22.4	22.6	22.4	2.0	23.0
	64QAM	1	0	22.6	23.0	22.4	2.0	23.0
		1	49	22.7	23.0	22.8	2.0	23.0
		1	99	22.6	22.8	22.6	2.0	23.0
		50	0	21.4	21.6	21.6	3.0	22.0
		50	24	21.5	21.6	21.6	3.0	22.0
		50	50	21.4	21.6	21.6	3.0	22.0
		100	0	21.4	21.6	21.7	3.0	22.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115	26365	26615		
				1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	QPSK	1	0	24.5	24.6	24.5	0.0	25.0
		1	37	24.7	24.7	24.6	0.0	25.0
		1	74	24.4	24.3	24.1	0.0	25.0
		36	0	23.5	23.6	23.2	1.0	24.0
		36	20	23.5	23.6	23.4	1.0	24.0
		36	39	23.6	23.6	23.3	1.0	24.0
		75	0	23.5	23.6	23.2	1.0	24.0
	16QAM	1	0	23.7	23.7	23.0	1.0	24.0
		1	37	23.8	24.0	23.3	1.0	24.0
		1	74	23.6	23.7	22.9	1.0	24.0
		36	0	22.5	22.6	22.3	2.0	23.0
		36	20	22.5	22.6	22.6	2.0	23.0
		36	39	22.5	22.6	22.6	2.0	23.0
		75	0	22.5	22.7	22.6	2.0	23.0
	64QAM	1	0	22.5	22.0	22.6	2.0	23.0
		1	37	22.7	22.1	22.9	2.0	23.0
		1	74	22.4	22.9	22.7	2.0	23.0
		36	0	21.5	21.5	21.6	3.0	22.0
		36	20	21.5	21.6	21.6	3.0	22.0
		36	39	21.5	21.6	21.6	3.0	22.0
		75	0	21.5	21.6	21.6	3.0	22.0

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26090	26365	26640		
				1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	QPSK	1	0	24.4	24.5	24.6	0.0	25.0
		1	25	24.5	24.7	24.7	0.0	25.0
		1	49	24.4	24.5	24.2	0.0	25.0
		25	0	23.5	23.6	23.1	1.0	24.0
		25	12	23.5	23.6	23.2	1.0	24.0
		25	25	23.4	23.6	23.3	1.0	24.0
		50	0	23.4	23.6	23.3	1.0	24.0
	16QAM	1	0	23.5	23.5	23.4	1.0	24.0
		1	25	23.5	23.5	23.7	1.0	24.0
		1	49	23.3	23.4	23.4	1.0	24.0
		25	0	22.6	22.6	22.4	2.0	23.0
		25	12	22.6	22.7	22.6	2.0	23.0
		25	25	22.5	22.7	22.5	2.0	23.0
		50	0	22.5	22.7	22.6	2.0	23.0
	64QAM	1	0	22.6	22.8	22.6	2.0	23.0
		1	25	22.6	22.9	22.8	2.0	23.0
		1	49	22.5	22.8	22.6	2.0	23.0
		25	0	21.6	21.7	21.7	3.0	22.0
		25	12	21.6	21.7	21.8	3.0	22.0
		25	25	21.5	21.7	21.7	3.0	22.0
		50	0	21.5	21.7	21.7	3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26065	26365	26665		
				1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	QPSK	1	0	24.4	24.5	24.6	0.0	25.0
		1	12	24.6	24.7	24.9	0.0	25.0
		1	24	24.3	24.5	24.6	0.0	25.0
		12	0	23.4	23.6	23.6	1.0	24.0
		12	7	23.5	23.6	23.7	1.0	24.0
		12	13	23.5	23.6	23.6	1.0	24.0
		25	0	23.4	23.5	23.6	1.0	24.0
	16QAM	1	0	23.9	23.5	23.5	1.0	24.0
		1	12	23.7	23.8	23.7	1.0	24.0
		1	24	23.8	23.5	23.4	1.0	24.0
		12	0	22.6	22.6	22.7	2.0	23.0
		12	7	22.6	22.7	22.7	2.0	23.0
		12	13	22.6	22.7	22.7	2.0	23.0
		25	0	22.5	22.5	22.6	2.0	23.0
	64QAM	1	0	22.6	22.4	22.8	2.0	23.0
		1	12	22.8	22.6	22.4	2.0	23.0
		1	24	22.5	22.3	22.7	2.0	23.0
		12	0	21.5	21.6	21.6	3.0	22.0
		12	7	21.6	21.6	21.6	3.0	22.0
		12	13	21.6	21.6	21.6	3.0	22.0
		25	0	21.5	21.6	21.6	3.0	22.0

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26055	26365	26675		
				1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	24.5	24.5	24.6	0.0	25.0
		1	8	24.6	24.6	24.8	0.0	25.0
		1	14	24.5	24.5	24.7	0.0	25.0
		8	0	23.4	23.5	23.7	1.0	24.0
		8	4	23.5	23.6	23.7	1.0	24.0
		8	7	23.5	23.5	23.7	1.0	24.0
		15	0	23.4	23.5	23.6	1.0	24.0
	16QAM	1	0	23.8	23.5	23.4	1.0	24.0
		1	8	23.9	23.7	23.5	1.0	24.0
		1	14	23.8	23.5	23.4	1.0	24.0
		8	0	22.6	22.6	22.7	2.0	23.0
		8	4	22.6	22.6	22.7	2.0	23.0
		8	7	22.6	22.6	22.7	2.0	23.0
		15	0	22.5	22.5	22.6	2.0	23.0
	64QAM	1	0	22.6	22.8	22.7	2.0	23.0
		1	8	22.8	23.0	22.8	2.0	23.0
		1	14	22.5	22.8	22.7	2.0	23.0
		8	0	21.4	21.6	21.6	3.0	22.0
		8	4	21.5	21.7	21.7	3.0	22.0
		8	7	21.4	21.6	21.6	3.0	22.0
		15	0	21.5	21.5	21.6	3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26047	26365	26683		
				1850.7 MHz	1882.5 MHz	1914.3 MHz		
1.4 MHz	QPSK	1	0	24.4	24.5	24.5	0.0	25.0
		1	3	24.5	24.6	24.7	0.0	25.0
		1	5	24.3	24.5	24.5	0.0	25.0
		3	0	24.5	24.6	24.6	0.0	25.0
		3	1	24.6	24.7	24.6	0.0	25.0
		3	3	24.5	24.6	24.7	0.0	25.0
		6	0	23.4	23.6	23.7	1.0	24.0
	16QAM	1	0	23.5	23.8	23.5	1.0	24.0
		1	3	23.6	23.9	23.5	1.0	24.0
		1	5	23.5	23.8	23.5	1.0	24.0
		3	0	23.6	23.8	23.7	1.0	24.0
		3	1	23.6	23.8	23.8	1.0	24.0
		3	3	23.6	23.7	23.8	1.0	24.0
		6	0	22.6	22.5	22.7	2.0	23.0
	64QAM	1	0	22.8	22.6	22.7	2.0	23.0
		1	3	22.9	22.8	22.8	2.0	23.0
		1	5	22.8	22.6	22.7	2.0	23.0
		3	0	22.9	22.8	22.6	2.0	23.0
		3	1	22.9	22.8	22.6	2.0	23.0
		3	3	22.9	22.8	22.6	2.0	23.0
		6	0	21.5	21.9	21.7	3.0	22.0

LTE Band 26 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				MPR	Tune-up Limit
				Measured Pwr (dBm)					
				26765	26790	26865	26965		
				821.5 MHz	824 MHz	831.5 MHz	841.5 MHz		
15 MHz	QPSK	1	0		24.2	24.2		0.0	25.0
		1	37		24.3	24.1		0.0	25.0
		1	74		23.5	23.6		0.0	25.0
		36	0		22.8	22.9		1.0	24.0
		36	20		22.6	22.7		1.0	24.0
		36	39		22.7	22.8		1.0	24.0
		75	0		22.6	22.8		1.0	24.0
	16QAM	1	0		23.1	23.2		1.0	24.0
		1	37		23.6	23.4		1.0	24.0
		1	74		23.0	23.1		1.0	24.0
		36	0		21.6	21.8		2.0	23.0
		36	20		21.5	21.7		2.0	23.0
		36	39		21.6	21.8		2.0	23.0
		75	0		21.7	21.8		2.0	23.0
	64QAM	1	0		22.3	22.6		2.0	23.0
		1	37		22.3	22.5		2.0	23.0
		1	74		21.9	22.0		2.0	23.0
		36	0		20.7	20.9		3.0	22.0
		36	20		20.9	20.9		3.0	22.0
		36	39		20.8	20.9		3.0	22.0
		75	0		20.8	20.9		3.0	22.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26740	26790	26865	26990		
				819 MHz	824 MHz	831.5 MHz	844 MHz		
10 MHz	QPSK	1	0	23.9	23.8	23.7	23.8	0.0	25.0
		1	25	23.9	23.7	23.8	23.9	0.0	25.0
		1	49	23.8	23.6	23.7	23.9	0.0	25.0
		25	0	22.8	22.7	22.9	23.0	1.0	24.0
		25	12	22.9	22.7	22.8	22.9	1.0	24.0
		25	25	22.9	22.8	22.9	22.9	1.0	24.0
		50	0	22.9	22.8	22.9	23.0	1.0	24.0
	16QAM	1	0	23.0	22.9	22.8	23.1	1.0	24.0
		1	25	23.0	23.2	22.8	23.3	1.0	24.0
		1	49	22.9	22.8	22.7	23.2	1.0	24.0
		25	0	22.0	21.8	21.9	22.1	2.0	23.0
		25	12	22.0	21.9	21.8	21.9	2.0	23.0
		25	25	22.0	22.0	22.0	22.0	2.0	23.0
		50	0	22.0	21.9	21.9	22.0	2.0	23.0
	64QAM	1	0	22.1	21.1	22.1	21.9	2.0	23.0
		1	25	22.1	22.2	22.2	22.0	2.0	23.0
		1	49	22.0	22.0	22.1	22.0	2.0	23.0
		25	0	20.8	20.7	20.9	21.1	3.0	22.0
		25	12	20.9	20.8	20.8	21.0	3.0	22.0
		25	25	20.9	21.0	21.0	21.0	3.0	22.0
		50	0	20.8	20.7	20.9	21.0	3.0	22.0

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26715	26790	26865	27015		
				816.5 MHz	824 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	23.9	23.8	23.7	23.7	0.0	25.0
		1	12	24.1	24.0	23.9	23.9	0.0	25.0
		1	24	23.9	23.7	23.7	23.8	0.0	25.0
		12	0	22.9	22.8	22.7	22.8	1.0	24.0
		12	7	23.0	22.8	22.8	22.9	1.0	24.0
		12	13	23.0	22.9	22.8	22.9	1.0	24.0
		25	0	22.9	22.7	22.8	22.8	1.0	24.0
	16QAM	1	0	23.1	22.8	22.9	23.2	1.0	24.0
		1	12	23.2	22.9	23.1	23.5	1.0	24.0
		1	24	23.0	22.9	22.9	23.3	1.0	24.0
		12	0	21.9	21.8	21.8	22.0	2.0	23.0
		12	7	22.1	22.1	21.9	22.1	2.0	23.0
		12	13	22.1	22.0	22.0	22.1	2.0	23.0
		25	0	21.9	21.7	21.9	22.0	2.0	23.0
	64QAM	1	0	22.1	22.0	22.0	21.7	2.0	23.0
		1	12	22.4	22.2	22.2	22.0	2.0	23.0
		1	24	22.1	22.0	22.0	21.7	2.0	23.0
		12	0	20.8	20.7	20.8	20.8	3.0	22.0
		12	7	20.9	20.8	20.9	21.0	3.0	22.0
		12	13	20.9	20.6	20.9	21.0	3.0	22.0
		25	0	20.8	20.8	20.8	20.9	3.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26705	26790	26865	27025		
				815.5 MHz	824 MHz	831.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.4	23.8	23.7	23.9	0.0	25.0
		1	8	24.0	23.7	23.8	24.0	0.0	25.0
		1	14	23.8	23.7	23.7	23.9	0.0	25.0
		8	0	22.9	22.8	22.7	22.8	1.0	24.0
		8	4	22.9	22.7	22.7	22.9	1.0	24.0
		8	7	22.9	22.8	22.7	22.9	1.0	24.0
		15	0	22.9	22.8	22.8	22.9	1.0	24.0
	16QAM	1	0	23.1	23.0	22.8	23.3	1.0	24.0
		1	8	23.2	23.6	22.9	23.4	1.0	24.0
		1	14	22.9	22.9	22.8	23.2	1.0	24.0
		8	0	22.0	22.1	21.9	22.0	2.0	23.0
		8	4	22.0	22.0	21.9	22.0	2.0	23.0
		8	7	22.0	21.9	21.9	22.0	2.0	23.0
		15	0	21.9	21.8	21.8	21.9	2.0	23.0
	64QAM	1	0	22.0	22.0	22.1	22.2	2.0	23.0
		1	8	22.2	22.5	22.2	22.3	2.0	23.0
		1	14	22.1	22.0	21.9	22.2	2.0	23.0
		8	0	20.9	20.8	20.7	21.0	3.0	22.0
		8	4	21.0	20.8	20.7	21.0	3.0	22.0
		8	7	20.9	20.8	20.7	21.0	3.0	22.0
		15	0	20.9	20.8	20.8	20.9	3.0	22.0

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26697	26790	26865	27033		
				814.7 MHz	824 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.2	23.8	24.1	23.8	0.0	25.0
		1	3	24.3	23.9	24.3	23.9	0.0	25.0
		1	5	24.2	23.8	24.1	23.8	0.0	25.0
		3	0	24.4	23.8	24.3	24.0	0.0	25.0
		3	1	24.4	23.7	24.1	24.0	0.0	25.0
		3	3	24.4	23.8	24.0	24.0	0.0	25.0
		6	0	23.3	22.8	22.9	22.9	1.0	24.0
	16QAM	1	0	23.4	22.5	23.0	23.2	1.0	24.0
		1	3	23.5	22.7	23.1	23.3	1.0	24.0
		1	5	23.4	22.5	23.0	23.2	1.0	24.0
		3	0	23.6	22.6	23.0	23.1	1.0	24.0
		3	1	23.7	22.6	22.9	23.2	1.0	24.0
		3	3	23.7	22.5	22.9	23.1	1.0	24.0
		6	0	22.6	21.9	22.0	21.8	2.0	23.0
	64QAM	1	0	22.8	21.9	21.9	22.0	2.0	23.0
		1	3	23.0	22.0	22.0	22.1	2.0	23.0
		1	5	22.5	21.8	21.9	22.0	2.0	23.0
		3	0	22.4	21.9	21.9	21.9	2.0	23.0
		3	1	22.4	22.0	22.0	21.9	2.0	23.0
		3	3	22.3	22.0	22.0	21.9	2.0	23.0
		6	0	20.9	21.1	21.1	21.0	3.0	22.0

Notes:

Channel.26790(824.0 MHz) added for RF test.

LTE Band 30 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
					27710			
					2310 MHz			
10 MHz	QPSK	1	0		21.8		0.0	23.0
		1	25		22.0		0.0	23.0
		1	49		21.8		0.0	23.0
		25	0		20.8		1.0	22.0
		25	12		20.8		1.0	22.0
		25	25		20.7		1.0	22.0
		50	0		20.8		1.0	22.0
	16QAM	1	0		21.2		1.0	22.0
		1	25		21.2		1.0	22.0
		1	49		21.1		1.0	22.0
		25	0		19.8		2.0	21.0
		25	12		19.8		2.0	21.0
		25	25		19.8		2.0	21.0
		50	0		19.8		2.0	21.0
	64QAM	1	0		20.3		2.0	21.0
		1	25		20.2		2.0	21.0
		1	49		19.8		2.0	21.0
		25	0		18.9		3.0	20.0
		25	12		18.9		3.0	20.0
		25	25		18.8		3.0	20.0
		50	0		18.8		3.0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				27685	27710	27735		
				2307.5 MHz	2310 MHz	2312.5 MHz		
5 MHz	QPSK	1	0		21.7		0.0	23.0
		1	12		21.9		0.0	23.0
		1	24		21.7		0.0	23.0
		12	0		20.8		1.0	22.0
		12	7		20.8		1.0	22.0
		12	13		20.8		1.0	22.0
		25	0		20.7		1.0	22.0
	16QAM	1	0		21.2		1.0	22.0
		1	12		21.4		1.0	22.0
		1	24		21.2		1.0	22.0
		12	0		19.9		2.0	21.0
		12	7		19.9		2.0	21.0
		12	13		19.9		2.0	21.0
		25	0		19.8		2.0	21.0
	64QAM	1	0		20.5		2.0	21.0
		1	12		20.7		2.0	21.0
		1	24		20.4		2.0	21.0
		12	0		19.1		3.0	20.0
		12	7		19.2		3.0	20.0
		12	13		19.2		3.0	20.0
		25	0		19.2		3.0	20.0

LTE Band 38 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				Measured Pwr (dBm)				
				37850	38000	38150		
				2580 MHz	2595 MHz	2610 MHz		
20 MHz	QPSK	1	0	[redacted]	23.6	[redacted]	0.0	24.0
		1	49		24.0		0.0	24.0
		1	99		23.5		0.0	24.0
		50	0		22.7		1.0	23.0
		50	24		22.7		1.0	23.0
		50	50		22.6		1.0	23.0
		100	0		22.7		1.0	23.0
	16QAM	1	0		22.6		1.0	23.0
		1	49		22.8		1.0	23.0
		1	99		22.5		1.0	23.0
		50	0		21.7		2.0	22.0
		50	24		21.7		2.0	22.0
		50	50		21.6		2.0	22.0
		100	0		21.7		2.0	22.0
	64QAM	1	0		21.6		2.0	22.0
		1	49		22.0		2.0	22.0
		1	99		21.9		2.0	22.0
		50	0		20.7		3.0	21.0
		50	24		20.7		3.0	21.0
		50	50		20.6		3.0	21.0
		100	0		20.6		3.0	21.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37825	38000	38175		
				2577.5 MHz	2595 MHz	2612.5 MHz		
15 MHz	QPSK	1	0	23.6	23.5	23.6	0.0	24.0
		1	37	23.6	23.6	23.5	0.0	24.0
		1	74	23.6	23.5	23.4	0.0	24.0
		36	0	22.7	22.7	22.5	1.0	23.0
		36	20	22.7	22.7	22.5	1.0	23.0
		36	39	22.7	22.7	22.6	1.0	23.0
		75	0	22.7	22.7	22.5	1.0	23.0
	16QAM	1	0	22.7	22.6	22.5	1.0	23.0
		1	37	22.7	22.6	22.5	1.0	23.0
		1	74	22.7	22.5	22.4	1.0	23.0
		36	0	21.7	21.7	21.5	2.0	22.0
		36	20	21.7	21.6	21.5	2.0	22.0
		36	39	21.7	21.7	21.5	2.0	22.0
		75	0	21.7	21.7	21.5	2.0	22.0
	64QAM	1	0	21.4	21.2	21.7	2.0	22.0
		1	37	21.5	21.2	21.7	2.0	22.0
		1	74	21.5	21.1	21.6	2.0	22.0
		36	0	20.6	20.7	20.6	3.0	21.0
		36	20	20.6	20.7	20.5	3.0	21.0
		36	39	20.7	20.8	20.6	3.0	21.0
		75	0	20.7	20.7	20.5	3.0	21.0

LTE Band 38 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37800	38000	38200		
				2575 MHz	2595 MHz	2615 MHz		
10 MHz	QPSK	1	0	23.6	23.7	23.6	0.0	24.0
		1	25	23.9	23.9	23.9	0.0	24.0
		1	49	23.6	23.7	23.5	0.0	24.0
		25	0	22.8	22.7	22.6	1.0	23.0
		25	12	22.7	22.7	22.6	1.0	23.0
		25	25	22.7	22.7	22.6	1.0	23.0
		50	0	22.7	22.7	22.5	1.0	23.0
	16QAM	1	0	22.8	22.7	22.5	1.0	23.0
		1	25	22.6	23.0	22.8	1.0	23.0
		1	49	22.8	22.7	22.4	1.0	23.0
		25	0	21.8	21.8	21.6	2.0	22.0
		25	12	21.8	21.8	21.6	2.0	22.0
		25	25	21.7	21.8	21.6	2.0	22.0
		50	0	21.7	21.7	21.6	2.0	22.0
	64QAM	1	0	21.7	21.2	21.8	2.0	22.0
		1	25	22.0	21.6	21.6	2.0	22.0
		1	49	21.7	21.2	21.7	2.0	22.0
		25	0	20.7	20.8	20.6	3.0	21.0
		25	12	20.7	20.8	20.6	3.0	21.0
		25	25	20.6	20.8	20.5	3.0	21.0
		50	0	20.7	20.7	20.5	3.0	21.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37775	38000	38225		
				2572.5 MHz	2595 MHz	2617.5 MHz		
5 MHz	QPSK	1	0	23.5	23.6	23.4	0.0	24.0
		1	12	23.6	23.6	23.4	0.0	24.0
		1	24	23.5	23.5	23.3	0.0	24.0
		12	0	22.7	22.7	22.5	1.0	23.0
		12	7	22.7	22.8	22.6	1.0	23.0
		12	13	22.7	22.7	22.5	1.0	23.0
		25	0	22.7	22.7	22.5	1.0	23.0
	16QAM	1	0	22.7	22.5	22.5	1.0	23.0
		1	12	22.7	22.6	22.5	1.0	23.0
		1	24	22.5	22.5	22.4	1.0	23.0
		12	0	21.6	21.6	21.5	2.0	22.0
		12	7	21.7	21.7	21.6	2.0	22.0
		12	13	21.7	21.7	21.6	2.0	22.0
		25	0	21.7	21.7	21.6	2.0	22.0
	64QAM	1	0	21.7	21.3	21.8	2.0	22.0
		1	12	21.7	21.3	21.8	2.0	22.0
		1	24	21.7	21.3	21.7	2.0	22.0
		12	0	20.6	20.6	20.6	3.0	21.0
		12	7	20.7	20.7	20.5	3.0	21.0
		12	13	20.6	20.7	20.5	3.0	21.0
		25	0	20.6	20.8	20.5	3.0	21.0

LTE Band 41 Power Class 3 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						
				Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	23.7	23.7	23.9	23.6	23.6	0.0	24.0
		1	49	23.5	23.4	23.5	23.4	23.4	0.0	24.0
		1	99	23.4	23.4	23.5	23.3	23.3	0.0	24.0
		50	0	22.5	22.5	22.6	22.3	22.4	1.0	23.0
		50	24	22.6	22.5	22.6	22.4	22.4	1.0	23.0
		50	50	22.5	22.4	22.6	22.4	22.3	1.0	23.0
		100	0	22.5	22.5	22.5	22.4	22.3	1.0	23.0
	16QAM	1	0	22.6	22.4	22.6	22.4	22.3	1.0	23.0
		1	49	23.0	22.9	22.9	22.8	22.8	1.0	23.0
		1	99	22.4	22.5	22.5	22.3	22.4	1.0	23.0
		50	0	21.6	21.5	21.7	21.4	21.4	2.0	22.0
		50	24	21.6	21.6	21.7	21.4	21.4	2.0	22.0
		50	50	21.6	21.5	21.6	21.5	21.4	2.0	22.0
		100	0	21.5	21.5	21.6	21.4	21.4	2.0	22.0
	64QAM	1	0	22.0	21.7	21.9	21.3	21.6	2.0	22.0
		1	49	22.0	22.0	22.0	21.7	21.6	2.0	22.0
		1	99	21.7	21.8	21.8	21.3	21.7	2.0	22.0
		50	0	20.6	20.6	20.7	20.4	20.4	3.0	21.0
		50	24	20.6	20.6	20.7	20.4	20.4	3.0	21.0
		50	50	20.6	20.5	20.6	20.4	20.3	3.0	21.0
		100	0	20.5	20.5	20.6	20.4	20.3	3.0	21.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	23.5	23.4	23.5	23.3	23.2	0.0	24.0
		1	37	23.4	23.4	23.5	23.3	23.2	0.0	24.0
		1	74	23.4	23.4	23.5	23.3	23.3	0.0	24.0
		36	0	22.5	22.5	22.6	22.4	22.4	1.0	23.0
		36	20	22.5	22.5	22.6	22.4	22.4	1.0	23.0
		36	39	22.6	22.5	22.6	22.5	22.4	1.0	23.0
		75	0	22.5	22.5	22.6	22.4	22.4	1.0	23.0
	16QAM	1	0	22.6	22.5	22.6	22.4	22.3	1.0	23.0
		1	37	22.5	22.5	22.6	22.4	22.4	1.0	23.0
		1	74	22.5	22.5	22.5	22.4	22.4	1.0	23.0
		36	0	21.6	21.5	21.6	21.4	21.4	2.0	22.0
		36	20	21.6	21.5	21.6	21.4	21.4	2.0	22.0
		36	39	21.6	21.5	21.6	21.5	21.4	2.0	22.0
		75	0	21.6	21.5	21.6	21.4	21.4	2.0	22.0
	64QAM	1	0	21.1	21.0	21.1	21.1	20.8	2.0	22.0
		1	37	21.0	21.0	21.1	21.1	20.8	2.0	22.0
		1	74	20.9	21.0	21.1	21.1	20.9	2.0	22.0
		36	0	20.6	20.6	20.6	20.3	20.4	3.0	21.0
		36	20	20.6	20.5	20.6	20.3	20.4	3.0	21.0
		36	39	20.6	20.6	20.7	20.4	20.4	3.0	21.0
		75	0	20.5	20.5	20.6	20.4	20.3	3.0	21.0

LTE Band 41 Power Class 3 Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	23.5	23.4	23.5	23.3	23.2	0.0	24.0
		1	25	23.8	23.7	23.8	23.6	23.5	0.0	24.0
		1	49	23.4	23.5	23.5	23.3	23.3	0.0	24.0
		25	0	22.7	22.6	22.7	22.5	22.5	1.0	23.0
		25	12	22.6	22.6	22.7	22.5	22.4	1.0	23.0
		25	25	22.6	22.6	22.7	22.5	22.4	1.0	23.0
		50	0	22.6	22.6	22.7	22.4	22.4	1.0	23.0
	16QAM	1	0	22.7	22.7	22.8	22.5	22.4	1.0	23.0
		1	25	23.0	22.9	22.8	22.8	22.7	1.0	23.0
		1	49	22.7	22.7	22.7	22.5	22.5	1.0	23.0
		25	0	21.7	21.6	21.8	21.5	21.5	2.0	22.0
		25	12	21.7	21.6	21.7	21.5	21.4	2.0	22.0
		25	25	21.6	21.6	21.7	21.5	21.4	2.0	22.0
		50	0	21.6	21.6	21.7	21.5	21.5	2.0	22.0
	64QAM	1	0	21.1	21.6	21.9	20.9	20.9	2.0	22.0
		1	25	21.4	21.8	21.4	21.2	21.2	2.0	22.0
		1	49	21.1	21.6	21.8	20.9	20.9	2.0	22.0
		25	0	20.7	20.5	20.7	20.5	20.5	3.0	21.0
		25	12	20.7	20.6	20.7	20.5	20.4	3.0	21.0
		25	25	20.7	20.5	20.7	20.5	20.4	3.0	21.0
		50	0	20.6	20.6	20.6	20.4	20.4	3.0	21.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	23.4	23.4	23.5	23.3	23.2	0.0	24.0
		1	12	23.4	23.4	23.5	23.3	23.2	0.0	24.0
		1	24	23.4	23.4	23.5	23.3	23.2	0.0	24.0
		12	0	22.5	22.5	22.7	22.4	22.4	1.0	23.0
		12	7	22.7	22.6	22.8	22.5	22.5	1.0	23.0
		12	13	22.6	22.5	22.7	22.5	22.4	1.0	23.0
		25	0	22.6	22.5	22.7	22.4	22.4	1.0	23.0
	16QAM	1	0	22.6	22.6	22.7	22.4	22.2	1.0	23.0
		1	12	22.6	22.5	22.7	22.4	22.2	1.0	23.0
		1	24	22.5	22.5	22.7	22.4	22.2	1.0	23.0
		12	0	21.6	21.6	21.7	21.5	21.4	2.0	22.0
		12	7	21.7	21.7	21.8	21.6	21.5	2.0	22.0
		12	13	21.6	21.6	21.8	21.5	21.4	2.0	22.0
		25	0	21.6	21.6	21.7	21.5	21.4	2.0	22.0
	64QAM	1	0	21.2	21.1	21.3	21.5	20.9	2.0	22.0
		1	12	21.2	21.1	21.3	21.5	21.0	2.0	22.0
		1	24	21.2	21.1	21.3	21.4	21.0	2.0	22.0
		12	0	20.5	20.5	20.7	20.3	20.4	3.0	21.0
		12	7	20.7	20.6	20.8	20.4	20.4	3.0	21.0
		12	13	20.6	20.5	20.7	20.4	20.4	3.0	21.0
		25	0	20.6	20.6	20.7	20.4	20.4	3.0	21.0

LTE Band 41 Power Class 2 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						
				Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	26.5	26.4	26.5	26.3	26.2	0.0	27.0
		1	49	26.6	26.6	26.7	26.5	26.4	0.0	27.0
		1	99	26.3	26.4	26.4	26.2	26.3	0.0	27.0
		50	0	25.5	25.5	25.6	25.3	25.4	1.0	26.0
		50	24	25.5	25.5	25.6	25.4	25.4	1.0	26.0
		50	50	25.5	25.4	25.6	25.4	25.3	1.0	26.0
		100	0	25.5	25.5	25.6	25.3	25.3	1.0	26.0
	16QAM	1	0	25.9	25.8	25.9	25.7	25.6	1.0	26.0
		1	49	25.3	26.0	25.5	25.9	25.8	1.0	26.0
		1	99	25.7	25.8	25.8	25.6	25.7	1.0	26.0
		50	0	24.6	24.6	24.7	24.4	24.4	2.0	25.0
		50	24	24.6	24.6	24.7	24.5	24.4	2.0	25.0
		50	50	24.6	24.5	24.6	24.4	24.4	2.0	25.0
		100	0	24.5	24.5	24.6	24.4	24.4	2.0	25.0
	64QAM	1	0	24.5	24.7	24.6	24.7	24.7	2.0	25.0
		1	49	24.9	25.0	24.8	24.9	25.0	2.0	25.0
		1	99	24.9	24.8	25.0	24.6	24.8	2.0	25.0
		50	0	23.6	23.6	23.7	23.4	23.5	3.0	24.0
		50	24	23.7	23.6	23.7	23.5	23.4	3.0	24.0
		50	50	23.6	23.6	23.7	23.5	23.3	3.0	24.0
		100	0	23.6	23.6	23.6	23.5	23.3	3.0	24.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	26.5	26.4	26.6	26.3	26.2	0.0	27.0
		1	37	26.7	26.7	26.8	26.5	26.6	0.0	27.0
		1	74	26.4	26.4	26.5	26.3	26.3	0.0	27.0
		36	0	25.6	25.5	25.6	25.4	25.4	1.0	26.0
		36	20	25.6	25.5	25.6	25.4	25.4	1.0	26.0
		36	39	25.6	25.5	25.6	25.4	25.4	1.0	26.0
		75	0	25.6	25.5	25.7	25.5	25.4	1.0	26.0
	16QAM	1	0	25.8	25.7	25.9	25.7	25.5	1.0	26.0
		1	37	26.0	25.7	25.8	25.9	25.9	1.0	26.0
		1	74	25.7	25.8	25.8	25.6	25.6	1.0	26.0
		36	0	24.6	24.5	24.6	24.4	24.4	2.0	25.0
		36	20	24.6	24.5	24.6	24.4	24.4	2.0	25.0
		36	39	24.5	24.5	24.6	24.4	24.4	2.0	25.0
		75	0	24.6	24.5	24.6	24.4	24.4	2.0	25.0
	64QAM	1	0	24.3	24.2	24.7	24.1	24.3	2.0	25.0
		1	37	24.6	24.5	24.9	24.4	24.7	2.0	25.0
		1	74	24.2	24.3	24.6	24.1	24.4	2.0	25.0
		36	0	23.6	23.6	23.6	23.5	23.4	3.0	24.0
		36	20	23.7	23.6	23.6	23.5	23.3	3.0	24.0
		36	39	23.6	23.6	23.6	23.5	23.3	3.0	24.0
		75	0	23.6	23.5	23.7	23.4	23.4	3.0	24.0

