



SAR EVALUATION REPORT

**FCC 47 CFR § 2.1093
IEEE Std 1528-2013**

For
Cellular Phone with Bluetooth and WLAN Radios

**FCC ID: BCG-E2945A
Model Name: A1662**

**Report Number: 15U21634-S1V3
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Prepared for
**APPLE, INC.
1 INFINITE LOOP, MS 26A
CUPERTINO, CA 95014-2084**

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



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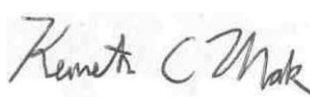
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1. Attestation of Test Results

Applicant Name	APPLE, INC.			
FCC ID	BCG-E2945A			
Model Name	A1662			
Applicable Standards	FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013			
Exposure Category	SAR Limits (W/Kg) Peak spatial-average(1g of tissue)			
General population / Uncontrolled exposure	1.6			
RF Exposure Conditions	Equipment Class - Highest Reported SAR (W/kg)			
	Licensed	DTS	U-NII	DSS (BT)
Head	1.140	1.150	1.170	0.046
Body-worn	1.147	1.156	1.190	0.042
Hotspot	1.140	1.156	1.190	N/A
Simultaneous TX	1.585	1.585	1.571	1.571
Simultaneous TX	Head	1.585	1.570	1.570
	Body-worn	1.576	1.571	1.571
	Hotspot	1.576	N/A	N/A
Date Tested	12/7/2015 to 1/14/2016; 1/28/2016 to 1/29/2016			
Test Results	Pass			
UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report. Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government (NIST Handbook 150, Annex A). This report is written to support regulatory compliance of the applicable standards stated above.				
Approved & Released By:		Prepared By:		
				
Bobby Bayani Senior Engineer UL Verification Services Inc.		Kenneth C. Mak Laboratory Engineer UL Verification Services Inc.		

2. Test Specification, Methods and Procedures

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

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 447498 D03 Supplement C Cross-Reference v01
- 648474 D04 Handset SAR v01r03
- 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

3. Facilities and Accreditation

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

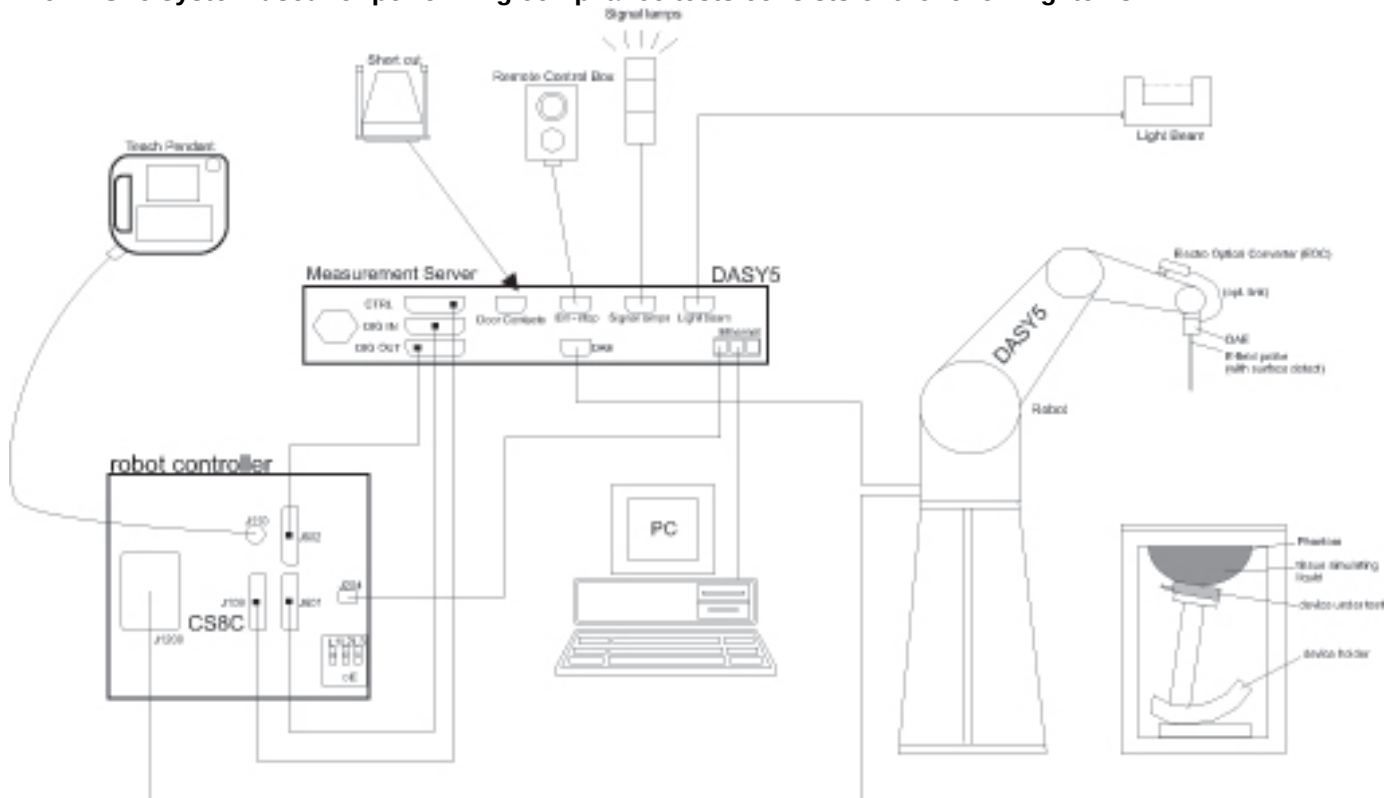
47173 Benicia Street	47266 Benicia Street
SAR Lab A	SAR Lab 1
SAR Lab B	SAR Lab 2
SAR Lab C	SAR Lab 3
SAR Lab D	SAR Lab 4
SAR Lab E	
SAR Lab F	
SAR Lab G	
SAR Lab H	

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

4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

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



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

4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

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

Step 2: Area Scan

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

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

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

Step 3: Zoom Scan

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

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

			$\leq 3\text{ GHz}$	$> 3\text{ GHz}$
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			$\leq 2\text{ GHz: } \leq 8\text{ mm}$ $2 - 3\text{ GHz: } \leq 5\text{ mm}^*$	$3 - 4\text{ GHz: } \leq 5\text{ mm}^*$ $4 - 6\text{ GHz: } \leq 4\text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		$\leq 5\text{ mm}$	$3 - 4\text{ GHz: } \leq 4\text{ mm}$ $4 - 5\text{ GHz: } \leq 3\text{ mm}$ $5 - 6\text{ GHz: } \leq 2\text{ mm}$
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	$\leq 4\text{ mm}$	$3 - 4\text{ GHz: } \leq 3\text{ mm}$ $4 - 5\text{ GHz: } \leq 2.5\text{ mm}$ $5 - 6\text{ GHz: } \leq 2\text{ mm}$
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		$\geq 30\text{ mm}$	$3 - 4\text{ GHz: } \geq 28\text{ mm}$ $4 - 5\text{ GHz: } \geq 25\text{ mm}$ $5 - 6\text{ GHz: } \geq 22\text{ mm}$
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 <u>reported</u> SAR from the area scan based <i>1-g SAR estimation</i> procedures of KDB 447498 is $\leq 1.4\text{ W/kg}$, $\leq 8\text{ mm}$, $\leq 7\text{ mm}$ and $\leq 5\text{ mm}$ 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	8753ES	MY40000980	4/17/2016
Dielectric Probe kit	SPEAG	DAK-3.5	1082	9/15/2016
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	Traceable Calibration Control Co.	4242	140562250	8/24/2016

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Synthesized Signal Generator	HP	8665B	3744A01084	5/8/2016
Power Meter	Keysight Technologies	N1912A	MY55196004	7/1/2016
Power Meter	Agilent	N1912A	MY50001018	10/19/2016
Power Sensor	Agilent	E9323A	MY53070007	3/2/2016
Power Sensor	Agilent	E9323A	MY53070005	4/29/2016
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795093	N/A
Directional coupler	Werlatone	C8060-102	2149	N/A
DC Power Supply	AMETEK	XT 15-4	1319A02778	N/A
Synthesized Signal Generator	HP	8665B	3744A01155	3/18/2016
Power Meter	HP	437B	3125U16345	6/15/2016
Power Meter	HP	437B	3125U12345	7/31/2016
Power Sensor	HP	8481A	2702A76223	9/3/2016
Power Sensor	HP	8481A	1926A27048	8/3/2016
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Directional coupler	Werlatone	C8060-102	2141	N/A
DC Power Supply	BK PRECISION	1611	215-02292	N/A
E-Field Probe (SAR Lab B)	SPEAG	EX3DV4	3686	8/28/2016
E-Field Probe (SAR Lab E)	SPEAG	EX3DV4	3772	2/23/2016
E-Field Probe (SAR Lab F)	SPEAG	EX3DV4	3929	4/22/2016
E-Field Probe (SAR Lab G)	SPEAG	EX3DV4	3991	5/19/2016
E-Field Probe (SAR Lab H)	SPEAG	EX3DV4	7335	3/13/2016
Data Acquisition Electronics (SAR Lab B)	SPEAG	DAE4	1360	3/12/2016
Data Acquisition Electronics (SAR Lab E)	SPEAG	DAE4	1439	7/30/2016
Data Acquisition Electronics (SAR Lab F)	SPEAG	DAE4	1359	2/18/2016
Data Acquisition Electronics (SAR Lab G)	SPEAG	DAE4	1433	3/12/2016
Data Acquisition Electronics (SAR Lab H)	SPEAG	DAE4	1472	3/5/2016
System Validation Dipole	SPEAG	D750V3	1024	5/12/2016
System Validation Dipole	SPEAG	D835V2	4d002	11/12/2016
System Validation Dipole	SPEAG	D1750V2	1053	8/11/2016
System Validation Dipole	SPEAG	D1900V2	5d043	11/17/2016
System Validation Dipole	SPEAG	D1900V2	5d163	9/21/2016
System Validation Dipole	SPEAG	D2450V2	748	2/20/2016
System Validation Dipole	SPEAG	D2450V2	706	5/11/2016
System Validation Dipole	SPEAG	D5GHzV2	1138	9/23/2016
System Validation Dipole	SPEAG	D5GHzV2	1168	11/13/2016
System Validation Dipole	SPEAG	D5GHzV2	1003	2/20/2016
Thermometer (SAR Lab B)	EXTECH	445703	CCS-206	3/19/2016
Thermometer (SAR Lab E, F, G, H)	EXTECH	445703	CCS-235	6/5/2016

Other

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Power Meter	Keysight	N1912A	MY55196004	7/1/2016
Power Sensor	Agilent	N1921A	MY5320001	9/24/2016
Base Station Simulator	R & S	CMW500	137877	8/10/2016
Base Station Simulator	R & S	CMW500	135390	4/6/2016
Base Station Simulator	R & S	CMW500	134853	6/30/2016
Base Station Simulator	R & S	CMW500	124593	7/15/2016
Base Station Simulator	R & S	CMW500	134852	5/13/2016
Base Station Simulator	R & S	CMW500	135393	3/18/2016

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, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

6. Device Under Test (DUT) Information

6.1. DUT Description

The EUT, Model A1662 is a mobile phone with multimedia functions (music, application support, and video), cellular GSM/GPRS/EGPRS/WCDMA/HSPA+/DC-HSDPA/LTE radio, IEEE 802.11a/b/g/n/ac, NFC and Bluetooth radio.	
Device Dimension	Overall (Length x Width): 123.9 mm x 58.5 mm Overall Diagonal: 131.2 mm Display Diagonal: 102.8 mm
Back Cover	☒ The rechargeable battery is not user accessible.
Battery Options	☒ The rechargeable battery is not user accessible.
Accessory	Headset
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 GHz)
AirPlay	AirPlay mode enabled devices transfer data directly between each other ☒ AirPlay (Wi-Fi 2.4 GHz) ☒ AirPlay (Wi-Fi 5 GHz)

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%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
CDMA (CDMA2000)	BC0 BC1 BC10 BC15	1xRTT (Voice & Data) 1xEV-DO Rel. 0 1xEV-DO Rev. A 1xAdvanced		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 (Rel. 5) HSUPA (Rel. 6) DC-HSDPA (Rel. 8) HSPA+ (Rel. 7)		100%
LTE	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 12 FDD Band 13 FDD Band 17 FDD Band 25 FDD Band 26	QPSK 16QAM ☐ Rel. 10 Does not support Carrier Aggregation (CA) ☒ Rel. 10 Carrier Aggregation (1 Uplink and 2 Downlinks) ☐ Rel. 11 Carrier Aggregation (2 Uplink and 2 Downlinks)		100% (FDD)
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20)		100%
	5 GHz	802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (VHT20) 802.11ac (VHT40) 802.11ac (VHT80)		100%
	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 4.2 LE		77.5% (DH5)

6.3. Maximum Output Power from Tune-up Procedure

KDB 447498 sec.4.1.(3) 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	Mode	Max. RF Output Power (dBm)							
		UAT				LAT			
		Head		Body		Head		Body	
		Burst	Frame	Burst	Frame	Burst	Frame	Burst	Frame
GSM850	Voice/GPRS (1 slot)	33.2	24.2	33.2	24.2	33.5	24.5	33.5	24.5
	GPRS 2 slots	30.2	24.2	30.2	24.2	30.5	24.5	30.5	24.5
	EGPRS 1 slot	27.7	18.7	27.7	18.7	28.0	19.0	28.0	19.0
	EGPRS 2 slots	27.7	21.7	27.7	21.7	28.0	22.0	28.0	22.0
GSM1900	Voice/GPRS (1 slot)	29.9	20.9	29.9	20.9	30.5	21.5	29.0	20.0
	GPRS 2 slots	26.9	20.9	26.9	20.9	27.5	21.5	26.0	20.0
	EGPRS 1 slot	26.4	17.4	26.4	17.4	27.0	18.0	27.0	18.0
	EGPRS 2 slots	26.4	20.4	26.4	20.4	27.0	21.0	26.0	20.0

RF Air interface	Mode	Max. RF Output Power (dBm)			
		UAT		LAT	
		Head	Body	Head	Body
W-CDMA Band V	R99	24.7	24.7	25.0	24.0
	HSDPA	24.7	24.7	25.0	24.0
	HSUPA	24.7	24.7	25.0	24.0
	DC-HSDPA	24.7	24.7	25.0	24.0
W-CDMA Band IV	R99	22.5	24.0	23.0	20.0
	HSDPA	22.5	24.0	23.0	20.0
	HSUPA	22.5	24.0	23.0	20.0
	DC-HSDPA	22.5	24.0	23.0	20.0
W-CDMA Band II	R99	21.0	21.5	22.5	18.7
	HSDPA	21.0	21.5	22.5	18.7
	HSUPA	21.0	21.5	22.5	18.7
	DC-HSDPA	21.0	21.5	22.5	18.7
CDMA BC0	1xRTT	24.7	24.7	25.0	24.3
	1xAdvanced	24.7	24.7	25.0	24.3
	1xEVDO Rel. 0	24.7	24.7	25.0	24.3
	1xEVDO Rev. A	24.7	24.7	25.0	24.3
CDMA BC1	1xRTT	20.7	21.3	22.0	18.7
	1xAdvanced	20.7	21.3	22.0	18.7
	1xEVDO Rel. 0	20.7	21.3	22.0	18.7
	1xEVDO Rev. A	20.7	21.3	22.0	18.7
CDMA BC10	1xRTT	24.7	24.7	25.0	24.0
	1xAdvanced	24.7	24.7	25.0	24.0
	1xEVDO Rel. 0	24.7	24.7	25.0	24.0
	1xEVDO Rev. A	24.7	24.7	25.0	24.0
CDMA BC15	1xRTT	22.5	23.7	22.0	19.7
	1xAdvanced	22.5	23.7	22.0	19.7
	1xEVDO Rel. 0	22.5	23.7	22.0	19.7
	1xEVDO Rev. A	22.5	23.7	22.0	19.7
LTE Band 2	QPSK	21.0	21.5	22.7	18.7
	16QAM	20.0	20.5	21.7	17.7
LTE Band 4	QPSK	22.5	23.4	23.0	20.5
	16QAM	21.5	22.4	22.0	19.5
LTE Band 5	QPSK	23.7	23.7	24.0	23.3
	16QAM	22.7	22.7	23.0	22.3
LTE Band 12	QPSK	23.7	23.7	24.0	24.0
	16QAM	22.7	22.7	23.0	23.0
LTE Band 13	QPSK	23.7	23.7	24.0	24.0
	16QAM	22.7	22.7	23.0	23.0
LTE Band 17	QPSK	23.7	23.7	24.0	24.0
	16QAM	22.7	22.7	23.0	23.0
LTE Band 25	QPSK	21.0	21.0	22.0	18.7
	16QAM	20.0	20.0	21.0	17.7
LTE Band 26	QPSK	23.7	23.7	24.0	24.0
	16QAM	22.7	22.7	23.0	23.0
RF Air interface	Mode	Max. RF Output Power (dBm)			
Bluetooth		11.5			

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					Head		Body		
					Cell ON	Cell OFF	Cell ON	Cell OFF	
2.4	802.11b	1 Tx	1	2412	13.0	17.0	14.5	18.5	Yes
			6	2437	13.0	17.0	14.5	18.5	
			11	2462	13.0	17.0	14.5	18.5	
			12	2467	13.0	17.0	14.5	18.0	
			13	2472	13.0	15.0	14.5	15.0	
	802.11g	1 Tx	1	2412	13.0	16.0	14.5	16.0	No
			2	2417	13.0	17.0	14.5	18.5	
			3	2422	13.0	17.0	14.5	18.5	
			6	2437	13.0	17.0	14.5	18.5	
			9	2452	13.0	17.0	14.5	18.5	
			10	2457	13.0	17.0	14.5	17.5	
			11	2462	13.0	14.0	14.0	14.0	
			12	2467	12.0	12.0	12.0	12.0	
	13	2472	5.0	5.0	5.0	5.0			
	802.11n	1 Tx HT20	1	2412	13.0	16.0	14.5	16.0	No
			2	2417	13.0	17.0	14.5	18.5	
			3	2422	13.0	17.0	14.5	18.5	
			6	2437	13.0	17.0	14.5	18.5	
			9	2452	13.0	17.0	14.5	18.5	
			10	2457	13.0	17.0	14.5	17.5	
			11	2462	13.0	14.0	14.0	14.0	
			12	2467	12.0	12.0	12.0	12.0	
			13	2472	5.0	5.0	5.0	5.0	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					Head		Body		
					Cell ON	Cell OFF	Cell ON	Cell OFF	
5.2	802.11a	1 Tx	36	5180	13.0	18.0	12.5	17.5	No
			40	5200	13.0	18.0	12.5	17.5	
			44	5220	13.0	18.0	12.5	17.5	
			48	5240	13.0	18.0	12.5	17.5	
	802.11n	1 Tx HT20	36	5180	13.0	18.0	12.5	17.5	No
			40	5200	13.0	18.0	12.5	17.5	
			44	5220	13.0	18.0	12.5	17.5	
			48	5240	13.0	18.0	12.5	17.5	
		1 Tx HT40	38	5190	13.0	16.0	12.5	16.0	Yes
			46	5230	13.0	18.0	12.5	17.5	
	802.11ac	1 Tx VHT20	36	5180	13.0	18.0	12.5	17.5	No
			40	5200	13.0	18.0	12.5	17.5	
			44	5220	13.0	18.0	12.5	17.5	
			48	5240	13.0	18.0	12.5	17.5	
		1 Tx VHT40	38	5190	13.0	16.0	12.5	16.0	No
			46	5230	13.0	18.0	12.5	17.5	
		1 Tx VHT80	42	5210	13.0	15.0	12.5	15.0	Yes

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					Head		Body		
					Cell ON	Cell OFF	Cell ON	Cell OFF	
5.3	802.11a	1 Tx	52	5260	12.5	17.5	13.0	17.5	No
			56	5280	12.5	17.5	13.0	17.5	
			60	5300	12.5	17.5	13.0	17.5	
			64	5320	12.5	17.5	13.0	17.5	
	802.11n	1 Tx HT20	52	5260	12.5	17.5	13.0	17.5	No
			56	5280	12.5	17.5	13.0	17.5	
			60	5300	12.5	17.5	13.0	17.5	
			64	5320	12.5	17.5	13.0	17.5	
		1 Tx HT40	54	5270	12.5	17.5	13.0	17.5	Yes
			62	5310	12.5	17.0	13.0	17.0	
	802.11ac	1 Tx VHT20	52	5260	12.5	17.5	13.0	17.5	No
			56	5280	12.5	17.5	13.0	17.5	
			60	5300	12.5	17.5	13.0	17.5	
			64	5320	12.5	17.5	13.0	17.5	
		1 Tx VHT40	54	5270	12.5	17.5	13.0	17.5	No
			62	5310	12.5	17.0	13.0	17.0	
		1 Tx VHT80	58	5290	12.5	16.0	13.0	16.0	Yes

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					Head		Body		
					Cell ON	Cell OFF	Cell ON	Cell OFF	
5.5	802.11a	1 Tx	100	5500	12.0	16.5	12.5	17.0	No
			104	5520	12.0	16.5	12.5	17.0	
			108	5540	12.0	16.5	12.5	17.0	
			112	5560	12.0	16.5	12.5	17.0	
			116	5580	12.0	16.5	12.5	17.0	
			120	5600	12.0	16.5	12.5	17.0	
			124	5620	12.0	16.5	12.5	17.0	
			128	5640	12.0	16.5	12.5	17.0	
			132	5660	12.0	16.5	12.5	17.0	
			136	5680	12.0	16.5	12.5	17.0	
			140	5700	12.0	15.0	12.5	15.0	
			144	5720	12.0	16.5	12.5	16.5	
	802.11n	1 Tx HT20	100	5500	12.0	16.5	12.5	17.0	No
			104	5520	12.0	16.5	12.5	17.0	
			108	5540	12.0	16.5	12.5	17.0	
			112	5560	12.0	16.5	12.5	17.0	
			116	5580	12.0	16.5	12.5	17.0	
			120	5600	12.0	16.5	12.5	17.0	
			124	5620	12.0	16.5	12.5	17.0	
			128	5640	12.0	16.5	12.5	17.0	
			132	5660	12.0	16.5	12.5	17.0	
			136	5680	12.0	16.5	12.5	17.0	
			140	5700	12.0	15.0	12.5	15.0	
			144	5720	12.0	16.5	12.5	16.5	
		1 Tx HT40	102	5510	12.0	16.0	12.5	16.0	No
			110	5550	12.0	16.5	12.5	17.0	
			118	5590	12.0	16.5	12.5	17.0	
			126	5630	12.0	16.5	12.5	17.0	
			134	5670	12.0	16.5	12.5	17.0	
			142	5710	12.0	16.5	12.5	17.0	
	802.11ac	1 Tx VHT20	100	5500	12.0	16.5	12.5	17.0	No
			104	5520	12.0	16.5	12.5	17.0	
			108	5540	12.0	16.5	12.5	17.0	
			112	5560	12.0	16.5	12.5	17.0	
			116	5580	12.0	16.5	12.5	17.0	
			120	5600	12.0	16.5	12.5	17.0	
124			5620	12.0	16.5	12.5	17.0		
128			5640	12.0	16.5	12.5	17.0		
132			5660	12.0	16.5	12.5	17.0		
136			5680	12.0	16.5	12.5	17.0		
140			5700	12.0	15.0	12.5	15.0		
144			5720	12.0	16.5	12.5	16.5		
1 Tx VHT40		102	5510	12.0	16.0	12.5	16.0	No	
		110	5550	12.0	16.5	12.5	17.0		
		118	5590	12.0	16.5	12.5	17.0		
		126	5630	12.0	16.5	12.5	17.0		
		134	5670	12.0	16.5	12.5	17.0		
		142	5710	12.0	16.5	12.5	17.0		
1 Tx VHT80		106	5530	12.0	16.5	12.5	16.5	Yes	
		122	5610	12.0	16.5	12.5	17.0		
		138	5690	12.0	16.5	12.5	17.0		

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					Head		Body		
					Cell ON	Cell OFF	Cell ON	Cell OFF	
5.8	802.11a	1 Tx	149	5745	12.0	16.5	12.0	16.5	No
			153	5765	12.0	16.5	12.0	17.0	
			157	5785	12.0	16.5	12.0	17.0	
			161	5805	12.0	16.5	12.0	17.0	
			165	5825	12.0	16.5	12.0	17.0	
	802.11n	1 Tx HT20	149	5745	12.0	16.5	12.0	16.5	No
			153	5765	12.0	16.5	12.0	17.0	
			157	5785	12.0	16.5	12.0	17.0	
			161	5805	12.0	16.5	12.0	17.0	
			165	5825	12.0	16.5	12.0	17.0	
		1 Tx HT40	151	5755	12.0	15.5	12.0	15.5	Yes
			159	5795	12.0	16.5	12.0	17.0	
	802.11ac	1 Tx VHT20	149	5745	12.0	16.5	12.0	16.5	No
			153	5765	12.0	16.5	12.0	17.0	
			157	5785	12.0	16.5	12.0	17.0	
			161	5805	12.0	16.5	12.0	17.0	
			165	5825	12.0	16.5	12.0	17.0	
		1 Tx VHT40	151	5755	12.0	15.5	12.0	15.5	No
			159	5795	12.0	16.5	12.0	17.0	
		1 Tx VHT80	155	5775	12.0	15.0	12.0	15.0	Yes

6.4. 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 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 17	Frequency range: 704 - 716 MHz																																											
		Channel Bandwidth																																											
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz																																						
	Low				23755/ 706.5																																								
	Mid			23790/ 710	23790/ 710																																								
	High				23825/ 713.5																																								
	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			26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7																																						
	Mid			26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5																																						
	High			26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3																																						
LTE transmitter and antenna implementation	LTE can transmit from either UAT (Secondary Antenna) or LAT (Primary Antenna). The antenna switching is implemented with a physical, "break-before-make" switch such that only one antenna can be used for LTE transmission at a time.																																												
Maximum power reduction (MPR)	Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3 <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (RB)</th><th rowspan="2">MPR (dB)</th></tr> <tr> <th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr> </thead> <tbody> <tr> <td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 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>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> </tbody> </table> MPR Built-in by design A-MPR (additional MPR) was disabled during SAR testing							Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)																																						
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz																																							
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																						
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																						
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2																																						
Spectrum plots for RB configurations	A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																												

6.5. Antenna Dimensions and Separation Distances

Refer to separate filing document.

7. RF Exposure Conditions (Test Configurations)

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

Upper Antenna

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

Wi-Fi Antenna

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

Lower Antenna

Wireless technologies	RF Exposure Conditions	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN	Head	0 mm	Left Touch	N/A	Yes	
			Left Tilt (15°)	N/A	Yes	
			Right Touch	N/A	Yes	
			Right Tilt (15°)	N/A	Yes	
	Body	5 mm	Rear	N/A	Yes	2
			Front	N/A	Yes	2
	Hotspot	5 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	

Notes:

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

8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

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

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

Dielectric Property Measurements Results:**SAR Lab B**

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
12/15/2015	Head 750	e'	41.3700	Relative Permittivity (ϵ_r):	41.37	41.96	-1.41	5
		e"	21.4300	Conductivity (σ):	0.89	0.89	0.07	5
	Head 700	e'	42.0100	Relative Permittivity (ϵ_r):	42.01	42.22	-0.49	5
		e"	21.7900	Conductivity (σ):	0.85	0.89	-4.62	5
	Head 790	e'	40.8400	Relative Permittivity (ϵ_r):	40.84	41.76	-2.19	5
		e"	21.1700	Conductivity (σ):	0.93	0.90	3.77	5
12/15/2015	Body 750	e'	54.0600	Relative Permittivity (ϵ_r):	54.06	55.55	-2.68	5
		e"	23.0300	Conductivity (σ):	0.96	0.96	-0.28	5
	Body 700	e'	54.5900	Relative Permittivity (ϵ_r):	54.59	55.74	-2.06	5
		e"	23.4400	Conductivity (σ):	0.91	0.96	-4.89	5
	Body 790	e'	53.6600	Relative Permittivity (ϵ_r):	53.66	55.39	-3.13	5
		e"	22.6800	Conductivity (σ):	1.00	0.97	3.12	5
12/21/2015	Body 750	e'	57.0400	Relative Permittivity (ϵ_r):	57.04	55.55	2.69	5
		e"	23.2500	Conductivity (σ):	0.97	0.96	0.68	5
	Body 700	e'	57.5400	Relative Permittivity (ϵ_r):	57.54	55.74	3.23	5
		e"	23.7100	Conductivity (σ):	0.92	0.96	-3.79	5
	Body 790	e'	56.6300	Relative Permittivity (ϵ_r):	56.63	55.39	2.23	5
		e"	22.8800	Conductivity (σ):	1.01	0.97	4.02	5
12/22/2015	Body 1900	e'	52.2900	Relative Permittivity (ϵ_r):	52.29	53.30	-1.89	5
		e"	14.8400	Conductivity (σ):	1.57	1.52	3.14	5
	Body 1850	e'	52.4600	Relative Permittivity (ϵ_r):	52.46	53.30	-1.58	5
		e"	14.7700	Conductivity (σ):	1.52	1.52	-0.04	5
	Body 1910	e'	52.2600	Relative Permittivity (ϵ_r):	52.26	53.30	-1.95	5
		e"	14.8300	Conductivity (σ):	1.57	1.52	3.62	5
12/28/2015	Head 1900	e'	39.6000	Relative Permittivity (ϵ_r):	39.60	40.00	-1.00	5
		e"	13.7000	Conductivity (σ):	1.45	1.40	3.38	5
	Head 1850	e'	39.7300	Relative Permittivity (ϵ_r):	39.73	40.00	-0.68	5
		e"	13.7000	Conductivity (σ):	1.41	1.40	0.66	5
	Head 1910	e'	39.5600	Relative Permittivity (ϵ_r):	39.56	40.00	-1.10	5
		e"	13.7200	Conductivity (σ):	1.46	1.40	4.08	5
1/9/2016	Head 5180	e'	36.4600	Relative Permittivity (ϵ_r):	36.46	36.01	1.24	5
		e"	15.5700	Conductivity (σ):	4.48	4.63	-3.15	5
	Head 5200	e'	36.4400	Relative Permittivity (ϵ_r):	36.44	35.99	1.25	5
		e"	15.5400	Conductivity (σ):	4.49	4.65	-3.39	5
	Head 5600	e'	35.8800	Relative Permittivity (ϵ_r):	35.88	35.53	0.97	5
		e"	15.7100	Conductivity (σ):	4.89	5.06	-3.33	5
	Head 5800	e'	35.5900	Relative Permittivity (ϵ_r):	35.59	35.30	0.82	5
		e"	15.8200	Conductivity (σ):	5.10	5.27	-3.19	5
Head 5825	e'	35.5700	Relative Permittivity (ϵ_r):	35.57	35.30	0.76	5	
	e"	15.8300	Conductivity (σ):	5.13	5.27	-2.71	5	