LTE Band 41 Power Class 2 Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	26.5	26.4	26.6	26.3	26.2	0.0	27.0
		1	25	26.6	26.5	26.6	26.4	26.4	0.0	27.0
		1	49	26.5	26.5	26.5	26.3	26.3	0.0	27.0
		25	0	25.6	25.5	25.7	25.4	25.4	1.0	26.0
		25	12	25.6	25.5	25.6	25.4	25.4	1.0	26.0
		25	25	25.6	25.5	25.7	25.4	25.4	1.0	26.0
		50	0	25.6	25.5	25.6	25.4	25.4	1.0	26.0
	16QAM	1	0	26.0	25.9	25.8	25.7	25.7	1.0	26.0
		1	25	26.0	26.0	25.8	25.8	25.8	1.0	26.0
		1	49	25.9	25.9	26.0	25.7	25.8	1.0	26.0
		25	0	24.6	24.6	24.7	24.5	24.5	2.0	25.0
		25	12	24.6	24.6	24.7	24.5	24.5	2.0	25.0
		25	25	24.6	24.6	24.7	24.5	24.4	2.0	25.0
		50	0	24.6	24.6	24.7	24.5	24.4	2.0	25.0
	64QAM	1	0	24.5	24.3	24.4	24.2	24.1	2.0	25.0
		1	25	24.8	24.4	24.5	24.3	24.2	2.0	25.0
		1	49	25.0	24.3	24.4	24.1	24.2	2.0	25.0
		25	0	23.6	23.6	23.8	23.5	23.5	3.0	24.0
		25	12	23.6	23.7	23.8	23.5	23.4	3.0	24.0
		25	25	23.6	23.7	23.8	23.5	23.4	3.0	24.0
		50	0	23.6	23.6	23.7	23.4	23.4	3.0	24.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	26.4	26.4	26.5	26.3	26.2	0.0	27.0
		1	12	26.7	26.7	26.8	26.5	26.5	0.0	27.0
		1	24	26.4	26.4	26.5	26.2	26.2	0.0	27.0
		12	0	25.5	25.5	25.7	25.4	25.4	1.0	26.0
		12	7	25.5	25.5	25.7	25.4	25.4	1.0	26.0
		12	13	25.6	25.5	25.6	25.4	25.4	1.0	26.0
		25	0	25.5	25.5	25.6	25.4	25.4	1.0	26.0
	16QAM	1	0	25.7	25.8	25.9	25.7	25.6	1.0	26.0
		1	12	25.9	25.5	25.9	25.9	25.9	1.0	26.0
		1	24	25.6	25.8	25.9	25.6	25.7	1.0	26.0
		12	0	24.6	24.6	24.8	24.5	24.5	2.0	25.0
		12	7	24.6	24.6	24.8	24.5	24.5	2.0	25.0
		12	13	24.6	24.6	24.8	24.5	24.5	2.0	25.0
		25	0	24.6	24.5	24.7	24.4	24.4	2.0	25.0
	64QAM	1	0	24.8	24.5	24.6	24.4	24.6	2.0	25.0
		1	12	25.0	24.8	24.9	24.7	24.9	2.0	25.0
		1	24	24.7	24.5	24.6	24.3	24.6	2.0	25.0
		12	0	23.5	23.5	23.7	23.4	23.3	3.0	24.0
		12	7	23.6	23.6	23.7	23.5	23.3	3.0	24.0
		12	13	23.6	23.6	23.7	23.5	23.3	3.0	24.0
		25	0	23.5	23.6	23.8	23.5	23.3	3.0	24.0

LTE Band 66 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	23.7	23.1	23.0	0.0	25
		1	49	23.5	23.1	23.4	0.0	25
		1	99	23.0	22.9	23.2	0.0	25
		50	0	22.7	22.0	22.2	1.0	24
		50	24	22.5	22.0	22.3	1.0	24
		50	50	22.3	21.9	22.2	1.0	24
		100	0	22.5	21.9	22.2	1.0	24
	16QAM	1	0	22.9	22.4	22.6	1.0	24
		1	49	22.9	22.6	22.9	1.0	24
		1	99	22.5	22.4	22.7	1.0	24
		50	0	21.7	21.1	21.3	2.0	23
		50	24	21.5	21.2	21.5	2.0	23
		50	50	21.3	21.1	21.3	2.0	23
		100	0	21.6	21.3	21.3	2.0	23
	64QAM	1	0	22.3	21.7	22.2	2.0	23
		1	49	22.0	21.9	22.5	2.0	23
		1	99	21.4	21.7	21.9	2.0	23
		50	0	20.8	20.6	20.5	3.0	22
		50	24	20.6	20.6	21.0	3.0	22
		50	50	20.4	20.5	20.8	3.0	22
		100	0	20.6	20.5	20.8	3.0	22
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597		
				1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	QPSK	1	0	23.6	22.9	23.2	0.0	25
		1	37	23.7	23.1	23.4	0.0	25
		1	74	23.2	23.0	23.3	0.0	25
		36	0	22.7	22.0	22.4	1.0	24
		36	20	22.6	22.0	22.4	1.0	24
		36	39	22.5	22.0	22.4	1.0	24
		75	0	22.6	22.0	22.3	1.0	24
	16QAM	1	0	22.9	22.5	22.2	1.0	24
		1	37	23.0	22.6	22.5	1.0	24
		1	74	22.6	22.4	22.3	1.0	24
		36	0	21.7	21.0	21.4	2.0	23
		36	20	21.6	21.0	21.4	2.0	23
		36	39	21.5	21.2	21.4	2.0	23
		75	0	21.6	21.4	21.4	2.0	23
	64QAM	1	0	22.3	22.1	21.9	2.0	23
		1	37	22.4	22.3	22.2	2.0	23
		1	74	21.6	22.1	22.0	2.0	23
		36	0	20.8	20.5	21.0	3.0	22
		36	20	21.0	20.5	21.0	3.0	22
		36	39	20.9	20.5	21.0	3.0	22
		75	0	20.9	20.6	20.9	3.0	22

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	24.0	23.0	23.4	0.0	25
		1	25	23.6	23.1	23.5	0.0	25
		1	49	23.4	23.0	23.4	0.0	25
		25	0	22.7	22.1	22.5	1.0	24
		25	12	22.6	22.1	22.5	1.0	24
		25	25	22.5	22.0	22.4	1.0	24
		50	0	22.6	22.1	22.5	1.0	24
	16QAM	1	0	22.7	22.0	22.8	1.0	24
		1	25	22.7	22.1	22.9	1.0	24
		1	49	22.4	22.0	22.8	1.0	24
		25	0	21.9	21.2	21.7	2.0	23
		25	12	21.8	21.2	21.6	2.0	23
		25	25	21.6	21.1	21.5	2.0	23
		50	0	21.7	21.1	21.6	2.0	23
	64QAM	1	0	22.4	21.8	22.0	2.0	23
		1	25	22.4	21.8	22.1	2.0	23
		1	49	22.2	21.7	22.1	2.0	23
		25	0	21.3	20.7	21.1	3.0	22
		25	12	21.2	20.7	21.1	3.0	22
		25	25	21.0	20.7	21.1	3.0	22
		50	0	21.1	20.6	21.1	3.0	22

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131997	132322	132647		
				1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	23.7	23.0	23.4	0.0	25
		1	12	23.7	23.2	23.7	0.0	25
		1	24	23.5	22.9	23.4	0.0	25
		12	0	22.6	22.0	22.5	1.0	24
		12	7	22.7	22.1	22.5	1.0	24
		12	13	22.6	22.1	22.5	1.0	24
		25	0	22.6	22.0	22.5	1.0	24
	16QAM	1	0	23.0	22.1	22.5	1.0	24
		1	12	23.2	22.3	22.8	1.0	24
		1	24	22.9	22.0	22.6	1.0	24
		12	0	21.7	21.1	21.6	2.0	23
		12	7	21.8	21.2	21.6	2.0	23
		12	13	21.8	21.2	21.6	2.0	23
		25	0	21.7	21.3	21.5	2.0	23
	64QAM	1	0	22.0	21.7	22.1	2.0	23
		1	12	22.1	21.9	22.5	2.0	23
		1	24	21.9	21.7	22.2	2.0	23
		12	0	21.2	20.6	21.0	3.0	22
		12	7	21.2	20.7	21.0	3.0	22
		12	13	21.2	20.7	21.0	3.0	22
		25	0	21.1	20.6	21.0	3.0	22

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	23.6	23.0	23.4	0.0	25
		1	8	23.8	23.1	23.5	0.0	25
		1	14	23.6	23.0	23.4	0.0	25
		8	0	22.6	22.0	22.5	1.0	24
		8	4	22.7	22.0	22.5	1.0	24
		8	7	22.6	22.1	22.5	1.0	24
		15	0	22.6	22.0	22.5	1.0	24
	16QAM	1	0	23.1	22.1	22.4	1.0	24
		1	8	23.1	22.2	22.6	1.0	24
		1	14	22.9	22.0	22.4	1.0	24
		8	0	21.8	21.3	21.6	2.0	23
		8	4	21.8	21.5	21.7	2.0	23
		8	7	21.8	21.7	21.7	2.0	23
		15	0	21.7	21.6	21.5	2.0	23
	64QAM	1	0	22.4	21.8	22.1	2.0	23
		1	8	22.5	21.9	22.3	2.0	23
		1	14	22.3	21.7	22.2	2.0	23
		8	0	21.2	20.5	21.1	3.0	22
		8	4	21.3	20.5	21.1	3.0	22
		8	7	21.2	20.5	21.1	3.0	22
		15	0	21.1	20.6	21.1	3.0	22
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131979	132322	132665		
				1710.7 MHz	1745 MHz	1779.3 MHz		
1.4 MHz	QPSK	1	0	24.1	23.5	23.9	0.0	25
		1	3	24.2	23.5	23.6	0.0	25
		1	5	24.1	23.4	23.4	0.0	25
		3	0	24.2	23.6	23.6	0.0	25
		3	1	24.2	23.7	23.6	0.0	25
		3	3	24.2	23.6	23.6	0.0	25
		6	0	22.7	22.5	22.5	1.0	24
	16QAM	1	0	23.1	22.5	22.6	1.0	24
		1	3	23.2	22.6	22.7	1.0	24
		1	5	23.1	22.5	22.6	1.0	24
		3	0	23.0	22.7	22.7	1.0	24
		3	1	23.0	22.8	22.7	1.0	24
		3	3	23.1	22.8	22.6	1.0	24
		6	0	21.9	21.8	21.6	2.0	23
	64QAM	1	0	22.2	21.7	22.3	2.0	23
		1	3	22.3	21.8	22.5	2.0	23
		1	5	22.2	21.6	22.4	2.0	23
		3	0	22.1	21.7	22.4	2.0	23
		3	1	22.1	21.8	22.4	2.0	23
		3	3	22.1	21.8	22.4	2.0	23
		6	0	21.3	20.9	21.0	3.0	22

LTE Band 71 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				133222	133297	133372		
				673 MHz	680.5 MHz	688 MHz		
20 MHz	QPSK	1	0		24.1		0.0	25
		1	49		24.2		0.0	25
		1	99		23.4		0.0	25
		50	0		22.8		1.0	24
		50	24		22.9		1.0	24
		50	50		22.7		1.0	24
		100	0		22.6		1.0	24
	16QAM	1	0		23.0		1.0	24
		1	49		23.1		1.0	24
		1	99		22.8		1.0	24
		50	0		21.5		2.0	23
		50	24		21.6		2.0	23
		50	50		21.5		2.0	23
		100	0		21.5		2.0	23
	64QAM	1	0		22.3		2.0	23
		1	49		22.4		2.0	23
		1	99		21.6		2.0	23
		50	0		20.9		3.0	22
		50	24		21.0		3.0	22
		50	50		21.0		3.0	22
		100	0		20.9		3.0	22
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				133197	133297	133397		
				670.5 MHz	680.5 MHz	690.5 MHz		
15 MHz	QPSK	1	0		23.7		0.0	25
		1	37		23.8		0.0	25
		1	74		23.5		0.0	25
		36	0		22.7		1.0	24
		36	20		22.8		1.0	24
		36	39		22.7		1.0	24
		75	0		22.7		1.0	24
	16QAM	1	0		22.6		1.0	24
		1	37		22.8		1.0	24
		1	74		22.5		1.0	24
		36	0		21.7		2.0	23
		36	20		21.7		2.0	23
		36	39		21.7		2.0	23
		75	0		21.7		2.0	23
	64QAM	1	0		22.3		2.0	23
		1	37		22.5		2.0	23
		1	74		22.1		2.0	23
		36	0		20.8		3.0	22
		36	20		20.8		3.0	22
		36	39		21.1		3.0	22
		75	0		21.1		3.0	22

LTE Band 71 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				133172	133297	133422		
				668 MHz	680.5 MHz	693 MHz		
10 MHz	QPSK	1	0	23.7	24.2	23.6	0.0	25
		1	25	23.9	24.3	23.7	0.0	25
		1	49	23.7	24.1	23.5	0.0	25
		25	0	22.6	23.2	22.6	1.0	24
		25	12	22.7	23.2	22.6	1.0	24
		25	25	22.7	23.2	22.6	1.0	24
		50	0	22.7	23.2	22.6	1.0	24
	16QAM	1	0	23.0	23.5	22.6	1.0	24
		1	25	23.1	23.7	22.6	1.0	24
		1	49	23.1	23.5	22.5	1.0	24
		25	0	21.7	22.2	21.6	2.0	23
		25	12	21.8	22.2	21.6	2.0	23
		25	25	21.8	22.2	21.6	2.0	23
		50	0	21.7	22.2	21.6	2.0	23
	64QAM	1	0	21.9	22.4	22.0	2.0	23
		1	25	22.0	22.5	22.0	2.0	23
		1	49	21.8	22.4	21.8	2.0	23
		25	0	20.8	21.2	20.7	3.0	22
		25	12	21.1	21.2	20.8	3.0	22
		25	25	21.2	21.2	20.9	3.0	22
		50	0	21.1	21.2	20.9	3.0	22

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				133147	133297	133447		
				665.5 MHz	680.5 MHz	695.5 MHz		
5 MHz	QPSK	1	0	24.2	23.7	23.5	0.0	25
		1	12	24.4	23.9	23.8	0.0	25
		1	24	24.2	23.6	23.5	0.0	25
		12	0	23.1	22.7	22.6	1.0	24
		12	7	23.3	22.8	22.6	1.0	24
		12	13	23.1	22.7	22.6	1.0	24
		25	0	22.8	22.7	22.6	1.0	24
	16QAM	1	0	22.7	22.8	23.0	1.0	24
		1	12	23.0	23.0	23.2	1.0	24
		1	24	22.7	22.7	23.0	1.0	24
		12	0	21.7	21.7	21.7	2.0	23
		12	7	21.8	21.8	21.7	2.0	23
		12	13	21.9	21.8	21.7	2.0	23
		25	0	21.7	21.7	21.6	2.0	23
	64QAM	1	0	22.0	22.4	22.2	2.0	23
		1	12	22.3	22.6	22.4	2.0	23
		1	24	22.0	22.3	21.9	2.0	23
		12	0	21.0	21.2	21.0	3.0	22
		12	7	21.2	21.2	21.1	3.0	22
		12	13	21.2	21.2	21.1	3.0	22
		25	0	21.1	21.2	21.1	3.0	22

2. Reduced power of Hotspot & Proximity sensor back-off

LTE Band 4 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Proximity sensor back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				20050	20175	20300		
				1720 MHz	1732.5 MHz	1745 MHz		
20 MHz	QPSK	1	0		21.2		0.0	23.0
		1	49		21.1		0.0	23.0
		1	99		20.7		0.0	23.0
		50	0		21.2		0.0	23.0
		50	24		21.1		0.0	23.0
		50	50		21.1		0.0	23.0
		100	0		21.1		0.0	23.0
	16QAM	1	0		21.6		0.0	23.0
		1	49		21.6		0.0	23.0
		1	99		21.2		0.0	23.0
		50	0		21.2		0.0	23.0
		50	24		21.1		0.0	23.0
		50	50		21.1		0.0	23.0
		100	0		21.2		0.0	23.0
	64QAM	1	0		21.6		0.0	23.0
		1	49		21.5		0.0	23.0
		1	99		21.1		0.0	23.0
		50	0		20.4		1.0	22.0
		50	24		20.3		1.0	22.0
		50	50		20.4		1.0	22.0
		100	0		20.7		1.0	22.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20025	20175	20325		
				1717.5 MHz	1732.5 MHz	1747.5 MHz		
15 MHz	QPSK	1	0	21.7	21.1	20.8	0.0	23.0
		1	37	21.6	21.1	21.0	0.0	23.0
		1	74	21.2	20.8	20.8	0.0	23.0
		36	0	21.6	21.1	20.9	0.0	23.0
		36	20	21.5	21.1	21.0	0.0	23.0
		36	39	21.4	21.0	20.9	0.0	23.0
		75	0	21.5	21.1	20.9	0.0	23.0
	16QAM	1	0	21.9	21.6	20.9	0.0	23.0
		1	37	22.0	21.7	21.1	0.0	23.0
		1	74	21.6	21.3	20.9	0.0	23.0
		36	0	21.6	21.1	21.0	0.0	23.0
		36	20	21.6	21.1	21.0	0.0	23.0
		36	39	21.4	21.0	21.0	0.0	23.0
		75	0	21.5	21.1	21.0	0.0	23.0
	64QAM	1	0	22.1	22.0	21.6	0.0	23.0
		1	37	22.0	22.0	21.9	0.0	23.0
		1	74	21.8	21.9	21.7	0.0	23.0
		36	0	21.1	20.6	20.4	1.0	22.0
		36	20	21.0	20.6	20.5	1.0	22.0
		36	39	20.9	20.5	20.4	1.0	22.0
		75	0	21.0	20.6	20.5	1.0	22.0

LTE Band 4 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20000	20175	20350		
				1715 MHz	1732.5 MHz	1750 MHz		
10 MHz	QPSK	1	0	21.9	21.1	20.8	0.0	23.0
		1	25	21.6	21.0	21.1	0.0	23.0
		1	49	21.4	20.9	20.9	0.0	23.0
		25	0	21.6	21.1	21.1	0.0	23.0
		25	12	21.5	21.1	21.0	0.0	23.0
		25	25	21.4	21.1	21.0	0.0	23.0
		50	0	21.5	21.1	21.1	0.0	23.0
	16QAM	1	0	22.0	21.2	20.9	0.0	23.0
		1	25	22.0	21.2	21.1	0.0	23.0
		1	49	21.7	20.9	21.0	0.0	23.0
		25	0	21.6	21.3	21.2	0.0	23.0
		25	12	21.6	21.2	21.1	0.0	23.0
		25	25	21.4	21.2	21.1	0.0	23.0
		50	0	21.5	21.2	21.1	0.0	23.0
	64QAM	1	0	22.1	21.8	21.7	0.0	23.0
		1	25	22.1	21.8	21.9	0.0	23.0
		1	49	21.9	21.6	21.7	0.0	23.0
		25	0	21.2	20.7	20.6	1.0	22.0
		25	12	21.1	20.6	20.6	1.0	22.0
		25	25	20.9	20.6	20.6	1.0	22.0
		50	0	21.0	20.6	20.6	1.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19975	20175	20375		
				1712.5 MHz	1732.5 MHz	1752.5 MHz		
5 MHz	QPSK	1	0	22.0	21.0	20.9	0.0	23.0
		1	12	22.1	21.2	21.2	0.0	23.0
		1	24	21.5	20.9	20.9	0.0	23.0
		12	0	21.6	21.0	21.1	0.0	23.0
		12	7	21.6	21.1	21.1	0.0	23.0
		12	13	21.6	21.0	21.0	0.0	23.0
		25	0	21.5	21.0	21.0	0.0	23.0
	16QAM	1	0	21.7	21.2	21.4	0.0	23.0
		1	12	21.8	21.4	21.7	0.0	23.0
		1	24	21.5	21.1	21.5	0.0	23.0
		12	0	21.6	21.1	21.2	0.0	23.0
		12	7	21.7	21.2	21.3	0.0	23.0
		12	13	21.6	21.1	21.2	0.0	23.0
		25	0	21.5	21.1	21.1	0.0	23.0
	64QAM	1	0	21.8	21.7	21.3	0.0	23.0
		1	12	21.7	21.8	21.6	0.0	23.0
		1	24	21.6	21.6	21.4	0.0	23.0
		12	0	20.8	20.5	20.6	1.0	22.0
		12	7	20.7	20.6	20.6	1.0	22.0
		12	13	20.6	20.6	20.6	1.0	22.0
		25	0	20.5	20.5	20.5	1.0	22.0

LTE Band 4 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19965	20175	20385		
				1711.5 MHz	1732.5 MHz	1753.5 MHz		
3 MHz	QPSK	1	0	22.0	21.0	20.9	0.0	23.0
		1	8	21.7	21.1	21.1	0.0	23.0
		1	14	21.5	20.9	21.0	0.0	23.0
		8	0	21.5	21.0	21.0	0.0	23.0
		8	4	21.6	21.0	21.1	0.0	23.0
		8	7	21.5	21.0	21.1	0.0	23.0
		15	0	21.5	21.0	21.0	0.0	23.0
	16QAM	1	0	21.9	21.1	21.0	0.0	23.0
		1	8	22.1	21.2	21.1	0.0	23.0
		1	14	21.9	21.0	21.0	0.0	23.0
		8	0	21.6	21.1	21.2	0.0	23.0
		8	4	21.7	21.1	21.2	0.0	23.0
		8	7	21.7	21.1	21.2	0.0	23.0
		15	0	21.6	21.0	21.1	0.0	23.0
	64QAM	1	0	21.9	21.8	21.8	0.0	23.0
		1	8	21.8	21.6	21.9	0.0	23.0
		1	14	21.8	21.3	21.8	0.0	23.0
		8	0	20.7	20.0	20.6	1.0	22.0
		8	4	20.7	20.2	20.7	1.0	22.0
		8	7	20.6	20.1	20.7	1.0	22.0
		15	0	20.6	20.1	20.6	1.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19957	20175	20393		
				1710.7 MHz	1732.5 MHz	1754.3 MHz		
1.4 MHz	QPSK	1	0	21.9	21.0	21.0	0.0	23.0
		1	3	22.0	21.1	21.1	0.0	23.0
		1	5	21.9	20.9	20.9	0.0	23.0
		3	0	22.0	21.1	21.1	0.0	23.0
		3	1	22.1	21.1	21.1	0.0	23.0
		3	3	22.1	21.0	21.1	0.0	23.0
		6	0	22.0	21.0	21.0	0.0	23.0
	16QAM	1	0	22.1	21.4	21.1	0.0	23.0
		1	3	22.1	21.5	21.2	0.0	23.0
		1	5	22.1	21.4	21.1	0.0	23.0
		3	0	21.9	21.3	21.3	0.0	23.0
		3	1	21.9	21.4	21.4	0.0	23.0
		3	3	21.9	21.3	21.3	0.0	23.0
		6	0	21.7	21.0	21.2	0.0	23.0
	64QAM	1	0	21.7	21.9	21.6	0.0	23.0
		1	3	21.9	22.1	21.8	0.0	23.0
		1	5	21.7	21.9	21.6	0.0	23.0
		3	0	21.8	21.9	21.7	0.0	23.0
		3	1	22.0	21.8	21.8	0.0	23.0
		3	3	22.0	21.6	21.7	0.0	23.0
		6	0	21.2	20.5	20.9	1.0	22.0

Band 7 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) Proximity sensor back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20850	21100	21350			20850	21100	21350		
				2510 MHz	2535 MHz	2560 MHz			2510 MHz	2535 MHz	2560 MHz		
20 MHz	QPSK	1	0	14.2	14.1	13.9	0.0	15.5	14.7	14.6	14.5	0.0	16.0
		1	49	14.3	14.3	14.2	0.0	15.5	14.8	14.9	14.7	0.0	16.0
		1	99	14.0	13.9	13.9	0.0	15.5	14.5	14.4	14.4	0.0	16.0
		50	0	14.2	14.1	14.1	0.0	15.5	14.7	14.6	14.6	0.0	16.0
		50	24	14.2	14.2	14.1	0.0	15.5	14.7	14.8	14.6	0.0	16.0
		50	50	14.2	14.0	14.0	0.0	15.5	14.7	14.5	14.5	0.0	16.0
		100	0	14.2	14.1	14.0	0.0	15.5	14.7	14.6	14.5	0.0	16.0
	16QAM	1	0	14.6	14.6	14.5	0.0	15.5	15.1	15.1	15.0	0.0	16.0
		1	49	14.7	14.7	14.7	0.0	15.5	15.2	15.2	15.2	0.0	16.0
		1	99	14.4	14.4	14.4	0.0	15.5	14.9	14.9	14.9	0.0	16.0
		50	0	14.2	14.2	14.1	0.0	15.5	14.7	14.7	14.6	0.0	16.0
		50	24	14.2	14.2	14.1	0.0	15.5	14.7	14.7	14.6	0.0	16.0
		50	50	14.2	14.0	14.0	0.0	15.5	14.7	14.5	14.5	0.0	16.0
		100	0	14.2	14.1	14.0	0.0	15.5	14.7	14.6	14.5	0.0	16.0
	64QAM	1	0	14.4	14.4	14.6	0.0	15.5	15.3	14.8	14.8	0.0	16.0
		1	49	14.5	14.6	14.8	0.0	15.5	15.4	14.9	15.0	0.0	16.0
		1	99	14.2	14.3	14.5	0.0	15.5	15.1	14.6	14.7	0.0	16.0
		50	0	14.2	14.2	14.1	0.0	15.5	14.7	14.6	14.6	0.0	16.0
		50	24	14.2	14.2	14.1	0.0	15.5	14.8	14.6	14.6	0.0	16.0
		50	50	14.2	14.1	14.0	0.0	15.5	14.7	14.5	14.5	0.0	16.0
		100	0	14.2	14.1	14.0	0.0	15.5	14.7	14.6	14.6	0.0	16.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20825	21100	21375			20825	21100	21375		
				2507.5 MHz	2535 MHz	2562.5 MHz			2507.5 MHz	2535 MHz	2562.5 MHz		
15 MHz	QPSK	1	0	14.3	14.1	14.0	0.0	15.5	14.9	14.7	14.5	0.0	16.0
		1	37	14.5	14.3	14.2	0.0	15.5	15.0	14.8	14.7	0.0	16.0
		1	74	14.1	14.0	13.9	0.0	15.5	14.7	14.5	14.5	0.0	16.0
		36	0	14.3	14.2	14.1	0.0	15.5	14.8	14.7	14.6	0.0	16.0
		36	20	14.3	14.2	14.1	0.0	15.5	14.8	14.7	14.7	0.0	16.0
		36	39	14.3	14.1	14.1	0.0	15.5	14.8	14.7	14.6	0.0	16.0
		75	0	14.3	14.1	14.1	0.0	15.5	14.8	14.7	14.6	0.0	16.0
	16QAM	1	0	14.7	14.6	14.0	0.0	15.5	15.2	15.1	14.6	0.0	16.0
		1	37	14.8	14.7	14.2	0.0	15.5	15.3	15.3	14.7	0.0	16.0
		1	74	14.4	14.4	13.9	0.0	15.5	15.0	15.0	14.4	0.0	16.0
		36	0	14.3	14.1	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		36	20	14.3	14.1	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		36	39	14.3	14.1	14.1	0.0	15.5	14.8	14.6	14.6	0.0	16.0
		75	0	14.3	14.1	14.1	0.0	15.5	14.8	14.6	14.6	0.0	16.0
	64QAM	1	0	14.4	14.7	14.3	0.0	15.5	15.0	15.2	14.9	0.0	16.0
		1	37	14.6	14.6	14.5	0.0	15.5	15.1	15.4	15.1	0.0	16.0
		1	74	14.2	14.6	14.2	0.0	15.5	14.7	15.1	14.8	0.0	16.0
		36	0	14.3	14.1	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		36	20	14.3	14.2	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		36	39	14.3	14.1	14.1	0.0	15.5	14.8	14.6	14.6	0.0	16.0
		75	0	14.3	14.2	14.1	0.0	15.5	14.8	14.7	14.6	0.0	16.0

LTE Band 7 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20800	21100	21400			20800	21100	21400		
				2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz		
10 MHz	QPSK	1	0	14.3	14.1	14.0	0.0	15.5	14.9	14.7	14.6	0.0	16.0
		1	25	14.4	14.2	14.1	0.0	15.5	15.0	14.7	14.7	0.0	16.0
		1	49	14.2	14.0	14.0	0.0	15.5	14.8	14.6	14.5	0.0	16.0
		25	0	14.3	14.2	14.1	0.0	15.5	14.8	14.8	14.7	0.0	16.0
		25	12	14.3	14.1	14.1	0.0	15.5	14.9	14.7	14.6	0.0	16.0
		25	25	14.3	14.1	14.1	0.0	15.5	14.9	14.7	14.6	0.0	16.0
		50	0	14.3	14.1	14.1	0.0	15.5	14.9	14.7	14.6	0.0	16.0
	16QAM	1	0	14.7	14.2	14.0	0.0	15.5	15.3	14.7	14.6	0.0	16.0
		1	25	14.7	14.2	14.1	0.0	15.5	15.3	14.8	14.7	0.0	16.0
		1	49	14.6	14.1	14.0	0.0	15.5	15.1	14.6	14.5	0.0	16.0
		25	0	14.3	14.3	14.1	0.0	15.5	14.9	14.8	14.7	0.0	16.0
		25	12	14.4	14.2	14.1	0.0	15.5	14.9	14.8	14.7	0.0	16.0
		25	25	14.3	14.2	14.1	0.0	15.5	14.9	14.8	14.6	0.0	16.0
		50	0	14.3	14.2	14.1	0.0	15.5	14.9	14.7	14.6	0.0	16.0
	64QAM	1	0	14.5	14.3	14.4	0.0	15.5	15.0	14.9	14.9	0.0	16.0
		1	25	14.5	14.4	14.4	0.0	15.5	15.0	14.9	15.0	0.0	16.0
		1	49	14.3	14.3	14.3	0.0	15.5	14.9	14.8	14.8	0.0	16.0
		25	0	14.3	14.3	14.1	0.0	15.5	14.9	14.8	14.7	0.0	16.0
		25	12	14.4	14.2	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		25	25	14.4	14.2	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		50	0	14.4	14.2	14.1	0.0	15.5	14.9	14.7	14.6	0.0	16.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20775	21100	21425			20775	21100	21425		
				2502.5 MHz	2535 MHz	2567.5 MHz			2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	14.3	14.1	14.0	0.0	15.5	14.9	14.7	14.6	0.0	16.0
		1	12	14.5	14.3	14.3	0.0	15.5	15.1	14.9	14.8	0.0	16.0
		1	24	14.2	14.0	14.0	0.0	15.5	14.8	14.6	14.5	0.0	16.0
		12	0	14.2	14.1	14.1	0.0	15.5	14.8	14.7	14.6	0.0	16.0
		12	7	14.3	14.2	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		12	13	14.3	14.1	14.1	0.0	15.5	14.9	14.7	14.6	0.0	16.0
		25	0	14.3	14.1	14.0	0.0	15.5	14.9	14.7	14.6	0.0	16.0
	16QAM	1	0	14.5	14.5	14.1	0.0	15.5	14.9	14.8	15.0	0.0	16.0
		1	12	14.7	14.8	14.3	0.0	15.5	15.2	15.0	15.3	0.0	16.0
		1	24	14.4	14.5	14.1	0.0	15.5	14.9	14.7	15.0	0.0	16.0
		12	0	14.3	14.2	14.1	0.0	15.5	14.8	14.7	14.7	0.0	16.0
		12	7	14.4	14.3	14.1	0.0	15.5	14.9	14.8	14.8	0.0	16.0
		12	13	14.4	14.3	14.1	0.0	15.5	14.9	14.7	14.7	0.0	16.0
		25	0	14.3	14.2	14.0	0.0	15.5	14.8	14.7	14.7	0.0	16.0
	64QAM	1	0	14.2	14.3	14.2	0.0	15.5	14.7	14.9	14.8	0.0	16.0
		1	12	14.4	14.6	14.4	0.0	15.5	14.9	15.1	15.0	0.0	16.0
		1	24	14.1	14.3	14.2	0.0	15.5	14.7	14.8	14.7	0.0	16.0
		12	0	14.3	14.1	14.1	0.0	15.5	14.8	14.6	14.7	0.0	16.0
		12	7	14.4	14.1	14.1	0.0	15.5	14.9	14.6	14.7	0.0	16.0
		12	13	14.4	14.1	14.1	0.0	15.5	14.9	14.6	14.6	0.0	16.0
		25	0	14.3	14.1	14.0	0.0	15.5	14.8	14.6	14.6	0.0	16.0

LTE Band 25 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Proximity sensor back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590		
				1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	21.9	22.0	21.9	0.0	23.0
		1	49	22.1	22.2	22.1	0.0	23.0
		1	99	21.9	21.8	21.9	0.0	23.0
		50	0	22.0	22.1	22.1	0.0	23.0
		50	24	22.0	22.2	22.1	0.0	23.0
		50	50	22.0	22.1	22.1	0.0	23.0
		100	0	22.0	22.2	22.2	0.0	23.0
	16QAM	1	0	22.5	22.5	22.2	0.0	23.0
		1	49	22.6	22.7	22.5	0.0	23.0
		1	99	22.4	22.3	22.3	0.0	23.0
		50	0	22.1	22.2	22.1	0.0	23.0
		50	24	22.1	22.2	22.1	0.0	23.0
		50	50	22.0	22.1	22.1	0.0	23.0
		100	0	22.0	22.2	22.2	0.0	23.0
	64QAM	1	0	22.3	22.6	22.0	0.0	23.0
		1	49	22.4	22.6	22.4	0.0	23.0
		1	99	22.2	22.4	22.1	0.0	23.0
		50	0	21.1	21.2	21.2	1.0	22.0
		50	24	21.1	21.3	21.2	1.0	22.0
		50	50	21.0	21.2	21.2	1.0	22.0
		100	0	21.1	21.2	21.2	1.0	22.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115	26365	26615		
				1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	QPSK	1	0	22.0	22.1	22.0	0.0	23.0
		1	37	22.1	22.3	22.2	0.0	23.0
		1	74	21.9	21.9	21.9	0.0	23.0
		36	0	22.0	22.2	22.2	0.0	23.0
		36	20	22.0	22.2	22.2	0.0	23.0
		36	39	22.1	22.2	22.2	0.0	23.0
		75	0	22.0	22.2	22.2	0.0	23.0
	16QAM	1	0	22.4	22.5	21.9	0.0	23.0
		1	37	22.5	22.7	22.2	0.0	23.0
		1	74	22.3	22.3	21.9	0.0	23.0
		36	0	22.1	22.1	22.2	0.0	23.0
		36	20	22.1	22.2	22.2	0.0	23.0
		36	39	22.1	22.2	22.2	0.0	23.0
		75	0	22.0	22.2	22.2	0.0	23.0
	64QAM	1	0	22.1	22.6	22.2	0.0	23.0
		1	37	22.3	22.5	22.6	0.0	23.0
		1	74	22.0	22.5	22.2	0.0	23.0
		36	0	21.1	21.1	21.2	1.0	22.0
		36	20	21.1	21.2	21.2	1.0	22.0
		36	39	21.1	21.1	21.2	1.0	22.0
		75	0	21.1	21.2	21.2	1.0	22.0

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26090	26365	26640		
				1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	QPSK	1	0	22.0	22.1	22.0	0.0	23.0
		1	25	22.1	22.2	22.2	0.0	23.0
		1	49	21.9	22.0	22.0	0.0	23.0
		25	0	22.0	22.2	22.1	0.0	23.0
		25	12	22.0	22.2	22.2	0.0	23.0
		25	25	22.0	22.2	22.1	0.0	23.0
		50	0	22.0	22.2	22.2	0.0	23.0
	16QAM	1	0	22.4	22.2	22.0	0.0	23.0
		1	25	22.4	22.3	22.2	0.0	23.0
		1	49	22.3	22.0	22.0	0.0	23.0
		25	0	22.1	22.3	22.2	0.0	23.0
		25	12	22.1	22.3	22.3	0.0	23.0
		25	25	22.0	22.3	22.2	0.0	23.0
		50	0	22.1	22.2	22.2	0.0	23.0
	64QAM	1	0	22.2	22.3	22.4	0.0	23.0
		1	25	22.2	22.4	22.6	0.0	23.0
		1	49	22.1	22.2	22.3	0.0	23.0
		25	0	21.2	21.3	21.2	1.0	22.0
		25	12	21.1	21.3	21.3	1.0	22.0
		25	25	21.1	21.3	21.2	1.0	22.0
		50	0	21.1	21.3	21.3	1.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26065	26365	26665		
				1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	QPSK	1	0	21.9	22.0	22.1	0.0	23.0
		1	12	22.1	22.3	22.4	0.0	23.0
		1	24	21.8	22.0	22.1	0.0	23.0
		12	0	22.0	22.1	22.1	0.0	23.0
		12	7	22.0	22.2	22.2	0.0	23.0
		12	13	22.0	22.1	22.1	0.0	23.0
		25	0	22.0	22.1	22.1	0.0	23.0
	16QAM	1	0	22.5	22.1	22.2	0.0	23.0
		1	12	22.7	22.3	22.4	0.0	23.0
		1	24	22.4	22.1	22.2	0.0	23.0
		12	0	22.1	22.1	22.2	0.0	23.0
		12	7	22.2	22.2	22.2	0.0	23.0
		12	13	22.2	22.2	22.2	0.0	23.0
		25	0	22.1	22.0	22.1	0.0	23.0
	64QAM	1	0	22.3	22.2	22.0	0.0	23.0
		1	12	22.5	22.5	22.2	0.0	23.0
		1	24	22.2	22.2	21.9	0.0	23.0
		12	0	21.0	21.2	21.2	1.0	22.0
		12	7	21.0	21.3	21.2	1.0	22.0
		12	13	21.0	21.2	21.2	1.0	22.0
		25	0	21.0	21.1	21.1	1.0	22.0

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26055	26365	26675		
				1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	21.9	22.0	22.0	0.0	23.0
		1	8	21.9	22.1	22.2	0.0	23.0
		1	14	21.9	22.0	22.1	0.0	23.0
		8	0	22.1	22.2	22.1	0.0	23.0
		8	4	22.2	22.2	22.2	0.0	23.0
		8	7	22.1	22.2	22.2	0.0	23.0
		15	0	22.0	22.1	22.1	0.0	23.0
	16QAM	1	0	22.4	22.1	22.1	0.0	23.0
		1	8	22.5	22.2	22.2	0.0	23.0
		1	14	22.4	22.1	22.1	0.0	23.0
		8	0	22.3	22.4	22.2	0.0	23.0
		8	4	22.3	22.4	22.2	0.0	23.0
		8	7	22.3	22.4	22.2	0.0	23.0
		15	0	21.9	22.3	22.2	0.0	23.0
	64QAM	1	0	22.1	22.2	22.4	0.0	23.0
		1	8	22.3	22.4	22.5	0.0	23.0
		1	14	22.1	22.1	22.3	0.0	23.0
		8	0	21.0	21.1	21.2	1.0	22.0
		8	4	21.1	21.1	21.2	1.0	22.0
		8	7	21.1	21.1	21.2	1.0	22.0
		15	0	21.0	21.1	21.1	1.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26047	26365	26683		
				1850.7 MHz	1882.5 MHz	1914.3 MHz		
1.4 MHz	QPSK	1	0	22.0	22.0	22.0	0.0	23.0
		1	3	22.2	22.1	22.2	0.0	23.0
		1	5	21.9	22.0	22.1	0.0	23.0
		3	0	22.1	22.2	22.1	0.0	23.0
		3	1	22.2	22.2	22.2	0.0	23.0
		3	3	22.1	22.2	22.2	0.0	23.0
		6	0	22.0	22.1	22.1	0.0	23.0
	16QAM	1	0	22.4	22.1	22.1	0.0	23.0
		1	3	22.5	22.2	22.2	0.0	23.0
		1	5	22.4	22.1	22.1	0.0	23.0
		3	0	22.3	22.4	22.2	0.0	23.0
		3	1	22.3	22.4	22.2	0.0	23.0
		3	3	22.3	22.4	22.2	0.0	23.0
		6	0	21.9	22.3	22.2	0.0	23.0
	64QAM	1	0	22.2	22.5	22.2	0.0	23.0
		1	3	22.3	22.6	22.3	0.0	23.0
		1	5	22.2	22.4	22.2	0.0	23.0
		3	0	22.1	22.5	22.3	0.0	23.0
		3	1	22.2	22.5	22.3	0.0	23.0
		3	3	22.1	22.5	22.3	0.0	23.0
		6	0	21.2	21.1	21.4	1.0	22.0

LTE Band 30 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off				Reduced Average Power (dBm) Proximity sensor back-off			
				Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
				[redacted]	27710 2310 MHz			[redacted]	27710 2310 MHz		
10 MHz	QPSK	1	0		17.5	0.0	18.0		17.3	0.0	18.5
		1	25		17.6	0.0	18.0		17.4	0.0	18.5
		1	49		17.4	0.0	18.0		17.2	0.0	18.5
		25	0		17.5	0.0	18.0		17.2	0.0	18.5
		25	12		17.5	0.0	18.0		17.3	0.0	18.5
		25	25		17.5	0.0	18.0		17.2	0.0	18.5
		50	0		17.5	0.0	18.0		17.2	0.0	18.5
	16QAM	1	0		17.6	0.0	18.0		17.6	0.0	18.5
		1	25		17.6	0.0	18.0		17.7	0.0	18.5
		1	49		17.4	0.0	18.0		17.6	0.0	18.5
		25	0		17.6	0.0	18.0		17.3	0.0	18.5
		25	12		17.6	0.0	18.0		17.3	0.0	18.5
		25	25		17.6	0.0	18.0		17.2	0.0	18.5
		50	0		17.5	0.0	18.0		17.2	0.0	18.5
	64QAM	1	0		17.9	0.0	18.0		17.4	0.0	18.5
		1	25		17.9	0.0	18.0		17.5	0.0	18.5
		1	49		17.8	0.0	18.0		17.3	0.0	18.5
		25	0		17.7	0.0	18.0		17.3	0.0	18.5
		25	12		17.7	0.0	18.0		17.4	0.0	18.5
		25	25		17.6	0.0	18.0		17.3	0.0	18.5
		50	0		17.6	0.0	18.0		17.3	0.0	18.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				27685 2307.5 MHz	27710 2310 MHz	27735 2312.5 MHz			27685 2307.5 MHz	27710 2310 MHz	27735 2312.5 MHz		
5 MHz	QPSK	1	0		17.5		0.0	18.0		17.2		0.0	18.5
		1	12		17.8		0.0	18.0		17.4		0.0	18.5
		1	24		17.4		0.0	18.0		17.1		0.0	18.5
		12	0		17.5		0.0	18.0		17.2		0.0	18.5
		12	7		17.6		0.0	18.0		17.3		0.0	18.5
		12	13		17.5		0.0	18.0		17.3		0.0	18.5
		25	0		17.5		0.0	18.0		17.2		0.0	18.5
	16QAM	1	0		17.6		0.0	18.0		17.6		0.0	18.5
		1	12		17.9		0.0	18.0		17.9		0.0	18.5
		1	24		17.5		0.0	18.0		17.6		0.0	18.5
		12	0		17.6		0.0	18.0		17.3		0.0	18.5
		12	7		17.6		0.0	18.0		17.4		0.0	18.5
		12	13		17.6		0.0	18.0		17.4		0.0	18.5
		25	0		17.5		0.0	18.0		17.3		0.0	18.5
	64QAM	1	0		17.5		0.0	18.0		17.4		0.0	18.5
		1	12		17.7		0.0	18.0		17.7		0.0	18.5
		1	24		17.4		0.0	18.0		17.4		0.0	18.5
		12	0		17.6		0.0	18.0		17.1		0.0	18.5
		12	7		17.7		0.0	18.0		17.2		0.0	18.5
		12	13		17.6		0.0	18.0		17.2		0.0	18.5
		25	0		17.6		0.0	18.0		17.2		0.0	18.5

LTE Band 38 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) Proximity sensor back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				37850	38000	38150			37850	38000	38150		
				2580 MHz	2595 MHz	2610 MHz			2580 MHz	2595 MHz	2610 MHz		
20 MHz	QPSK	1	0		20.4		0.0	21.0		15.5		0.0	16.0
		1	49		20.9		0.0	21.0		16.0		0.0	16.0
		1	99		20.2		0.0	21.0		15.4		0.0	16.0
		50	0		20.5		0.0	21.0		15.5		0.0	16.0
		50	24		20.5		0.0	21.0		15.6		0.0	16.0
		50	50		20.4		0.0	21.0		15.5		0.0	16.0
		100	0		20.4		0.0	21.0		15.6		0.0	16.0
	16QAM	1	0		20.5		0.0	21.0		15.6		0.0	16.0
		1	49		20.8		0.0	21.0		15.9		0.0	16.0
		1	99		20.3		0.0	21.0		15.5		0.0	16.0
		50	0		20.6		0.0	21.0		15.6		0.0	16.0
		50	24		20.6		0.0	21.0		15.6		0.0	16.0
		50	50		20.5		0.0	21.0		15.6		0.0	16.0
		100	0		20.5		0.0	21.0		15.6		0.0	16.0
	64QAM	1	0		20.4		0.0	21.0		15.6		0.0	16.0
		1	49		21.0		0.0	21.0		16.0		0.0	16.0
		1	99		20.2		0.0	21.0		15.4		0.0	16.0
		50	0		20.5		0.0	21.0		15.6		0.0	16.0
		50	24		20.6		0.0	21.0		15.6		0.0	16.0
		50	50		20.5		0.0	21.0		15.5		0.0	16.0
		100	0		20.5		0.0	21.0		15.6		0.0	16.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				37825	38000	38175			37825	38000	38175		
				2577.5 MHz	2595 MHz	2612.5 MHz			2577.5 MHz	2595 MHz	2612.5 MHz		
15 MHz	QPSK	1	0	20.3	20.4	20.2	0.0	21.0	15.6	15.5	15.3	0.0	16.0
		1	37	20.4	20.4	20.0	0.0	21.0	15.6	15.5	15.3	0.0	16.0
		1	74	20.4	20.2	19.8	0.0	21.0	15.6	15.4	15.2	0.0	16.0
		36	0	20.4	20.5	20.2	0.0	21.0	15.6	15.6	15.4	0.0	16.0
		36	20	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.4	0.0	16.0
		36	39	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.5	0.0	16.0
		75	0	20.4	20.4	20.1	0.0	21.0	15.6	15.5	15.4	0.0	16.0
	16QAM	1	0	20.3	20.5	20.2	0.0	21.0	15.5	15.6	15.4	0.0	16.0
		1	37	20.3	20.5	20.2	0.0	21.0	15.5	15.6	15.3	0.0	16.0
		1	74	20.4	20.4	20.3	0.0	21.0	15.5	15.5	15.3	0.0	16.0
		36	0	20.4	20.5	20.2	0.0	21.0	15.5	15.6	15.4	0.0	16.0
		36	20	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.4	0.0	16.0
		36	39	20.4	20.5	20.1	0.0	21.0	15.5	15.6	15.4	0.0	16.0
		75	0	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.4	0.0	16.0
	64QAM	1	0	20.6	20.3	19.8	0.0	21.0	15.7	15.4	15.0	0.0	16.0
		1	37	20.7	20.3	19.7	0.0	21.0	15.7	15.4	14.9	0.0	16.0
		1	74	20.6	20.2	19.5	0.0	21.0	15.8	15.3	14.9	0.0	16.0
		36	0	20.5	20.5	20.3	0.0	21.0	15.6	15.6	15.5	0.0	16.0
		36	20	20.5	20.5	20.2	0.0	21.0	15.6	15.5	15.5	0.0	16.0
		36	39	20.5	20.5	20.2	0.0	21.0	15.6	15.6	15.5	0.0	16.0
		75	0	20.4	20.5	20.2	0.0	21.0	15.6	15.6	15.4	0.0	16.0

LTE Band 38 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				37800	38000	38200			37800	38000	38200		
				2575 MHz	2595 MHz	2615 MHz			2575 MHz	2595 MHz	2615 MHz		
10 MHz	QPSK	1	0	20.4	20.4	20.1	0.0	21.0	15.6	15.5	15.3	0.0	16.0
		1	25	20.7	20.7	20.3	0.0	21.0	15.9	15.8	15.6	0.0	16.0
		1	49	20.4	20.3	19.9	0.0	21.0	15.6	15.5	15.3	0.0	16.0
		25	0	20.5	20.6	20.1	0.0	21.0	15.6	15.7	15.5	0.0	16.0
		25	12	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.4	0.0	16.0
		25	25	20.4	20.5	20.0	0.0	21.0	15.6	15.6	15.5	0.0	16.0
		50	0	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.4	0.0	16.0
	16QAM	1	0	20.3	20.6	20.1	0.0	21.0	15.5	15.7	15.4	0.0	16.0
		1	25	20.7	21.0	20.3	0.0	21.0	15.8	15.7	15.7	0.0	16.0
		1	49	20.4	20.5	19.9	0.0	21.0	15.6	15.7	15.3	0.0	16.0
		25	0	20.5	20.6	20.2	0.0	21.0	15.6	15.7	15.5	0.0	16.0
		25	12	20.5	20.6	20.1	0.0	21.0	15.7	15.6	15.4	0.0	16.0
		25	25	20.4	20.6	20.0	0.0	21.0	15.6	15.7	15.5	0.0	16.0
		50	0	20.5	20.6	20.1	0.0	21.0	15.6	15.7	15.5	0.0	16.0
	64QAM	1	0	20.6	20.6	19.7	0.0	21.0	15.8	15.7	15.0	0.0	16.0
		1	25	20.9	20.9	19.9	0.0	21.0	15.6	16.0	15.3	0.0	16.0
		1	49	20.7	20.5	19.5	0.0	21.0	15.8	15.6	14.9	0.0	16.0
		25	0	20.5	20.5	20.3	0.0	21.0	15.6	15.6	15.5	0.0	16.0
		25	12	20.4	20.5	20.2	0.0	21.0	15.6	15.5	15.4	0.0	16.0
		25	25	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.5	0.0	16.0
		50	0	20.4	20.5	20.1	0.0	21.0	15.6	15.6	15.4	0.0	16.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				37775	38000	38225			37775	38000	38225		
				2572.5 MHz	2595 MHz	2617.5 MHz			2572.5 MHz	2595 MHz	2617.5 MHz		
5 MHz	QPSK	1	0	20.2	20.0	19.8	0.0	21.0	15.5	15.4	15.4	0.0	16.0
		1	12	20.2	20.0	19.9	0.0	21.0	15.5	15.4	15.4	0.0	16.0
		1	24	20.2	20.0	19.8	0.0	21.0	15.5	15.4	15.3	0.0	16.0
		12	0	20.3	20.0	20.0	0.0	21.0	15.6	15.5	15.4	0.0	16.0
		12	7	20.2	20.1	20.1	0.0	21.0	15.7	15.7	15.5	0.0	16.0
		12	13	20.0	20.1	20.0	0.0	21.0	15.6	15.7	15.5	0.0	16.0
		25	0	19.9	20.1	20.0	0.0	21.0	15.6	15.6	15.4	0.0	16.0
	16QAM	1	0	19.7	20.0	19.9	0.0	21.0	15.6	15.4	15.3	0.0	16.0
		1	12	19.8	19.9	19.9	0.0	21.0	15.6	15.4	15.3	0.0	16.0
		1	24	19.8	19.9	19.8	0.0	21.0	15.6	15.4	15.2	0.0	16.0
		12	0	19.9	20.0	20.0	0.0	21.0	15.6	15.6	15.3	0.0	16.0
		12	7	20.1	20.1	20.1	0.0	21.0	15.8	15.7	15.5	0.0	16.0
		12	13	20.0	20.1	20.1	0.0	21.0	15.7	15.7	15.4	0.0	16.0
		25	0	20.0	20.6	20.0	0.0	21.0	15.6	15.6	15.4	0.0	16.0
	64QAM	1	0	20.4	20.1	20.4	0.0	21.0	15.6	15.2	15.7	0.0	16.0
		1	12	20.4	20.2	20.4	0.0	21.0	15.7	15.2	15.7	0.0	16.0
		1	24	20.4	20.1	20.3	0.0	21.0	15.6	15.2	15.7	0.0	16.0
		12	0	20.3	20.5	20.1	0.0	21.0	15.5	15.5	15.4	0.0	16.0
		12	7	20.4	20.6	20.2	0.0	21.0	15.6	15.7	15.6	0.0	16.0
		12	13	20.3	20.5	20.1	0.0	21.0	15.6	15.7	15.5	0.0	16.0
		25	0	20.3	20.6	20.0	0.0	21.0	15.5	15.7	15.4	0.0	16.0

LTE Band 41 Power Class 3 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off							Reduced Average Power (dBm) Proximity sensor back-off						
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				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	17.6	17.5	17.6	17.4	17.4	0.0	18.0	17.5	17.5	17.5	17.3	17.3	0.0	18.0
		1	49	17.4	17.4	17.5	17.3	17.3	0.0	18.0	17.4	17.4	17.5	17.2	17.2	0.0	18.0
		1	99	16.9	17.0	17.0	16.8	16.9	0.0	18.0	16.9	16.9	16.9	16.7	16.8	0.0	18.0
		50	0	17.0	17.0	17.2	16.9	16.9	0.0	18.0	17.0	17.0	17.1	16.8	16.9	0.0	18.0
		50	24	17.1	17.0	17.1	17.0	16.9	0.0	18.0	17.1	17.0	17.1	16.9	16.9	0.0	18.0
		50	50	17.0	17.0	17.1	17.0	16.9	0.0	18.0	17.0	17.0	17.1	16.9	16.8	0.0	18.0
		100	0	17.1	17.0	17.1	16.9	16.9	0.0	18.0	17.0	17.0	17.1	16.8	16.9	0.0	18.0
	16QAM	1	0	17.0	16.8	17.2	16.8	16.7	0.0	18.0	17.0	17.0	16.9	16.8	16.8	0.0	18.0
		1	49	17.4	17.3	17.3	17.2	17.1	0.0	18.0	17.4	17.4	17.3	17.2	17.3	0.0	18.0
		1	99	17.0	16.8	17.1	16.7	16.8	0.0	18.0	16.9	17.0	16.8	16.7	16.9	0.0	18.0
		50	0	17.2	17.0	17.2	16.9	17.0	0.0	18.0	17.0	17.1	17.2	16.9	17.0	0.0	18.0
		50	24	17.2	17.1	17.2	17.0	17.0	0.0	18.0	17.1	17.1	17.1	16.9	17.0	0.0	18.0
		50	50	17.1	17.0	17.2	16.9	16.9	0.0	18.0	17.0	17.0	17.1	16.9	16.9	0.0	18.0
		100	0	17.1	17.1	17.2	16.9	16.9	0.0	18.0	17.0	17.0	17.1	16.9	16.9	0.0	18.0
	64QAM	1	0	17.5	16.9	17.0	17.2	16.8	0.0	18.0	17.1	17.2	16.9	16.8	17.0	0.0	18.0
		1	49	17.5	17.4	17.4	16.9	17.3	0.0	18.0	17.4	17.5	17.3	17.1	17.5	0.0	18.0
		1	99	17.3	17.0	16.9	17.1	16.9	0.0	18.0	16.9	17.2	16.8	16.7	17.1	0.0	18.0
		50	0	17.1	17.1	17.2	16.9	16.9	0.0	18.0	17.0	17.0	17.1	16.8	16.8	0.0	18.0
		50	24	17.1	17.1	17.2	17.0	17.0	0.0	18.0	17.1	17.0	17.1	16.8	16.8	0.0	18.0
		50	50	17.1	17.0	17.1	16.9	16.9	0.0	18.0	17.0	16.9	17.0	16.8	16.8	0.0	18.0
		100	0	17.1	17.1	17.1	16.9	16.9	0.0	18.0	17.0	16.9	17.0	16.8	16.8	0.0	18.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	17.1	16.9	17.2	16.8	16.7	0.0	18.0	17.0	16.9	17.2	16.8	16.8	0.0	18.0
		1	37	17.0	16.8	17.1	16.8	16.7	0.0	18.0	17.0	16.9	17.1	16.7	16.8	0.0	18.0
		1	74	16.9	16.9	17.1	16.8	16.8	0.0	18.0	16.9	17.0	17.1	16.8	16.9	0.0	18.0
		36	0	17.0	17.0	17.1	16.9	16.9	0.0	18.0	17.0	17.0	17.1	16.9	16.9	0.0	18.0
		36	20	17.1	17.0	17.1	16.9	16.9	0.0	18.0	17.1	17.0	17.1	16.9	16.9	0.0	18.0
		36	39	17.1	17.0	17.1	17.0	17.0	0.0	18.0	17.1	17.0	17.1	17.0	16.9	0.0	18.0
		75	0	17.1	17.0	17.1	16.9	16.9	0.0	18.0	17.1	17.0	17.1	16.9	16.9	0.0	18.0
	16QAM	1	0	17.2	16.9	17.1	16.9	16.7	0.0	18.0	17.1	17.0	17.1	16.8	16.8	0.0	18.0
		1	37	17.1	16.9	17.0	16.9	16.8	0.0	18.0	17.0	16.9	17.0	16.8	16.9	0.0	18.0
		1	74	17.0	17.0	17.0	16.9	16.8	0.0	18.0	16.9	17.0	17.0	16.8	16.9	0.0	18.0
		36	0	17.1	17.0	17.1	16.9	16.9	0.0	18.0	17.0	17.0	17.1	16.9	16.9	0.0	18.0
		36	20	17.1	17.0	17.1	16.9	16.9	0.0	18.0	17.1	17.0	17.1	16.9	16.9	0.0	18.0
		36	39	17.1	17.0	17.1	17.0	16.9	0.0	18.0	17.1	17.0	17.1	16.9	16.9	0.0	18.0
		75	0	17.1	17.0	17.1	17.0	16.9	0.0	18.0	17.0	17.0	17.1	16.9	16.9	0.0	18.0
	64QAM	1	0	16.7	16.8	17.4	16.4	16.6	0.0	18.0	16.9	16.4	17.2	16.6	16.2	0.0	18.0
		1	37	16.6	16.8	17.3	16.4	16.6	0.0	18.0	16.8	16.4	17.2	16.5	16.3	0.0	18.0
		1	74	16.5	16.8	17.3	16.4	16.7	0.0	18.0	16.7	16.5	17.1	16.5	16.3	0.0	18.0
		36	0	17.1	17.0	17.2	17.0	16.9	0.0	18.0	17.0	17.0	17.1	16.7	16.9	0.0	18.0
		36	20	17.1	17.0	17.2	17.0	16.9	0.0	18.0	17.0	17.0	17.0	16.7	16.8	0.0	18.0
		36	39	17.1	17.0	17.2	17.0	16.9	0.0	18.0	17.0	17.0	17.1	16.8	16.8	0.0	18.0
		75	0	17.1	17.0	17.1	16.9	16.9	0.0	18.0	17.0	16.9	17.0	16.8	16.7	0.0	18.0

LTE Band 41 Power Class 3 Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	17.1	17.0	17.2	16.8	16.8	0.0	18.0	17.1	17.0	17.2	16.8	16.8	0.0	18.0
		1	25	17.2	17.2	17.5	17.1	17.1	0.0	18.0	17.3	17.2	17.2	17.2	17.1	0.0	18.0
		1	49	17.0	17.0	17.2	16.8	16.9	0.0	18.0	17.0	17.0	17.2	16.8	16.8	0.0	18.0
		25	0	17.2	17.1	17.2	17.0	16.9	0.0	18.0	17.2	17.1	17.2	17.0	17.0	0.0	18.0
		25	12	17.1	17.1	17.2	16.9	16.9	0.0	18.0	17.1	17.1	17.2	16.9	16.9	0.0	18.0
		25	25	17.2	17.1	17.2	17.0	16.9	0.0	18.0	17.1	17.1	17.2	17.0	16.9	0.0	18.0
		50	0	17.1	17.0	17.1	17.0	16.9	0.0	18.0	17.1	17.1	17.2	17.0	16.9	0.0	18.0
	16QAM	1	0	17.3	17.0	17.1	17.1	16.8	0.0	18.0	17.1	17.2	17.1	16.9	17.0	0.0	18.0
		1	25	17.5	17.3	17.4	17.3	17.1	0.0	18.0	17.3	17.4	17.4	17.2	17.3	0.0	18.0
		1	49	17.2	17.0	17.1	17.0	16.9	0.0	18.0	17.0	17.2	17.1	16.8	17.1	0.0	18.0
		25	0	17.2	17.1	17.2	17.0	17.0	0.0	18.0	17.2	17.1	17.3	17.0	17.0	0.0	18.0
		25	12	17.2	17.1	17.2	17.0	16.9	0.0	18.0	17.2	17.1	17.2	17.0	17.0	0.0	18.0
		25	25	17.2	17.1	17.2	17.0	16.9	0.0	18.0	17.2	17.1	17.2	17.0	17.0	0.0	18.0
		50	0	17.2	17.1	17.2	17.0	17.0	0.0	18.0	17.2	17.1	17.2	17.0	17.0	0.0	18.0
	64QAM	1	0	16.7	17.1	17.4	16.5	16.9	0.0	18.0	17.1	16.5	17.3	16.8	16.3	0.0	18.0
		1	25	16.9	17.4	16.8	16.8	17.2	0.0	18.0	17.3	16.8	16.8	17.1	16.6	0.0	18.0
		1	49	16.6	17.1	17.3	16.5	17.0	0.0	18.0	17.0	16.5	17.2	16.8	16.4	0.0	18.0
		25	0	17.2	17.1	17.2	17.0	16.9	0.0	18.0	17.0	17.0	17.1	16.8	16.9	0.0	18.0
		25	12	17.2	17.0	17.2	17.0	16.9	0.0	18.0	17.0	17.0	17.0	16.7	16.9	0.0	18.0
		25	25	17.2	17.0	17.2	17.0	16.9	0.0	18.0	17.1	17.0	17.0	16.8	16.9	0.0	18.0
		50	0	17.1	17.0	17.1	17.0	16.9	0.0	18.0	17.0	17.0	17.0	16.8	16.8	0.0	18.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				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	16.9	17.0	17.1	16.8	16.8	0.0	18.0	17.1	16.9	17.0	16.9	16.7	0.0	18.0
		1	12	16.9	17.0	17.1	16.8	16.8	0.0	18.0	17.1	16.9	17.0	16.9	16.7	0.0	18.0
		1	24	16.9	17.0	17.0	16.7	16.9	0.0	18.0	17.0	16.9	17.0	16.9	16.7	0.0	18.0
		12	0	17.0	17.0	17.2	16.9	16.9	0.0	18.0	17.1	17.0	17.2	16.9	16.9	0.0	18.0
		12	7	17.1	17.1	17.3	17.0	17.0	0.0	18.0	17.2	17.1	17.3	17.0	17.0	0.0	18.0
		12	13	17.1	17.1	17.2	17.0	16.9	0.0	18.0	17.2	17.0	17.2	17.0	16.9	0.0	18.0
		25	0	17.0	17.0	17.2	16.9	16.9	0.0	18.0	17.1	17.1	17.2	16.9	16.9	0.0	18.0
	16QAM	1	0	16.9	16.9	17.2	16.7	16.7	0.0	18.0	17.0	16.8	17.2	16.8	16.7	0.0	18.0
		1	12	16.9	16.9	17.2	16.8	16.8	0.0	18.0	17.0	16.8	17.2	16.8	16.7	0.0	18.0
		1	24	16.9	16.9	17.2	16.7	16.8	0.0	18.0	17.0	16.9	17.1	16.8	16.7	0.0	18.0
		12	0	17.0	17.0	17.2	16.9	16.8	0.0	18.0	17.0	17.0	17.2	16.9	16.9	0.0	18.0
		12	7	17.2	17.1	17.3	17.0	16.9	0.0	18.0	17.1	17.2	17.3	17.0	17.0	0.0	18.0
		12	13	17.1	17.0	17.3	16.9	16.9	0.0	18.0	17.1	17.1	17.3	17.0	17.0	0.0	18.0
		25	0	17.1	17.1	17.3	16.9	16.9	0.0	18.0	17.1	17.1	17.2	17.0	16.9	0.0	18.0
	64QAM	1	0	17.4	16.6	17.3	17.3	16.4	0.0	18.0	16.6	17.2	17.1	16.4	17.0	0.0	18.0
		1	12	17.4	16.7	17.3	17.3	16.5	0.0	18.0	16.6	17.2	17.1	16.4	17.1	0.0	18.0
		1	24	17.3	16.7	17.2	17.2	16.5	0.0	18.0	16.6	17.2	17.1	16.4	17.1	0.0	18.0
		12	0	17.1	17.0	17.1	17.0	16.9	0.0	18.0	16.9	17.0	17.0	16.7	16.8	0.0	18.0
		12	7	17.2	17.1	17.2	17.1	16.9	0.0	18.0	17.1	17.1	17.1	16.8	17.0	0.0	18.0
		12	13	17.2	17.0	17.1	17.0	16.9	0.0	18.0	17.0	17.0	17.0	16.8	16.9	0.0	18.0
		25	0	17.1	17.1	17.1	16.9	16.9	0.0	18.0	17.0	16.9	17.0	16.8	16.8	0.0	18.0