SAR Lab E

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
12/7/2015	Head 5180	e'	37.1500	Relative Permittivity (ϵ_r):	37.15	36.01	3.16	5
		e"	15.9500	Conductivity (σ):	4.59	4.63	-0.79	5
	Head 5200	e'	37.1600	Relative Permittivity (ϵ_r):	37.16	35.99	3.25	5
		e"	15.9400	Conductivity (σ):	4.61	4.65	-0.91	5
	Head 5600	e'	36.6600	Relative Permittivity (ϵ_r):	36.66	35.53	3.17	5
		e"	15.9500	Conductivity (σ):	4.97	5.06	-1.85	5
	Head 5800	e'	36.3200	Relative Permittivity (ϵ_r):	36.32	35.30	2.89	5
		e"	16.0400	Conductivity (σ):	5.17	5.27	-1.84	5
	Head 5825	e'	36.2900	Relative Permittivity (ϵ_r):	36.29	35.30	2.80	5
		e"	16.0300	Conductivity (σ):	5.19	5.27	-1.48	5
12/7/2015	Body 5180	e'	47.9800	Relative Permittivity (ϵ_r):	47.98	49.05	-2.17	5
		e"	18.3500	Conductivity (σ):	5.29	5.27	0.26	5
	Body 5200	e'	47.9300	Relative Permittivity (ϵ_r):	47.93	49.02	-2.22	5
		e"	18.3500	Conductivity (σ):	5.31	5.29	0.21	5
	Body 5600	e'	47.3700	Relative Permittivity (ϵ_r):	47.37	48.48	-2.29	5
		e"	18.7500	Conductivity (σ):	5.84	5.76	1.34	5
	Body 5800	e'	47.1200	Relative Permittivity (ϵ_r):	47.12	48.20	-2.24	5
		e"	19.0300	Conductivity (σ):	6.14	6.00	2.29	5
	Body 5825	e'	47.1100	Relative Permittivity (ϵ_r):	47.11	48.20	-2.26	5
		e"	19.0300	Conductivity (σ):	6.16	6.00	2.73	5
12/10/2015	Head 5180	e'	36.0200	Relative Permittivity (ϵ_r):	36.02	36.01	0.02	5
		e"	15.6500	Conductivity (σ):	4.51	4.63	-2.65	5
	Head 5200	e'	35.9400	Relative Permittivity (ϵ_r):	35.94	35.99	-0.14	5
		e"	15.6500	Conductivity (σ):	4.52	4.65	-2.71	5
	Head 5600	e'	35.4200	Relative Permittivity (ϵ_r):	35.42	35.53	-0.32	5
		e"	15.8700	Conductivity (σ):	4.94	5.06	-2.35	5
	Head 5800	e'	35.2400	Relative Permittivity (ϵ_r):	35.24	35.30	-0.17	5
		e"	15.9300	Conductivity (σ):	5.14	5.27	-2.52	5
	Head 5825	e'	35.1100	Relative Permittivity (ϵ_r):	35.11	35.30	-0.54	5
		e"	15.9000	Conductivity (σ):	5.15	5.27	-2.28	5
12/10/2015	Body 5180	e'	48.4500	Relative Permittivity (ϵ_r):	48.45	49.05	-1.22	5
		e"	18.2700	Conductivity (σ):	5.26	5.27	-0.17	5
	Body 5200	e'	48.3800	Relative Permittivity (ϵ_r):	48.38	49.02	-1.30	5
		e"	18.3000	Conductivity (σ):	5.29	5.29	-0.07	5
	Body 5600	e'	47.7300	Relative Permittivity (ϵ_r):	47.73	48.48	-1.54	5
		e"	18.6200	Conductivity (σ):	5.80	5.76	0.64	5
	Body 5800	e'	47.4900	Relative Permittivity (ϵ_r):	47.49	48.20	-1.47	5
		e"	18.7400	Conductivity (σ):	6.04	6.00	0.73	5
Body 5825	e'	47.3500	Relative Permittivity (ϵ_r):	47.35	48.20	-1.76	5	
	e"	18.7600	Conductivity (σ):	6.08	6.00	1.27	5	

SAR Lab E (continued)

Date	Freq. (MHz)		Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)
12/14/2015	Head 5180	e'	34.6500	Relative Permittivity (ϵ_r):	34.65	36.01	-3.78	5
		e"	15.4700	Conductivity (σ):	4.46	4.63	-3.77	5
	Head 5200	e'	34.6100	Relative Permittivity (ϵ_r):	34.61	35.99	-3.83	5
		e"	15.4600	Conductivity (σ):	4.47	4.65	-3.89	5
	Head 5600	e'	34.0300	Relative Permittivity (ϵ_r):	34.03	35.53	-4.23	5
		e"	15.6100	Conductivity (σ):	4.86	5.06	-3.95	5
	Head 5800	e'	33.7600	Relative Permittivity (ϵ_r):	33.76	35.30	-4.36	5
		e"	15.7300	Conductivity (σ):	5.07	5.27	-3.74	5
	Head 5825	e'	33.7400	Relative Permittivity (ϵ_r):	33.74	35.30	-4.42	5
		e"	15.7400	Conductivity (σ):	5.10	5.27	-3.26	5
12/14/2015	Body 5180	e'	47.9200	Relative Permittivity (ϵ_r):	47.92	49.05	-2.30	5
		e"	18.8100	Conductivity (σ):	5.42	5.27	2.78	5
	Body 5200	e'	47.8700	Relative Permittivity (ϵ_r):	47.87	49.02	-2.35	5
		e"	18.7900	Conductivity (σ):	5.43	5.29	2.61	5
	Body 5600	e'	47.0600	Relative Permittivity (ϵ_r):	47.06	48.48	-2.92	5
		e"	19.1600	Conductivity (σ):	5.97	5.76	3.56	5
	Body 5800	e'	46.6900	Relative Permittivity (ϵ_r):	46.69	48.20	-3.13	5
		e"	19.4300	Conductivity (σ):	6.27	6.00	4.44	5
	Body 5825	e'	46.6900	Relative Permittivity (ϵ_r):	46.69	48.20	-3.13	5
		e"	19.4400	Conductivity (σ):	6.30	6.00	4.94	5
12/17/2015	Head 1750	e'	38.2700	Relative Permittivity (ϵ_r):	38.27	40.08	-4.53	5
		e"	13.6700	Conductivity (σ):	1.33	1.37	-2.83	5
	Head 1710	e'	38.4100	Relative Permittivity (ϵ_r):	38.41	40.15	-4.32	5
		e"	13.5600	Conductivity (σ):	1.29	1.35	-4.24	5
	Head 1755	e'	38.2500	Relative Permittivity (ϵ_r):	38.25	40.08	-4.56	5
		e"	13.6700	Conductivity (σ):	1.33	1.37	-2.76	5
12/17/2015	Body 1750	e'	51.1500	Relative Permittivity (ϵ_r):	51.15	53.44	-4.29	5
		e"	15.0500	Conductivity (σ):	1.46	1.49	-1.46	5
	Body 1710	e'	51.2300	Relative Permittivity (ϵ_r):	51.23	53.54	-4.32	5
		e"	15.0100	Conductivity (σ):	1.43	1.46	-2.35	5
	Body 1755	e'	51.1400	Relative Permittivity (ϵ_r):	51.14	53.43	-4.28	5
		e"	15.0600	Conductivity (σ):	1.47	1.49	-1.32	5
12/21/2015	Head 1750	e'	39.6400	Relative Permittivity (ϵ_r):	39.64	40.08	-1.11	5
		e"	14.2100	Conductivity (σ):	1.38	1.37	1.00	5
	Head 1710	e'	39.8200	Relative Permittivity (ϵ_r):	39.82	40.15	-0.81	5
		e"	14.0700	Conductivity (σ):	1.34	1.35	-0.64	5
	Head 1755	e'	39.6200	Relative Permittivity (ϵ_r):	39.62	40.08	-1.14	5
		e"	14.2200	Conductivity (σ):	1.39	1.37	1.15	5
12/21/2015	Body 1750	e'	52.9500	Relative Permittivity (ϵ_r):	52.95	53.44	-0.92	5
		e"	15.2200	Conductivity (σ):	1.48	1.49	-0.35	5
	Body 1710	e'	53.0500	Relative Permittivity (ϵ_r):	53.05	53.54	-0.92	5
		e"	15.1500	Conductivity (σ):	1.44	1.46	-1.44	5
	Body 1755	e'	52.9200	Relative Permittivity (ϵ_r):	52.92	53.43	-0.95	5
		e"	15.2300	Conductivity (σ):	1.49	1.49	-0.20	5

SAR Lab E (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
12/28/2015	Head 1750	e'	39.3400	Relative Permittivity (ϵ_r):	39.34	40.08	-1.86	5
		e"	14.2900	Conductivity (σ):	1.39	1.37	1.57	5
	Head 1710	e'	39.4800	Relative Permittivity (ϵ_r):	39.48	40.15	-1.66	5
		e"	14.1300	Conductivity (σ):	1.34	1.35	-0.22	5
	Head 1755	e'	39.3200	Relative Permittivity (ϵ_r):	39.32	40.08	-1.89	5
		e"	14.2900	Conductivity (σ):	1.39	1.37	1.65	5
12/28/2015	Body 1750	e'	52.7200	Relative Permittivity (ϵ_r):	52.72	53.44	-1.35	5
		e"	15.2300	Conductivity (σ):	1.48	1.49	-0.28	5
	Body 1710	e'	52.7800	Relative Permittivity (ϵ_r):	52.78	53.54	-1.43	5
		e"	15.1200	Conductivity (σ):	1.44	1.46	-1.64	5
	Body 1755	e'	52.7200	Relative Permittivity (ϵ_r):	52.72	53.43	-1.33	5
		e"	15.2300	Conductivity (σ):	1.49	1.49	-0.20	5
1/4/2016	Head 1750	e'	38.4500	Relative Permittivity (ϵ_r):	38.45	40.08	-4.08	5
		e"	14.3000	Conductivity (σ):	1.39	1.37	1.64	5
	Head 1710	e'	38.6000	Relative Permittivity (ϵ_r):	38.60	40.15	-3.85	5
		e"	14.1700	Conductivity (σ):	1.35	1.35	0.07	5
	Head 1755	e'	38.4400	Relative Permittivity (ϵ_r):	38.44	40.08	-4.08	5
		e"	14.2900	Conductivity (σ):	1.39	1.37	1.65	5
1/4/2016	Body 1750	e'	51.0500	Relative Permittivity (ϵ_r):	51.05	53.44	-4.47	5
		e"	15.6200	Conductivity (σ):	1.52	1.49	2.27	5
	Body 1710	e'	51.0900	Relative Permittivity (ϵ_r):	51.09	53.54	-4.58	5
		e"	15.5300	Conductivity (σ):	1.48	1.46	1.03	5
	Body 1755	e'	51.0400	Relative Permittivity (ϵ_r):	51.04	53.43	-4.47	5
		e"	15.6000	Conductivity (σ):	1.52	1.49	2.22	5
1/7/2016	Head 1750	e'	39.6600	Relative Permittivity (ϵ_r):	39.66	40.08	-1.06	5
		e"	14.0200	Conductivity (σ):	1.36	1.37	-0.35	5
	Head 1710	e'	39.7900	Relative Permittivity (ϵ_r):	39.79	40.15	-0.89	5
		e"	13.9400	Conductivity (σ):	1.33	1.35	-1.56	5
	Head 1755	e'	39.6500	Relative Permittivity (ϵ_r):	39.65	40.08	-1.07	5
		e"	14.0400	Conductivity (σ):	1.37	1.37	-0.13	5
1/7/2016	Body 1750	e'	51.9800	Relative Permittivity (ϵ_r):	51.98	53.44	-2.73	5
		e"	15.1700	Conductivity (σ):	1.48	1.49	-0.67	5
	Body 1710	e'	52.0700	Relative Permittivity (ϵ_r):	52.07	53.54	-2.75	5
		e"	15.1600	Conductivity (σ):	1.44	1.46	-1.38	5
	Body 1755	e'	51.9700	Relative Permittivity (ϵ_r):	51.97	53.43	-2.73	5
		e"	15.2000	Conductivity (σ):	1.48	1.49	-0.40	5