LTE Band 41 Power Class 2 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off							Reduced Average Power (dBm) Proximity sensor back-off						
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				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	19.8	19.8	19.9	19.5	19.5	0.0	21.0	19.9	19.8	19.9	19.6	19.5	0.0	21.0
		1	49	20.1	19.9	20.1	19.7	19.7	0.0	21.0	20.1	20.0	20.1	19.8	19.7	0.0	21.0
		1	99	19.9	19.7	19.7	19.5	19.4	0.0	21.0	19.9	19.7	19.7	19.5	19.5	0.0	21.0
		50	0	19.8	19.9	20.0	19.5	19.7	0.0	21.0	19.8	19.9	20.0	19.5	19.7	0.0	21.0
		50	24	20.0	19.9	20.0	19.6	19.6	0.0	21.0	20.0	19.9	20.0	19.7	19.7	0.0	21.0
		50	50	20.0	19.8	19.9	19.6	19.5	0.0	21.0	20.0	19.8	19.9	19.6	19.6	0.0	21.0
		100	0	19.9	19.9	19.9	19.6	19.6	0.0	21.0	19.9	19.9	20.0	19.6	19.6	0.0	21.0
	16QAM	1	0	20.2	20.2	20.1	19.9	19.9	0.0	21.0	20.2	20.3	20.1	19.9	19.9	0.0	21.0
		1	49	20.6	20.3	20.4	20.2	20.1	0.0	21.0	20.6	20.3	20.4	20.2	20.1	0.0	21.0
		1	99	20.3	20.0	19.9	19.9	19.8	0.0	21.0	20.3	20.1	19.9	20.0	19.8	0.0	21.0
		50	0	19.9	20.0	20.1	19.6	19.7	0.0	21.0	20.0	20.0	20.1	19.7	19.7	0.0	21.0
		50	24	20.1	19.9	20.0	19.7	19.7	0.0	21.0	20.1	19.9	20.1	19.7	19.7	0.0	21.0
		50	50	20.1	19.8	19.9	19.7	19.6	0.0	21.0	20.1	19.8	20.0	19.7	19.6	0.0	21.0
		100	0	20.0	19.9	20.0	19.6	19.7	0.0	21.0	20.0	19.9	20.0	19.7	19.7	0.0	21.0
	64QAM	1	0	20.4	20.3	20.0	20.1	20.0	0.0	21.0	20.4	20.3	20.0	20.0	20.0	0.0	21.0
		1	49	20.4	20.5	20.3	20.3	20.2	0.0	21.0	20.7	20.5	20.3	20.3	20.2	0.0	21.0
		1	99	20.4	20.2	19.9	20.1	19.9	0.0	21.0	20.4	20.2	19.9	20.1	19.9	0.0	21.0
		50	0	19.9	20.0	20.1	19.6	19.8	0.0	21.0	19.9	20.0	20.1	19.6	19.8	0.0	21.0
		50	24	20.1	20.0	20.0	19.7	19.8	0.0	21.0	20.1	20.0	20.1	19.7	19.7	0.0	21.0
		50	50	20.1	19.9	20.0	19.7	19.6	0.0	21.0	20.1	19.9	20.0	19.7	19.6	0.0	21.0
		100	0	20.0	20.0	20.0	19.6	19.7	0.0	21.0	20.0	20.0	20.0	19.6	19.7	0.0	21.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	19.9	19.8	20.0	19.5	19.5	0.0	21.0	19.9	19.8	20.0	19.5	19.5	0.0	21.0
		1	37	20.2	20.0	20.3	19.8	19.8	0.0	21.0	20.2	20.0	20.3	19.9	19.8	0.0	21.0
		1	74	19.9	19.6	19.9	19.5	19.4	0.0	21.0	19.9	19.6	19.9	19.5	19.5	0.0	21.0
		36	0	19.9	19.9	20.0	19.6	19.7	0.0	21.0	19.9	19.9	20.0	19.6	19.7	0.0	21.0
		36	20	20.0	19.9	19.9	19.6	19.6	0.0	21.0	20.0	19.9	20.0	19.6	19.7	0.0	21.0
		36	39	20.0	19.8	19.9	19.6	19.6	0.0	21.0	20.1	19.9	19.9	19.6	19.6	0.0	21.0
		75	0	20.0	19.8	19.9	19.6	19.6	0.0	21.0	20.0	19.9	20.0	19.6	19.6	0.0	21.0
	16QAM	1	0	20.3	20.2	20.5	19.9	19.9	0.0	21.0	20.3	20.2	20.5	19.9	19.9	0.0	21.0
		1	37	20.6	20.4	20.5	20.2	20.2	0.0	21.0	20.6	20.5	20.8	20.2	20.2	0.0	21.0
		1	74	20.3	20.0	20.3	19.9	19.8	0.0	21.0	20.3	20.1	20.3	19.9	19.8	0.0	21.0
		36	0	20.0	19.9	20.0	19.6	19.7	0.0	21.0	20.0	19.9	20.0	19.6	19.7	0.0	21.0
		36	20	20.1	19.9	20.0	19.6	19.6	0.0	21.0	20.1	19.9	20.0	19.7	19.7	0.0	21.0
		36	39	20.0	19.8	19.9	19.7	19.6	0.0	21.0	20.1	19.9	19.9	19.7	19.6	0.0	21.0
		75	0	20.0	19.9	20.0	19.6	19.6	0.0	21.0	20.0	19.9	20.0	19.6	19.7	0.0	21.0
	64QAM	1	0	19.8	20.1	20.5	19.4	19.7	0.0	21.0	19.8	20.1	20.5	19.5	19.7	0.0	21.0
		1	37	20.1	20.3	20.4	19.7	20.0	0.0	21.0	20.1	20.3	20.8	19.7	20.0	0.0	21.0
		1	74	19.8	19.9	20.4	19.4	19.6	0.0	21.0	19.8	19.9	20.4	19.5	19.7	0.0	21.0
		36	0	20.0	19.9	20.1	19.7	19.7	0.0	21.0	20.0	19.9	20.1	19.7	19.7	0.0	21.0
		36	20	20.1	19.9	20.0	19.7	19.6	0.0	21.0	20.1	19.9	20.1	19.7	19.6	0.0	21.0
		36	39	20.1	19.8	20.0	19.7	19.6	0.0	21.0	20.1	19.8	20.0	19.7	19.6	0.0	21.0
		75	0	20.0	19.9	20.0	19.6	19.7	0.0	21.0	20.0	19.9	20.0	19.6	19.7	0.0	21.0

LTE Band 41 Power Class 2 Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	19.9	19.9	20.0	19.5	19.5	0.0	21.0	20.0	19.9	20.1	19.5	19.5	0.0	21.0
		1	25	20.0	19.9	20.1	19.6	19.6	0.0	21.0	20.0	19.9	20.1	19.6	19.6	0.0	21.0
		1	49	20.0	19.8	19.9	19.5	19.5	0.0	21.0	20.0	19.8	20.0	19.6	19.6	0.0	21.0
		25	0	20.0	19.9	20.0	19.6	19.7	0.0	21.0	20.0	20.0	20.0	19.6	19.7	0.0	21.0
		25	12	20.1	19.9	19.9	19.6	19.6	0.0	21.0	20.1	19.9	20.0	19.6	19.6	0.0	21.0
		25	25	20.1	19.9	19.9	19.7	19.6	0.0	21.0	20.1	19.9	20.0	19.7	19.6	0.0	21.0
		50	0	20.0	19.9	19.9	19.6	19.6	0.0	21.0	20.0	19.9	20.0	19.6	19.6	0.0	21.0
	16QAM	1	0	20.5	20.3	20.5	20.0	19.9	0.0	21.0	20.5	20.3	20.5	20.1	20.0	0.0	21.0
		1	25	20.5	20.2	20.5	20.1	20.0	0.0	21.0	20.5	20.3	20.6	20.1	20.0	0.0	21.0
		1	49	20.5	20.1	20.4	20.0	19.9	0.0	21.0	20.5	20.2	20.4	20.1	19.9	0.0	21.0
		25	0	20.1	20.0	20.1	19.7	19.8	0.0	21.0	20.1	20.1	20.1	19.7	19.8	0.0	21.0
		25	12	20.1	20.0	20.0	19.7	19.7	0.0	21.0	20.2	20.0	20.1	19.7	19.7	0.0	21.0
		25	25	20.2	19.9	20.0	19.7	19.7	0.0	21.0	20.2	20.0	20.0	19.7	19.7	0.0	21.0
		50	0	20.1	20.0	20.0	19.7	19.7	0.0	21.0	20.1	20.0	20.0	19.7	19.7	0.0	21.0
	64QAM	1	0	19.9	20.3	20.6	19.5	19.9	0.0	21.0	19.9	20.3	20.6	19.6	19.9	0.0	21.0
		1	25	19.9	20.2	20.4	19.5	20.0	0.0	21.0	20.0	20.3	20.6	19.6	20.0	0.0	21.0
		1	49	19.9	20.1	20.5	19.5	19.9	0.0	21.0	19.9	20.2	20.5	19.5	19.9	0.0	21.0
		25	0	20.1	20.0	20.0	19.7	19.7	0.0	21.0	20.1	20.0	20.0	19.7	19.7	0.0	21.0
		25	12	20.1	19.9	20.0	19.7	19.6	0.0	21.0	20.1	19.9	20.0	19.7	19.7	0.0	21.0
		25	25	20.2	19.9	20.0	19.8	19.6	0.0	21.0	20.2	19.9	20.0	19.8	19.6	0.0	21.0
		50	0	20.1	19.9	20.0	19.7	19.7	0.0	21.0	20.1	19.9	20.0	19.7	19.7	0.0	21.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				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	19.9	19.8	19.9	19.5	19.5	0.0	21.0	19.9	19.8	19.8	19.5	19.5	0.0	21.0
		1	12	20.2	20.1	20.2	19.8	19.8	0.0	21.0	20.2	20.1	20.2	19.8	19.9	0.0	21.0
		1	24	19.9	19.7	19.8	19.5	19.4	0.0	21.0	19.9	19.8	19.8	19.6	19.5	0.0	21.0
		12	0	20.0	19.9	20.0	19.6	19.7	0.0	21.0	20.0	19.9	20.0	19.6	19.7	0.0	21.0
		12	7	20.1	19.9	20.0	19.7	19.7	0.0	21.0	20.0	20.0	20.0	19.6	19.7	0.0	21.0
		12	13	20.1	19.9	20.0	19.7	19.7	0.0	21.0	20.1	19.9	20.0	19.7	19.7	0.0	21.0
		25	0	20.0	19.9	20.0	19.6	19.6	0.0	21.0	20.0	19.9	20.0	19.6	19.7	0.0	21.0
	16QAM	1	0	20.4	20.1	20.2	20.0	19.8	0.0	21.0	20.2	20.2	20.4	19.8	19.9	0.0	21.0
		1	12	20.4	20.4	20.6	20.3	20.1	0.0	21.0	20.5	20.5	20.7	20.1	20.2	0.0	21.0
		1	24	20.4	20.1	20.2	20.0	19.8	0.0	21.0	20.2	20.1	20.3	19.8	19.9	0.0	21.0
		12	0	20.0	20.0	20.0	19.7	19.7	0.0	21.0	20.0	20.0	20.1	19.7	19.7	0.0	21.0
		12	7	20.1	20.0	20.0	19.8	19.8	0.0	21.0	20.1	20.0	20.1	19.7	19.7	0.0	21.0
		12	13	20.2	20.0	20.0	19.8	19.8	0.0	21.0	20.2	20.0	20.1	19.8	19.7	0.0	21.0
		25	0	20.1	20.0	20.1	19.7	19.7	0.0	21.0	20.1	20.0	20.1	19.7	19.7	0.0	21.0
	64QAM	1	0	20.6	20.0	20.2	20.1	19.7	0.0	21.0	20.6	20.0	20.2	20.1	19.7	0.0	21.0
		1	12	20.5	20.3	20.6	20.5	20.0	0.0	21.0	20.9	20.3	20.6	20.5	20.0	0.0	21.0
		1	24	20.6	19.9	20.2	20.2	19.6	0.0	21.0	20.6	19.9	20.2	20.1	19.7	0.0	21.0
		12	0	20.1	20.0	20.0	19.7	19.7	0.0	21.0	20.1	20.0	19.9	19.7	19.7	0.0	21.0
		12	7	20.2	20.0	20.0	19.7	19.7	0.0	21.0	20.2	20.0	20.0	19.8	19.7	0.0	21.0
		12	13	20.2	20.0	20.0	19.8	19.7	0.0	21.0	20.2	20.0	20.0	19.8	19.7	0.0	21.0
		25	0	20.0	20.0	19.9	19.6	19.7	0.0	21.0	20.1	20.0	19.9	19.6	19.8	0.0	21.0

LTE Band 66 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) Proximity sensor back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572			132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	22.8	22.3	22.3	0.0	24	22.0	21.1	21.1	0.0	23
		1	49	22.8	22.4	22.7	0.0	24	21.7	21.1	21.4	0.0	23
		1	99	22.3	22.3	22.6	0.0	24	21.0	20.9	21.2	0.0	23
		50	0	22.9	22.3	22.5	0.0	24	21.7	21.1	21.2	0.0	23
		50	24	22.8	22.4	22.7	0.0	24	21.5	21.1	21.4	0.0	23
		50	50	22.7	22.2	22.6	0.0	24	21.3	20.9	21.2	0.0	23
		100	0	22.9	22.4	22.6	0.0	24	21.6	21.0	21.2	0.0	23
	16QAM	1	0	23.2	22.8	22.9	0.0	24	22.0	21.4	21.6	0.0	23
		1	49	23.3	22.9	23.2	0.0	24	22.0	21.6	22.0	0.0	23
		1	99	22.9	22.7	23.1	0.0	24	21.6	21.4	21.8	0.0	23
		50	0	22.1	21.4	21.5	1.0	23	21.7	21.0	21.3	0.0	23
		50	24	21.9	21.5	21.8	1.0	23	21.5	21.1	21.4	0.0	23
		50	50	21.8	21.3	21.6	1.0	23	21.4	21.0	21.3	0.0	23
		100	0	22.0	21.4	21.6	1.0	23	21.6	21.0	21.3	0.0	23
	64QAM	1	0	22.7	22.2	21.9	1.0	23	21.9	21.2	21.8	0.0	23
		1	49	22.3	21.9	22.2	1.0	23	21.9	21.4	22.1	0.0	23
		1	99	21.9	21.7	22.0	1.0	23	21.4	21.2	21.9	0.0	23
		50	0	21.2	20.5	20.7	2.0	22	20.8	20.0	20.3	1.0	22
		50	24	21.0	20.6	20.9	2.0	22	20.6	20.2	20.5	1.0	22
		50	50	20.8	20.4	20.8	2.0	22	20.4	20.1	20.3	1.0	22
		100	0	21.0	20.5	20.7	2.0	22	20.7	20.4	20.3	1.0	22
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597			132047	132322	132597		
				1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	QPSK	1	0	22.8	22.3	22.6	0.0	24	21.6	20.9	21.3	0.0	23
		1	37	23.0	22.4	22.8	0.0	24	21.7	21.1	21.6	0.0	23
		1	74	22.6	22.3	22.6	0.0	24	21.3	20.9	21.4	0.0	23
		36	0	23.0	22.3	22.7	0.0	24	21.7	21.0	21.4	0.0	23
		36	20	23.0	22.3	22.8	0.0	24	21.6	21.1	21.4	0.0	23
		36	39	22.8	22.3	22.7	0.0	24	21.4	21.0	21.4	0.0	23
		75	0	22.9	22.3	22.7	0.0	24	21.5	21.0	21.4	0.0	23
	16QAM	1	0	23.2	22.8	23.1	0.0	24	22.1	21.0	21.7	0.0	23
		1	37	23.2	22.9	23.3	0.0	24	22.1	21.2	21.9	0.0	23
		1	74	22.9	22.7	23.1	0.0	24	21.8	21.0	21.8	0.0	23
		36	0	21.9	21.4	21.7	1.0	23	21.7	21.0	21.4	0.0	23
		36	20	21.8	21.4	21.7	1.0	23	21.6	21.1	21.5	0.0	23
		36	39	21.7	21.3	21.7	1.0	23	21.4	21.0	21.5	0.0	23
		75	0	21.8	21.4	21.7	1.0	23	21.5	21.0	21.5	0.0	23
	64QAM	1	0	22.1	21.7	21.9	1.0	23	21.9	21.6	21.6	0.0	23
		1	37	22.2	21.8	22.2	1.0	23	22.0	21.8	21.7	0.0	23
		1	74	21.9	21.7	21.9	1.0	23	21.5	21.6	21.5	0.0	23
		36	0	21.0	20.4	20.8	2.0	22	20.7	20.0	20.5	1.0	22
		36	20	21.0	20.5	20.9	2.0	22	20.6	20.3	20.5	1.0	22
		36	39	20.8	20.4	20.8	2.0	22	20.5	20.4	20.4	1.0	22
		75	0	20.9	20.4	20.8	2.0	22	20.5	20.4	20.4	1.0	22

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622			132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	22.8	22.3	22.6	0.0	24	21.7	21.0	21.3	0.0	23
		1	25	22.9	22.4	22.8	0.0	24	21.7	21.1	21.5	0.0	23
		1	49	22.7	22.3	22.7	0.0	24	21.4	21.0	21.4	0.0	23
		25	0	22.9	22.3	22.8	0.0	24	21.7	21.1	21.5	0.0	23
		25	12	22.9	22.4	22.8	0.0	24	21.6	21.1	21.5	0.0	23
		25	25	22.7	22.3	22.7	0.0	24	21.5	21.1	21.4	0.0	23
		50	0	22.8	22.4	22.8	0.0	24	21.6	21.1	21.5	0.0	23
	16QAM	1	0	22.9	22.4	22.7	0.0	24	22.0	21.1	21.4	0.0	23
		1	25	22.9	22.4	22.9	0.0	24	22.1	21.2	21.5	0.0	23
		1	49	22.7	22.4	22.7	0.0	24	21.8	21.1	21.4	0.0	23
		25	0	22.0	21.5	21.9	1.0	23	21.7	21.2	21.6	0.0	23
		25	12	22.0	21.5	21.9	1.0	23	21.7	21.2	21.6	0.0	23
		25	25	21.8	21.5	21.9	1.0	23	21.6	21.2	21.5	0.0	23
		50	0	21.8	21.5	21.8	1.0	23	21.6	21.2	21.5	0.0	23
	64QAM	1	0	22.1	21.7	22.0	1.0	23	22.0	21.2	21.8	0.0	23
		1	25	22.2	21.8	22.1	1.0	23	22.0	21.3	21.7	0.0	23
		1	49	22.0	21.7	22.0	1.0	23	21.7	21.2	21.6	0.0	23
		25	0	21.0	20.5	21.0	2.0	22	20.8	20.2	20.6	1.0	22
		25	12	21.0	20.5	20.9	2.0	22	20.7	20.4	20.6	1.0	22
		25	25	20.9	20.5	20.9	2.0	22	20.5	20.4	20.6	1.0	22
		50	0	20.9	20.5	20.9	2.0	22	20.6	20.4	20.6	1.0	22

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131997	132322	132647			131997	132322	132647		
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	22.9	22.8	22.6	0.0	24	21.5	21.0	21.4	0.0	23
		1	12	23.2	22.8	22.9	0.0	24	21.7	21.2	21.6	0.0	23
		1	24	22.8	22.3	22.7	0.0	24	21.5	21.0	21.4	0.0	23
		12	0	22.9	22.3	22.8	0.0	24	21.6	21.0	21.5	0.0	23
		12	7	23.0	22.4	22.9	0.0	24	21.7	21.1	21.5	0.0	23
		12	13	22.9	22.4	22.8	0.0	24	21.7	21.1	21.5	0.0	23
		25	0	22.9	22.3	22.8	0.0	24	21.6	21.0	21.4	0.0	23
	16QAM	1	0	23.0	22.4	22.8	0.0	24	22.1	21.1	21.5	0.0	23
		1	12	23.2	22.6	23.1	0.0	24	22.3	21.4	21.8	0.0	23
		1	24	22.9	22.3	22.8	0.0	24	21.9	21.1	21.6	0.0	23
		12	0	22.0	21.4	21.9	1.0	23	21.7	21.1	21.6	0.0	23
		12	7	22.0	21.5	21.9	1.0	23	21.8	21.2	21.6	0.0	23
		12	13	22.0	21.5	21.9	1.0	23	21.8	21.1	21.6	0.0	23
		25	0	21.9	21.4	21.8	1.0	23	21.7	21.0	21.5	0.0	23
	64QAM	1	0	22.3	21.7	21.6	1.0	23	21.6	21.3	22.1	0.0	23
		1	12	22.5	22.0	22.0	1.0	23	21.7	21.5	22.1	0.0	23
		1	24	21.8	21.3	21.7	1.0	23	21.4	21.2	21.7	0.0	23
		12	0	21.0	20.4	21.0	2.0	22	20.7	20.4	20.4	1.0	22
		12	7	21.1	20.5	21.0	2.0	22	20.7	20.6	20.5	1.0	22
		12	13	21.0	20.5	20.9	2.0	22	20.7	20.6	20.5	1.0	22
		25	0	20.9	20.4	20.9	2.0	22	20.6	20.6	20.5	1.0	22

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987	132322	132657			131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	22.9	22.3	22.8	0.0	24	21.7	21.0	21.3	0.0	23
		1	8	23.0	22.4	22.9	0.0	24	21.8	21.1	21.5	0.0	23
		1	14	22.8	22.3	22.8	0.0	24	21.6	21.0	21.4	0.0	23
		8	0	22.9	22.3	22.8	0.0	24	21.6	21.0	21.4	0.0	23
		8	4	23.0	22.4	22.8	0.0	24	21.6	21.1	21.5	0.0	23
		8	7	22.9	22.4	22.9	0.0	24	21.6	21.1	21.5	0.0	23
		15	0	22.9	22.4	22.8	0.0	24	21.6	21.1	21.5	0.0	23
	16QAM	1	0	23.0	22.4	22.9	0.0	24	22.1	21.1	21.4	0.0	23
		1	8	23.1	22.5	23.0	0.0	24	22.2	21.3	21.6	0.0	23
		1	14	22.8	22.3	22.8	0.0	24	22.0	21.1	21.4	0.0	23
		8	0	22.0	21.5	21.9	1.0	23	21.7	21.1	21.6	0.0	23
		8	4	22.0	21.5	22.0	1.0	23	21.8	21.1	21.6	0.0	23
		8	7	22.0	21.5	21.9	1.0	23	21.8	21.2	21.7	0.0	23
		15	0	21.9	21.4	21.8	1.0	23	21.7	21.0	21.5	0.0	23
	64QAM	1	0	22.2	21.7	22.1	1.0	23	22.3	21.5	22.1	0.0	23
		1	8	22.3	21.9	22.3	1.0	23	22.1	21.6	21.8	0.0	23
		1	14	22.2	21.7	22.2	1.0	23	21.9	21.3	21.7	0.0	23
		8	0	21.1	20.5	21.0	2.0	22	20.7	20.5	20.6	1.0	22
		8	4	21.1	20.6	21.0	2.0	22	20.8	20.5	20.6	1.0	22
		8	7	21.1	20.5	21.0	2.0	22	20.7	20.6	20.6	1.0	22
		15	0	21.0	20.5	20.9	2.0	22	20.7	20.6	20.6	1.0	22
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131979	132322	132665			131979	132322	132665		
				1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz		
1.4 MHz	QPSK	1	0	22.8	22.2	22.7	0.0	24	22.0	21.2	21.5	0.0	23
		1	3	23.0	22.3	22.8	0.0	24	22.1	21.5	21.5	0.0	23
		1	5	22.8	22.2	22.7	0.0	24	22.0	21.4	21.4	0.0	23
		3	0	23.0	22.3	22.8	0.0	24	22.1	21.6	21.5	0.0	23
		3	1	23.0	22.4	22.9	0.0	24	22.1	21.6	21.5	0.0	23
		3	3	23.0	22.4	22.9	0.0	24	22.1	21.6	21.5	0.0	23
		6	0	22.9	22.3	22.8	0.0	24	22.0	21.5	21.4	0.0	23
	16QAM	1	0	23.3	22.3	23.1	0.0	24	21.8	21.9	21.5	0.0	23
		1	3	23.3	22.4	23.2	0.0	24	21.9	22.0	21.6	0.0	23
		1	5	23.2	22.3	23.1	0.0	24	21.8	21.9	21.5	0.0	23
		3	0	23.1	22.5	23.0	0.0	24	21.8	21.8	21.7	0.0	23
		3	1	23.2	22.6	23.1	0.0	24	21.8	21.8	21.8	0.0	23
		3	3	23.1	22.5	23.0	0.0	24	21.8	21.7	21.8	0.0	23
		6	0	21.8	21.5	21.7	1.0	23	21.8	21.4	21.7	0.0	23
	64QAM	1	0	22.3	21.8	22.2	1.0	23	22.2	21.9	22.1	0.0	23
		1	3	22.4	21.9	22.3	1.0	23	22.0	22.1	22.2	0.0	23
		1	5	22.2	21.8	22.2	1.0	23	21.8	21.9	22.2	0.0	23
		3	0	22.2	21.7	22.2	1.0	23	21.8	21.9	22.0	0.0	23
		3	1	22.3	21.8	22.2	1.0	23	21.9	21.9	22.1	0.0	23
		3	3	22.2	21.8	22.2	1.0	23	21.9	21.9	21.9	0.0	23
		6	0	20.9	20.4	20.9	2.0	22	21.0	20.5	20.9	1.0	22

3. Reduced power of RCV back-off

LTE Band 7 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) RCV				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				20850	21100	21350		
				2510 MHz	2535 MHz	2560 MHz		
20 MHz	QPSK	1	0	17.7	17.6	17.4	0.0	18.5
		1	49	17.8	17.8	17.6	0.0	18.5
		1	99	17.5	17.4	17.4	0.0	18.5
		50	0	17.6	17.6	17.6	0.0	18.5
		50	24	17.7	17.8	17.6	0.0	18.5
		50	50	17.7	17.5	17.5	0.0	18.5
		100	0	17.7	17.6	17.5	0.0	18.5
	16QAM	1	0	18.2	18.1	17.9	0.0	18.5
		1	49	18.4	18.2	18.1	0.0	18.5
		1	99	18.0	18.0	17.8	0.0	18.5
		50	0	17.8	17.7	17.6	0.0	18.5
		50	24	17.8	17.6	17.6	0.0	18.5
		50	50	17.7	17.5	17.5	0.0	18.5
		100	0	17.8	17.6	17.6	0.0	18.5
	64QAM	1	0	18.0	18.2	17.6	0.0	18.5
		1	49	18.1	18.3	17.9	0.0	18.5
		1	99	17.8	18.0	17.6	0.0	18.5
		50	0	17.7	17.6	17.6	0.0	18.5
		50	24	17.8	17.6	17.6	0.0	18.5
		50	50	17.7	17.5	17.5	0.0	18.5
		100	0	17.7	17.5	17.5	0.0	18.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20825	21100	21375		
				2507.5 MHz	2535 MHz	2562.5 MHz		
15 MHz	QPSK	1	0	17.4	17.2	17.1	0.0	18.5
		1	37	17.5	17.4	17.2	0.0	18.5
		1	74	17.2	17.1	17.0	0.0	18.5
		36	0	17.4	17.3	17.2	0.0	18.5
		36	20	17.4	17.2	17.2	0.0	18.5
		36	39	17.3	17.2	17.1	0.0	18.5
		75	0	17.4	17.2	17.1	0.0	18.5
	16QAM	1	0	17.7	17.7	17.0	0.0	18.5
		1	37	17.9	17.8	17.2	0.0	18.5
		1	74	17.6	17.5	16.9	0.0	18.5
		36	0	17.4	17.2	17.1	0.0	18.5
		36	20	17.4	17.2	17.2	0.0	18.5
		36	39	17.4	17.2	17.1	0.0	18.5
		75	0	17.4	17.2	17.1	0.0	18.5
	64QAM	1	0	17.9	17.8	17.4	0.0	18.5
		1	37	17.6	17.9	17.6	0.0	18.5
		1	74	17.3	17.7	17.3	0.0	18.5
		36	0	17.4	17.2	17.2	0.0	18.5
		36	20	17.4	17.2	17.2	0.0	18.5
		36	39	17.4	17.1	17.1	0.0	18.5
		75	0	17.3	17.2	17.2	0.0	18.5

LTE Band 7 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20800	21100	21400		
				2505 MHz	2535 MHz	2565 MHz		
10 MHz	QPSK	1	0	17.4	17.2	17.1	0.0	18.5
		1	25	17.5	17.3	17.2	0.0	18.5
		1	49	17.3	17.1	17.0	0.0	18.5
		25	0	17.3	17.3	17.2	0.0	18.5
		25	12	17.4	17.2	17.2	0.0	18.5
		25	25	17.4	17.2	17.1	0.0	18.5
		50	0	17.4	17.2	17.1	0.0	18.5
	16QAM	1	0	17.8	17.2	17.1	0.0	18.5
		1	25	17.8	17.3	17.2	0.0	18.5
		1	49	17.6	17.2	17.1	0.0	18.5
		25	0	17.4	17.3	17.3	0.0	18.5
		25	12	17.5	17.3	17.2	0.0	18.5
		25	25	17.4	17.3	17.2	0.0	18.5
		50	0	17.4	17.2	17.2	0.0	18.5
	64QAM	1	0	18.0	17.8	17.9	0.0	18.5
		1	25	18.1	17.9	17.9	0.0	18.5
		1	49	17.9	17.8	17.7	0.0	18.5
		25	0	17.9	17.8	17.4	0.0	18.5
		25	12	17.9	17.8	17.2	0.0	18.5
		25	25	17.9	17.8	17.2	0.0	18.5
		50	0	17.8	17.7	17.2	0.0	18.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20775	21100	21425		
				2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	17.8	17.1	17.0	0.0	18.5
		1	12	18.0	17.4	17.3	0.0	18.5
		1	24	17.7	17.1	17.0	0.0	18.5
		12	0	17.8	17.2	17.1	0.0	18.5
		12	7	17.9	17.2	17.1	0.0	18.5
		12	13	17.9	17.2	17.1	0.0	18.5
		25	0	17.8	17.1	17.1	0.0	18.5
	16QAM	1	0	17.5	17.3	17.5	0.0	18.5
		1	12	17.6	17.5	17.8	0.0	18.5
		1	24	17.4	17.2	17.5	0.0	18.5
		12	0	17.3	17.2	17.3	0.0	18.5
		12	7	17.4	17.3	17.3	0.0	18.5
		12	13	17.5	17.2	17.2	0.0	18.5
		25	0	17.3	17.2	17.2	0.0	18.5
	64QAM	1	0	17.7	17.9	17.8	0.0	18.5
		1	12	17.9	18.1	18.0	0.0	18.5
		1	24	17.7	17.9	17.7	0.0	18.5
		12	0	17.8	17.6	17.7	0.0	18.5
		12	7	17.9	17.7	17.7	0.0	18.5
		12	13	17.9	17.6	17.7	0.0	18.5
		25	0	17.8	17.6	17.6	0.0	18.5

LTE Band 30 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) RCV			MPR	Tune-up Limit
				Measured Pwr (dBm)				
					27710			
					2310 MHz			
10 MHz	QPSK	1	0		18.3		0	19
		1	25		18.4		0	19
		1	49		18.2		0	19
		25	0		18.3		0	19
		25	12		18.3		0	19
		25	25		18.2		0	19
		50	0		18.2		0	19
	16QAM	1	0		18.6		0	19
		1	25		18.7		0	19
		1	49		18.6		0	19
		25	0		18.3		0	19
		25	12		18.3		0	19
		25	25		18.3		0	19
		50	0		18.2		0	19
	64QAM	1	0		18.4		0	19
		1	25		18.5		0	19
		1	49		18.4		0	19
		25	0		18.3		0	19
		25	12		18.3		0	19
		25	25		18.3		0	19
		50	0		18.3		0	19
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	MPR
				27685	27710	27735		
				2307.5 MHz	2310 MHz	2312.5 MHz		
5 MHz	QPSK	1	0		18.2		0	19
		1	12		18.4		0	19
		1	24		18.1		0	19
		12	0		18.2		0	19
		12	7		18.3		0	19
		12	13		18.3		0	19
		25	0		18.2		0	19
	16QAM	1	0		18.7		0	19
		1	12		18.9		0	19
		1	24		18.6		0	19
		12	0		18.3		0	19
		12	7		18.4		0	19
		12	13		18.4		0	19
		25	0		18.3		0	19
	64QAM	1	0		18.5		0	19
		1	12		18.7		0	19
		1	24		18.4		0	19
		12	0		18.1		0	19
		12	7		18.2		0	19
		12	13		18.2		0	19
		25	0		18.2		0	19

LTE Band 38 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) RCV			MPR	Tune-up Limit
				Measured Pwr (dBm)				
				37850	38000	38150		
				2580 MHz	2595 MHz	2610 MHz		
20 MHz	QPSK	1	0	[redacted]	19.4	[redacted]	0	20.0
		1	49		19.9		0	20.0
		1	99		19.2		0	20.0
		50	0		19.5		0	20.0
		50	24		19.6		0	20.0
		50	50		19.4		0	20.0
		100	0		19.5		0	20.0
	16QAM	1	0		19.5		0	20.0
		1	49		19.7		0	20.0
		1	99		19.3		0	20.0
		50	0		19.6		0	20.0
		50	24		19.6		0	20.0
		50	50		19.5		0	20.0
		100	0		19.5		0	20.0
	64QAM	1	0		19.5		0	20.0
		1	49		20.0		0	20.0
		1	99		19.3		0	20.0
		50	0		19.6		0	20.0
		50	24		19.6		0	20.0
		50	50		19.5		0	20.0
		100	0		19.5		0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37825	38000	38175		
				2577.5 MHz	2595 MHz	2612.5 MHz		
15 MHz	QPSK	1	0	19.4	19.4	19.2	0	20.0
		1	37	19.4	19.5	18.9	0	20.0
		1	74	19.4	19.3	18.8	0	20.0
		36	0	19.4	19.5	19.2	0	20.0
		36	20	19.5	19.5	19.1	0	20.0
		36	39	19.5	19.5	19.1	0	20.0
		75	0	19.5	19.5	19.1	0	20.0
	16QAM	1	0	19.3	19.5	19.2	0	20.0
		1	37	19.4	19.6	19.0	0	20.0
		1	74	19.4	19.3	18.8	0	20.0
		36	0	19.4	19.5	19.2	0	20.0
		36	20	19.4	19.6	19.1	0	20.0
		36	39	19.4	19.5	19.0	0	20.0
		75	0	19.5	19.5	19.1	0	20.0
	64QAM	1	0	19.6	19.3	18.8	0	20.0
		1	37	19.6	19.3	18.6	0	20.0
		1	74	19.6	19.1	18.4	0	20.0
		36	0	19.5	19.5	19.2	0	20.0
		36	20	19.5	19.5	19.2	0	20.0
		36	39	19.5	19.4	19.1	0	20.0
		75	0	19.5	19.5	19.1	0	20.0

LTE Band 38 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37800	38000	38200		
				2575 MHz	2595 MHz	2615 MHz		
10 MHz	QPSK	1	0	19.4	19.4	19.1	0	20.0
		1	25	19.8	19.8	19.3	0	20.0
		1	49	19.5	19.3	18.9	0	20.0
		25	0	19.5	19.6	19.2	0	20.0
		25	12	19.5	19.6	19.1	0	20.0
		25	25	19.5	19.6	19.0	0	20.0
		50	0	19.5	19.6	19.1	0	20.0
	16QAM	1	0	19.4	19.7	19.1	0	20.0
		1	25	19.7	20.0	19.3	0	20.0
		1	49	19.4	19.6	18.9	0	20.0
		25	0	19.5	19.7	19.2	0	20.0
		25	12	19.5	19.6	19.1	0	20.0
		25	25	19.5	19.6	19.1	0	20.0
		50	0	19.5	19.6	19.1	0	20.0
	64QAM	1	0	19.6	19.6	18.7	0	20.0
		1	25	20.0	19.9	18.9	0	20.0
		1	49	19.7	19.5	18.5	0	20.0
		25	0	19.5	19.6	19.2	0	20.0
		25	12	19.5	19.5	19.1	0	20.0
		25	25	19.4	19.5	19.1	0	20.0
		50	0	19.5	19.5	19.1	0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37775	38000	38225		
				2572.5 MHz	2595 MHz	2617.5 MHz		
5 MHz	QPSK	1	0	19.2	19.3	19.0	0	20.0
		1	12	19.3	19.3	19.0	0	20.0
		1	24	19.3	19.3	18.9	0	20.0
		12	0	19.4	19.5	19.0	0	20.0
		12	7	19.4	19.6	19.1	0	20.0
		12	13	19.4	19.5	19.0	0	20.0
		25	0	19.4	19.5	19.0	0	20.0
	16QAM	1	0	19.4	19.3	18.9	0	20.0
		1	12	19.4	19.4	18.9	0	20.0
		1	24	19.4	19.3	18.8	0	20.0
		12	0	19.5	19.5	18.9	0	20.0
		12	7	19.6	19.6	19.0	0	20.0
		12	13	19.4	19.6	19.0	0	20.0
		25	0	19.4	19.5	19.0	0	20.0
	64QAM	1	0	19.0	19.8	19.1	0	20.0
		1	12	19.0	19.8	19.0	0	20.0
		1	24	19.0	19.8	19.0	0	20.0
		12	0	19.3	19.6	18.9	0	20.0
		12	7	19.4	19.7	19.0	0	20.0
		12	13	19.4	19.6	18.9	0	20.0
		25	0	19.4	19.5	18.9	0	20.0

LTE Band 41 Power Class 3 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) RCV						
				Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	18.3	18.1	18.9	18.1	18.0	0.0	19.0
		1	49	18.6	18.5	18.8	18.5	18.4	0.0	19.0
		1	99	18.1	18.1	18.2	17.9	18.0	0.0	19.0
		50	0	18.3	18.2	18.4	18.0	18.1	0.0	19.0
		50	24	18.3	18.3	18.4	18.1	18.1	0.0	19.0
		50	50	18.2	18.2	18.3	18.1	18.1	0.0	19.0
		100	0	18.2	18.2	18.3	18.0	18.1	0.0	19.0
	16QAM	1	0	18.3	18.0	18.4	18.0	17.9	0.0	19.0
		1	49	18.6	18.5	18.8	18.4	18.3	0.0	19.0
		1	99	18.1	18.1	18.3	17.9	17.9	0.0	19.0
		50	0	18.3	18.3	18.5	18.1	18.1	0.0	19.0
		50	24	18.3	18.3	18.5	18.1	18.1	0.0	19.0
		50	50	18.3	18.2	18.4	18.1	18.1	0.0	19.0
		100	0	18.3	18.2	18.4	18.1	18.1	0.0	19.0
	64QAM	1	0	18.7	18.0	18.4	18.5	17.9	0.0	19.0
		1	49	18.9	18.5	18.8	18.8	18.4	0.0	19.0
		1	99	18.5	18.1	18.2	18.3	18.0	0.0	19.0
		50	0	18.3	18.3	18.5	18.1	18.2	0.0	19.0
		50	24	18.4	18.3	18.5	18.2	18.1	0.0	19.0
		50	50	18.3	18.2	18.4	18.1	18.1	0.0	19.0
		100	0	18.3	18.3	18.4	18.1	18.2	0.0	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	18.4	18.1	18.4	18.1	18.0	0.0	19.0
		1	37	18.3	18.1	18.4	18.0	18.0	0.0	19.0
		1	74	18.2	18.1	18.3	18.0	18.0	0.0	19.0
		36	0	18.4	18.3	18.4	18.1	18.2	0.0	19.0
		36	20	18.4	18.3	18.4	18.1	18.1	0.0	19.0
		36	39	18.4	18.3	18.4	18.2	18.1	0.0	19.0
		75	0	18.3	18.2	18.3	18.1	18.1	0.0	19.0
	16QAM	1	0	18.4	18.2	18.4	18.2	18.0	0.0	19.0
		1	37	18.4	18.2	18.3	18.1	18.0	0.0	19.0
		1	74	18.3	18.2	18.2	18.1	18.1	0.0	19.0
		36	0	18.4	18.3	18.3	18.1	18.2	0.0	19.0
		36	20	18.4	18.3	18.3	18.1	18.1	0.0	19.0
		36	39	18.4	18.3	18.4	18.2	18.1	0.0	19.0
		75	0	18.4	18.3	18.4	18.2	18.2	0.0	19.0
	64QAM	1	0	18.2	17.8	18.6	18.0	17.6	0.0	19.0
		1	37	18.1	17.8	18.6	17.9	17.7	0.0	19.0
		1	74	18.0	17.8	18.5	17.9	17.7	0.0	19.0
		36	0	18.3	18.3	18.4	18.1	18.2	0.0	19.0
		36	20	18.3	18.3	18.4	18.1	18.2	0.0	19.0
		36	39	18.3	18.3	18.4	18.1	18.2	0.0	19.0
		75	0	18.3	18.3	18.4	18.2	18.1	0.0	19.0

LTE Band 41 Power Class 3 Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	18.3	18.2	18.5	18.1	18.0	0.0	19.0
		1	25	18.5	18.5	18.7	18.3	18.3	0.0	19.0
		1	49	18.2	18.2	18.4	18.0	18.1	0.0	19.0
		25	0	18.4	18.3	18.5	18.2	18.2	0.0	19.0
		25	12	18.4	18.3	18.4	18.2	18.2	0.0	19.0
		25	25	18.4	18.3	18.4	18.2	18.1	0.0	19.0
		50	0	18.3	18.3	18.4	18.2	18.2	0.0	19.0
	16QAM	1	0	18.5	18.2	18.4	18.3	18.1	0.0	19.0
		1	25	18.7	18.5	18.7	18.5	18.4	0.0	19.0
		1	49	18.4	18.2	18.3	18.2	18.1	0.0	19.0
		25	0	18.4	18.4	18.5	18.3	18.3	0.0	19.0
		25	12	18.4	18.3	18.4	18.2	18.2	0.0	19.0
		25	25	18.4	18.3	18.4	18.2	18.2	0.0	19.0
		50	0	18.4	18.3	18.5	18.2	18.2	0.0	19.0
	64QAM	1	0	18.4	17.9	18.7	18.3	17.7	0.0	19.0
		1	25	18.7	18.1	19.0	18.5	18.0	0.0	19.0
		1	49	18.4	17.9	18.6	18.1	17.8	0.0	19.0
		25	0	18.4	18.4	18.5	18.2	18.3	0.0	19.0
		25	12	18.3	18.4	18.5	18.1	18.3	0.0	19.0
		25	25	18.3	18.4	18.4	18.1	18.3	0.0	19.0
		50	0	18.4	18.3	18.4	18.2	18.2	0.0	19.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	18.2	18.1	18.3	18.1	18.0	0.0	19.0
		1	12	18.2	18.1	18.3	18.1	18.0	0.0	19.0
		1	24	18.2	18.1	18.3	18.0	18.0	0.0	19.0
		12	0	18.3	18.3	18.4	18.1	18.1	0.0	19.0
		12	7	18.5	18.4	18.5	18.2	18.2	0.0	19.0
		12	13	18.4	18.3	18.4	18.2	18.2	0.0	19.0
		25	0	18.4	18.3	18.4	18.2	18.2	0.0	19.0
	16QAM	1	0	18.4	18.1	18.3	18.2	18.0	0.0	19.0
		1	12	18.4	18.1	18.3	18.2	18.0	0.0	19.0
		1	24	18.3	18.1	18.2	18.1	18.0	0.0	19.0
		12	0	18.4	18.3	18.4	18.2	18.2	0.0	19.0
		12	7	18.5	18.4	18.5	18.3	18.3	0.0	19.0
		12	13	18.4	18.3	18.4	18.2	18.2	0.0	19.0
		25	0	18.4	18.3	18.5	18.2	18.2	0.0	19.0
	64QAM	1	0	18.0	18.1	18.4	18.5	18.0	0.0	19.0
		1	12	18.0	18.2	18.5	18.6	18.0	0.0	19.0
		1	24	18.0	18.2	18.5	18.5	18.1	0.0	19.0
		12	0	18.3	18.2	18.4	18.2	18.1	0.0	19.0
		12	7	18.4	18.3	18.4	18.2	18.1	0.0	19.0
		12	13	18.4	18.3	18.4	18.3	18.2	0.0	19.0
		25	0	18.4	18.3	18.5	18.1	18.1	0.0	19.0

LTE Band 41 Power Class 2 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) RCV back-off						
				Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	21.4	21.3	21.4	21.0	21.1	0.0	22.0
		1	49	21.6	21.5	21.7	21.3	21.3	0.0	22.0
		1	99	21.4	21.2	21.2	21.1	20.9	0.0	22.0
		50	0	21.4	21.5	21.5	21.0	21.2	0.0	22.0
		50	24	21.5	21.4	21.6	21.2	21.2	0.0	22.0
		50	50	21.5	21.3	21.4	21.2	21.1	0.0	22.0
		100	0	21.4	21.4	21.5	21.2	21.2	0.0	22.0
	16QAM	1	0	21.8	21.7	21.6	21.4	21.4	0.0	22.0
		1	49	22.0	21.8	21.9	21.7	21.6	0.0	22.0
		1	99	21.8	21.5	21.4	21.5	21.3	0.0	22.0
		50	0	21.4	21.5	21.6	21.1	21.3	0.0	22.0
		50	24	21.6	21.4	21.6	21.3	21.2	0.0	22.0
		50	50	21.6	21.3	21.5	21.3	21.1	0.0	22.0
		100	0	21.5	21.4	21.5	21.2	21.2	0.0	22.0
	64QAM	1	0	21.9	21.8	21.5	21.5	21.5	0.0	22.0
		1	49	21.9	22.0	21.8	21.9	21.7	0.0	22.0
		1	99	22.0	21.5	21.4	21.6	21.4	0.0	22.0
		50	0	21.4	21.5	21.6	21.1	21.3	0.0	22.0
		50	24	21.6	21.5	21.6	21.2	21.3	0.0	22.0
		50	50	21.6	21.4	21.5	21.2	21.2	0.0	22.0
		100	0	21.5	21.5	21.5	21.2	21.3	0.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	21.4	21.3	21.5	21.0	21.0	0.0	22.0
		1	37	21.8	21.6	21.9	21.4	21.3	0.0	22.0
		1	74	21.4	21.1	21.4	21.0	20.9	0.0	22.0
		36	0	21.4	21.4	21.5	21.1	21.2	0.0	22.0
		36	20	21.5	21.4	21.5	21.2	21.2	0.0	22.0
		36	39	21.6	21.4	21.5	21.2	21.1	0.0	22.0
		75	0	21.5	21.4	21.5	21.2	21.2	0.0	22.0
	16QAM	1	0	21.8	21.7	22.0	21.4	21.4	0.0	22.0
		1	37	21.9	21.9	22.0	21.8	21.7	0.0	22.0
		1	74	21.7	21.6	21.8	21.4	21.3	0.0	22.0
		36	0	21.5	21.5	21.5	21.1	21.2	0.0	22.0
		36	20	21.6	21.4	21.5	21.2	21.2	0.0	22.0
		36	39	21.6	21.4	21.5	21.2	21.1	0.0	22.0
		75	0	21.5	21.4	21.5	21.2	21.2	0.0	22.0
	64QAM	1	0	21.3	21.6	21.9	20.9	21.3	0.0	22.0
		1	37	21.6	21.8	22.0	21.3	21.5	0.0	22.0
		1	74	21.3	21.4	21.9	20.9	21.2	0.0	22.0
		36	0	21.5	21.4	21.6	21.2	21.2	0.0	22.0
		36	20	21.6	21.4	21.6	21.2	21.2	0.0	22.0
		36	39	21.6	21.3	21.6	21.2	21.1	0.0	22.0
		75	0	21.5	21.4	21.5	21.2	21.2	0.0	22.0

LTE Band 41 Power Class 2 Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	21.4	21.4	21.6	21.1	21.1	0.0	22.0
		1	25	21.5	21.3	21.7	21.1	21.1	0.0	22.0
		1	49	21.5	21.2	21.5	21.1	21.0	0.0	22.0
		25	0	21.5	21.5	21.6	21.1	21.3	0.0	22.0
		25	12	21.5	21.4	21.5	21.2	21.2	0.0	22.0
		25	25	21.6	21.4	21.5	21.2	21.1	0.0	22.0
		50	0	21.5	21.4	21.5	21.2	21.2	0.0	22.0
	16QAM	1	0	21.9	21.7	21.9	21.5	21.5	0.0	22.0
		1	25	22.0	21.7	22.0	21.6	21.5	0.0	22.0
		1	49	22.0	21.6	21.9	21.6	21.4	0.0	22.0
		25	0	21.6	21.5	21.6	21.2	21.3	0.0	22.0
		25	12	21.6	21.5	21.7	21.3	21.2	0.0	22.0
		25	25	21.7	21.4	21.6	21.3	21.2	0.0	22.0
		50	0	21.6	21.4	21.6	21.2	21.2	0.0	22.0
	64QAM	1	0	21.4	21.7	22.0	21.0	21.5	0.0	22.0
		1	25	21.4	21.7	21.9	21.1	21.5	0.0	22.0
		1	49	21.4	21.6	22.0	21.0	21.4	0.0	22.0
		25	0	21.6	21.5	21.6	21.2	21.3	0.0	22.0
		25	12	21.6	21.4	21.6	21.2	21.2	0.0	22.0
		25	25	21.7	21.4	21.5	21.3	21.1	0.0	22.0
		50	0	21.5	21.4	21.5	21.2	21.2	0.0	22.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	21.3	21.3	21.4	21.0	21.0	0.0	22.0
		1	12	21.7	21.6	21.7	21.3	21.4	0.0	22.0
		1	24	21.4	21.3	21.3	21.0	21.0	0.0	22.0
		12	0	21.5	21.4	21.5	21.1	21.2	0.0	22.0
		12	7	21.5	21.4	21.5	21.2	21.2	0.0	22.0
		12	13	21.6	21.4	21.5	21.2	21.2	0.0	22.0
		25	0	21.5	21.4	21.5	21.2	21.2	0.0	22.0
	16QAM	1	0	21.7	21.7	21.9	21.3	21.4	0.0	22.0
		1	12	21.9	21.9	22.0	21.6	21.7	0.0	22.0
		1	24	21.7	21.6	21.8	21.3	21.4	0.0	22.0
		12	0	21.5	21.4	21.6	21.2	21.2	0.0	22.0
		12	7	21.6	21.5	21.7	21.2	21.2	0.0	22.0
		12	13	21.6	21.5	21.7	21.3	21.2	0.0	22.0
		25	0	21.5	21.5	21.6	21.2	21.2	0.0	22.0
	64QAM	1	0	21.9	21.4	21.8	21.6	21.2	0.0	22.0
		1	12	22.0	21.8	22.0	22.0	21.5	0.0	22.0
		1	24	22.0	21.4	21.7	21.6	21.2	0.0	22.0
		12	0	21.7	21.4	21.5	21.2	21.2	0.0	22.0
		12	7	21.7	21.5	21.5	21.3	21.3	0.0	22.0
		12	13	21.7	21.5	21.5	21.3	21.2	0.0	22.0
		25	0	21.6	21.5	21.5	21.2	21.3	0.0	22.0

9.4.1. LTE Up-Link Carrier Aggregation

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

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

For Intra-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 the table below. In case the modulation format is different component carriers 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 QPSK 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

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

Where M_A is defined as follows

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

and M_{IMS} is defined as follows

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

Where

$A = N_{RB\_alloc} / N_{RB\_agg}$

$\Delta_{IMS} = \max(\left| F_{C\_agg} - (3*F_{agg\_alloc\_low} - 2*F_{agg\_alloc\_high}) \right|, \left| F_{C\_agg} - (3*F_{agg\_alloc\_high} - 2*F_{agg\_alloc\_low}) \right|)$

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

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

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

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

Where M_N is defined as follows

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

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

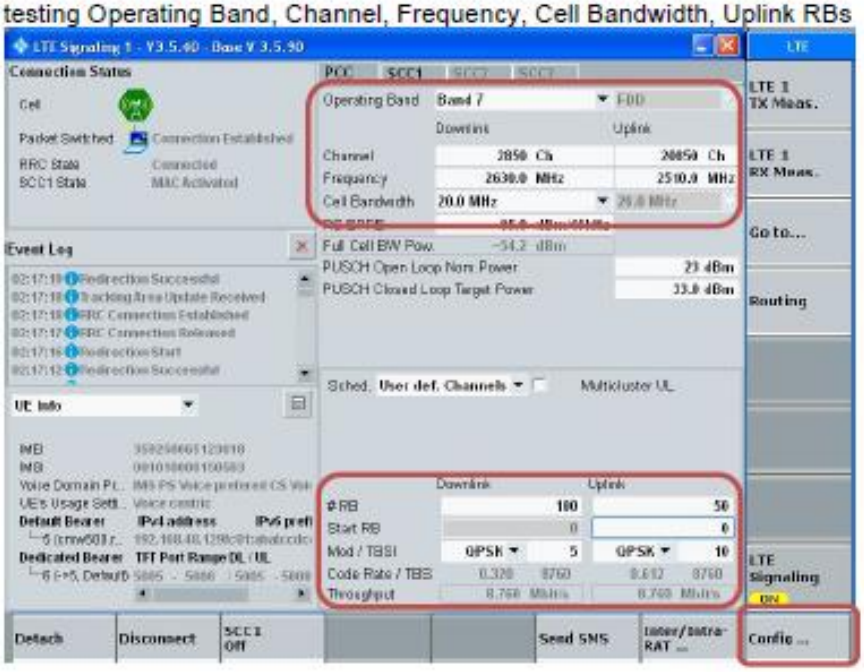
For the UE maximum output power modified by MPR, the power limits specified in subclause 6.2.5A apply.

LTE Carrier Aggregation Test Signal Set-up Procedure

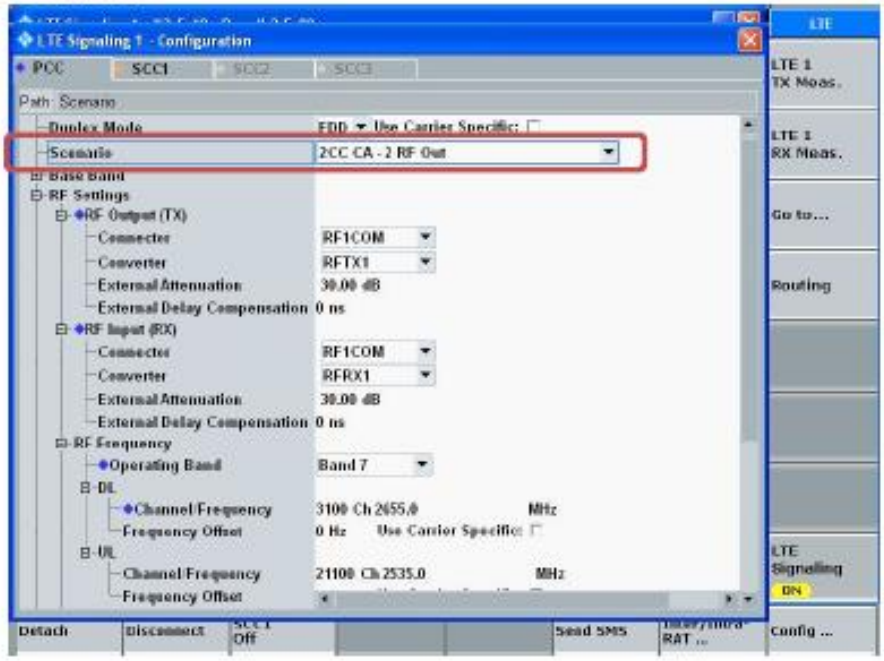
(Use normal LTE set-up procedure in addition with the following steps)

Set to CMW-500 with following parameters:

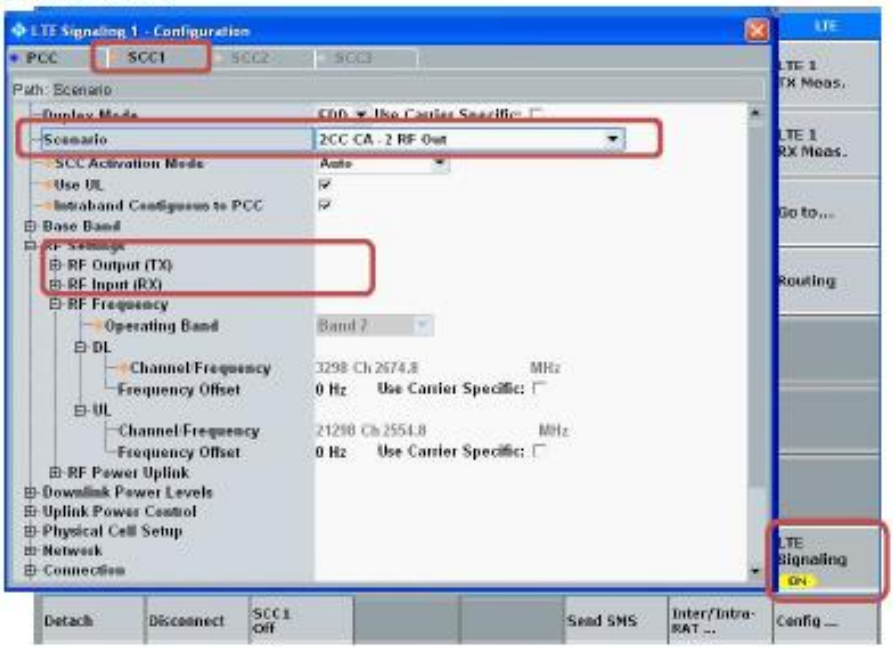
- PCC tab:
  - Select the testing Operating Band, Channel, Frequency, Cell Bandwidth, Uplink RBs



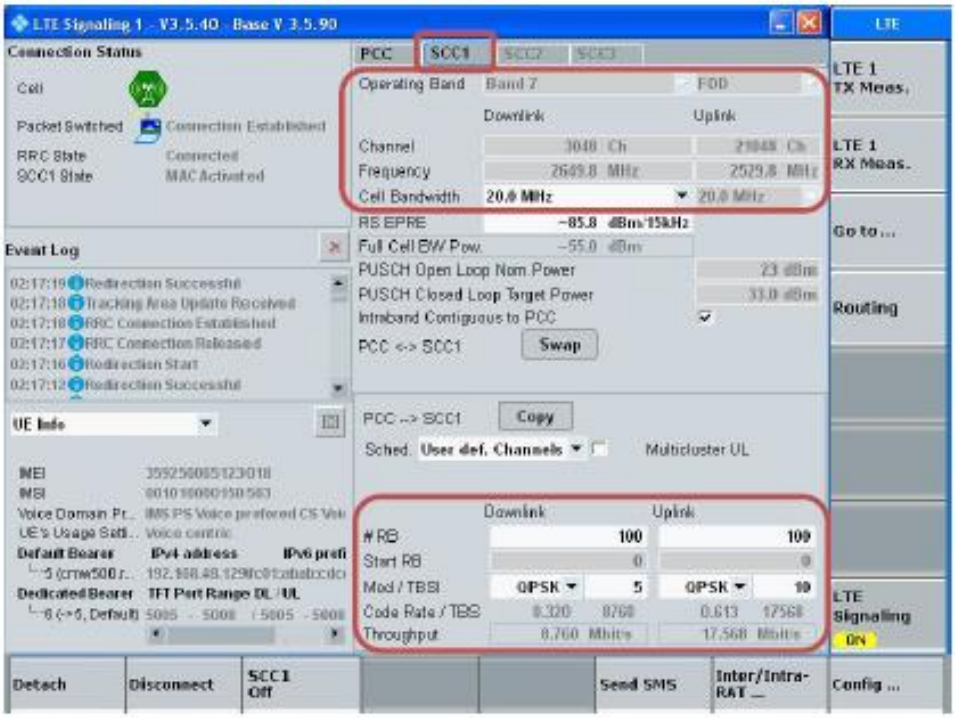
- Go to "Config…."
- Go to "Scenario"
- Set to "2CC CA – 2 RF Out"



- 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

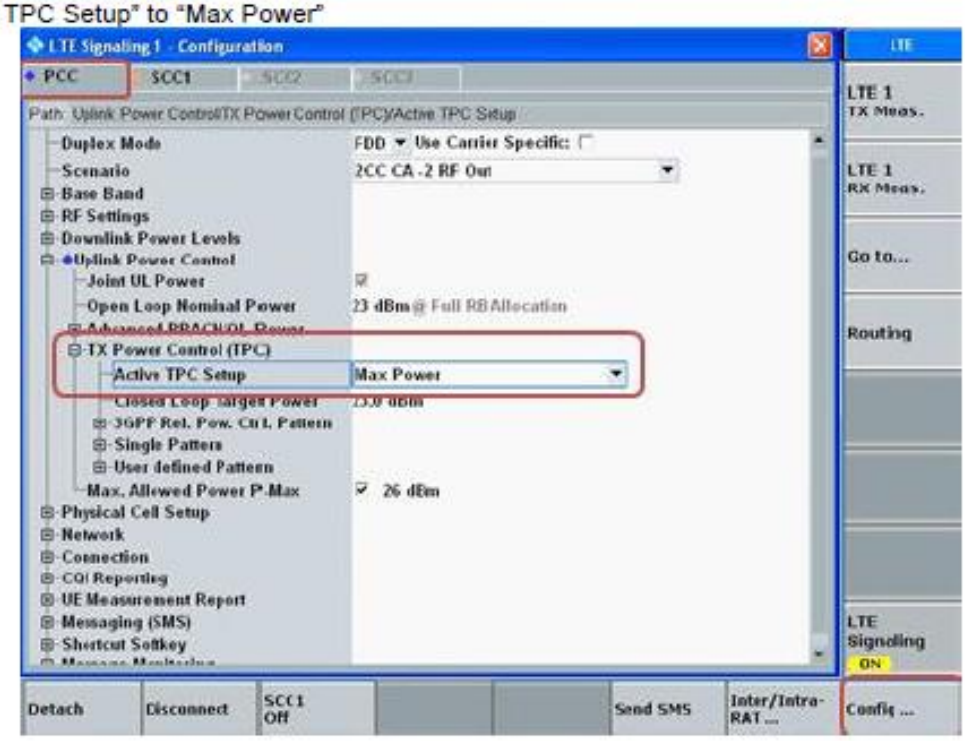


- Select "SCC1" tab
  - Select the testing Cell Bandwidth, Uplink RBs

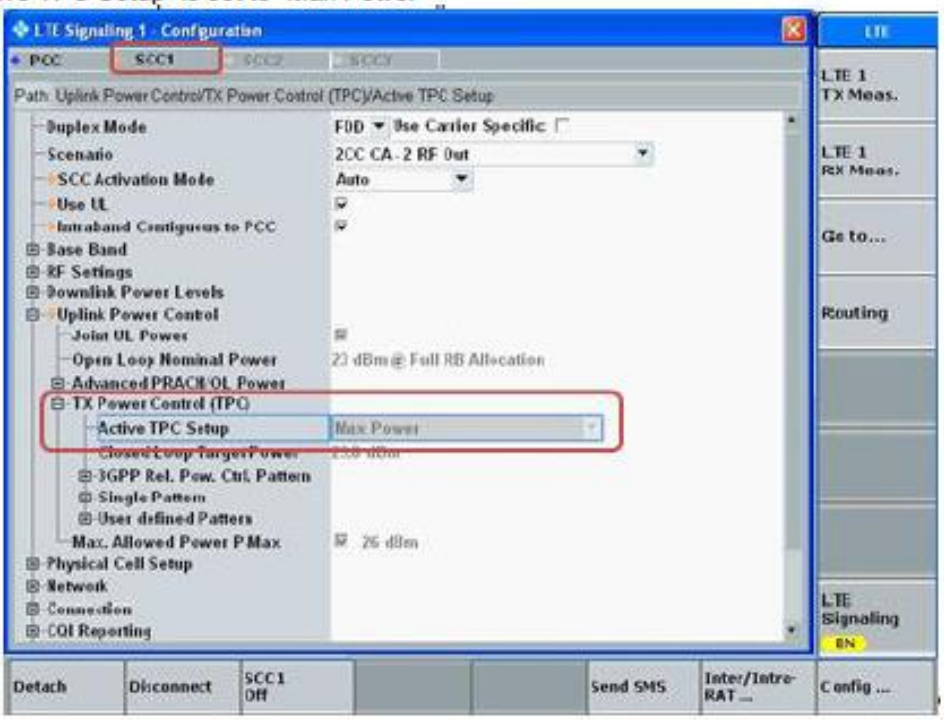


Max Power Setting

- 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 Carrier Aggregation Up Link Combinations

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 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 ≤ 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 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 W/kg when they are scaled to the UL CA power level.

SAR measurement is not required for the 16QAM and 64QAM. When the highest maximum output power for 16QAM and 64QAM is ≤ 0.25 dB higher than the QPSK or when the reported SAR for the QPSK configuration is ≤ 1.45 W/kg.

LTE-Uplink 2CA Band 41 for SAR testing

E-UTRA CA configurations	RF exposure conditions	Bands		UL																	LTE Rel.8 Tune-up Limit (dBm)
		PCC	SCC	PCC						SCC						MPR	PCC + SCC				
		1st	2nd	Mod	RB	Offset	BW	Freq	Ch	Mod	RB	Offset	BW	Freq	Ch		Aggregated BW	Tune-up Limit (dBm)	CA power (total PCC+SCC) (dBm)	3GPP Rel.#	
CA_41C (0)(1)(2)(3)	Head	41C	41C	QPSK	100	0	20	2593	40620	QPSK	100	0	20	2573	40422	0	40	19.0	18.6	12	19.0
	Body-worn	41C	41C	QPSK	1	0	20	2593	40620	QPSK	1	99	20	2573	40422	0	40	24.0	23.9	12	24.0
	Hotspot	41C	41C	QPSK	50	0	20	2593	40620	QPSK	50	50	20	2573	40422	0	40	18.0	17.9	12	18.0
	Product Specific 10-g	41C	41C	QPSK	50	0	20	2593	40620	QPSK	50	50	20	2573	40422	0	40	18.0	17.9	12	18.0

Note:

Standalone output power & SAR are reference from Sec.9.4 & Sec.10.18.