SAR Lab F

Date	Freq. (MHz)		Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)
12/7/2015	Head 2450	e'	38.7300	Relative Permittivity (ε _r):	38.73	39.20	-1.20	5
		e"	13.5400	Conductivity (σ):	1.84	1.80	2.47	5
	Head 2410	e'	38.9100	Relative Permittivity (ε _r):	38.91	39.28	-0.94	5
		e"	13.4000	Conductivity (σ):	1.80	1.76	2.00	5
	Head 2475	e'	38.6400	Relative Permittivity (ε _r):	38.64	39.17	-1.35	5
		e"	13.5800	Conductivity (σ):	1.87	1.83	2.29	5
12/7/2015	Body 2450	e'	53.9300	Relative Permittivity (ε _r):	53.93	52.70	2.33	5
		e"	14.7400	Conductivity (σ):	2.01	1.95	2.97	5
	Body 2410	e'	54.0800	Relative Permittivity (ε _r):	54.08	52.76	2.50	5
		e"	14.5700	Conductivity (σ):	1.95	1.91	2.36	5
	Body 2475	e'	53.8500	Relative Permittivity (ε _r):	53.85	52.67	2.24	5
		e"	14.7700	Conductivity (σ):	2.03	1.99	2.39	5
12/11/2015	Head 2450	e'	39.3500	Relative Permittivity (ε _r):	39.35	39.20	0.38	5
		e"	13.7300	Conductivity (σ):	1.87	1.80	3.91	5
	Head 2410	e'	39.5100	Relative Permittivity (ε _r):	39.51	39.28	0.59	5
		e"	13.6600	Conductivity (σ):	1.83	1.76	3.98	5
	Head 2475	e'	39.2600	Relative Permittivity (ε _r):	39.26	39.17	0.23	5
		e"	13.7800	Conductivity (σ):	1.90	1.83	3.80	5
12/11/2015	Body 2450	e'	52.9100	Relative Permittivity (ε _r):	52.91	52.70	0.40	5
		e"	14.7400	Conductivity (σ):	2.01	1.95	2.97	5
	Body 2410	e'	53.0500	Relative Permittivity (ε _r):	53.05	52.76	0.55	5
		e"	14.6500	Conductivity (σ):	1.96	1.91	2.92	5
	Body 2475	e'	52.8400	Relative Permittivity (ε _r):	52.84	52.67	0.33	5
		e"	14.7900	Conductivity (σ):	2.04	1.99	2.53	5
12/14/2015	Head 2450	e'	39.3500	Relative Permittivity (ε _r):	39.35	39.20	0.38	5
		e"	13.6600	Conductivity (σ):	1.86	1.80	3.38	5
	Head 2410	e'	39.5000	Relative Permittivity (ε _r):	39.50	39.28	0.56	5
		e"	13.5800	Conductivity (σ):	1.82	1.76	3.37	5
	Head 2475	e'	39.2800	Relative Permittivity (ε _r):	39.28	39.17	0.28	5
		e"	13.7100	Conductivity (σ):	1.89	1.83	3.27	5
12/14/2015	Body 2450	e'	52.1700	Relative Permittivity (ε _r):	52.17	52.70	-1.01	5
		e"	14.6800	Conductivity (σ):	2.00	1.95	2.55	5
	Body 2410	e'	52.3300	Relative Permittivity (ε _r):	52.33	52.76	-0.81	5
		e"	14.6000	Conductivity (σ):	1.96	1.91	2.57	5
	Body 2475	e'	52.1300	Relative Permittivity (ε _r):	52.13	52.67	-1.02	5
		e"	14.7400	Conductivity (σ):	2.03	1.99	2.18	5
1/12/2016	Head 2450	e'	38.0900	Relative Permittivity (ε _r):	38.09	39.20	-2.83	5
		e"	13.1400	Conductivity (σ):	1.79	1.80	-0.55	5
	Head 2410	e'	38.2400	Relative Permittivity (ε _r):	38.24	39.28	-2.65	5
		e"	13.0800	Conductivity (σ):	1.75	1.76	-0.44	5
	Head 2475	e'	37.9700	Relative Permittivity (ε _r):	37.97	39.17	-3.06	5
		e"	13.1900	Conductivity (σ):	1.82	1.83	-0.65	5
1/12/2016	Body 2450	e'	51.8600	Relative Permittivity (ε _r):	51.86	52.70	-1.59	5
		e"	14.4300	Conductivity (σ):	1.97	1.95	0.81	5
	Body 2410	e'	51.9600	Relative Permittivity (ε _r):	51.96	52.76	-1.52	5
		e"	14.3500	Conductivity (σ):	1.92	1.91	0.81	5
	Body 2475	e'	51.7700	Relative Permittivity (ε _r):	51.77	52.67	-1.71	5
		e"	14.4900	Conductivity (σ):	1.99	1.99	0.45	5
1/28/2016	Body 835	e'	54.2000	Relative Permittivity (ε _r):	54.20	55.20	-1.81	5
		e"	21.7800	Conductivity (σ):	1.01	0.97	4.25	5
	Body 820	e'	54.3500	Relative Permittivity (ε _r):	54.35	55.28	-1.68	5
		e"	21.8900	Conductivity (σ):	1.00	0.97	3.06	5
	Body 850	e'	54.0300	Relative Permittivity (ε _r):	54.03	55.16	-2.04	5
		e"	21.6800	Conductivity (σ):	1.02	0.99	3.80	5

SAR Lab G

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
12/7/2015	Head 5180	e'	36.6600	Relative Permittivity (ϵ_r):	36.66	36.01	1.80	5
		e"	15.6500	Conductivity (σ):	4.51	4.63	-2.65	5
	Head 5200	e'	36.6500	Relative Permittivity (ϵ_r):	36.65	35.99	1.83	5
		e"	15.6300	Conductivity (σ):	4.52	4.65	-2.83	5
	Head 5600	e'	36.2200	Relative Permittivity (ϵ_r):	36.22	35.53	1.93	5
		e"	15.7600	Conductivity (σ):	4.91	5.06	-3.02	5
	Head 5800	e'	35.9500	Relative Permittivity (ϵ_r):	35.95	35.30	1.84	5
		e"	15.9100	Conductivity (σ):	5.13	5.27	-2.64	5
	Head 5825	e'	35.9400	Relative Permittivity (ϵ_r):	35.94	35.30	1.81	5
		e"	15.8700	Conductivity (σ):	5.14	5.27	-2.46	5
12/7/2015	Body 5180	e'	47.7500	Relative Permittivity (ϵ_r):	47.75	49.05	-2.64	5
		e"	18.2700	Conductivity (σ):	5.26	5.27	-0.17	5
	Body 5200	e'	47.7900	Relative Permittivity (ϵ_r):	47.79	49.02	-2.51	5
		e"	18.2400	Conductivity (σ):	5.27	5.29	-0.39	5
	Body 5600	e'	47.3500	Relative Permittivity (ϵ_r):	47.35	48.48	-2.33	5
		e"	18.5200	Conductivity (σ):	5.77	5.76	0.10	5
	Body 5800	e'	47.1500	Relative Permittivity (ϵ_r):	47.15	48.20	-2.18	5
		e"	18.7600	Conductivity (σ):	6.05	6.00	0.83	5
	Body 5825	e'	47.1400	Relative Permittivity (ϵ_r):	47.14	48.20	-2.20	5
		e"	18.7300	Conductivity (σ):	6.07	6.00	1.11	5
12/10/2015	Head 5180	e'	34.7100	Relative Permittivity (ϵ_r):	34.71	36.01	-3.62	5
		e"	15.6100	Conductivity (σ):	4.50	4.63	-2.90	5
	Head 5200	e'	34.6500	Relative Permittivity (ϵ_r):	34.65	35.99	-3.72	5
		e"	15.6000	Conductivity (σ):	4.51	4.65	-3.02	5
	Head 5600	e'	34.1100	Relative Permittivity (ϵ_r):	34.11	35.53	-4.01	5
		e"	15.8100	Conductivity (σ):	4.92	5.06	-2.71	5
	Head 5800	e'	33.8400	Relative Permittivity (ϵ_r):	33.84	35.30	-4.14	5
		e"	15.9200	Conductivity (σ):	5.13	5.27	-2.58	5
12/10/2015	Head 5825	e'	33.8000	Relative Permittivity (ϵ_r):	33.80	35.30	-4.25	5
		e"	15.9200	Conductivity (σ):	5.16	5.27	-2.16	5
	Body 5180	e'	46.9400	Relative Permittivity (ϵ_r):	46.94	49.05	-4.30	5
		e"	18.8800	Conductivity (σ):	5.44	5.27	3.16	5
	Body 5200	e'	46.9200	Relative Permittivity (ϵ_r):	46.92	49.02	-4.28	5
		e"	18.8500	Conductivity (σ):	5.45	5.29	2.94	5
	Body 5600	e'	46.2400	Relative Permittivity (ϵ_r):	46.24	48.48	-4.62	5
		e"	19.1800	Conductivity (σ):	5.97	5.76	3.67	5
12/14/2015	Body 5800	e'	45.9500	Relative Permittivity (ϵ_r):	45.95	48.20	-4.67	5
		e"	19.3800	Conductivity (σ):	6.25	6.00	4.17	5
	Body 5825	e'	45.9400	Relative Permittivity (ϵ_r):	45.94	48.20	-4.69	5
		e"	19.4200	Conductivity (σ):	6.29	6.00	4.83	5
	Head 5180	e'	37.2300	Relative Permittivity (ϵ_r):	37.23	36.01	3.38	5
		e"	15.6800	Conductivity (σ):	4.52	4.63	-2.47	5
	Head 5200	e'	37.1900	Relative Permittivity (ϵ_r):	37.19	35.99	3.33	5
		e"	15.6600	Conductivity (σ):	4.53	4.65	-2.65	5
Head 5600	e'	36.5900	Relative Permittivity (ϵ_r):	36.59	35.53	2.97	5	
	e"	15.7400	Conductivity (σ):	4.90	5.06	-3.15	5	
Head 5800	e'	36.2900	Relative Permittivity (ϵ_r):	36.29	35.30	2.80	5	
	e"	15.8800	Conductivity (σ):	5.12	5.27	-2.82	5	
Head 5825	e'	36.2800	Relative Permittivity (ϵ_r):	36.28	35.30	2.78	5	
	e"	15.8700	Conductivity (σ):	5.14	5.27	-2.46	5	

SAR Lab G (continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
12/15/2015	Head 1900	e'	41.7100	Relative Permittivity (ϵ_r):	41.71	40.00	4.28	5
		e''	13.4800	Conductivity (σ):	1.42	1.40	1.72	5
	Head 1850	e'	41.8800	Relative Permittivity (ϵ_r):	41.88	40.00	4.70	5
		e''	13.3900	Conductivity (σ):	1.38	1.40	-1.62	5
	Head 1910	e'	41.6900	Relative Permittivity (ϵ_r):	41.69	40.00	4.22	5
		e''	13.4700	Conductivity (σ):	1.43	1.40	2.18	5
12/15/2015	Body 1900	e'	51.5900	Relative Permittivity (ϵ_r):	51.59	53.30	-3.21	5
		e''	15.0200	Conductivity (σ):	1.59	1.52	4.39	5
	Body 1850	e'	51.7100	Relative Permittivity (ϵ_r):	51.71	53.30	-2.98	5
		e''	15.0000	Conductivity (σ):	1.54	1.52	1.51	5
	Body 1910	e'	51.5600	Relative Permittivity (ϵ_r):	51.56	53.30	-3.26	5
		e''	15.0100	Conductivity (σ):	1.59	1.52	4.87	5
12/17/2015	Head 1900	e'	38.4900	Relative Permittivity (ϵ_r):	38.49	40.00	-3.78	5
		e''	13.5400	Conductivity (σ):	1.43	1.40	2.17	5
	Head 1850	e'	38.8400	Relative Permittivity (ϵ_r):	38.84	40.00	-2.90	5
		e''	13.4900	Conductivity (σ):	1.39	1.40	-0.88	5
	Head 1910	e'	38.4600	Relative Permittivity (ϵ_r):	38.46	40.00	-3.85	5
		e''	13.5400	Conductivity (σ):	1.44	1.40	2.71	5
12/17/2015	Body 1900	e'	51.1400	Relative Permittivity (ϵ_r):	51.14	53.30	-4.05	5
		e''	15.0500	Conductivity (σ):	1.59	1.52	4.60	5
	Body 1850	e'	51.2900	Relative Permittivity (ϵ_r):	51.29	53.30	-3.77	5
		e''	15.0100	Conductivity (σ):	1.54	1.52	1.58	5
	Body 1910	e'	51.1400	Relative Permittivity (ϵ_r):	51.14	53.30	-4.05	5
		e''	15.0200	Conductivity (σ):	1.60	1.52	4.94	5
12/21/2015	Head 1900	e'	39.1700	Relative Permittivity (ϵ_r):	39.17	40.00	-2.08	5
		e''	13.5000	Conductivity (σ):	1.43	1.40	1.87	5
	Head 1850	e'	39.3400	Relative Permittivity (ϵ_r):	39.34	40.00	-1.65	5
		e''	13.4300	Conductivity (σ):	1.38	1.40	-1.32	5
	Head 1910	e'	39.1500	Relative Permittivity (ϵ_r):	39.15	40.00	-2.13	5
		e''	13.5000	Conductivity (σ):	1.43	1.40	2.41	5
12/21/2015	Body 1900	e'	50.8900	Relative Permittivity (ϵ_r):	50.89	53.30	-4.52	5
		e''	14.6300	Conductivity (σ):	1.55	1.52	1.68	5
	Body 1850	e'	51.0200	Relative Permittivity (ϵ_r):	51.02	53.30	-4.28	5
		e''	14.6400	Conductivity (σ):	1.51	1.52	-0.92	5
	Body 1910	e'	50.8700	Relative Permittivity (ϵ_r):	50.87	53.30	-4.56	5
		e''	14.6300	Conductivity (σ):	1.55	1.52	2.22	5
12/28/2015	Head 1900	e'	40.6100	Relative Permittivity (ϵ_r):	40.61	40.00	1.53	5
		e''	13.5200	Conductivity (σ):	1.43	1.40	2.02	5
	Head 1850	e'	40.7000	Relative Permittivity (ϵ_r):	40.70	40.00	1.75	5
		e''	13.5200	Conductivity (σ):	1.39	1.40	-0.66	5
	Head 1910	e'	40.5700	Relative Permittivity (ϵ_r):	40.57	40.00	1.43	5
		e''	13.5100	Conductivity (σ):	1.43	1.40	2.48	5
12/28/2015	Body 1900	e'	51.3700	Relative Permittivity (ϵ_r):	51.37	53.30	-3.62	5
		e''	14.8900	Conductivity (σ):	1.57	1.52	3.49	5
	Body 1850	e'	51.4100	Relative Permittivity (ϵ_r):	51.41	53.30	-3.55	5
		e''	14.9500	Conductivity (σ):	1.54	1.52	1.17	5
	Body 1910	e'	51.3500	Relative Permittivity (ϵ_r):	51.35	53.30	-3.66	5
		e''	14.9100	Conductivity (σ):	1.58	1.52	4.18	5