9.4.2. LTE Down-Link Carrier Aggregation

DL CA output power results

E-UTRA CA configutation (BCS)	Bands		UL					DL						LTE Rel 8 Tx. Power [dBm]	LTE Rel 10 Tx. Power [dBm]	Delta
	PCC	SCC1	PCC					PCC			SCC1					
	1st	2nd	Mode	BW (MHz)	Channel	Freq. (MHz)	RB/Offset	BW (MHz)	Channel	Freq. (MHz)	BW (MHz)	Channel	Freq. (MHz)			
2A-4A	2A	4A	QPSK	20	18700	1860	1/0	20	700	1940	20	2175	2132.5	24.8	24.8	-0.05
	4A	2A	QPSK	20	20175	1732.5	1/0	20	2175	2132.5	20	900	1960	23.1	23.2	0.05
2A-5A	2A	5A	QPSK	20	18700	1860	1/0	20	700	1940	10	2525	881.5	24.8	24.8	0.01
	5A	2A	QPSK	10	20525	836.5	1/0	10	2525	881.5	20	900	1960	24.1	24.1	-0.01
2A-7A	2A	7A	QPSK	20	18700	1860	1/0	20	700	1940	20	3100	2655	24.8	24.8	-0.02
	7A	2A	QPSK	20	21100	2535	1/49	20	3100	2655	20	900	1960	18.7	18.7	0.01
2A-12A	2A	12A	QPSK	20	18700	1860	1/0	20	700	1940	10	5095	737.5	24.8	24.8	-0.04
	12A	2A	QPSK	10	23095	707.5	1/25	10	5095	737.5	20	900	1960	23.7	23.7	0.01
2A-13A	2A	13A	QPSK	20	18700	1860	1/0	20	700	1940	10	5230	751	24.8	24.8	0.01
	13A	2A	QPSK	10	23230	782	1/25	10	5230	751	20	900	1960	23.8	23.8	0.02
2A-29A	2A	29A	QPSK	20	18700	1860	1/0	20	700	1940	10	9715	722.5	24.8	24.8	-0.01
2A-30A	2A	30A	QPSK	20	18700	1860	1/0	20	700	1940	10	9820	2355	24.8	24.7	-0.09
	30A	2A	QPSK	10	27710	2310	1/25	10	9820	2355	20	900	1960	22.0	22.0	0.04
2A-66A	2A	66A	QPSK	20	18700	1860	1/0	20	700	1940	20	66786	2145	24.8	24.8	-0.02
	66A	2A	QPSK	20	132072	1720	1/0	20	66536	2120	20	900	1960	23.7	23.7	-0.01
2A-71A	2A	71A	QPSK	20	18700	1860	1/0	20	700	1940	20	68761	634.5	24.8	24.8	-0.01
	71A	2A	QPSK	20	133297	680.5	1/49	20	68761	634.5	20	900	1960	24.2	24.2	0.02
4A-5A	4A	5A	QPSK	20	20175	1732.5	1/0	20	2175	2132.5	10	2525	881.5	23.1	23.0	-0.07
	5A	4A	QPSK	10	20525	836.5	1/0	10	2525	881.5	20	2175	2132.5	24.1	24.1	-0.02
4A-7A	4A	7A	QPSK	20	20175	1732.5	1/0	20	2175	2132.5	20	3100	2655	23.1	23.1	-0.02
	7A	4A	QPSK	20	21100	2535	1/49	20	3100	2655	20	2175	2132.5	18.7	18.7	0.04
4A-12A	4A	12A	QPSK	20	20175	1732.5	1/0	20	2175	2132.5	10	5095	737.5	23.1	23.1	-0.01
	12A	4A	QPSK	10	23095	707.5	1/25	10	5095	737.5	20	2175	2132.5	23.7	23.7	0.02
4A-13A	4A	13A	QPSK	20	20175	1732.5	1/0	20	2175	2132.5	10	5230	751	23.1	23.1	-0.05
	13A	4A	QPSK	10	23230	782	1/25	10	5230	751	20	2175	2132.5	23.8	23.8	0.01
4A-71A	4A	71A	QPSK	20	20175	1732.5	1/0	20	2175	2132.5	20	68761	634.5	23.1	23.1	-0.02
	71A	4A	QPSK	20	133297	680.5	1/49	20	68761	634.5	20	2175	2132.5	24.2	24.2	0.02
5A-7A	5A	7A	QPSK	10	20525	836.5	1/0	10	2525	881.5	20	3100	2655	24.1	24.2	0.07
	7A	5A	QPSK	20	21100	2535	1/49	20	3100	2655	10	2525	881.5	18.7	18.7	-0.02
5A-30A	5A	30A	QPSK	10	20525	836.5	1/0	10	2525	881.5	10	9820	2355	24.1	24.1	0.01
	30A	5A	QPSK	10	27710	2310	1/25	10	9820	2355	10	2525	881.5	22.0	22.0	-0.02
5A-66A	5A	66A	QPSK	10	20525	836.5	1/0	10	2525	881.5	20	66786	2145	24.1	24.1	0.01
	66A	5A	QPSK	20	132072	1720	1/0	20	66536	2120	10	2525	881.5	23.7	23.7	-0.04
7A-12A	7A	12A	QPSK	20	21100	2535	1/49	20	3100	2655	10	5095	737.5	18.7	18.7	-0.05
	12A	7A	QPSK	10	23095	707.5	1/25	10	5095	737.5	20	3100	2655	23.7	23.7	0.01
7A-66A	7A	66A	QPSK	20	21100	2535	1/49	20	3100	2655	20	66786	2145	18.7	18.7	-0.04
	66A	7A	QPSK	20	132072	1720	1/0	20	66536	2120	20	3100	2655	23.7	23.7	-0.05
12A-30A	12A	30A	QPSK	10	23095	707.5	1/25	10	5095	737.5	10	9820	2355	23.7	23.7	-0.03
	30A	12A	QPSK	10	27710	2310	1/25	10	9820	2355	10	5095	737.5	22.0	21.9	-0.05
12A-66A	12A	66A	QPSK	10	23095	707.5	1/25	10	5095	737.5	20	66786	2145	23.7	23.7	0.00
	66A	12A	QPSK	20	132072	1720	1/0	20	66536	2120	10	5095	737.5	23.7	23.7	0.02
13A-66A	13A	66A	QPSK	10	23230	782	1/25	10	5230	751	20	66786	2145	23.8	23.8	0.03
	66A	13A	QPSK	20	132072	1720	1/0	20	66536	2120	10	5230	751	23.7	23.7	-0.02

Note:

1. Per KDB 941225 D05A LTE Rel. 10 KDB Inquiry Sheet: SAR is excluded for Carrier Aggregation when measured power does not exceed LTE Release 8 by more than a 1/4 dB.
2. When the same frequency band is used for both contiguous and non-contiguous in DL CA Intra band, power was measured using the configuration with the largest aggregated bandwidth and maximum output power among the contiguous and non-contiguous in DL CA Intra band configurations

DL CA output power results (Continued)

E-UTRA CA configutation (BCS)	Bands		UL					DL						LTE Rel 8 Tx. Power [dBm]	LTE Rel 10 Tx. Power [dBm]	Delta
	PCC	SCC1	PCC					PCC			SCC1					
	1st	2nd	Mode	BW (MHz)	Channel	Freq. (MHz)	RB/Offset	BW (MHz)	Channel	Freq. (MHz)	BW (MHz)	Channel	Freq. (MHz)			
25A-26A	25A	26A	QPSK	20	26365	1882.5	1/49	20	8365	1962.5	15	8865	876.5	24.5	24.5	0.01
	26A	25A	QPSK	15	26865	831.5	1/0	15	8865	876.5	20	8365	1962.5	24.2	24.2	0.01
25A-41A	25A	41A	QPSK	20	26365	1882.5	1/49	20	8365	1962.5	20	40620	2593	24.5	24.4	-0.05
	41A	25A	QPSK	20	40620	2593	1/0	20	40620	2593	20	8365	1962.5	23.9	23.9	-0.01
26A-41A	26A	41A	QPSK	15	26865	831.5	1/0	15	8865	876.5	20	40620	2593	24.2	24.2	0.03
	41A	26A	QPSK	20	40620	2593	1/0	20	40620	2593	15	8865	876.5	23.9	23.9	0.01
30A-29A	30A	29A	QPSK	10	27710	2310	1/25	10	9820	2355	10	9715	722.5	22.0	22.0	-0.03
66A-71A	66A	71A	QPSK	20	132072	1720	1/0	20	66536	2120	20	68761	634.5	23.7	23.7	-0.02
	71A	66A	QPSK	20	133297	680.5	1/49	20	68761	634.5	20	66786	2145	24.2	24.2	0.02
2C	2C	2C	QPSK	20	18700	1860	1/0	20	700	1940	20	898	1959.8	24.8	24.8	-0.01
5B	5B	5B	QPSK	10	20525	836.5	1/0	10	2525	881.5	5	2597	888.7	24.1	24.1	0.03
12B	12B	12B	QPSK	5	23095	707.5	1/25	5	5095	737.5	5	5143	742.3	23.9	23.8	-0.03
41C	41C	41C	QPSK	20	40620	2593	1/0	20	40620	2593	20	40422	2573.2	23.9	23.9	0.03
66B	66B	66B	QPSK	15	132047	1717.5	1/37	15	66511	2117.5	5	66604	2126.8	23.7	23.7	0.04
66C	66C	66C	QPSK	20	132072	1720	1/0	20	66536	2120	20	66734	2139.8	23.7	23.7	-0.03
2A-2A	2A	2A	QPSK	20	18700	1860	1/0	20	700	1940	20	900	1960	24.8	24.8	-0.01
4A-4A	4A	4A	QPSK	20	20175	1732.5	1/0	20	2175	2132.5	10	2319	2146.9	23.1	23.1	-0.04
5A-5A	5A	5A	QPSK	10	20525	836.5	1/0	10	2525	881.5	10	2525	881.5	24.1	24.1	0.01
7A-7A	7A	7A	QPSK	20	21100	2535	1/49	20	3100	2655	20	3298	2674.8	18.7	18.7	-0.02
25A-25A	25A	25A	QPSK	20	26365	1882.5	1/49	20	8365	1962.5	20	8563	1982.3	24.5	24.5	0.02
41A-41A	41A	41A	QPSK	20	40620	2593	1/0	20	40620	2593	20	41490	2680	23.9	23.9	0.02
66A-66A	66A	66A	QPSK	20	132072	1720	1/0	20	66536	2120	20	66786	2145	23.7	23.7	-0.01

Note:

1. Per KDB 941225 D05A LTE Rel. 10 KDB Inquiry Sheet: SAR is excluded for Carrier Aggregation when measured power does not exceed LTE Release 8 by more than a 1/4 dB.
2. When the same frequency band is used for both contiguous and non-contiguous in DL CA Intra band, power was measured using the configuration with the largest aggregated bandwidth and maximum output power among the contiguous and non-contiguous in DL CA Intra band configurations

9.5. Wi-Fi 2.4 GHz (DTS Band)

When the RCV is activated in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.
Refer to Operational Description for WLAN explanation.

Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
					Max.Average Power			Reduced Average Power		
					Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 2.4G Ant.	802.11b	1 Mbps	1	2412.0	21.0	22.0	Yes	13.3	14.0	Yes
			2	2417.0	22.2	23.0		[redacted]		
			6	2437.0	22.5			13.1		
			11	2462.0	22.7			13.8		
			12	2467.0	8.4	9.0	No	8.4	9.0	No
			13	2472.0	8.1	9.0		8.1	9.0	
	802.11g	6 Mbps	1	2412.0	Not Required	18.0	No	Not Required	14.0	No
			6	2437.0		21.0				
			11	2462.0		19.0				
			12	2467.0		9.0			9.0	
			13	2472.0		9.0			9.0	
	802.11n (HT20)	6.5 Mbps	1	2412.0	Not Required	18.0	No	Not Required	14.0	No
			6	2437.0		21.0				
			11	2462.0		19.0				
			12	2467.0		9.0			9.0	
			13	2472.0		9.0			9.0	

Note(s):

1. SAR is not required for 802.11g/n modes when the adjusted SAR for 802.11b is < 1.2 W/kg.
2. For "Not required", 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 802.11n/g/ax 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.
3. Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels. Refer to §6.3.

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

When the RCV is active in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.
Refer to Operational Description for WLAN explanation.

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
					Max. Average Power			Reduced Average Power		
					Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5.3 (UNII 2A)	802.11a	6 Mbps	52	5260	18.1	19.0	Yes	Not Required	13.0	No
			56	5280	18.2					
			60	5300	18.3					
			64	5320	18.3					
	802.11n (HT20)	6.5 Mbps	52	5260	Not Required	19.0	No	Not Required	13.0	No
			56	5280						
			60	5300						
			64	5320						
	802.11n (HT40)	13.5 Mbps	54	5270	Not Required	17.0	No	Not Required	13.0	No
			62	5310						
	802.11ac (VHT20)	6.5 Mbps	52	5260	Not Required	19.0	No	Not Required	13.0	No
			56	5280						
			60	5300						
			64	5320						
	802.11ac (VHT40)	13.5 Mbps	54	5270	Not Required	17.0	No	Not Required	13.0	No
			62	5310						
	802.11ac (VHT80)	29.3 Mbps	58	5290	Not Required	16.0	No	12.4	13.0	Yes
5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500	18.5	19.0	Yes	Not Required	13.0	No
			120	5600	17.7					
			124	5620	18.5					
			144	5720	18.6					
	802.11n (HT20)	6.5 Mbps	100	5500	Not Required	19.0	No	Not Required	13.0	No
			120	5600						
			124	5620						
			144	5720						
	802.11n (HT40)	13.5 Mbps	102	5510	Not Required	17.0	No	Not Required	13.0	No
			118	5590						
			126	5630						
			142	5710						
	802.11ac (VHT20)	6.5 Mbps	100	5500	Not Required	19.0	No	Not Required	13.0	No
			120	5600						
			124	5620						
			144	5720						
	802.11ac (VHT40)	13.5 Mbps	102	5510	Not Required	17.0	No	Not Required	13.0	No
			118	5590						
			126	5630						
			142	5710						
	802.11ac (VHT80)	29.3 Mbps	106	5530	Not Required	16.0	No	12.7	13.0	Yes
			122	5610				12.9		
			138	5690				12.8		
5.8 (U-NII 3)	802.11a	6 Mbps	149	5745	18.4	19.0	Yes	Not Required	13.0	No
			157	5785	18.3					
			165	5825	18.3					
	802.11n (HT20)	6.5 Mbps	149	5745	Not Required	19.0	No	Not Required	13.0	No
			157	5785						
			165	5825						
	802.11n (HT40)	13.5 Mbps	151	5755	Not Required	17.0	No	Not Required	13.0	No
			159	5795						
	802.11ac (VHT20)	6.5 Mbps	149	5745	Not Required	19.0	No	Not Required	13.0	No
			157	5785						
			165	5825						
	802.11ac (VHT40)	13.5 Mbps	151	5755	Not Required	17.0	No	Not Required	13.0	No
			159	5795						
	802.11ac (VHT80)	29.3 Mbps	155	5775	Not Required	16.0	No	12.2	13.0	Yes

Note(s):

1. For "Not required", 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.
2. When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
3. When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest *reported* SAR for UNII band 2A is
   - ≤ 1.2 W/kg, SAR is not required for UNII band I
   - > 1.2 W/kg, both bands should be tested independently for SAR.

9.7. Bluetooth

Measured Results

Band (GHz)	Mode	Ch #	Freq. (MHz)	Maximum Average Power (dBm)	
				Meas Pwr	Tune-up Limit
2.4	GFSK	0	2402	8.4	9.0
		39	2441	8.2	
		78	2480	7.2	
	EDR, 8-DPSK	0	2402	6.3	7.0
		39	2441	5.8	
		78	2480	5.6	
	LE, GFSK, 1M (37 pkt)	0	2402	4.9	6.0
		19	2440	5.8	
		39	2480	4.1	
	LE, GFSK, 2M (37 pkt)	0	2402	4.4	
		19	2440	5.4	
		39	2480	3.7	

Note(s):

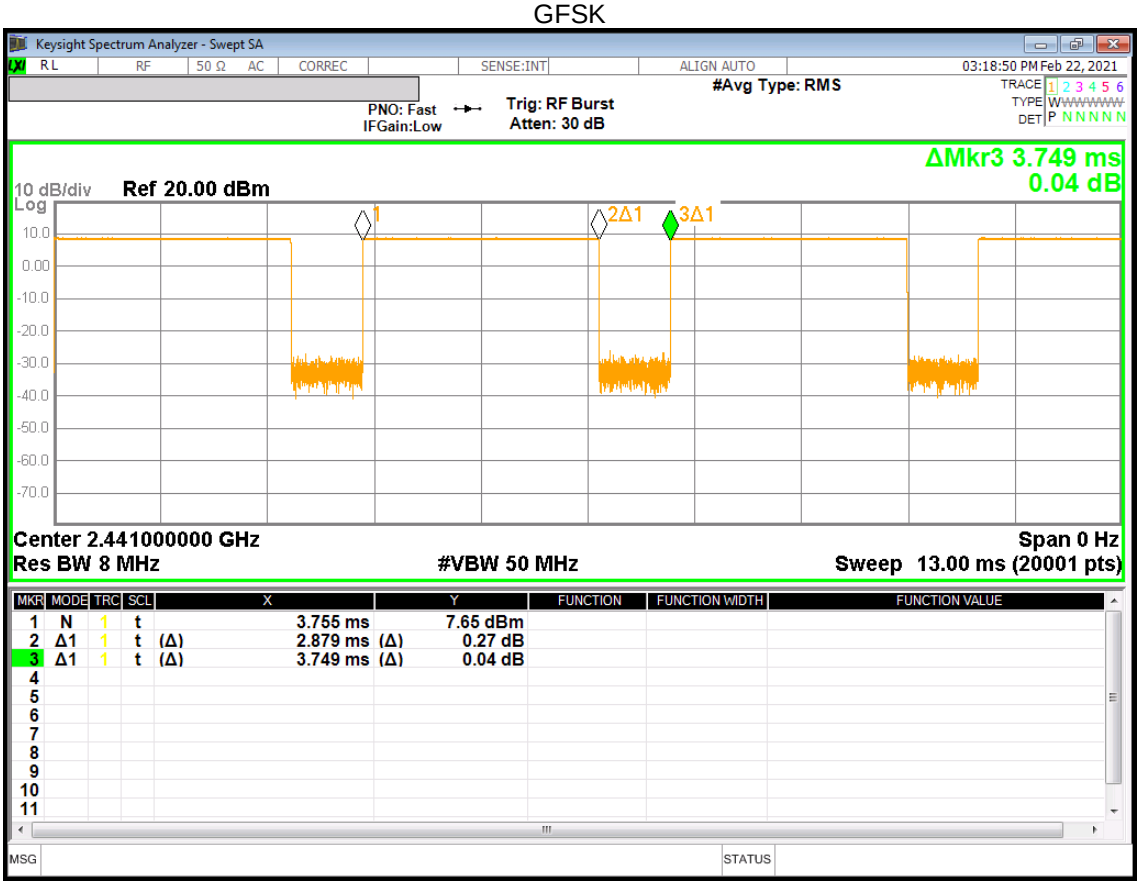
SAR test is evaluated at GFSK mode in Bluetooth

Duty Factor Measured Results

Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
GFSK	DH5	2.879	3.749	76.8%	1.30

Duty Cycle plots

GFSK



10. Measured and Reported (Scaled) SAR Results

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 (%)

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:

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

KDB 648474 D04 Handset SAR (Phablet Only):

For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm.
When hotspot mode does not apply, 10-g extremity SAR is required for all surfaces and edges with an antenna located at ≤ 25mm From that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; However, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, Including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

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 W/kg.

KDB 941225 D01 SAR test for 3G devices:

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

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 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 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
- Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 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 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.

KDB 248227 D01 SAR meas for 802.11:

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

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

- ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- > 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the *initial test position* to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the *reported* SAR is ≤ 0.8 W/kg or all required test positions are tested.
  - For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
  - When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the *initial test position* and subsequent test positions, when the *reported* SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the *reported* SAR is ≤ 1.2 W/kg or all required test channels are considered.
  - The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.
- 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.
- When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is ≤ 1.2 W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands 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. GSM 850

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Voice	N/A	0	Left Touch	190	836.6	34.0	32.9	0.183	0.236	
					Left Tilt	190	836.6	34.0	32.9	0.091	0.117	
					Right Touch	190	836.6	34.0	32.9	0.239	0.308	
					Right Tilt	190	836.6	34.0	32.9	0.110	0.142	
		GPRS 4 Slots	N/A	0	Left Touch	190	836.6	29.5	29.2	0.261	0.283	
					Left Tilt	190	836.6	29.5	29.2	0.128	0.139	
					Right Touch	190	836.6	29.5	29.2	0.360	0.390	1
					Right Tilt	190	836.6	29.5	29.2	0.156	0.169	
	Body-worn	GPRS 4 Slots	N/A	15	Rear	190	836.6	29.5	29.2	0.464	0.503	2
					Front	190	836.6	29.5	29.2	0.298	0.323	
	Hotspot	GPRS 4 Slots	N/A	10	Rear	190	836.6	29.5	29.2	0.730	0.791	3
					Front	190	836.6	29.5	29.2	0.256	0.277	
					Edge 2	190	836.6	29.5	29.2	0.368	0.399	
					Edge 3	190	836.6	29.5	29.2	0.176	0.191	
					Edge 4	190	836.6	29.5	29.2	0.216	0.234	

10.2. GSM 1900

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Voice	N/A	0	Left Touch	661	1880.0	30.5	29.7	0.087	0.104	
					Left Tilt	661	1880.0	30.5	29.7	0.049	0.058	
					Right Touch	661	1880.0	30.5	29.7	0.057	0.068	
					Right Tilt	661	1880.0	30.5	29.7	0.047	0.056	
		GPRS 4 Slots	N/A	0	Left Touch	661	1880.0	26.5	26.3	0.153	0.159	4
					Left Tilt	661	1880.0	26.5	26.3	0.085	0.088	
					Right Touch	661	1880.0	26.5	26.3	0.107	0.111	
					Right Tilt	661	1880.0	26.5	26.3	0.091	0.094	
	Body-worn	GPRS 4 Slots	N/A	15	Rear	661	1880.0	26.5	26.3	0.309	0.321	5
					Front	661	1880.0	26.5	26.3	0.162	0.168	
	Hotspot	GPRS 4 Slots	N/A	10	Rear	661	1880.0	26.5	26.3	0.645	0.669	6
					Front	661	1880.0	26.5	26.3	0.295	0.306	
					Edge 2	661	1880.0	26.5	26.3	0.115	0.119	
					Edge 3	661	1880.0	26.5	26.3	0.524	0.544	
					Edge 4	661	1880.0	26.5	26.3	0.328	0.340	

10.3. W-CDMA Band II

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Rel 99 RMC	Off	0	Left Touch	9400	1880.0	25.0	23.8	0.320	0.424	7
					Left Tilt	9400	1880.0	25.0	23.8	0.143	0.190	
					Right Touch	9400	1880.0	25.0	23.8	0.221	0.293	
					Rightt Tilt	9400	1880.0	25.0	23.8	0.151	0.200	
	Body-worn	Rel 99 RMC	Off	15	Rear	9262	1852.4	25.0	23.7	0.551	0.739	
						9400	1880.0	25.0	23.8	0.650	0.862	8
						9538	1907.6	25.0	24.1	0.519	0.646	
					Front	9400	1880.0	25.0	23.8	0.375	0.497	
	Hotspot	Rel 99 RMC	On	10	Rear	9262	1852.4	23.0	22.0	0.787	0.998	
						9400	1880.0	23.0	21.9	0.814	1.058	9
						9538	1907.6	23.0	22.0	0.714	0.893	
					Front	9400	1880.0	23.0	21.9	0.438	0.569	
					Edge 2	9400	1880.0	23.0	21.9	0.139	0.181	
					Edge 3	9400	1880.0	23.0	21.9	0.556	0.723	
					Edge 4	9400	1880.0	23.0	21.9	0.428	0.556	
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	Rel 99 RMC	Off	8	Rear	9400	1880.0	25.0	23.8	0.893	1.184	
			On	0	Rear	9400	1880.0	20.0	18.7	1.280	1.743	10

10.4. W-CDMA Band IV

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Rel 99 RMC	Off	0	Left Touch	1413	1732.6	25.0	23.8	0.265	0.351	11
					Left Tilt	1413	1732.6	25.0	23.8	0.169	0.224	
					Right Touch	1413	1732.6	25.0	23.8	0.193	0.255	
					Rightt Tilt	1413	1732.6	25.0	23.8	0.152	0.201	
	Body-worn	Rel 99 RMC	Off	15	Rear	1413	1732.6	25.0	23.8	0.469	0.621	12
					Front	1413	1732.6	25.0	23.8	0.435	0.576	
	Hotspot	Rel 99 RMC	On	10	Rear	1312	1712.4	23.0	22.0	0.499	0.631	13
					Front	1312	1712.4	23.0	22.0	0.459	0.581	
					Edge 2	1312	1712.4	23.0	22.0	0.169	0.214	
					Edge 3	1312	1712.4	23.0	22.0	0.451	0.570	
					Edge 4	1312	1712.4	23.0	22.0	0.315	0.398	

10.5. W-CDMA Band V

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Rel 99 RMC	N/A	0	Left Touch	4183	836.6	25.0	24.2	0.199	0.241	
					Left Tilt	4183	836.6	25.0	24.2	0.112	0.136	
					Right Touch	4183	836.6	25.0	24.2	0.281	0.341	14
					Rightt Tilt	4183	836.6	25.0	24.2	0.129	0.157	
	Body-worn	Rel 99 RMC	N/A	15	Rear	4183	836.6	25.0	24.2	0.298	0.362	15
					Front	4183	836.6	25.0	24.2	0.190	0.231	
	Hotspot	Rel 99 RMC	N/A	10	Rear	4183	836.6	25.0	24.2	0.587	0.712	16
					Front	4183	836.6	25.0	24.2	0.184	0.223	
					Edge 2	4183	836.6	25.0	24.2	0.226	0.274	
					Edge 3	4183	836.6	25.0	24.2	0.171	0.207	
					Edge 4	4183	836.6	25.0	24.2	0.146	0.177	

10.6. CDMA BC0

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	1xRTT RC3 SO55	N/A	0	Left Touch	384	836.5	25.0	24.0	0.167	0.209	
					Left Tilt	384	836.5	25.0	24.0	0.089	0.112	
					Right Touch	384	836.5	25.0	24.0	0.215	0.269	
					Rightt Tilt	384	836.5	25.0	24.0	0.093	0.117	
		1xEVDO Rev.A	N/A	0	Left Touch	384	836.5	25.0	23.9	0.196	0.255	
					Left Tilt	384	836.5	25.0	23.9	0.116	0.151	
					Right Touch	384	836.5	25.0	23.9	0.278	0.361	17
					Rightt Tilt	384	836.5	25.0	23.9	0.129	0.168	
	Body-worn	1xRTT RC3 SO32	N/A	15	Rear	384	836.5	25.0	24.0	0.230	0.287	18
					Front	384	836.5	25.0	24.0	0.135	0.168	
	Hotspot	1xEVDO Rel.0	N/A	10	Rear	384	836.5	25.0	23.9	0.596	0.766	19
					Front	384	836.5	25.0	23.9	0.177	0.227	
					Edge 2	384	836.5	25.0	23.9	0.209	0.269	
					Edge 3	384	836.5	25.0	23.9	0.142	0.183	
					Edge 4	384	836.5	25.0	23.9	0.126	0.162	

10.7. CDMA BC1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	1xRTT RC3 SO55	Off	0	Left Touch	600	1880.0	25.0	24.3	0.060	0.070	
					Left Tilt	600	1880.0	25.0	24.3	0.029	0.034	
					Right Touch	600	1880.0	25.0	24.3	0.040	0.047	
					Rightt Tilt	600	1880.0	25.0	24.3	0.028	0.033	
		1xEVDO Rev.A	Off	0	Left Touch	600	1880.0	25.0	24.5	0.072	0.081	20
					Left Tilt	600	1880.0	25.0	24.5	0.029	0.032	
					Right Touch	600	1880.0	25.0	24.5	0.043	0.049	
					Rightt Tilt	600	1880.0	25.0	24.5	0.031	0.035	
	Body-worn	1xRTT RC3 SO32	Off	15	Rear	600	1880.0	25.0	24.4	0.092	0.107	21
					Front	600	1880.0	25.0	24.4	0.064	0.074	
	Hotspot	1xEVDO Rel.0	Off	10	Rear	600	1880.0	25.0	24.8	0.171	0.180	22
					Front	600	1880.0	25.0	24.8	0.096	0.102	
					Edge 2	600	1880.0	25.0	24.8	0.040	0.042	
					Edge 3	600	1880.0	25.0	24.8	0.161	0.170	
					Edge 4	600	1880.0	25.0	24.8	0.109	0.115	

10.8. CDMA BC10

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	1xRTT RC3 SO55	N/A	0	Left Touch	580	820.5	26.0	25.0	0.085	0.108	23
					Left Tilt	580	820.5	26.0	25.0	0.051	0.065	
					Right Touch	580	820.5	26.0	25.0	0.082	0.104	
					Rightt Tilt	580	820.5	26.0	25.0	0.047	0.060	
		1xEVDO Rev.A	N/A	0	Left Touch	580	820.5	26.0	24.9	0.059	0.076	
					Left Tilt	580	820.5	26.0	24.9	0.037	0.047	
					Right Touch	580	820.5	26.0	24.9	0.078	0.101	
					Rightt Tilt	580	820.5	26.0	24.9	0.035	0.045	
	Body-worn	1xRTT RC3 SO32	N/A	15	Rear	580	820.5	26.0	24.7	0.116	0.156	24
					Front	580	820.5	26.0	24.7	0.070	0.094	
	Hotspot	1xEVDO Rel.0	N/A	10	Rear	580	820.5	26.0	24.8	0.164	0.216	25
					Front	580	820.5	26.0	24.8	0.059	0.078	
					Edge 2	580	820.5	26.0	24.8	0.087	0.115	
					Edge 3	580	820.5	26.0	24.8	0.037	0.049	
					Edge 4	580	820.5	26.0	24.8	0.049	0.064	

10.9. LTE Band 4 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Hotspot	QPSK	Off	10	Rear	20175	1732.5	1	0	25.0	23.1	0.874	1.341	26
								50	0	24.0	22.1	0.709	1.090	
								100	0	24.0	22.6	0.679	0.947	
					Front	20175	1732.5	1	0	25.0	23.1	0.656	1.006	
								50	0	24.0	22.1	0.547	0.841	
								100	0	24.0	22.6	0.544	0.758	
					Edge 2	20175	1732.5	1	0	25.0	23.1	0.289	0.443	
								50	0	24.0	22.1	0.244	0.375	
					Edge 3	20175	1732.5	1	0	25.0	23.1	0.781	1.198	
								50	0	24.0	22.1	0.649	0.998	
								100	0	24.0	22.6	0.654	0.912	
					Edge 4	20175	1732.5	1	0	25.0	23.1	0.525	0.805	
								50	0	24.0	22.1	0.425	0.653	
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	QPSK	Off	8	Rear	20175	1732.5	1	0	25.0	23.4	0.699	1.017	
			On	0	Rear	20175	1732.5	1	0	23.0	21.1	1.640	2.538	27

Note(s):

For Head & Body-worn exposure conditions, LTE Band 4 is overlap in LTE Band 66 due to same target power & narrow bandwidth. So Head & Body-worn SAR test does not evaluate in LTE Band 4.