SAR Lab G (continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
1/4/2016	Head 1900	e'	40.6700	Relative Permittivity (ϵ_r):	40.67	40.00	1.68	5
		e''	13.7200	Conductivity (σ):	1.45	1.40	3.53	5
	Head 1850	e'	40.7500	Relative Permittivity (ϵ_r):	40.75	40.00	1.88	5
		e''	13.6700	Conductivity (σ):	1.41	1.40	0.44	5
	Head 1910	e'	40.6500	Relative Permittivity (ϵ_r):	40.65	40.00	1.63	5
		e''	13.7200	Conductivity (σ):	1.46	1.40	4.08	5
1/4/2016	Body 1900	e'	51.5800	Relative Permittivity (ϵ_r):	51.58	53.30	-3.23	5
		e''	15.0000	Conductivity (σ):	1.58	1.52	4.26	5
	Body 1850	e'	51.6100	Relative Permittivity (ϵ_r):	51.61	53.30	-3.17	5
		e''	15.0100	Conductivity (σ):	1.54	1.52	1.58	5
	Body 1910	e'	51.5700	Relative Permittivity (ϵ_r):	51.57	53.30	-3.25	5
		e''	14.9900	Conductivity (σ):	1.59	1.52	4.73	5
1/7/2016	Head 1900	e'	38.4800	Relative Permittivity (ϵ_r):	38.48	40.00	-3.80	5
		e''	13.6200	Conductivity (σ):	1.44	1.40	2.78	5
	Head 1850	e'	38.6700	Relative Permittivity (ϵ_r):	38.67	40.00	-3.33	5
		e''	13.5500	Conductivity (σ):	1.39	1.40	-0.44	5
	Head 1910	e'	38.4400	Relative Permittivity (ϵ_r):	38.44	40.00	-3.90	5
		e''	13.6200	Conductivity (σ):	1.45	1.40	3.32	5
1/7/2016	Body 1900	e'	50.8300	Relative Permittivity (ϵ_r):	50.83	53.30	-4.63	5
		e''	14.6800	Conductivity (σ):	1.55	1.52	2.03	5
	Body 1850	e'	50.9500	Relative Permittivity (ϵ_r):	50.95	53.30	-4.41	5
		e''	14.6500	Conductivity (σ):	1.51	1.52	-0.86	5
	Body 1910	e'	50.8200	Relative Permittivity (ϵ_r):	50.82	53.30	-4.65	5
		e''	14.6600	Conductivity (σ):	1.56	1.52	2.43	5
1/11/2016	Body 1900	e'	50.8000	Relative Permittivity (ϵ_r):	50.80	53.30	-4.69	5
		e''	14.7800	Conductivity (σ):	1.56	1.52	2.73	5
	Body 1850	e'	50.8700	Relative Permittivity (ϵ_r):	50.87	53.30	-4.56	5
		e''	14.7400	Conductivity (σ):	1.52	1.52	-0.25	5
	Body 1910	e'	50.7800	Relative Permittivity (ϵ_r):	50.78	53.30	-4.73	5
		e''	14.7500	Conductivity (σ):	1.57	1.52	3.06	5
1/11/2016	Head 1900	e'	38.2600	Relative Permittivity (ϵ_r):	38.26	40.00	-4.35	5
		e''	13.1500	Conductivity (σ):	1.39	1.40	-0.77	5
	Head 1850	e'	38.4100	Relative Permittivity (ϵ_r):	38.41	40.00	-3.98	5
		e''	13.0700	Conductivity (σ):	1.34	1.40	-3.97	5
	Head 1910	e'	38.2400	Relative Permittivity (ϵ_r):	38.24	40.00	-4.40	5
		e''	13.1400	Conductivity (σ):	1.40	1.40	-0.32	5
1/13/2016	Body 5180	e'	49.1200	Relative Permittivity (ϵ_r):	49.12	49.05	0.15	5
		e''	18.2000	Conductivity (σ):	5.24	5.27	-0.56	5
	Body 5200	e'	49.1200	Relative Permittivity (ϵ_r):	49.12	49.02	0.20	5
		e''	18.2200	Conductivity (σ):	5.27	5.29	-0.50	5
	Body 5600	e'	48.6100	Relative Permittivity (ϵ_r):	48.61	48.48	0.27	5
		e''	18.2900	Conductivity (σ):	5.70	5.76	-1.14	5
	Body 5800	e'	48.4200	Relative Permittivity (ϵ_r):	48.42	48.20	0.46	5
		e''	18.4000	Conductivity (σ):	5.93	6.00	-1.10	5
Body 5825	e'	48.3600	Relative Permittivity (ϵ_r):	48.36	48.20	0.33	5	
	e''	18.4300	Conductivity (σ):	5.97	6.00	-0.51	5	

SAR Lab H

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
12/7/2015	Head 5180	e'	37.6500	Relative Permittivity (ϵ_r):	37.65	36.01	4.55	5
		e''	15.7200	Conductivity (σ):	4.53	4.63	-2.22	5
	Head 5200	e'	37.6600	Relative Permittivity (ϵ_r):	37.66	35.99	4.64	5
		e''	15.7000	Conductivity (σ):	4.54	4.65	-2.40	5
	Head 5600	e'	37.1800	Relative Permittivity (ϵ_r):	37.18	35.53	4.63	5
		e''	15.7500	Conductivity (σ):	4.90	5.06	-3.08	5
	Head 5800	e'	36.8400	Relative Permittivity (ϵ_r):	36.84	35.30	4.36	5
		e''	15.8600	Conductivity (σ):	5.11	5.27	-2.94	5
12/7/2015	Head 5825	e'	36.8100	Relative Permittivity (ϵ_r):	36.81	35.30	4.28	5
		e''	15.8600	Conductivity (σ):	5.14	5.27	-2.53	5
	Body 5180	e'	48.4200	Relative Permittivity (ϵ_r):	48.42	49.05	-1.28	5
		e''	18.3700	Conductivity (σ):	5.29	5.27	0.37	5
	Body 5200	e'	48.4600	Relative Permittivity (ϵ_r):	48.46	49.02	-1.14	5
		e''	18.3300	Conductivity (σ):	5.30	5.29	0.10	5
	Body 5600	e'	47.9400	Relative Permittivity (ϵ_r):	47.94	48.48	-1.11	5
		e''	18.6400	Conductivity (σ):	5.80	5.76	0.75	5
12/10/2015	Body 5800	e'	47.6400	Relative Permittivity (ϵ_r):	47.64	48.20	-1.16	5
		e''	18.8900	Conductivity (σ):	6.09	6.00	1.53	5
	Body 5825	e'	47.6300	Relative Permittivity (ϵ_r):	47.63	48.20	-1.18	5
		e''	18.9000	Conductivity (σ):	6.12	6.00	2.02	5
	Head 5180	e'	36.6700	Relative Permittivity (ϵ_r):	36.67	36.01	1.82	5
		e''	15.5700	Conductivity (σ):	4.48	4.63	-3.15	5
	Head 5200	e'	36.6400	Relative Permittivity (ϵ_r):	36.64	35.99	1.81	5
		e''	15.5500	Conductivity (σ):	4.50	4.65	-3.33	5
12/10/2015	Head 5600	e'	36.0700	Relative Permittivity (ϵ_r):	36.07	35.53	1.51	5
		e''	15.7400	Conductivity (σ):	4.90	5.06	-3.15	5
	Head 5800	e'	35.8400	Relative Permittivity (ϵ_r):	35.84	35.30	1.53	5
		e''	15.8600	Conductivity (σ):	5.11	5.27	-2.94	5
	Head 5825	e'	35.7700	Relative Permittivity (ϵ_r):	35.77	35.30	1.33	5
		e''	15.8800	Conductivity (σ):	5.14	5.27	-2.40	5
	Body 5180	e'	48.2400	Relative Permittivity (ϵ_r):	48.24	49.05	-1.64	5
		e''	18.1000	Conductivity (σ):	5.21	5.27	-1.10	5
12/10/2015	Body 5200	e'	48.1800	Relative Permittivity (ϵ_r):	48.18	49.02	-1.71	5
		e''	18.0800	Conductivity (σ):	5.23	5.29	-1.27	5
	Body 5600	e'	47.5200	Relative Permittivity (ϵ_r):	47.52	48.48	-1.98	5
		e''	18.5200	Conductivity (σ):	5.77	5.76	0.10	5
	Body 5800	e'	47.2500	Relative Permittivity (ϵ_r):	47.25	48.20	-1.97	5
		e''	18.7200	Conductivity (σ):	6.04	6.00	0.62	5
	Body 5825	e'	47.1400	Relative Permittivity (ϵ_r):	47.14	48.20	-2.20	5
		e''	18.7300	Conductivity (σ):	6.07	6.00	1.11	5
12/14/2015	Head 5180	e'	36.6000	Relative Permittivity (ϵ_r):	36.60	36.01	1.63	5
		e''	15.8900	Conductivity (σ):	4.58	4.63	-1.16	5
	Head 5200	e'	36.5600	Relative Permittivity (ϵ_r):	36.56	35.99	1.58	5
		e''	15.8800	Conductivity (σ):	4.59	4.65	-1.28	5
	Head 5600	e'	35.9400	Relative Permittivity (ϵ_r):	35.94	35.53	1.14	5
		e''	16.0000	Conductivity (σ):	4.98	5.06	-1.55	5
	Head 5800	e'	35.6500	Relative Permittivity (ϵ_r):	35.65	35.30	0.99	5
		e''	16.1200	Conductivity (σ):	5.20	5.27	-1.35	5
12/14/2015	Head 5825	e'	35.6300	Relative Permittivity (ϵ_r):	35.63	35.30	0.93	5
		e''	16.1100	Conductivity (σ):	5.22	5.27	-0.99	5

SAR Lab H (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
12/15/2015	Body 835	e'	53.7900	Relative Permittivity (ϵ_r):	53.79	55.20	-2.55	5
		e"	21.8200	Conductivity (σ):	1.01	0.97	4.44	5
	Body 820	e'	53.9900	Relative Permittivity (ϵ_r):	53.99	55.28	-2.33	5
		e"	21.9100	Conductivity (σ):	1.00	0.97	3.15	5
	Body 850	e'	53.6300	Relative Permittivity (ϵ_r):	53.63	55.16	-2.77	5
		e"	21.7900	Conductivity (σ):	1.03	0.99	4.33	5
12/15/2015	Head 835	e'	42.7800	Relative Permittivity (ϵ_r):	42.78	41.50	3.08	5
		e"	20.3000	Conductivity (σ):	0.94	0.90	4.72	5
	Head 820	e'	42.8700	Relative Permittivity (ϵ_r):	42.87	41.60	3.05	5
		e"	20.3200	Conductivity (σ):	0.93	0.90	3.12	5
	Head 850	e'	42.4834	Relative Permittivity (ϵ_r):	42.48	41.50	2.37	5
		e"	20.2200	Conductivity (σ):	0.96	0.92	4.44	5
12/17/2015	Head 835	e'	41.3000	Relative Permittivity (ϵ_r):	41.30	41.50	-0.48	5
		e"	19.2600	Conductivity (σ):	0.89	0.90	-0.64	5
	Head 820	e'	41.4900	Relative Permittivity (ϵ_r):	41.49	41.60	-0.27	5
		e"	19.3100	Conductivity (σ):	0.88	0.90	-2.01	5
	Head 850	e'	41.1400	Relative Permittivity (ϵ_r):	41.14	41.50	-0.87	5
		e"	19.2000	Conductivity (σ):	0.91	0.92	-0.83	5
12/17/2015	Body 835	e'	56.2200	Relative Permittivity (ϵ_r):	56.22	55.20	1.85	5
		e"	21.6400	Conductivity (σ):	1.00	0.97	3.58	5
	Body 820	e'	56.3100	Relative Permittivity (ϵ_r):	56.31	55.28	1.87	5
		e"	21.7500	Conductivity (σ):	0.99	0.97	2.40	5
	Body 850	e'	56.0600	Relative Permittivity (ϵ_r):	56.06	55.16	1.64	5
		e"	21.5500	Conductivity (σ):	1.02	0.99	3.18	5
12/21/2015	Head 835	e'	42.5100	Relative Permittivity (ϵ_r):	42.51	41.50	2.43	5
		e"	19.6100	Conductivity (σ):	0.91	0.90	1.16	5
	Head 820	e'	42.6900	Relative Permittivity (ϵ_r):	42.69	41.60	2.61	5
		e"	19.6100	Conductivity (σ):	0.89	0.90	-0.48	5
	Head 850	e'	42.3300	Relative Permittivity (ϵ_r):	42.33	41.50	2.00	5
		e"	19.5700	Conductivity (σ):	0.92	0.92	1.09	5
12/21/2015	Body 835	e'	54.2200	Relative Permittivity (ϵ_r):	54.22	55.20	-1.78	5
		e"	21.2400	Conductivity (σ):	0.99	0.97	1.66	5
	Body 820	e'	54.4000	Relative Permittivity (ϵ_r):	54.40	55.28	-1.59	5
		e"	21.2500	Conductivity (σ):	0.97	0.97	0.04	5
	Body 850	e'	54.0800	Relative Permittivity (ϵ_r):	54.08	55.16	-1.95	5
		e"	21.1800	Conductivity (σ):	1.00	0.99	1.41	5
12/28/2015	Head 835	e'	40.4900	Relative Permittivity (ϵ_r):	40.49	41.50	-2.43	5
		e"	19.2600	Conductivity (σ):	0.89	0.90	-0.64	5
	Head 820	e'	40.6900	Relative Permittivity (ϵ_r):	40.69	41.60	-2.19	5
		e"	19.3000	Conductivity (σ):	0.88	0.90	-2.06	5
	Head 850	e'	40.3000	Relative Permittivity (ϵ_r):	40.30	41.50	-2.89	5
		e"	19.2300	Conductivity (σ):	0.91	0.92	-0.67	5
12/28/2015	Body 835	e'	54.7700	Relative Permittivity (ϵ_r):	54.77	55.20	-0.78	5
		e"	21.6800	Conductivity (σ):	1.01	0.97	3.77	5
	Body 820	e'	54.9200	Relative Permittivity (ϵ_r):	54.92	55.28	-0.65	5
		e"	21.7200	Conductivity (σ):	0.99	0.97	2.26	5
	Body 850	e'	54.6100	Relative Permittivity (ϵ_r):	54.61	55.16	-0.99	5
		e"	21.6000	Conductivity (σ):	1.02	0.99	3.42	5