10.10. LTE Band 7 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	On	0	Left Touch	21100	2535.0	1	49	18.5	17.8	0.256	0.300	
								50	24	18.5	17.8	0.247	0.288	
					Left Tilt	21100	2535.0	1	49	18.5	17.8	0.078	0.091	
								50	24	18.5	17.8	0.075	0.087	
					Right Touch	20850	2510.0	1	49	18.5	17.8	0.860	1.013	
								50	24	18.5	17.7	0.834	0.997	
								100	0	18.5	17.7	0.858	1.031	
						21100	2535.0	1	49	18.5	17.8	0.866	1.015	
								50	24	18.5	17.8	0.839	0.978	
						21350	2560.0	1	49	18.5	17.6	0.928	1.141	28
								50	24	18.5	17.6	0.882	1.085	
					Right Tilt	21100	2535.0	1	49	18.5	17.8	0.310	0.363	
								50	24	18.5	17.8	0.298	0.347	
	Body-worn	QPSK	Off	15	Rear	20850	2510.0	1	49	20.0	18.4	0.665	0.969	
								50	24	20.0	18.6	0.644	0.894	
								100	0	20.0	18.7	0.624	0.838	
						21100	2535.0	1	49	20.0	18.7	0.720	0.962	
								50	24	20.0	18.7	0.692	0.943	
						21350	2560.0	1	49	20.0	18.7	0.779	1.055	29
								50	24	20.0	18.6	0.762	1.048	
					Front	21100	2535.0	1	49	20.0	18.7	0.182	0.243	
								50	24	20.0	18.7	0.174	0.237	
	Hotspot	QPSK	On	10	Rear	21100	2535.0	1	49	15.5	14.3	0.463	0.605	
								50	24	15.5	14.2	0.444	0.593	
					Front	21100	2535.0	1	49	15.5	14.3	0.124	0.162	
								50	24	15.5	14.2	0.120	0.160	
					Edge 1	21100	2535.0	1	49	15.5	14.3	0.030	0.039	
								50	24	15.5	14.2	0.028	0.037	
					Edge 4	21100	2535.0	1	49	15.5	14.3	0.477	0.623	30
								50	24	15.5	14.2	0.464	0.619	
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Product Specific 10g	QPSK	Off	14	Rear	21100	2535.0	1	49	20.0	18.7	0.371	0.496	
								50	24	20.0	18.7	0.358	0.488	
				14	Edge4	21100	2535.0	1	49	20.0	18.7	0.375	0.501	
								50	24	20.0	18.7	0.363	0.495	
			On	0	Rear	21100	2535.0	1	49	16.0	14.9	1.120	1.455	
								50	24	16.0	14.8	1.030	1.351	
				0	Edge4	21100	2535.0	1	49	16.0	14.9	1.250	1.624	31
								50	24	16.0	14.8	1.060	1.391	

10.11. LTE Band 12 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	23095	707.5	1	25	25.0	23.7	0.165	0.224	
								25	12	24.0	22.6	0.127	0.177	
					Left Tilt	23095	707.5	1	25	25.0	23.7	0.090	0.122	
								25	12	24.0	22.6	0.068	0.094	
					Right Touch	23095	707.5	1	25	25.0	23.7	0.180	0.244	32
								25	12	24.0	22.6	0.139	0.194	
					Right Tilt	23095	707.5	1	25	25.0	23.7	0.094	0.128	
								25	12	24.0	22.6	0.075	0.104	
	Body-worn	QPSK	N/A	15	Rear	23095	707.5	1	25	25.0	23.7	0.312	0.424	33
								25	12	24.0	22.6	0.244	0.340	
					Front	23095	707.5	1	25	25.0	23.7	0.176	0.239	
								25	12	24.0	22.6	0.135	0.188	
	Hotspot	QPSK	N/A	10	Rear	23095	707.5	1	25	25.0	23.7	0.350	0.475	34
								25	12	24.0	22.6	0.274	0.382	
					Front	23095	707.5	1	25	25.0	23.7	0.161	0.219	
								25	12	24.0	22.6	0.123	0.171	
					Edge 2	23095	707.5	1	25	25.0	23.7	0.208	0.283	
								25	12	24.0	22.6	0.160	0.223	
					Edge 3	23095	707.5	1	25	25.0	23.7	0.064	0.087	
								25	12	24.0	22.6	0.049	0.068	
					Edge 4	23095	707.5	1	25	25.0	23.7	0.138	0.187	
								25	12	24.0	22.6	0.107	0.149	

10.12. LTE Band 13 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	23230	782.0	1	25	25.0	23.8	0.201	0.268	
								25	25	24.0	22.8	0.152	0.199	
					Left Tilt	23230	782.0	1	25	25.0	23.8	0.122	0.163	
								25	25	24.0	22.8	0.094	0.123	
					Right Touch	23230	782.0	1	25	25.0	23.8	0.245	0.327	35
								25	25	24.0	22.8	0.174	0.227	
					Right Tilt	23230	782.0	1	25	25.0	23.8	0.132	0.176	
								25	25	24.0	22.8	0.097	0.127	
	Body-worn	QPSK	N/A	15	Rear	23230	782.0	1	25	25.0	23.8	0.331	0.441	36
								25	25	24.0	22.8	0.244	0.319	
					Front	23230	782.0	1	25	25.0	23.8	0.206	0.275	
								25	25	24.0	22.8	0.151	0.197	
	Hotspot	QPSK	N/A	10	Rear	23230	782.0	1	25	25.0	23.8	0.454	0.605	37
								25	25	24.0	22.8	0.357	0.467	
					Front	23230	782.0	1	25	25.0	23.8	0.185	0.247	
								25	25	24.0	22.8	0.138	0.180	
					Edge 2	23230	782.0	1	25	25.0	23.8	0.255	0.340	
								25	25	24.0	22.8	0.185	0.242	
					Edge 3	23230	782.0	1	25	25.0	23.8	0.106	0.141	
								25	25	24.0	22.8	0.084	0.109	
					Edge 4	23230	782.0	1	25	25.0	23.8	0.183	0.244	
								25	25	24.0	22.8	0.134	0.175	

10.13. LTE Band 14 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	23330	793.0	1	25	25.0	23.7	0.200	0.270	
								25	25	24.0	22.7	0.146	0.197	
					Left Tilt	23330	793.0	1	25	25.0	23.7	0.106	0.143	
								25	25	24.0	22.7	0.077	0.103	
					Right Touch	23330	793.0	1	25	25.0	23.7	0.223	0.301	38
								25	25	24.0	22.7	0.168	0.227	
					Right Tilt	23330	793.0	1	25	25.0	23.7	0.131	0.177	
								25	25	24.0	22.7	0.099	0.134	
	Body-worn	QPSK	N/A	15	Rear	23330	793.0	1	25	25.0	23.7	0.267	0.360	39
								25	25	24.0	22.7	0.201	0.271	
					Front	23330	793.0	1	25	25.0	23.7	0.165	0.223	
								25	25	24.0	22.7	0.123	0.166	
	Hotspot	QPSK	N/A	10	Rear	23330	793.0	1	25	25.0	23.7	0.413	0.558	40
								25	25	24.0	22.7	0.306	0.413	
					Front	23330	793.0	1	25	25.0	23.7	0.151	0.204	
								25	25	24.0	22.7	0.113	0.152	
					Edge 2	23330	793.0	1	25	25.0	23.7	0.199	0.269	
								25	25	24.0	22.7	0.154	0.208	
					Edge 3	23330	793.0	1	25	25.0	23.7	0.102	0.138	
								25	25	24.0	22.7	0.086	0.116	
					Edge 4	23330	793.0	1	25	25.0	23.7	0.138	0.186	
								25	25	24.0	22.7	0.111	0.150	

10.14. LTE Band 25 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	Off	0	Left Touch	26365	1882.5	1	49	25.0	24.5	0.287	0.325	41
								50	24	24.0	23.5	0.216	0.245	
					Left Tilt	26365	1882.5	1	49	25.0	24.5	0.140	0.159	
								50	24	24.0	23.5	0.105	0.119	
					Right Touch	26365	1882.5	1	49	25.0	24.5	0.182	0.206	
								50	24	24.0	23.5	0.138	0.156	
					Right Tilt	26365	1882.5	1	49	25.0	24.5	0.134	0.152	
								50	24	24.0	23.5	0.104	0.118	
	Body-worn	QPSK	Off	15	Rear	26365	1882.5	1	49	25.0	24.5	0.496	0.562	42
								50	24	24.0	23.5	0.385	0.437	
					Front	26365	1882.5	1	49	25.0	24.5	0.291	0.330	
								50	24	24.0	23.5	0.223	0.253	
	Hotspot	QPSK	Off	10	Rear	26140	1860.0	1	49	25.0	24.3	0.995	1.165	43
								50	24	24.0	23.4	0.765	0.878	
						26365	1882.5	1	49	25.0	24.5	0.963	1.092	
								50	24	24.0	23.5	0.740	0.839	
								100	0	24.0	23.3	0.755	0.885	
						26590	1905.0	1	49	25.0	24.3	0.879	1.029	
								50	24	24.0	23.1	0.676	0.827	
					Front	26365	1882.5	1	49	25.0	24.5	0.535	0.607	
								50	24	24.0	23.5	0.411	0.466	
					Edge 2	26365	1882.5	1	49	25.0	24.5	0.172	0.195	
								50	24	24.0	23.5	0.131	0.149	
					Edge 3	26140	1860.0	1	49	25.0	24.3	0.837	0.980	
								50	24	24.0	23.4	0.635	0.729	
						26365	1882.5	1	49	25.0	24.5	0.848	0.962	
								50	24	24.0	23.5	0.655	0.743	
								100	0	24.0	23.3	0.643	0.753	
						26590	1905.0	1	49	25.0	24.3	0.752	0.881	
								50	24	24.0	23.1	0.575	0.703	
					Edge 4	26365	1882.5	1	49	25.0	24.5	0.546	0.619	
								50	24	24.0	23.5	0.418	0.474	

10.15. LTE Band 26 (15MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	26865	831.5	1	0	25.0	24.2	0.177	0.213	
								36	0	24.0	22.9	0.146	0.187	
					Left Tilt	26865	831.5	1	0	25.0	24.2	0.101	0.122	
								36	0	24.0	22.9	0.079	0.102	
					Right Touch	26865	831.5	1	0	25.0	24.2	0.203	0.245	44
								36	0	24.0	22.9	0.179	0.229	
					Right Tilt	26865	831.5	1	0	25.0	24.2	0.090	0.109	
								36	0	24.0	22.9	0.087	0.111	
	Body-worn	QPSK	N/A	15	Rear	26865	831.5	1	0	25.0	24.2	0.239	0.288	45
								36	0	24.0	22.9	0.201	0.258	
					Front	26865	831.5	1	0	25.0	24.2	0.176	0.212	
								36	0	24.0	22.9	0.145	0.186	
	Hotspot	QPSK	N/A	10	Rear	26865	831.5	1	0	25.0	24.2	0.537	0.647	46
								36	0	24.0	22.9	0.456	0.584	
					Front	26865	831.5	1	0	25.0	24.2	0.157	0.189	
								36	0	24.0	22.9	0.135	0.173	
					Edge 2	26865	831.5	1	0	25.0	24.2	0.233	0.281	
								36	0	24.0	22.9	0.193	0.247	
					Edge 3	26865	831.5	1	0	25.0	24.2	0.128	0.154	
								36	0	24.0	22.9	0.109	0.140	
					Edge 4	26865	831.5	1	0	25.0	24.2	0.170	0.205	
								36	0	24.0	22.9	0.134	0.172	

10.16. LTE Band 30 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	On	0	Left Touch	27710	2310.0	1	25	19.0	18.4	0.533	0.613	
								25	12	19.0	18.3	0.412	0.487	
					Left Tilt	27710	2310.0	1	25	19.0	18.4	0.264	0.304	
								25	12	19.0	18.3	0.205	0.242	
					Right Touch	27710	2310.0	1	25	19.0	18.4	0.560	0.644	
								25	12	19.0	18.3	0.553	0.653	47
					Right Tilt	27710	2310.0	1	25	19.0	18.4	0.231	0.266	
								25	12	19.0	18.3	0.225	0.266	
	Body-worn	QPSK	Off	15	Rear	27710	2310.0	1	25	23.0	22.0	0.931	1.172	48
								25	12	22.0	20.8	0.770	1.012	
								50	0	22.0	20.8	0.673	0.887	
					Front	27710	2310.0	1	25	23.0	22.0	0.215	0.271	
								25	12	22.0	20.8	0.167	0.219	
	Hotspot	QPSK	On	10	Rear	27710	2310.0	1	25	18.0	17.6	0.630	0.696	49
								25	12	18.0	17.5	0.618	0.686	
					Front	27710	2310.0	1	25	18.0	17.6	0.128	0.141	
								25	12	18.0	17.5	0.127	0.141	
					Edge 1	27710	2310.0	1	25	18.0	17.6	0.045	0.049	
								25	12	18.0	17.5	0.043	0.048	
					Edge 4	27710	2310.0	1	25	18.0	17.6	0.330	0.365	
								25	12	18.0	17.5	0.321	0.356	
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Product Specific 10g	QPSK	Off	14	Rear	27710	2310.0	1	25	23.0	21.9	0.584	0.753	
								25	12	22.0	20.8	0.454	0.596	
			On	0	Rear	27710	2310.0	1	25	18.5	17.4	1.240	1.607	50
								25	12	18.5	17.3	1.150	1.524	

10.17. LTE Band 38 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	On	0	Left Touch	38000	2595.0	1	49	20.0	19.9	0.111	0.113	
								50	24	20.0	19.6	0.109	0.121	
					Left Tilt	38000	2595.0	1	49	20.0	19.9	0.029	0.029	
								50	24	20.0	19.6	0.028	0.031	
					Right Touch	38000	2595.0	1	49	20.0	19.9	0.510	0.519	
								50	24	20.0	19.6	0.515	0.570	51
					Right Tilt	38000	2595.0	1	49	20.0	19.9	0.151	0.154	
								50	24	20.0	19.6	0.150	0.166	
	Hotspot	QPSK	On	10	Rear	38000	2595.0	1	49	21.0	20.9	0.485	0.498	
								50	24	21.0	20.5	0.452	0.504	
					Front	38000	2595.0	1	49	21.0	20.9	0.104	0.107	
								50	24	21.0	20.5	0.107	0.119	
					Edge 1	38000	2595.0	1	49	21.0	20.9	0.033	0.034	
								50	24	21.0	20.5	0.033	0.036	
					Edge 4	38000	2595.0	1	49	21.0	20.9	0.567	0.582	
								50	24	21.0	20.5	0.566	0.631	52

Note(s):

For Body-worn exposure condition, LTE Band 38 is overlap in LTE Band 41 due to same target power & narrow bandwidth. So Body-worn SAR test does not evaluate in LTE Band 38.

10.18. LTE Band 41 (20MHz Bandwidth)

LTE Band 41 Power Class 3

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	On	0	Left Touch	40620	2593.0	1	0	19.0	18.9	0.157	0.161	
								50	0	19.0	18.4	0.163	0.187	
					Left Tilt	40620	2593.0	1	0	19.0	18.9	0.054	0.055	
								50	0	19.0	18.4	0.056	0.064	
					Right Touch	39750	2506.0	1	0	19.0	18.3	0.515	0.605	
								50	0	19.0	18.3	0.543	0.645	
						40185	2549.5	1	0	19.0	18.1	0.574	0.709	
								50	0	19.0	18.2	0.594	0.712	
						40620	2593.0	1	0	19.0	18.9	0.655	0.673	
								50	0	19.0	18.4	0.686	0.788	
								100	0	19.0	18.3	0.710	0.832	53
						41055	2636.5	1	0	19.0	18.1	0.661	0.818	
								50	0	19.0	18.0	0.661	0.824	
						41490	2680.0	1	0	19.0	18.0	0.586	0.743	
								50	0	19.0	18.1	0.588	0.717	
					Right Tilt	40620	2593.0	1	0	19.0	18.9	0.178	0.183	
								50	0	19.0	18.4	0.182	0.209	
	Body-worn	QPSK	Off	15	Rear	39750	2506.0	1	0	24.0	23.7	1.090	1.181	
								50	0	23.0	22.5	0.920	1.035	
						40185	2549.5	1	0	24.0	23.7	1.120	1.189	
								50	0	23.0	22.5	0.903	1.016	
						40620	2593.0	1	0	24.0	23.9	1.160	1.195	54
								50	0	23.0	22.6	0.951	1.035	
								100	0	23.0	22.5	0.928	1.029	
						41055	2636.5	1	0	24.0	23.6	1.050	1.162	
								50	0	23.0	22.3	0.835	0.976	
						41490	2680.0	1	0	24.0	23.6	0.862	0.954	
								50	0	23.0	22.4	0.679	0.783	
					Front	40620	2593.0	1	0	24.0	23.9	0.241	0.248	
								50	0	23.0	22.6	0.197	0.214	
	Hotspot	QPSK	On	10	Rear	39750	2506.0	1	0	18.0	17.6	0.508	0.563	
								50	0	18.0	17.0	0.541	0.680	
						40185	2549.5	1	0	18.0	17.5	0.549	0.622	
								50	0	18.0	17.0	0.554	0.695	
						40620	2593.0	1	0	18.0	17.6	0.594	0.651	
								50	0	18.0	17.2	0.629	0.749	
						41055	2636.5	1	0	18.0	17.4	0.523	0.600	
								50	0	18.0	16.9	0.514	0.666	
						41490	2680.0	1	0	18.0	17.4	0.458	0.528	
								50	0	18.0	16.9	0.456	0.583	
					Front	40620	2593.0	1	0	18.0	17.6	0.133	0.146	
								50	0	18.0	17.2	0.138	0.164	
					Edge 1	40620	2593.0	1	0	18.0	17.6	0.040	0.044	
								50	0	18.0	17.2	0.042	0.051	
					Edge 4	39750	2506.0	1	0	18.0	17.6	0.492	0.546	
								50	0	18.0	17.0	0.525	0.660	
						40185	2549.5	1	0	18.0	17.5	0.572	0.648	
								50	0	18.0	17.0	0.578	0.725	
						40620	2593.0	1	0	18.0	17.6	0.665	0.729	
								50	0	18.0	17.2	0.699	0.833	55
						41055	2636.5	1	0	18.0	17.4	0.652	0.749	
								50	0	18.0	16.9	0.643	0.833	
						41490	2680.0	1	0	18.0	17.4	0.547	0.631	
								50	0	18.0	16.9	0.547	0.699	

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Product Specific 10g	QPSK	Off	14	Rear	40620	2593.0	1	0	24.0	23.7	0.520	0.560	
								50	0	23.0	22.6	0.423	0.460	
				14	Edge4	40620	2593.0	1	0	24.0	23.7	0.644	0.694	
								50	0	23.0	22.6	0.534	0.581	
			On	0	Rear	40620	2593.0	1	0	18.0	17.5	0.794	0.889	
								50	0	18.0	17.1	0.804	0.984	
				0	Edge4	40620	2593.0	1	0	18.0	17.5	0.942	1.055	
								50	0	18.0	17.1	0.948	1.160	56

LTE Band 41 Power Class 2

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	On	0	Right Touch	40620	2593.0	100	0	22.0	21.5	0.833	0.941	57
	Body-worn	QPSK	Off	15	Rear	40620	2593.0	1	0	27.0	26.6	0.974	1.074	58
	Hotspot	QPSK	On	10	Edge 4	40620	2593.0	50	0	21.0	19.5	0.788	1.104	59
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant	Product Specific 10g	QPSK	On	0	Edge 4	40620	2593.0	50	0	21.0	20.0	1.230	1.544	60

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, configuration # 1 with duty cycle 43.3% is used for Power Class 2 SAR test.

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 or 3.5 W/kg (1-g or 10-g respectively)

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)	Fram Avg. Power (dBm)	Reported SAR (W/kg)	Duty Cycle	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)		
Main 2 Ant.	Head	43.3	22.0	68.6	0.941	63.3	19.0	50.3	0.832	1.136	-17.1
	Body-worn	43.3	27.0	217.0	1.074	63.3	24.0	159.0	1.195	1.631	-34.2
	Hotspot	43.3	21.0	54.5	1.104	63.3	18.0	39.9	0.833	1.137	-2.9
	Product Specific 10g	43.3	21.0	54.5	1.544	63.3	18.0	39.9	1.160	1.583	-2.5

Note(s):

SAR test for Power Class 2 is not required base on the reported SAR < 1.4 or 3.5 W/kg (1-g or 10-g respectively) and reported SAR vs. output power linearly scaled < 10%.

10.19. LTE Band 66 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	Off	0	Left Touch	132072	1720.0	1	0	25.0	23.7	0.225	0.302	61
								50	0	24.0	22.7	0.198	0.268	
					Left Tilt	132072	1720.0	1	0	25.0	23.7	0.154	0.207	
								50	0	24.0	22.7	0.125	0.169	
					Right Touch	132072	1720.0	1	0	25.0	23.7	0.180	0.242	
								50	0	24.0	22.7	0.154	0.208	
					Right Tilt	132072	1720.0	1	0	25.0	23.7	0.136	0.183	
								50	0	24.0	22.7	0.119	0.161	
	Body-worn	QPSK	Off	15	Rear	132072	1720.0	1	0	25.0	23.7	0.395	0.531	62
								50	0	24.0	22.7	0.313	0.423	
					Front	132072	1720.0	1	0	25.0	23.7	0.363	0.488	
								50	0	24.0	22.7	0.288	0.389	
	Hotspot	QPSK	On	10	Rear	132072	1720.0	1	0	24.0	22.8	0.594	0.778	63
								50	0	24.0	22.9	0.598	0.770	
					Front	132072	1720.0	1	0	24.0	22.8	0.467	0.611	
								50	0	24.0	22.9	0.473	0.609	
					Edge 2	132072	1720.0	1	0	24.0	22.8	0.179	0.234	
								50	0	24.0	22.9	0.183	0.236	
					Edge 3	132072	1720.0	1	0	24.0	22.8	0.553	0.724	
								50	0	24.0	22.9	0.564	0.727	
					Edge 4	132072	1720.0	1	0	24.0	22.8	0.340	0.445	
								50	0	24.0	22.9	0.338	0.435	

10.20. LTE Band 71 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	133297	680.5	1	49	25.0	24.2	0.159	0.192	
								50	24	24.0	22.9	0.118	0.152	
					Left Tilt	133297	680.5	1	49	25.0	24.2	0.083	0.100	
								50	24	24.0	22.9	0.066	0.085	
					Right Touch	133297	680.5	1	49	25.0	24.2	0.167	0.201	64
								50	24	24.0	22.9	0.118	0.152	
					Right Tilt	133297	680.5	1	49	25.0	24.2	0.079	0.095	
								50	24	24.0	22.9	0.060	0.078	
	Body-worn	QPSK	N/A	15	Rear	133297	680.5	1	49	25.0	24.2	0.319	0.384	65
								50	24	24.0	22.9	0.247	0.319	
					Front	133297	680.5	1	49	25.0	24.2	0.137	0.165	
								50	24	24.0	22.9	0.109	0.141	
	Hotspot	QPSK	N/A	10	Rear	133297	680.5	1	49	25.0	24.2	0.380	0.458	66
								50	24	24.0	22.9	0.290	0.375	
					Front	133297	680.5	1	49	25.0	24.2	0.155	0.187	
								50	24	24.0	22.9	0.113	0.146	
					Edge 2	133297	680.5	1	49	25.0	24.2	0.186	0.224	
								50	24	24.0	22.9	0.143	0.185	
					Edge 3	133297	680.5	1	49	25.0	24.2	0.046	0.055	
								50	24	24.0	22.9	0.036	0.046	
					Edge 4	133297	680.5	1	49	25.0	24.2	0.146	0.176	
								50	24	24.0	22.9	0.128	0.165	

10.21. Wi-Fi (DTS Band)

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
										Tune-up limit	Meas.	Meas.	Scaled		
2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	11	2462.0	0.128	99.8%	14.0	13.8				
					Left Tilt	11	2462.0	0.167	99.8%	14.0	13.8				
					Right Touch	11	2462.0	0.389	99.8%	14.0	13.8	0.260	0.271	1	67
					Rightt Tilt	11	2462.0	0.300	99.8%	14.0	13.8				
		Body-worn	Off	15	Rear	11	2462.0	0.435	99.8%	23.0	22.7	0.307	0.333	1	68
					Front	11	2462.0	0.292	99.8%	23.0	22.7				
		Hotspot	Off	10	Rear	6	2437.0	-	99.8%	23.0	22.5	0.350	0.391	3	
						11	2462.0	1.100	99.8%	23.0	22.7	0.777	0.842		69
					Front	11	2462.0	0.524	99.8%	23.0	22.7	0.396	0.429	2	
					Edge 1	11	2462.0	0.451	99.8%	23.0	22.7	0.339	0.367	4	
					Edge 4	11	2462.0	0.372	99.8%	23.0	22.7	0.280	0.303	4	

Note(s):

1. When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.
5. 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.

10.22. Wi-Fi (U-NII Bands)

U-NII 2A Results

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	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)		Note	Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
5.3 GHz U-NII 2A	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	58	5290.0	0.139	96.4%	13.0	12.4						
					Left Tilt	58	5290.0	0.164	96.4%	13.0	12.4						
					Right Touch	58	5290.0	0.159	96.4%	13.0	12.4						
					Right Tilt	58	5290.0	0.206	96.4%	13.0	12.4	0.085	0.101			1	70
	802.11a 6 Mbps	Body-worn	Off	15	Rear	60	5300.0	0.600	98.4%	19.0	18.3	0.262	0.316			1	71
					Front	60	5300.0	0.088	98.4%	19.0	18.3						
		Product Specific 10-g	Off	0	Rear	60	5300.0	8.086	98.4%	19.0	18.3			0.610	0.737	1	72
					Front	60	5300.0	0.785	98.4%	19.0	18.3						
					Edge 1	60	5300.0	4.017	98.4%	19.0	18.3						
					Edge 4	60	5300.0	0.785	98.4%	19.0	18.3						

U-NII 2C Results

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	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)		Note	Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
5.5 GHz U-NII 2C	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	122	5610.0	0.091	96.4%	13.0	12.9						
					Left Tilt	122	5610.0	0.097	96.4%	13.0	12.9						
					Right Touch	122	5610.0	0.102	96.4%	13.0	12.9						
					Right Tilt	122	5610.0	0.117	96.4%	13.0	12.9	0.047	0.049			1	73
	802.11a 6 Mbps	Body-worn	Off	15	Rear	144	5720.0	0.244	98.4%	19.0	18.6	0.109	0.121			1	74
					Front	144	5720.0	0.044	98.4%	19.0	18.6						
		Product Specific 10-g	Off	0	Rear	144	5720.0	4.848	98.4%	19.0	18.6			0.415	0.462	1	75
					Front	144	5720.0	0.513	98.4%	19.0	18.6						
					Edge 1	144	5720.0	2.735	98.4%	19.0	18.6						
					Edge 4	144	5720.0	0.597	98.4%	19.0	18.6						

U-NII 3 Results

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
										Tune-up limit	Meas.	Meas.	Scaled		
5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	155	5775.0	0.075	96.4%	13.0	12.2				
					Left Tilt	155	5775.0	0.083	96.4%	13.0	12.2				
					Right Touch	155	5775.0	0.077	96.4%	13.0	12.2				
					Right Tilt	155	5775.0	0.081	96.4%	13.0	12.2	0.022	0.027	1	76
	802.11a 6 Mbps	Body-worn	Off	15	Rear	149	5745.0	0.177	98.4%	19.0	18.4	0.077	0.089	1	77
					Front	149	5745.0	0.037	98.4%	19.0	18.4				
		Hotspot	Off	10	Rear	149	5745.0	0.407	98.4%	19.0	18.4	0.168	0.195	1	78
					Front	149	5745.0	0.050	98.4%	19.0	18.4				
					Edge 1	149	5745.0	0.199	98.4%	19.0	18.4				
					Edge 4	149	5745.0	0.129	98.4%	19.0	18.4	0.053	0.062	4	

Note(s):

1. When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.

10.23. Bluetooth

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
2.4 GHz	GFSK	Head	N/A	0	Left Touch	0	2402.0	76.8%	9.0	8.4	0.009	0.013	
					Left Tilt	0	2402.0	76.8%	9.0	8.4	0.009	0.013	
					Right Touch	0	2402.0	76.8%	9.0	8.4	0.027	0.040	79
					Right Tilt	0	2402.0	76.8%	9.0	8.4	0.019	0.029	
	GFSK	Body-worn	N/A	15	Rear	0	2402.0	76.8%	9.0	8.4	<0.001	<0.001	80
					Front	0	2402.0	76.8%	9.0	8.4	<0.001	<0.001	
	GFSK	Hotspot	N/A	10	Rear	0	2402.0	76.8%	9.0	8.4	0.006	0.009	81
					Front	0	2402.0	76.8%	9.0	8.4	<0.001	<0.001	
					Edge 1	0	2402.0	76.8%	9.0	8.4	0.002	0.003	
					Edge 4	0	2402.0	76.8%	9.0	8.4	0.002	0.003	

10.24. LTE-uplink 2CA Band 41 (20MHz + 20MHZ BW)

Antenna	RF Exposure Conditions	Mode	PWR Back-off	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 offest	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	On	0	Right Touch	40620	2593.0	100	0	40422	2573.2	100	0	19.0	18.6	0.776	0.855			82
	Body-worn	QPSK	Off	15	Rear	40620	2593.0	1	0	40422	2573.2	1	99	24.0	23.9	1.180	1.199			83
	Hotspot	QPSK	On	10	Edge 4	40620	2593.0	50	0	40422	2573.2	50	50	18.0	17.9	0.800	0.819			84
	Hotspot	QPSK	On	10	Edge 4	40620	2593.0	50	0	40422	2573.2	50	50	18.0	17.9			1.430	1.463	85

11. SAR Measurement Variability

In accordance with published RF Exposure KDB 865664 D01 SAR measurement 100 MHz to 6 GHz. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is <0.8 or 2 W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.8 or 2 W/kg (1-g or 10-g respectively), repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 or 3.6 W/kg (~ 10% from the 1-g or 10-g respective SAR limit).
4) Perform a third repeated measurement only if the original, first, or second repeated measurement is ≥ 1.5 or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Peak spatial-average (1g of tissue)

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
700	LTE Band 12	Hotspot	Rear	No	0.350	N/A	N/A
	LTE Band 13	Hotspot	Rear	No	0.454	N/A	N/A
	LTE Band 14	Hotspot	Rear	No	0.413	N/A	N/A
	LTE Band 71	Hotspot	Rear	No	0.380	N/A	N/A
835	GSM 850	Hotspot	Rear	No	0.730	N/A	N/A
	WCDMA Band V	Hotspot	Rear	No	0.587	N/A	N/A
	CDMA BC0	Hotspot	Rear	No	0.596	N/A	N/A
	CDMA BC10	Hotspot	Rear	No	0.164	N/A	N/A
	LTE Band 26	Hotspot	Rear	No	0.537	N/A	N/A
1750	WCDMA Band IV	Hotspot	Rear	No	0.499	N/A	N/A
	LTE Band 4	Hotspot	Rear	Yes	0.874	0.873	1.00
	LTE Band 66	Hotspot	Rear	No	0.594	N/A	N/A
1900	GSM 1900	Hotspot	Rear	No	0.645	N/A	N/A
	WCDMA Band II	Hotspot	Rear	No	0.814	N/A	N/A
	CDMA BC1	Hotspot	Rear	No	0.174	N/A	N/A
	LTE Band 25	Hotspot	Rear	Yes	0.995	0.962	1.03
2300	LTE Band 30	Hotspot	Rear	No	0.630	N/A	N/A
2400	Wi-Fi 802.11b/g/n	Hotspot	Rear	No	0.777	N/A	N/A
	Bluetooth	Head	Right Touch	No	0.027	N/A	N/A
2600	LTE Band 7	Head	Right Touch	No	0.928	N/A	N/A
	LTE Band 38	Head	Right Touch	No	0.515	N/A	N/A
	LTE Band 41	Body-worn	Rear	Yes	1.180	1.150	1.03
5300	Wi-Fi 802.11a/n	Body-worn	Rear	No	0.262	N/A	N/A
5500	Wi-Fi 802.11a/n	Body-worn	Rear	No	0.109	N/A	N/A
5800	Wi-Fi 802.11a/n	Hotspot	Rear	No	0.168	N/A	N/A

Peak spatial-average (10g of tissue)

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
1750	LTE Band 4	Product Specific 10g	Rear	No	1.640	N/A	N/A
1900	WCDMA Band II	Product Specific 10g	Rear	No	1.280	N/A	N/A
2300	LTE Band 30	Product Specific 10g	Rear	No	1.240	N/A	N/A
2600	LTE Band 7	Product Specific 10g	Edge 4	No	1.250	N/A	N/A
	LTE Band 41	Product Specific 10g	Edge 4	No	1.430	N/A	N/A
5300	Wi-Fi 802.11a/n	Product Specific 10g	Rear	No	0.610	N/A	N/A
5500	Wi-Fi 802.11a/n	Product Specific 10g	Rear	No	0.415	N/A	N/A

Note(s):

Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.

12. Simultaneous Transmission SAR Analysis

Simultaneous Transmission Condition

RF Exposure Condition	Item	Capable Transmit Configurations				
Head & Body-worn & Phablet-10g	1	GSM(Voice/GPRS)	+	DTS		
	2	GSM(Voice/GPRS)	+	U-NII		
	3	GSM(Voice/GPRS)	+	BT		
	4	GSM(Voice/GPRS)	+	U-NII	+	BT
	5	CDMA(1xRTT/1xEVDO)	+	DTS		
	6	CDMA(1xRTT/1xEVDO)	+	U-NII		
	7	CDMA(1xRTT/1xEVDO)	+	BT		
	8	CDMA(1xRTT/1xEVDO)	+	U-NII	+	BT
	9	WCDMA or LTE	+	DTS		
	10	WCDMA or LTE	+	U-NII		
	11	WCDMA or LTE	+	BT		
	12	WCDMA or LTE	+	U-NII	+	BT
Hotspot	13	GSM(GPRS)	+	DTS		
	14	GSM(GPRS)	+	U-NII		
	15	GSM(GPRS)	+	BT		
	16	GSM(GPRS)	+	U-NII	+	BT
	17	CDMA(1xRTT/1xEVDO)	+	DTS		
	18	CDMA(1xRTT/1xEVDO)	+	U-NII		
	19	CDMA(1xRTT/1xEVDO)	+	BT		
	20	CDMA(1xRTT/1xEVDO)	+	U-NII	+	BT
	21	WCDMA or LTE	+	DTS		
	22	WCDMA or LTE	+	U-NII		
	23	WCDMA or LTE	+	BT		
	24	WCDMA or LTE	+	U-NII	+	BT

Notes:

1. DTS supports Wi-Fi Direct, Hotspot and VoIP.
2. U-NII supports Wi-Fi Direct, Hotspot and VoIP.
3. GPRS, 1xEVDO, W-CDMA, LTE supports Hotspot and VoIP
4. U-NII Radio can transmit simultaneously with Bluetooth Radio.
5. DTS Radio cannot transmit simultaneously with Bluetooth Radio.
6. DTS Radio cannot transmit simultaneously with U-NII Radio.
7. BT tethering is considered about each RF exposure conditions.