SAR Lab H (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
1/4/2016	Head 835	e'	40.3500	Relative Permittivity (ϵ_r):	40.35	41.50	-2.77	5
		e"	19.2900	Conductivity (σ):	0.90	0.90	-0.49	5
	Head 820	e'	40.5200	Relative Permittivity (ϵ_r):	40.52	41.60	-2.60	5
		e"	19.3400	Conductivity (σ):	0.88	0.90	-1.85	5
	Head 850	e'	40.1800	Relative Permittivity (ϵ_r):	40.18	41.50	-3.18	5
		e"	19.3100	Conductivity (σ):	0.91	0.92	-0.26	5
1/4/2016	Body 835	e'	55.1700	Relative Permittivity (ϵ_r):	55.17	55.20	-0.05	5
		e"	21.7200	Conductivity (σ):	1.01	0.97	3.96	5
	Body 820	e'	55.3200	Relative Permittivity (ϵ_r):	55.32	55.28	0.08	5
		e"	21.7800	Conductivity (σ):	0.99	0.97	2.54	5
	Body 850	e'	55.0400	Relative Permittivity (ϵ_r):	55.04	55.16	-0.21	5
		e"	21.6800	Conductivity (σ):	1.02	0.99	3.80	5
1/7/2016	Head 835	e'	41.8900	Relative Permittivity (ϵ_r):	41.89	41.50	0.94	5
		e"	19.5700	Conductivity (σ):	0.91	0.90	0.96	5
	Head 820	e'	42.0900	Relative Permittivity (ϵ_r):	42.09	41.60	1.17	5
		e"	19.6000	Conductivity (σ):	0.89	0.90	-0.54	5
	Head 850	e'	41.6900	Relative Permittivity (ϵ_r):	41.69	41.50	0.46	5
		e"	19.5100	Conductivity (σ):	0.92	0.92	0.78	5
1/7/2016	Body 835	e'	54.5800	Relative Permittivity (ϵ_r):	54.58	55.20	-1.12	5
		e"	21.4200	Conductivity (σ):	0.99	0.97	2.53	5
	Body 820	e'	54.7400	Relative Permittivity (ϵ_r):	54.74	55.28	-0.97	5
		e"	21.4800	Conductivity (σ):	0.98	0.97	1.13	5
	Body 850	e'	54.4000	Relative Permittivity (ϵ_r):	54.40	55.16	-1.37	5
		e"	21.3500	Conductivity (σ):	1.01	0.99	2.22	5
1/11/2016	Head 835	e'	40.5300	Relative Permittivity (ϵ_r):	40.53	41.50	-2.34	5
		e"	19.3900	Conductivity (σ):	0.90	0.90	0.03	5
	Head 820	e'	40.7400	Relative Permittivity (ϵ_r):	40.74	41.60	-2.07	5
		e"	19.4400	Conductivity (σ):	0.89	0.90	-1.35	5
	Head 850	e'	40.3400	Relative Permittivity (ϵ_r):	40.34	41.50	-2.80	5
		e"	19.3500	Conductivity (σ):	0.91	0.92	-0.05	5
1/11/2016	Body 835	e'	53.5800	Relative Permittivity (ϵ_r):	53.58	55.20	-2.93	5
		e"	21.6700	Conductivity (σ):	1.01	0.97	3.72	5
	Body 820	e'	53.7200	Relative Permittivity (ϵ_r):	53.72	55.28	-2.82	5
		e"	21.7300	Conductivity (σ):	0.99	0.97	2.30	5
	Body 850	e'	53.4000	Relative Permittivity (ϵ_r):	53.40	55.16	-3.19	5
		e"	21.6400	Conductivity (σ):	1.02	0.99	3.61	5
1/28/2016	Head 835	e'	43.2100	Relative Permittivity (ϵ_r):	43.21	41.50	4.12	5
		e"	19.8300	Conductivity (σ):	0.92	0.90	2.30	5
	Head 820	e'	43.4100	Relative Permittivity (ϵ_r):	43.41	41.60	4.34	5
		e"	19.9000	Conductivity (σ):	0.91	0.90	0.99	5
	Head 850	e'	43.0400	Relative Permittivity (ϵ_r):	43.04	41.50	3.71	5
		e"	19.7800	Conductivity (σ):	0.93	0.92	2.17	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 3 mm.
For 5 GHz band - Distance between probe sensors and phantom surface was set to 2.5 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

System Check Results

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

SAR Room	Date	Tissue Type	Dipole Type Serial #	Dipole Cal. Due Date	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
B	12/15/2015	Head	D750V3 SN: 1024	5/12/2016	0.784	7.84	8.10	-3.21	0.517	5.17	5.33	-3.00	
B	12/15/2015	Body	D750V3 SN: 1024	5/12/2016	0.787	7.87	8.41	-6.42	0.525	5.25	5.60	-6.25	1,2
B	12/21/2015	Body	D750V3 SN: 1024	5/12/2016	0.851	8.51	8.41	1.19	0.568	5.68	5.60	1.43	
B	12/22/2015	Body	D1900V2 SN: 5d043	11/17/2016	4.31	43.1	40.2	7.21	2.20	22.0	21.1	4.27	3,4
B	12/28/2015	Head	D1900V2 SN: 5d163	9/21/2016	4.06	40.6	40.1	1.25	2.07	20.7	21.0	-1.43	5,6
B	1/9/2016	Head	D5GHZV2 SN: 1168 (5.2 GHz)	11/13/2016	7.47	74.7	78.4	-4.72	2.14	21.4	22.5	-4.89	
B	1/9/2016	Head	D5GHZV2 SN: 1168 (5.6 GHz)	11/13/2016	8.34	83.4	87.6	-4.79	2.35	23.5	24.8	-5.24	7,8
B	1/9/2016	Head	D5GHZV2 SN: 1168 (5.8 GHz)	11/13/2016	7.80	78.0	81.0	-3.70	2.20	22.0	23.0	-4.35	
E	12/7/2015	Head	D5GHZV2 SN: 1003 (5.2 GHz)	2/20/2016	7.24	72.4	76.4	-5.24	2.07	20.7	21.9	-5.48	
E	12/7/2015	Head	D5GHZV2 SN: 1003 (5.6 GHz)	2/20/2016	8.04	80.4	79.6	1.01	2.25	22.5	22.8	-1.32	
E	12/7/2015	Head	D5GHZV2 SN: 1003 (5.8 GHz)	2/20/2016	7.27	72.7	76.1	-4.47	2.05	20.5	21.7	-5.53	
E	12/7/2015	Body	D5GHZV2 SN: 1003 (5.2 GHz)	2/20/2016	7.41	74.1	72.7	1.93	2.10	21.0	20.4	2.94	
E	12/7/2015	Body	D5GHZV2 SN: 1003 (5.6 GHz)	2/20/2016	7.74	77.4	77.0	0.52	2.16	21.6	21.3	1.41	
E	12/7/2015	Body	D5GHZV2 SN: 1003 (5.8 GHz)	2/20/2016	7.78	77.8	75.0	3.73	2.19	21.9	20.6	6.31	
E	12/10/2015	Head	D5GHZV2 SN: 1003 (5.2 GHz)	2/20/2016	7.05	70.5	76.4	-7.72	2.03	20.3	21.9	-7.31	9,10
E	12/10/2015	Body	D5GHZV2 SN: 1003 (5.2 GHz)	2/20/2016	7.71	77.1	72.7	6.05	2.19	21.9	20.4	7.35	
E	12/14/2015	Head	D5GHZV2 SN: 1003 (5.2 GHz)	2/20/2016	7.30	73.0	76.4	-4.45	2.10	21.0	21.9	-4.11	
E	12/14/2015	Body	D5GHZV2 SN: 1003 (5.2 GHz)	2/20/2016	7.51	75.1	72.7	3.30	2.13	21.3	20.4	4.41	
E	12/17/2015	Head	D1750V2 SN: 1053	8/11/2016	3.50	35.0	37.1	-5.66	1.85	18.5	19.8	-6.57	
E	12/17/2015	Body	D1750V2 SN: 1053	8/11/2016	3.73	37.3	37.5	-0.53	1.99	19.9	20.3	-1.97	
E	12/21/2015	Head	D1750V2 SN: 1053	8/11/2016	3.56	35.6	37.1	-4.04	1.86	18.6	19.8	-6.06	
E	12/21/2015	Body	D1750V2 SN: 1053	8/11/2016	3.75	37.5	37.5	0.00	1.99	19.9	20.3	-1.97	
E	12/28/2015	Head	D1750V2 SN: 1053	8/11/2016	3.62	36.2	37.1	-2.43	1.89	18.9	19.8	-4.55	
E	12/28/2015	Body	D1750V2 SN: 1053	8/11/2016	3.71	37.1	37.5	-1.07	1.97	19.7	20.3	-2.96	
E	1/4/2016	Head	D1750V2 SN: 1053	8/11/2016	3.63	36.3	37.1	-2.16	1.90	19.0	19.8	-4.04	
E	1/4/2016	Body	D1750V2 SN: 1053	8/11/2016	3.81	38.1	37.5	1.60	2.02	20.2	20.3	-0.49	
E	1/7/2016	Head	D1750V2 SN: 1053	8/11/2016	3.50	35.0	37.1	-5.66	1.84	18.4	19.8	-7.07	11,12
E	1/7/2016	Body	D1750V2 SN: 1053	8/11/2016	3.58	35.8	37.5	-4.53	1.90	19.0	20.3	-6.40	

System Check Results (continued)

SAR Room	Date	Tissue Type	Dipole Type Serial #	Dipole Cal. Due Date	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
F	12/7/2015	Head	D2450V2 SN: 706	5/11/2016	5.21	52.1	52.6	-0.95	2.37	23.7	24.6	-3.66	
F	12/7/2015	Body	D2450V2 SN: 706	5/11/2016	4.86	48.6	51.3	-5.26	2.26	22.6	24.0	-5.83	
F	12/11/2015	Head	D2450V2 SN: 706	5/11/2016	5.09	50.9	52.6	-3.23	2.32	23.2	24.6	-5.69	
F	12/11/2015	Body	D2450V2 SN: 706	5/11/2016	4.95	49.5	51.3	-3.51	2.29	22.9	24.0	-4.58	
F	12/14/2015	Head	D2450V2 SN: 706	5/11/2016	5.10	51.0	52.6	-3.04	2.32	23.2	24.6	-5.69	
F	12/14/2015	Body	D2450V2 SN: 706	5/11/2016	4.86	48.6	51.3	-5.26	2.25	22.5	24.0	-6.25	13,14
F	1/12/2016	Head	D2450V2 SN: 748	2/20/2016	5.35	53.5	52.7	1.52	2.43	24.3	24.6	-1.22	
F	1/12/2016	Body	D2450V2 SN: 748	2/20/2016	5.12	51.2	50.3	1.79	2.33	23.3	23.5	-0.85	15,16
F	1/28/2016	Body	D835V2 SN: 4d002	11/12/2016	0.968	9.68	9.47	2.22	0.640	6.40	6.21	3.06	17,18
G	12/7/2015	Head	D5GHZV2 SN: 1168 (5.2 GHz)	11/13/2016	7.64	76.4	78.4	-2.55	2.18	21.8	22.5	-3.11	
G	12/7/2015	Head	D5GHZV2 SN: 1168 (5.6 GHz)	11/13/2016	8.39	83.9	87.6	-4.22	2.35	23.5	24.8	-5.24	
G	12/7/2015	Head	D5GHZV2 SN: 1168 (5.8 GHz)	11/13/2016	7.79	77.9	81.0	-3.83	2.19	21.9	23.0	-4.78	
G	12/7/2015	Body	D5GHZV2 SN: 1168 (5.2 GHz)	11/13/2016	7.97	79.7	75.0	6.27	2.24	22.4	21.0	6.67	19,20
G	12/7/2015	Body	D5GHZV2 SN: 1168 (5.6 GHz)	11/13/2016	8.61	86.1	82.5	4.36	2.39	23.9	23.0	3.91	
G	12/7/2015	Body	D5GHZV2 SN: 1168 (5.8 GHz)	11/13/2016	7.80	78.0	78.1	-0.13	2.15	21.5	21.6	-0.46	
G	12/10/2015	Head	D5GHZV2 SN: 1168 (5.8 GHz)	11/13/2016	7.43	74.3	81.0	-8.27	2.11	21.1	23.0	-8.26	
G	12/10/2015	Body	D5GHZV2 SN: 1168 (5.8 GHz)	11/13/2016	7.32	73.2	78.1	-6.27	2.03	20.3	21.6	-6.02	
G	12/14/2015	Head	D5GHZV2 SN: 1168 (5.2 GHz)	11/13/2016	7.35	73.5	76.4	-3.80	2.11	21.1	21.9	-3.65	
G	12/14/2015	Head	D5GHZV2 SN: 1168 (5.6 GHz)	11/13/2016	7.70	77.0	81.0	-4.94	2.17	21.7	23.0	-5.65	
G	12/14/2015	Body	D5GHZV2 SN: 1168 (5.2 GHz)	11/13/2016	7.59	75.9	72.7	4.40	2.14	21.4	20.4	4.90	
G	12/14/2015	Body	D5GHZV2 SN: 1168 (5.6 GHz)	11/13/2016	7.90	79.0	78.1	1.15	2.20	22.0	21.6	1.85	
G	12/15/2015	Head	D1900V2 SN: 5d043	11/17/2016	4.09	40.9	40.0	2.25	2.09	20.9	20.9	0.00	
G	12/15/2015	Body	D1900V2 SN: 5d043	11/17/2016	4.37	43.7	40.2	8.71	2.24	22.4	21.1	6.16	
G	12/17/2015	Head	D1900V2 SN: 5d043	11/17/2016	4.26	42.6	40.0	6.50	2.18	21.8	20.9	4.31	
G	12/17/2015	Body	D1900V2 SN: 5d043	11/17/2016	4.12	41.2	40.2	2.49	2.10	21.0	21.1	-0.47	
G	12/21/2015	Head	D1900V2 SN: 5d043	11/17/2016	4.23	42.3	40.0	5.75	2.15	21.5	20.9	2.87	
G	12/21/2015	Body	D1900V2 SN: 5d043	11/17/2016	4.28	42.8	40.2	6.47	2.18	21.8	21.1	3.32	
G	12/28/2015	Head	D1900V2 SN: 5d043	11/17/2016	3.98	39.8	40.0	-0.50	2.02	20.2	20.9	-3.35	
G	12/28/2015	Body	D1900V2 SN: 5d043	11/17/2016	4.09	40.9	40.2	1.74	2.07	20.7	21.1	-1.90	
G	1/4/2016	Head	D1900V2 SN: 5d043	11/17/2016	4.30	43.0	40.0	7.50	2.19	21.9	20.9	4.78	
G	1/4/2016	Body	D1900V2 SN: 5d043	11/17/2016	4.39	43.9	40.2	9.20	2.23	22.3	21.1	5.69	21,22

System Check Results (continued)

SAR Room	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Date	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
G	1/7/2016	Head	D1900V2 SN: 5d043	11/17/2016	4.28	42.8	40.0	7.00	2.18	21.8	20.9	4.31	
G	1/7/2016	Body	D1900V2 SN: 5d043	11/17/2016	4.31	43.1	40.2	7.21	2.18	21.8	21.1	3.32	
G	1/11/2016	Head	D1900V2 SN: 5d043	11/17/2016	4.14	41.4	40.0	3.50	2.12	21.2	20.9	1.44	
G	1/11/2016	Body	D1900V2 SN: 5d043	11/17/2016	4.23	42.3	40.2	5.22	2.15	21.5	21.1	1.90	
G	1/13/2016	Body	D5GHz V2 SN: 1138 (5.2 GHz)	9/25/2016	7.46	74.6	76.9	-2.99	2.10	21.0	21.5	-2.33	23,24
G	1/13/2016	Body	D5GHz V2 SN: 1138 (5.6 GHz)	9/25/2016	7.95	79.5	81.6	-2.57	2.21	22.1	22.8	-3.07	
G	1/13/2016	Body	D5GHz V2 SN: 1138 (5.8 GHz)	9/25/2016	7.60	76.0	77.9	-2.44	2.10	21.0	21.6	-2.78	
H	12/7/2015	Head	D5GHz V2 SN:1003 (5.2 GHz)	2/20/2016	7.83	78.3	76.4	2.49	2.22	22.2	21.9	1.37	
H	12/7/2015	Head	D5GHz V2 SN:1003 (5.6 GHz)	2/20/2016	7.89	78.9	79.6	-0.88	2.22	22.2	22.8	-2.63	
H	12/7/2015	Head	D5GHz V2 SN:1003 (5.8 GHz)	2/20/2016	7.34	73.4	76.1	-3.55	2.08	20.8	21.7	-4.15	
H	12/7/2015	Body	D5GHz V2 SN:1003 (5.2 GHz)	2/20/2016	7.61	76.1	72.7	4.68	2.14	21.4	20.4	4.90	
H	12/7/2015	Body	D5GHz V2 SN:1003 (5.6 GHz)	2/20/2016	8.25	82.5	77.0	7.14	2.30	23.0	21.3	7.98	
H	12/7/2015	Body	D5GHz V2 SN:1003 (5.8 GHz)	2/20/2016	7.60	76.0	75.0	1.33	2.12	21.2	20.6	2.91	
H	12/10/2015	Head	D5GHz V2 SN:1003 (5.6 GHz)	2/20/2016	7.48	74.8	79.6	-6.03	2.12	21.2	22.8	-7.02	
H	12/10/2015	Body	D5GHz V2 SN:1003 (5.6 GHz)	2/20/2016	8.29	82.9	77.0	7.66	2.33	23.3	21.3	9.39	25,26
H	12/14/2015	Head	D5GHz V2 SN: 1168 (5.6 GHz)	2/20/2016	8.17	81.7	87.6	-6.74	2.30	23.0	24.8	-7.26	27,28
H	12/14/2015	Body	D5GHz V2 SN: 1168 (5.6 GHz)	2/20/2016	7.81	78.1	82.5	-5.33	2.19	21.9	23.0	-4.78	
H	12/15/2015	Head	D835V2 SN: 4d002	11/12/2016	0.977	9.77	9.06	7.84	0.644	6.44	5.90	9.15	29,30
H	12/15/2015	Body	D835V2 SN: 4d002	11/12/2016	0.917	9.17	9.47	-3.17	0.604	6.04	6.21	-2.74	
H	12/17/2015	Head	D835V2 SN: 4d002	11/12/2016	0.933	9.33	9.06	2.98	0.610	6.10	5.90	3.39	
H	12/17/2015	Body	D835V2 SN: 4d002	11/12/2016	0.949	9.49	9.47	0.21	0.628	6.28	6.21	1.13	
H	12/21/2015	Head	D835V2 SN: 4d002	11/12/2016	0.856	8.56	9.06	-5.52	0.566	5.66	5.90	-4.07	
H	12/21/2015	Body	D835V2 SN: 4d002	11/12/2016	0.911	9.11	9.47	-3.80	0.601	6.01	6.21	-3.22	
H	12/28/2015	Head	D835V2 SN: 4d002	11/12/2016	0.949	9.49	9.06	4.75	0.628	6.28	5.90	6.44	
H	12/28/2015	Body	D835V2 SN: 4d002	11/12/2016	0.972	9.72	9.47	2.64	0.641	6.41	6.21	3.22	
H	1/4/2016	Head	D835V2 SN: 4d002	11/12/2016	0.960	9.60	9.06	5.96	0.636	6.36	5.90	7.80	
H	1/4/2016	Body	D835V2 SN: 4d002	11/12/2016	0.943	9.43	9.47	-0.42	0.621	6.21	6.21	0.00	
H	1/7/2016	Head	D835V2 SN: 4d002	11/12/2016	0.885	8.85	9.06	-2.32	0.587	5.87	5.90	-0.51	
H	1/7/2016	Body	D835V2 SN: 4d002	11/12/2016	0.957	9.57	9.47	1.06	0.633	6.33	6.21	1.93	
H	1/11/2016	Head	D835V2 SN: 4d002	11/12/2016	0.951	9.51	9.06	4.97	0.634	6.34	5.90	7.46	
H	1/11/2016	Body	D835V2 SN: 4d002	11/12/2016	0.959	9.59	9.47	1.27	0.633	6.33	6.21	1.93	
H	1/28/2016	Head	D835V2 SN: 4d002	11/12/2016	0.941	9.41	9.06	3.86	0.624	6.24	5.90	5.76	

9. Conducted Output Power Measurements

The proprietary logic is used to determine when head/body power table is used.

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

GSM (GMSK) - Voice Mode

Band	Ch No.	Freq. (MHz)	Avg Power (dBm)			
			UAT		LAT	
			HEAD	BODY	HEAD	BODY
850	128	824.2	33.0	33.0	33.5	33.5
	190	836.6	33.0	33.0	33.5	33.2
	251	848.8	33.0	33.0	33.5	33.5

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850	128	824.2	33.0	30.2	33.0	30.2	33.5	30.5	33.5	30.5
	190	836.6	33.0	30.2	33.0	30.2	33.5	30.5	33.2	30.5
	251	848.8	33.0	30.2	33.0	30.2	33.5	30.5	33.5	30.5
Frame Power (dBm)										
850	128	824.2	24.0	24.2	24.0	24.2	24.5	24.5	24.5	24.5
	190	836.6	24.0	24.2	24.0	24.2	24.5	24.5	24.2	24.5
	251	848.8	24.0	24.2	24.0	24.2	24.5	24.5	24.5	24.5

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850.0	128.0	824.2	27.7	27.7	27.7	27.7	28.0	28.0	28.0	28.0
	190.0	836.6	27.7	27.7	27.7	27.7	28.0	28.0	28.0	28.0
	251.0	848.8	27.7	27.7	27.7	27.7	28.0	28.0	28.0	28.0
Frame Power (dBm)										
850.0	128.0	824.2	18.7	21.7	18.7	21.7	19.0	22.0	19.0	22.0
	190.0	836.6	18.7	21.7	18.7	21.7	19.0	22.0	19.0	22.0
	251.0	848.8	18.7	21.7	18.7	21.7	19.0	22.0	19.0	22.0

Notes:

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

- Head & Body-worn: GMSK Voice Mode
- Hotspot mode: GMSK (GPRS) mode with 2 time slots based on the output power measurements above.
- SAR is not required for EGPRS (8PSK) mode because its output power is less than that of GPRS Mode

GSM1900 Measured Results**GSM (GMSK) - Voice Mode**

Band	Ch No.	Freq. (MHz)	Avg Power (dBm)			
			UAT		LAT	
			HEAD	BODY	HEAD	BODY
1900	512	1850.2	29.7	29.9	30.5	29.0
	661	1880.0	29.9	29.9	30.5	29.0
	810	1909.8	29.7	29.9	30.5	29.0

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	29.7	26.9	29.9	26.9	30.5	27.5	29.0	26.0
	661.0	1880.0	29.9	26.9	29.9	26.9	30.5	27.5	29.0	26.0
	810.0	1909.8	29.7	26.9	29.9	26.9	30.5	27.5	29.0	26.0
1900.0	512.0	1850.2	20.7	20.9	20.9	20.9	21.5	21.5	20.0	20.0
	661.0	1880.0	20.9	20.9	20.9	20.9	21.5	21.5	20.0	20.0
	810.0	1909.8	20.7	20.9	20.9	20.9	21.5	21.5	20.0	20.0

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	26.4	26.4	26.4	26.4	27.0	27.0	27.0	26.0
	661.0	1880.0	26.4	26.4	26.4	26.4	27.0	27.0	27.0	26.0
	810.0	1909.8	26.4	26.4	26.4	26.4	27.0	27.0	27.0	26.0
1900.0	512.0	1850.2	17.4	20.4	17.4	20.4	18.0	21.0	18.0	20.0
	661.0	1880.0	17.4	20.4	17.4	20.4	18.0	21.0	18.0	20.0
	810.0	1909.8	17.4	20.4	17.4	20.4	18.0	21.0	18.0	20.0

Notes:

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

- Head & Body-worn: GMSK Voice Mode
- Hotspot mode: GMSK (GPRS) mode with 2 time slots based on the output power measurements above.
- SAR is not required for EGPRS (8PSK) mode because its output power is less than that of GPRS Mode

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
	β_c/β_d	8/15

HSDPA Setup Procedures used to establish the test signals

The following 4 Sub-tests were completed according to Release 5 procedures in 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			
	β_c	2/15	11/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	11/15	15/8	15/4
	β_{hs}	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			
	$A_{hs}=\beta_{hs}/\beta_c$	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 section 5.2 of 3GPP TS34.121. 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
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	0
	β_{ec}	209/225	12/15	30/15	2/15	5/15
	β_c/β_d	11/15	6/15	15/9	2/15	15/1
	β_{hs}	22/15	12/15	30/15	4/15	5/15
	β_{ed}	1309/225	94/75	47/15	56/75	47/15
HSDPA Specific Settings	CM (dB)	1	3	2	3	1
	MPR (dB)	0	2	1	2	0
	DACK	8				0
	DNAK	8				0
	DCQI	8				0
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
HSUPA Specific Settings	CQI Repetition Factor (Table 5.2B.4)	2				
	$A_{hs} = \beta_{hs}/\beta_c$	30/15				
	E-DPDCCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	81
	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 Channelisation 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

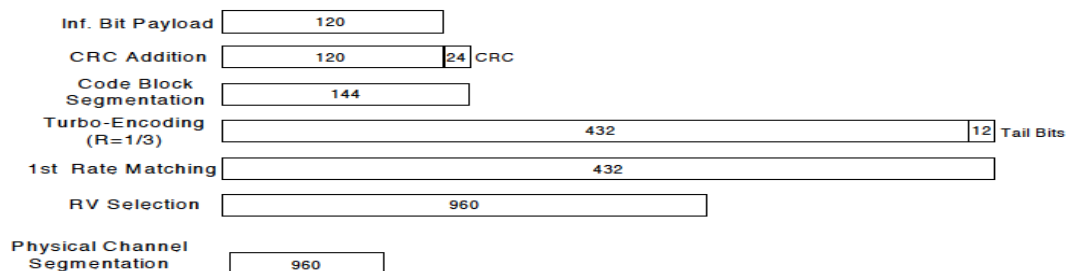
Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH_Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

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

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

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

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 1			
	Power Control Algorithm	Algorithm2			
	β_c	2/15	11/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_d (SF)	64			
	β_c/β_d	2/15	11/15	15/8	15/4
	β_{hs}	4/15	24/15	30/15	30/15
HSDPA Specific Settings	MPR (dB)	0	0	0.5	0.5
	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	$A_{hs} = \beta_{hs}/\beta_c$	30/15			

HSPA+

Since 16QAM is not used for uplink, the uplink Category and release is same as HSUPA, i.e., Rel. 7 Therefore, the RF conducted power is not measured.

W-CDMA Band V Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band V	Rel 99	RMC, 12.2 kbps	4132	826.4	N/A	24.7	24.7	25.0	24.0
			4183	836.6	N/A	24.7	24.7	25.0	24.0
			4233	846.6	N/A	24.7	24.7	25.0	24.0
	HSDPA	Subtest 1	4132	826.4	0	24.7	24.7	24.8	24.0
			4183	836.6	0	24.7	24.6	24.9	23.9
			4233	846.6	0	24.7	24.7	25.0	23.8
		Subtest 2	4132	826.4	0	24.6	24.6	25.0	24.0
			4183	836.6	0	24.7	24.7	25.0	23.9
			4233	846.6	0	24.6	24.7	24.9	24.0
		Subtest 3	4132	826.4	0.5	24.0	24.1	24.4	23.5
			4183	836.6	0.5	24.1	24.0	24.5	23.5
			4233	846.6	0.5	24.2	24.2	24.4	23.4
		Subtest 4	4132	826.4	0.5	24.1	24.0	24.4	23.4
			4183	836.6	0.5	24.0	24.0	24.3	23.4
			4233	846.6	0.5	24.2	24.2	24.4	23.4
	HSUPA	Subtest 1	4132	826.4	0	24.6	24.7	25.0	23.8
			4183	836.6	0	24.6	24.6	24.9	23.9
			4233	846.6	0	24.7	24.7	24.8	23.9
		Subtest 2	4132	826.4	2	22.6	22.6	22.9	21.9
			4183	836.6	2	22.5	22.5	22.8	21.8
			4233	846.6	2	22.5	22.4	22.9	21.8
		Subtest 3	4132	826.4	1	23.6	23.5	23.8	22.8
			4183	836.6	1	23.6	23.5	23.8	22.8
			4233	846.6	1	23.6	23.6	23.8	22.7
		Subtest 4	4132	826.4	2	22.4	22.4	22.8	21.8
			4183	836.6	2	22.5	22.5	22.8	21.8
			4233	846.6	2	22.5	22.5	22.7	21.8
		Subtest 5	4132	826.4	0	24.6	24.5	25.0	23.8
			4183	836.6	0	24.6	24.6	24.9	23.9
			4233	846.6	0	24.6	24.7	24.9	23.9
	DC-HSDPA	Subtest 1	4132	826.4	0	24.7	24.7	24.8	23.9
			4183	836.6	0	24.6	24.6	24.9	23.9
			4233	846.6	0	24.5	24.6	25.0	23.8
		Subtest 2	4132	826.4	0	24.6	24.6	25.0	23.9
			4183	836.6	0	24.7	24.7	24.9	23.9
			4233	846.6	0	24.6	24.5	24.9	24.0
		Subtest 3	4132	826.4	0.5	24.0	24.1	24.4	23.5
			4183	836.6	0.5	24.0	24.0	24.5	23.5
			4233	846.6	0.5	24.0	24.2	24.4	23.4
		Subtest 4	4132	826.4	0.5	24.1	24.0	24.4	23.3
			4183	836.6	0.5	24.2	24.0	24.3	23.4
			4233	846.6	0.5	24.2	24.2	24.4	23.4