Simultaneous transmission SAR test exclusion considerations

KDB 447498 D01 General RF Exposure Guidance provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR and SAR to Peak Location Ratio (SPLSR)

Sum of SAR

To qualify for simultaneous transmission SAR test exclusion based upon Sum of SAR the sum of the reported standalone SARs for all simultaneously transmitting antennas shall be below the applicable standalone SAR limit. If the sum of the SARs is above the applicable limit then simultaneous transmission SAR test exclusion may still apply if the requirements of the SAR to Peak Location Ratio (SPLSR) evaluation are met.

SAR to Peak Location Ratio (SPLSR)

KDB 447498 D01 General RF Exposure Guidance explains how to calculate the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

SAR_1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of

$$[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$$

In order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine SAR_1.or SAR_2. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

The antennas in all antenna pairs that do not qualify for simultaneous transmission SAR test exclusion must be tested for SAR compliance, according to the enlarged zoom scan and volume scan post-processing procedures in KDB Publication 865664 D01

The antennas for the unlicensed transmitters are closely situated. As a result, the associated SAR hotspots are also closely situated. Some of the sum of SAR calculations yielded results over 1.6 W/kg. The SPSLR calculations for these situations were performed by treating the unlicensed SAR values as a single transmitter. The most conservative distance between all the unlicensed hotspots to the licensed hotspot was used for the value of *d* in the SPSLR calculation.

12.1. Sum of the SAR for GSM850 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.390	0.271	0.101	0.040	0.661	0.491	0.430	0.531
Body-Worn (1-g SAR)	All position	0.503	0.333	0.316	0.001	0.836	0.819	0.504	0.820
Hotspot (1-g SAR)	Rear	0.791	0.842	0.195	0.009	1.633	0.986	0.800	0.995
	Front	0.277	0.429	0.195	0.001	0.706	0.472	0.278	0.473
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.399							
	Edge 3	0.191							
	Edge 4	0.234	0.303	0.062	0.003	0.537	0.296	0.237	0.299
Product Specific 10-g (10-g SAR)	All position			0.737					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)				SUM of SAR (W/kg)		Caculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No)	Figure
		WWAN	DTS	UNII	BT						
		1	2	3	4						
Hotspot	Rear	0.791	0.842			1 + 2	1.633	146.3	0.01	No	1

12.2. Sum of the SAR for GSM1900 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.159	0.271	0.101	0.040	0.430	0.260	0.199	0.300
Body-Worn (1-g SAR)	All position	0.321	0.333	0.316	0.001	0.654	0.637	0.322	0.638
Hotspot (1-g SAR)	Rear	0.669	0.842	0.195	0.009	1.511	0.864	0.678	0.873
	Front	0.306	0.429	0.195	0.001	0.735	0.501	0.307	0.502
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.119							
	Edge 3	0.544							
	Edge 4	0.340	0.303	0.062	0.003	0.643	0.402	0.343	0.405
Product Specific 10-g (10-g SAR)	All position			0.737					

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.3. Sum of the SAR for WCDMA Band II & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.424	0.271	0.101	0.040	0.695	0.525	0.464	0.565
Body-Worn (1-g SAR)	All position	0.862	0.333	0.316	0.001	1.195	1.178	0.863	1.179
Hotspot (1-g SAR)	Rear	1.058	0.842	0.195	0.009	1.900	1.253	1.067	1.262
	Front	0.569	0.429	0.195	0.001	0.998	0.764	0.570	0.765
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.181							
	Edge 3	0.723							
	Edge 4	0.556	0.303	0.062	0.003	0.859	0.618	0.559	0.621
Product Specific 10-g (10-g SAR)	All position	1.743		0.737			2.480		

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)				SUM of SAR (W/kg)		Caculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No)	Figure
		WWAN	DTS	UNII	BT						
		1	2	3	4						
Hotspot	Rear	1.058	0.842			1 + 2	1.900	134	0.02	No	2

12.4. Sum of the SAR for WCDMA Band IV & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.351	0.271	0.101	0.040	0.622	0.452	0.391	0.492
Body-Worn (1-g SAR)	All position	0.621	0.333	0.316	0.001	0.954	0.937	0.622	0.938
Hotspot (1-g SAR)	Rear	0.631	0.842	0.195	0.009	1.473	0.826	0.640	0.835
	Front	0.581	0.429	0.195	0.001	1.010	0.776	0.582	0.777
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.214							
	Edge 3	0.570							
	Edge 4	0.398	0.303	0.062	0.003	0.701	0.460	0.401	0.463
Product Specific 10-g (10-g SAR)	All position			0.737					

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.5. Sum of the SAR for WCDMA Band V & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.341	0.271	0.101	0.040	0.612	0.442	0.381	0.482
Body-Worn (1-g SAR)	All position	0.362	0.333	0.316	0.001	0.695	0.678	0.363	0.679
Hotspot (1-g SAR)	Rear	0.712	0.842	0.195	0.009	1.554	0.907	0.721	0.916
	Front	0.223	0.429	0.195	0.001	0.652	0.418	0.224	0.419
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.274							
	Edge 3	0.207							
	Edge 4	0.177	0.303	0.062	0.003	0.480	0.239	0.180	0.242
Product Specific 10-g (10-g SAR)	All position			0.737					

12.6. Sum of the SAR for CDMA BC0 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.361	0.271	0.101	0.040	0.632	0.462	0.401	0.502
Body-Worn (1-g SAR)	All position	0.287	0.333	0.316	0.001	0.620	0.603	0.288	0.604
Hotspot (1-g SAR)	Rear	0.766	0.842	0.195	0.009	1.608	0.961	0.775	0.970
	Front	0.227	0.429	0.195	0.001	0.656	0.422	0.228	0.423
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.269							
	Edge 3	0.183							
	Edge 4	0.162	0.303	0.062	0.003	0.465	0.224	0.165	0.227
Product Specific 10-g (10-g SAR)	All position			0.737					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)				SUM of SAR (W/kg)		Caculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No)	Figure
		WWAN	DTS	UNII	BT						
		1	2	3	4						
Hotspot	Rear	0.766	0.842			1 + 2	1.608	145.9	0.01	No	3

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.7. Sum of the SAR for CDMA BC1 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.081	0.271	0.101	0.040	0.352	0.182	0.121	0.222
Body-Worn (1-g SAR)	All position	0.107	0.333	0.316	0.001	0.440	0.423	0.108	0.424
Hotspot (1-g SAR)	Rear	0.180	0.842	0.195	0.009	1.022	0.375	0.189	0.384
	Front	0.102	0.429	0.195	0.001	0.531	0.297	0.103	0.298
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.042							
	Edge 3	0.170							
	Edge 4	0.115	0.303	0.062	0.003	0.418	0.177	0.118	0.180
Product Specific 10-g (10-g SAR)	All position			0.737					

12.8. Sum of the SAR for CDMA BC10 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.108	0.271	0.101	0.040	0.379	0.209	0.148	0.249
Body-Worn (1-g SAR)	All position	0.156	0.333	0.316	0.001	0.489	0.472	0.157	0.473
Hotspot (1-g SAR)	Rear	0.216	0.842	0.195	0.009	1.058	0.411	0.225	0.420
	Front	0.078	0.429	0.195	0.001	0.507	0.273	0.079	0.274
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.115							
	Edge 3	0.049							
	Edge 4	0.064	0.303	0.062	0.003	0.367	0.126	0.067	0.129
Product Specific 10-g (10-g SAR)	All position			0.737					

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.9. Sum of the SAR for LTE Band 4 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Hotspot (1-g SAR)	Rear	1.341	0.842	0.195	0.009	2.183	1.536	1.350	1.545
	Front	1.006	0.429	0.195	0.001	1.435	1.201	1.007	1.202
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.443							
	Edge 3	1.198							
	Edge 4	0.805	0.303	0.062	0.003	1.108	0.867	0.808	0.870
Product Specific 10-g (10-g SAR)	All position	2.538		0.737			3.275		

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)				SUM of SAR (W/kg)		Caculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No)	Figure
		WWAN	DTS	UNII	BT						
		1	2	3	4						
Hotspot	Rear	1.341	0.842			1 + 2	2.183	145.1	0.02	No	4

12.10. Sum of the SAR for LTE Band 7 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	1.141	0.271	0.101	0.040	1.412	1.242	1.181	1.282
Body-Worn (1-g SAR)	All position	1.055	0.333	0.316	0.001	1.388	1.371	1.056	1.372
Hotspot (1-g SAR)	Rear	0.605	0.842	0.195	0.009	1.447	0.800	0.614	0.809
	Front	0.162	0.429	0.195	0.001	0.591	0.357	0.163	0.358
	Edge 1	0.039	0.367	0.195	0.003	0.406	0.234	0.042	0.237
	Edge 2								
	Edge 3								
	Edge 4	0.623	0.303	0.062	0.003	0.926	0.685	0.626	0.688
Product Specific 10-g (10-g SAR)	All position	1.624		0.737			2.361		

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.11. Sum of the SAR for LTE Band 12 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.244	0.271	0.101	0.040	0.515	0.345	0.284	0.385
Body-Worn (1-g SAR)	All position	0.424	0.333	0.316	0.001	0.757	0.740	0.425	0.741
Hotspot (1-g SAR)	Rear	0.475	0.842	0.195	0.009	1.317	0.670	0.484	0.679
	Front	0.219	0.429	0.195	0.001	0.648	0.414	0.220	0.415
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.283							
	Edge 3	0.087							
	Edge 4	0.187	0.303	0.062	0.003	0.490	0.249	0.190	0.252
Product Specific 10-g (10-g SAR)	All position			0.737					

12.12. Sum of the SAR for LTE Band 13 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.327	0.271	0.101	0.040	0.598	0.428	0.367	0.468
Body-Worn (1-g SAR)	All position	0.441	0.333	0.316	0.001	0.774	0.757	0.442	0.758
Hotspot (1-g SAR)	Rear	0.605	0.842	0.195	0.009	1.447	0.800	0.614	0.809
	Front	0.247	0.429	0.195	0.001	0.676	0.442	0.248	0.443
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.340							
	Edge 3	0.141							
	Edge 4	0.244	0.303	0.062	0.003	0.547	0.306	0.247	0.309
Product Specific 10-g (10-g SAR)	All position			0.737					

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.13. Sum of the SAR for LTE Band 14 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.301	0.271	0.101	0.040	0.572	0.402	0.341	0.442
Body-Worn (1-g SAR)	All position	0.360	0.333	0.316	0.001	0.693	0.676	0.361	0.677
Hotspot (1-g SAR)	Rear	0.558	0.842	0.195	0.009	1.400	0.753	0.567	0.762
	Front	0.204	0.429	0.195	0.001	0.633	0.399	0.205	0.400
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.269							
	Edge 3	0.138							
	Edge 4	0.186	0.303	0.062	0.003	0.489	0.248	0.189	0.251
Product Specific 10-g (10-g SAR)	All position			0.737					

12.14. Sum of the SAR for LTE Band 25 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.325	0.271	0.101	0.040	0.596	0.426	0.365	0.466
Body-Worn (1-g SAR)	All position	0.562	0.333	0.316	0.001	0.895	0.878	0.563	0.879
Hotspot (1-g SAR)	Rear	1.165	0.842	0.195	0.009	2.007	1.360	1.174	1.369
	Front	0.607	0.429	0.195	0.001	1.036	0.802	0.608	0.803
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.195							
	Edge 3	0.980							
	Edge 4	0.619	0.303	0.062	0.003	0.922	0.681	0.622	0.684
Product Specific 10-g (10-g SAR)	All position			0.737					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)				SUM of SAR (W/kg)		Caculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No)	Figure
		WWAN	DTS	UNII	BT						
		1	2	3	4						
Hotspot	Rear	1.165	0.842			1 + 2	2.007	133.6	0.02	No	5

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.15. Sum of the SAR for LTE Band 26 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.245	0.271	0.101	0.040	0.516	0.346	0.285	0.386
Body-Worn (1-g SAR)	All position	0.288	0.333	0.316	0.001	0.621	0.604	0.289	0.605
Hotspot (1-g SAR)	Rear	0.647	0.842	0.195	0.009	1.489	0.842	0.656	0.851
	Front	0.189	0.429	0.195	0.001	0.618	0.384	0.190	0.385
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.281							
	Edge 3	0.154							
	Edge 4	0.205	0.303	0.062	0.003	0.508	0.267	0.208	0.270
Product Specific 10-g (10-g SAR)	All position			0.737					

12.16. Sum of the SAR for LTE Band 30 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.653	0.271	0.101	0.040	0.924	0.754	0.693	0.794
Body-Worn (1-g SAR)	All position	1.172	0.333	0.316	0.001	1.505	1.488	1.173	1.489
Hotspot (1-g SAR)	Rear	0.696	0.842	0.195	0.009	1.538	0.891	0.705	0.900
	Front	0.141	0.429	0.195	0.001	0.570	0.336	0.142	0.337
	Edge 1	0.049	0.367	0.195	0.003	0.416	0.244	0.052	0.247
	Edge 2								
	Edge 3								
	Edge 4	0.365	0.303	0.062	0.003	0.668	0.427	0.368	0.430
Product Specific 10-g (10-g SAR)	All position	1.607		0.737			2.344		

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.17. Sum of the SAR for LTE Band 38 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.570	0.271	0.101	0.040	0.841	0.671	0.610	0.711
Hotspot (1-g SAR)	Rear	0.504	0.842	0.195	0.009	1.346	0.699	0.513	0.708
	Front	0.119	0.429	0.195	0.001	0.548	0.314	0.120	0.315
	Edge 1	0.036	0.367	0.195	0.003	0.403	0.231	0.039	0.234
	Edge 2								
	Edge 3								
	Edge 4	0.631	0.303	0.062	0.003	0.934	0.693	0.634	0.696
Product Specific 10-g (10-g SAR)	All position			0.737					

12.18. Sum of the SAR for LTE Band 41 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.941	0.271	0.101	0.040	1.212	1.042	0.981	1.082
Body-Worn (1-g SAR)	All position	1.199	0.333	0.316	0.001	1.532	1.515	1.200	1.516
Hotspot (1-g SAR)	Rear	0.749	0.842	0.195	0.009	1.591	0.944	0.758	0.953
	Front	0.164	0.429	0.195	0.001	0.593	0.359	0.165	0.360
	Edge 1	0.051	0.367	0.195	0.003	0.418	0.246	0.054	0.249
	Edge 2								
	Edge 3								
	Edge 4	1.104	0.303	0.062	0.003	1.407	1.166	1.107	1.169
Product Specific 10-g (10-g SAR)	All position	1.544		0.737			2.281		

Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

12.19. Sum of the SAR for LTE Band 66 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.302	0.271	0.101	0.040	0.573	0.403	0.342	0.443
Body-Worn (1-g SAR)	All position	0.531	0.333	0.316	0.001	0.864	0.847	0.532	0.848
Hotspot (1-g SAR)	Rear	0.778	0.842	0.195	0.009	1.620	0.973	0.787	0.982
	Front	0.611	0.429	0.195	0.001	1.040	0.806	0.612	0.807
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.236							
	Edge 3	0.727							
	Edge 4	0.445	0.303	0.062	0.003	0.748	0.507	0.448	0.510
Product Specific 10-g (10-g SAR)	All position			0.737					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)				SUM of SAR (W/kg)		Caculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No)	Figure
		WWAN	DTS	UNII	BT						
		1	2	3	4						
Hotspot	Rear	0.778	0.842			1 + 2	1.620	147.5	0.01	No	6

12.20. Sum of the SAR for LTE Band 71 & Wi-Fi & BT

RF Exposure	Test Position	Standalone SAR (W/kg)				Sum of SAR (W/kg)			
		WWAN	DTS	UNII	BT	WWAN + DTS	WWAN + UNII	WWAN + BT	WWAN + BT + UNII
		1	2	3	4	1 + 2	1 + 3	1 + 4	1 + 3 + 4
Head (1-g SAR)	All position	0.201	0.271	0.101	0.040	0.472	0.302	0.241	0.342
Body-Worn (1-g SAR)	All position	0.384	0.333	0.316	0.001	0.717	0.700	0.385	0.701
Hotspot (1-g SAR)	Rear	0.458	0.842	0.195	0.009	1.300	0.653	0.467	0.662
	Front	0.187	0.429	0.195	0.001	0.616	0.382	0.188	0.383
	Edge 1		0.367	0.195	0.003				0.198
	Edge 2	0.224							
	Edge 3	0.055							
	Edge 4	0.176	0.303	0.062	0.003	0.479	0.238	0.179	0.241
Product Specific 10-g (10-g SAR)	All position			0.737					

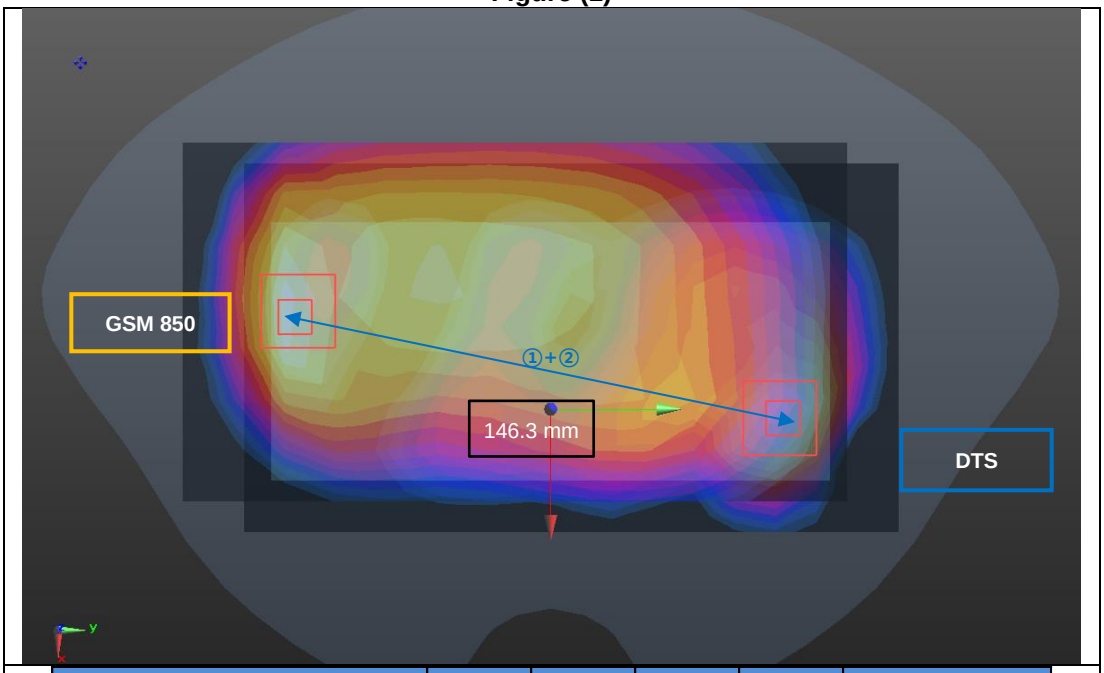
Note(s):

Green values are referenced from highest SAR value of *initial test position* procedure in each RF exposure of each bands.

Conclusion:

Simultaneous Transmission SAR analysis results is satisfied the FCC Limit requirement according to procedures of “Sum of SAR” or “SPLSR”

Figure (1)

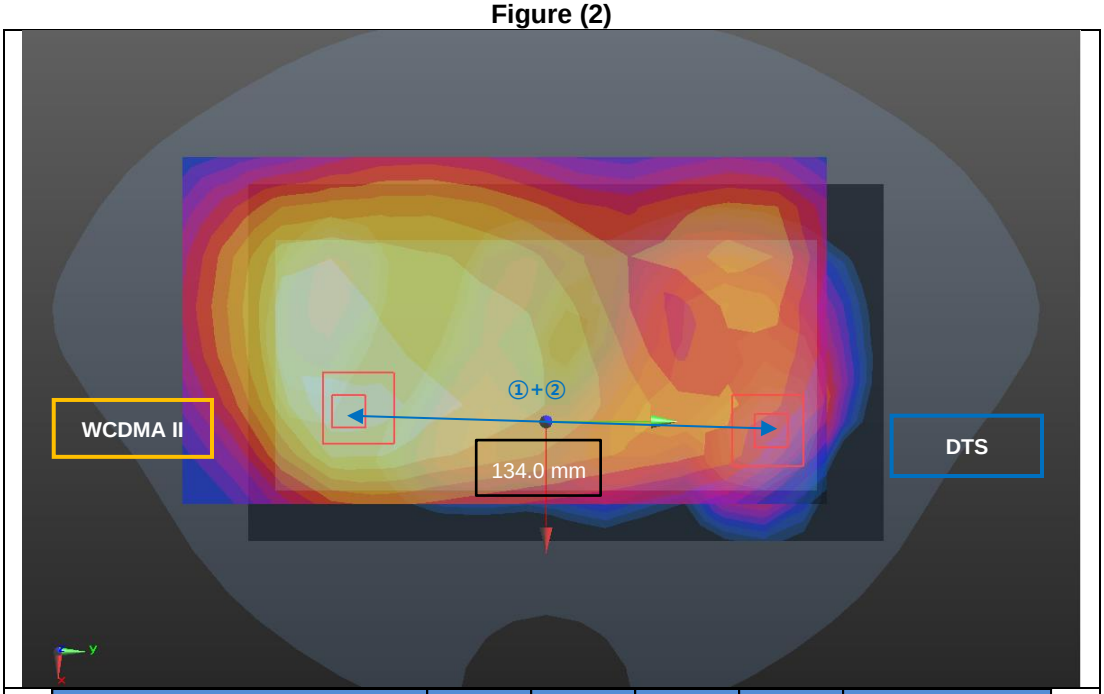


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
GSM 850	①	0.791	-0.0001	-0.0750	-0.0019	①+②	146.3
DTS	②	0.842	0.0176	0.0702	-0.0035		

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)

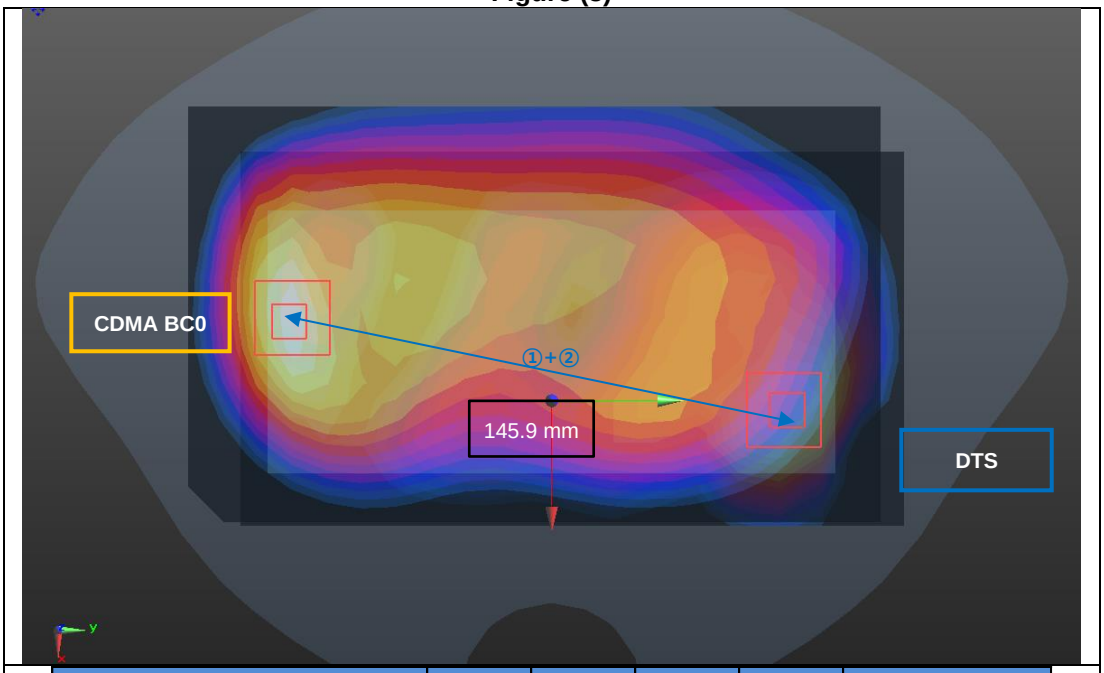


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	①	1.058	0.0216	-0.0637	-0.0017	①+②	134.0
DTS	②	0.842	0.0176	0.0702	-0.0035		

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (3)

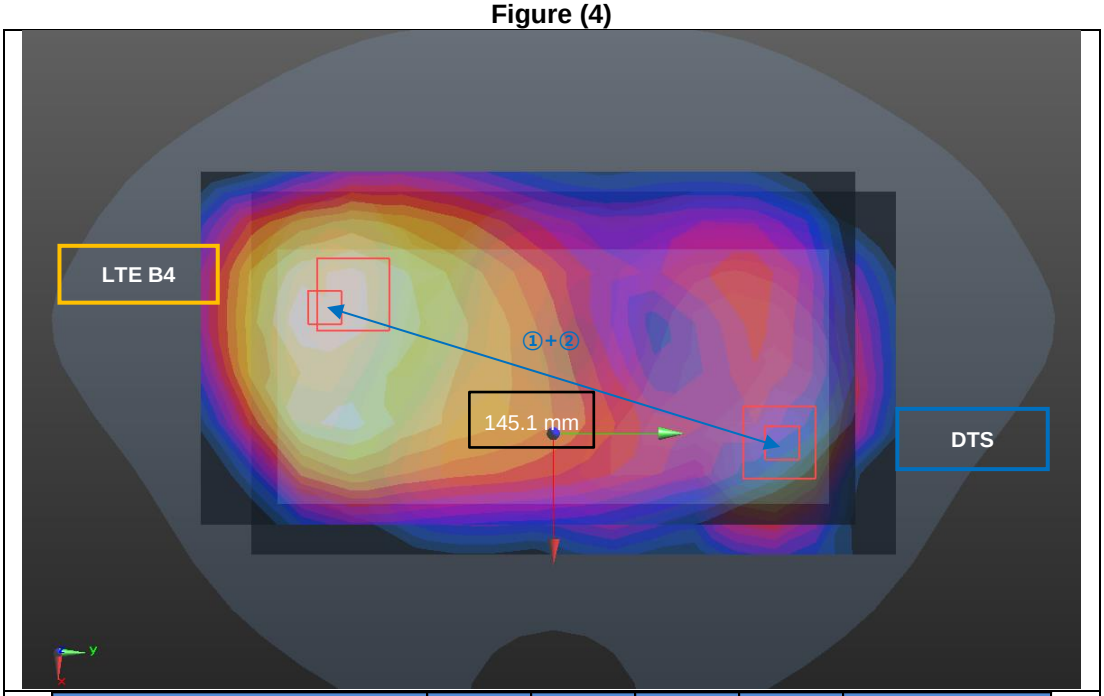


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
CDMA BC0	①	0.766	0.0030	-0.0750	-0.0016	①+②	145.9
DTS	②	0.842	0.0176	0.0702	-0.0035		

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (4)

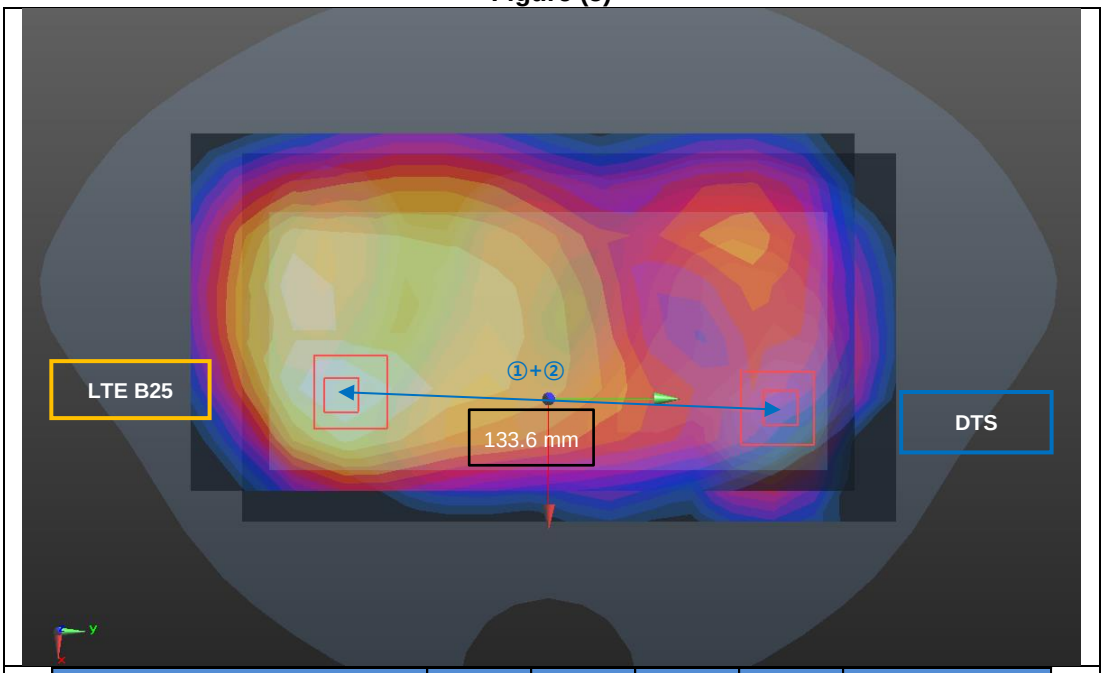


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 4	①	1.341	-0.0111	-0.0720	-0.0007	①+②	145.1
DTS	②	0.842	0.0176	0.0702	-0.0035		

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (5)

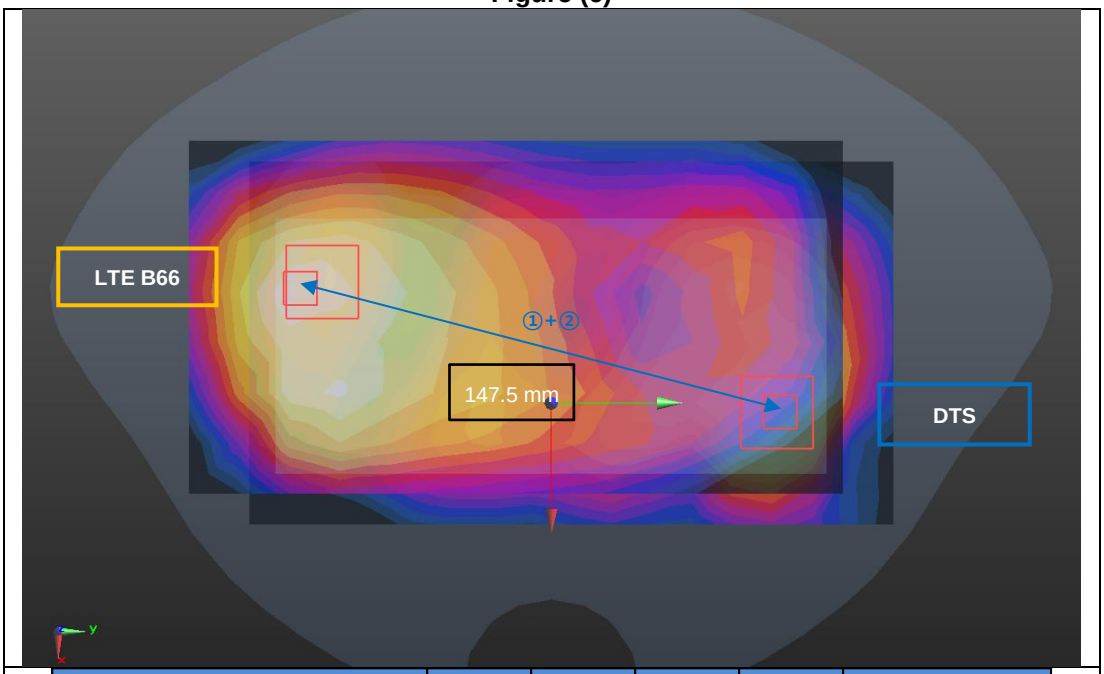


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	①	1.165	0.0236	-0.0632	-0.0006	①+②	133.6
DTS	②	0.842	0.0176	0.0702	-0.0035		

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (6)



Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	①	0.778	-0.0080	-0.0750	-0.0008	①+②	147.5
DTS	②	0.842	0.0176	0.0702	-0.0035		

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Appendixes

Refer to separated files for the following appendixes.

4789793179-S1 FCC Report SAR_App A_Photos & Ant. Locations

4789793179-S1 FCC Report SAR_App B_Highest SAR Test Plots

4789793179-S1 FCC Report SAR_App C_System Check Plots

4789793179-S1 FCC Report SAR_App D_SAR Tissue Ingredients

4789793179-S1 FCC Report SAR_App E_Probe Cal. Certificates

4789793179-S1 FCC Report SAR_App F_Dipole Cal. Certificates

END OF REPORT