W-CDMA Band IV Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band IV	Rel 99	RMC, 12.2 kbps	1312	1712.4	N/A	22.5	23.9	23.0	19.8
			1413	1732.6	N/A	22.5	23.9	23.0	19.8
			1513	1752.6	N/A	22.5	23.9	23.0	19.8
	HSDPA	Subtest 1	1312	1712.4	0	22.4	23.9	23.0	19.7
			1413	1732.6	0	22.5	23.9	22.9	19.8
			1513	1752.6	0	22.3	23.7	22.9	19.7
		Subtest 2	1312	1712.4	0	22.5	23.9	23.0	19.7
			1413	1732.6	0	22.4	23.8	23.0	19.6
			1513	1752.6	0	22.5	23.9	22.9	19.8
		Subtest 3	1312	1712.4	0.5	22.0	23.4	22.4	19.2
			1413	1732.6	0.5	21.9	23.4	22.4	19.3
			1513	1752.6	0.5	21.9	23.4	22.3	19.2
		Subtest 4	1312	1712.4	0.5	21.8	23.3	22.4	19.3
			1413	1732.6	0.5	21.9	23.4	22.4	19.3
			1513	1752.6	0.5	21.9	23.4	22.5	19.2
	HSUPA	Subtest 1	1312	1712.4	0	22.4	23.9	22.9	19.8
			1413	1732.6	0	22.5	23.9	22.9	19.7
			1513	1752.6	0	22.4	23.9	23.0	19.7
		Subtest 2	1312	1712.4	2	20.5	21.9	20.9	17.9
			1413	1732.6	2	20.4	21.9	20.9	18.0
			1513	1752.6	2	20.4	21.9	21.0	17.9
		Subtest 3	1312	1712.4	1	21.4	22.9	21.9	18.9
			1413	1732.6	1	21.4	23.0	22.0	18.9
			1513	1752.6	1	21.4	22.9	22.0	18.9
		Subtest 4	1312	1712.4	2	20.4	22.0	21.0	17.9
			1413	1732.6	2	20.4	21.9	21.0	18.0
			1513	1752.6	2	20.3	21.9	20.9	17.8
		Subtest 5	1312	1712.4	0	22.4	24.0	22.9	19.8
			1413	1732.6	0	22.4	24.0	22.9	19.7
			1513	1752.6	0	22.4	23.9	22.9	19.7
	DC-HSDPA	Subtest 1	1312	1712.4	0	22.4	23.8	23.0	19.7
			1413	1732.6	0	22.4	23.9	22.9	19.7
			1513	1752.6	0	22.3	23.7	22.9	19.7
		Subtest 2	1312	1712.4	0	22.5	23.8	22.8	19.7
			1413	1732.6	0	22.4	23.8	22.8	19.8
			1513	1752.6	0	22.4	23.9	22.9	19.8
		Subtest 3	1312	1712.4	0.5	21.8	23.3	22.4	19.2
			1413	1732.6	0.5	21.9	23.4	22.4	19.2
			1513	1752.6	0.5	21.9	23.4	22.3	19.2
		Subtest 4	1312	1712.4	0.5	21.8	23.3	22.4	19.1
			1413	1732.6	0.5	21.8	23.4	22.4	19.3
			1513	1752.6	0.5	21.9	23.4	22.5	19.2

W-CDMA Band II Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band II	Rel 99	RMC, 12.2 kbps	9262	1852.4	N/A	21.0	21.0	22.5	18.7
			9400	1880.0	N/A	21.0	21.0	22.5	18.7
			9538	1907.6	N/A	21.0	21.0	22.5	18.6
	HSDPA	Subtest 1	9262	1852.4	0	20.9	20.9	22.5	18.6
			9400	1880.0	0	21.0	20.8	22.4	18.7
			9538	1907.6	0	20.8	20.8	22.5	18.6
		Subtest 2	9262	1852.4	0	20.9	20.8	22.4	18.6
			9400	1880.0	0	21.0	20.8	22.4	18.6
			9538	1907.6	0	20.8	20.8	22.5	18.7
		Subtest 3	9262	1852.4	0.5	20.4	20.5	22.0	18.2
			9400	1880.0	0.5	20.5	20.4	22.0	18.0
			9538	1907.6	0.5	20.3	20.4	21.8	18.0
		Subtest 4	9262	1852.4	0.5	20.5	20.5	21.9	18.1
			9400	1880.0	0.5	20.5	20.5	21.7	18.0
			9538	1907.6	0.5	20.4	20.4	21.9	18.0
	HSUPA	Subtest 1	9262	1852.4	0	20.9	20.8	22.4	18.6
			9400	1880.0	0	21.0	20.9	22.4	18.6
			9538	1907.6	0	20.9	20.8	22.5	18.6
		Subtest 2	9262	1852.4	2	18.9	18.8	20.3	16.7
			9400	1880.0	2	18.9	19.0	20.4	16.7
			9538	1907.6	2	18.9	18.9	20.4	16.7
		Subtest 3	9262	1852.4	1	19.9	19.9	21.5	17.6
			9400	1880.0	1	20.0	20.0	21.4	17.6
			9538	1907.6	1	19.9	19.9	21.3	17.7
		Subtest 4	9262	1852.4	2	18.9	19.0	20.5	16.7
			9400	1880.0	2	19.0	18.9	20.3	16.6
			9538	1907.6	2	19.0	19.0	20.5	16.6
		Subtest 5	9262	1852.4	0	20.9	20.9	22.4	18.6
			9400	1880.0	0	20.9	20.9	22.4	18.6
			9538	1907.6	0	20.9	20.9	22.4	18.7
	DC-HSDPA	Subtest 1	9262	1852.4	0	20.7	20.9	22.4	18.6
			9400	1880.0	0	20.8	20.8	22.4	18.6
			9538	1907.6	0	20.8	20.7	22.3	18.6
		Subtest 2	9262	1852.4	0	20.9	20.8	22.4	18.6
			9400	1880.0	0	20.8	20.7	22.4	18.6
			9538	1907.6	0	20.8	20.8	22.3	18.5
		Subtest 3	9262	1852.4	0.5	20.4	20.3	22.0	18.1
			9400	1880.0	0.5	20.5	20.4	22.0	18.0
			9538	1907.6	0.5	20.2	20.5	21.8	18.0
		Subtest 4	9262	1852.4	0.5	20.2	20.5	21.9	18.1
			9400	1880.0	0.5	20.5	20.5	21.7	18.1
			9538	1907.6	0.5	20.4	20.4	21.9	18.0

9.3. CDMA

1x Advanced Setup Procedures used to establish the test signals

Call box setup procedure

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

CDMA BC0 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 0	1xRTT	RC1 SO55 (Loopback)	1013	824.70	24.6	24.7	24.7	24.2
			384	836.52	24.6	24.7	24.8	24.2
			777	848.31	24.7	24.6	24.8	24.3
		RC3 SO55 (Loopback)	1013	824.70	24.6	24.6	24.7	24.2
			384	836.52	24.7	24.7	25.0	24.2
			777	848.31	24.6	24.7	24.8	24.3
		RC3 SO32 (+F-SCH)	1013	824.70	24.7	24.7	24.9	24.3
			384	836.52	24.6	24.7	24.7	24.3
			777	848.31	24.6	24.7	24.7	24.3
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	1013	824.70	24.7	24.7	24.9	24.2
			384	836.52	24.6	24.7	24.9	24.3
			777	848.31	24.7	24.6	25.0	24.3
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	1013	824.70	24.6	24.7	24.7	24.3
			384	836.52	24.7	24.7	25.0	24.2
			777	848.31	24.6	24.7	24.8	24.2
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	1013	824.70	24.7	24.6	24.8	24.3
			384	836.52	24.6	24.6	24.7	24.2
			777	848.31	24.7	24.7	24.8	24.3

CDMA BC1 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 1	1xRTT	RC1 SO55 (Loopback)	25	1851.25	20.7	20.9	22.0	18.7
			600	1880.00	20.7	21.0	21.9	18.8
			1175	1908.75	20.7	21.0	21.9	18.8
		RC3 SO55 (Loopback)	25	1851.25	20.7	20.9	22.0	18.7
			600	1880.00	20.7	20.9	22.0	18.8
			1175	1908.75	20.7	20.9	22.0	18.8
		RC3 SO32 (+F-SCH)	25	1851.25	20.7	21.0	22.0	18.7
			600	1880.00	20.7	21.0	22.0	18.7
			1175	1908.75	20.7	21.0	21.9	18.7
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	25	1851.25	20.7	20.9	21.9	18.7
			600	1880.00	20.7	21.0	21.9	18.8
			1175	1908.75	20.7	21.0	22.0	18.7
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	25	1851.25	20.7	20.9	22.0	18.8
			600	1880.00	20.7	21.0	22.0	18.8
			1175	1908.75	20.7	20.9	22.0	18.7
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	25	1851.25	20.5	20.9	21.8	18.8
			600	1880.00	20.6	20.9	21.9	18.8
			1175	1908.75	20.6	20.8	21.9	18.8

CDMA BC10 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 10	1xRTT	RC1 SO55 (Loopback)	476	817.90	24.6	24.7	24.9	23.9
			580	820.50	24.7	24.7	25.0	23.9
			670	822.75	24.7	24.6	24.9	24.0
		RC3 SO55 (Loopback)	476	817.90	24.6	24.7	25.0	23.9
			580	820.50	24.7	24.7	25.0	23.9
			670	822.75	24.6	24.6	25.0	24.0
		RC3 SO32 (+F-SCH)	476	817.90	24.7	24.7	25.0	24.0
			580	820.50	24.6	24.7	25.0	24.0
			670	822.75	24.7	24.7	24.9	24.0
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	476	817.90	24.6	24.6	25.0	24.0
			580	820.50	24.7	24.7	24.9	24.0
			670	822.75	24.7	24.7	24.9	24.0
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	476	817.90	24.7	24.7	25.0	23.9
			580	820.50	24.7	24.7	25.0	24.0
			670	822.75	24.7	24.6	25.0	24.0
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	476	817.90	24.6	24.7	24.9	23.9
			580	820.50	24.7	24.7	25.0	24.0
			670	822.75	24.6	24.7	25.0	24.0

CDMA BC15 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 15	1xRTT	RC1 SO55 (Loopback)	25	1711.25	22.5	23.6	22.0	19.6
			450	1732.50	22.5	23.7	22.0	19.7
			875	1753.75	22.4	23.7	22.0	19.7
		RC3 SO55 (Loopback)	25	1711.25	22.5	23.7	22.0	19.7
			450	1732.50	22.5	23.6	22.0	19.6
			875	1753.75	22.5	23.7	22.0	19.7
		RC3 SO32 (+F-SCH)	25	1711.25	22.5	23.7	22.0	19.7
			450	1732.50	22.5	23.7	21.9	19.7
			875	1753.75	22.5	23.7	21.9	19.7
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	25	1711.25	22.5	23.7	21.9	19.7
			450	1732.50	22.5	23.7	21.9	19.7
			875	1753.75	22.4	23.6	22.0	19.7
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	25	1711.25	22.5	23.6	22.0	19.7
			450	1732.50	22.5	23.7	22.0	19.7
			875	1753.75	22.5	23.7	22.0	19.7
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	25	1711.25	22.5	23.7	22.0	19.7
			450	1732.50	22.5	23.6	22.0	19.6
			875	1753.75	22.5	23.7	21.9	19.7

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 3

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

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 (sub-clause)	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	NA
NS_03	6.6.2.2.1	2, 4, 10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23 ¹	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
..					
NS_32	-	-	-	-	-

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.

LTE Band 2 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1860 MHz	1880 MHz	1900 MHz		1860 MHz	1880 MHz	1900 MHz		1860 MHz	1880 MHz	1900 MHz		1860 MHz	1880 MHz	1900 MHz
LTE Band 2	20	QPSK	1	0	0	20.9	20.9	20.9	0	21.0	20.9	21.0	0	22.6	22.5	22.6	0	18.6	18.6	18.7
			1	49	0	21.0	21.0	21.0	0	21.0	21.0	21.0	0	22.7	22.7	22.7	0	18.7	18.7	18.7
			1	99	0	20.9	21.0	20.9	0	21.0	21.0	21.0	0	22.7	22.6	22.5	0	18.6	18.5	18.6
			50	0	1	19.9	20.0	19.8	1	19.9	19.9	19.9	1	21.6	21.6	21.6	1	17.7	17.7	17.6
			50	24	1	20.0	20.0	20.0	1	20.0	20.0	20.0	1	21.7	21.7	21.7	1	17.7	17.7	17.7
			50	49	1	19.9	19.9	19.9	1	19.9	19.9	19.9	1	21.6	21.5	21.6	1	17.6	17.7	17.6
		16QAM	100	0	1	20.0	20.0	19.9	1	20.0	19.9	20.0	1	21.6	21.7	21.6	1	17.6	17.7	17.6
			1	0	1	19.9	19.9	19.9	1	20.0	19.9	19.9	1	21.7	21.6	21.6	1	17.7	17.7	17.6
			1	49	1	20.0	20.0	19.9	1	20.0	20.0	20.0	1	21.6	21.6	21.6	1	17.7	17.7	17.7
			1	99	1	19.9	19.9	19.9	1	19.9	20.0	19.9	1	21.6	21.6	21.6	1	17.6	17.6	17.6
			50	0	2	18.9	18.9	19.0	2	18.9	18.8	18.9	2	20.7	20.6	20.5	2	16.6	16.7	16.7
			50	24	2	18.9	19.0	18.9	2	18.9	19.0	18.9	2	20.7	20.6	20.6	2	16.7	16.6	16.6
			50	49	2	19.0	18.9	18.9	2	18.9	18.9	18.9	2	20.6	20.6	20.5	2	16.6	16.6	16.6
			100	0	2	18.9	18.9	18.9	2	19.0	18.9	18.9	2	20.6	20.6	20.6	2	16.7	16.6	16.7
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1857.5 MHz	1880 MHz	1902.5 MHz		1857.5 MHz	1880 MHz	1902.5 MHz		1857.5 MHz	1880 MHz	1902.5 MHz		1857.5 MHz	1880 MHz	1902.5 MHz
LTE Band 2	15	QPSK	1	0	0	20.9	20.9	20.9	0	20.9	20.9	21.0	0	22.7	22.6	22.6	0	18.6	18.6	18.6
			1	36	0	20.9	20.9	21.0	0	21.0	20.9	20.9	0	22.6	22.6	22.6	0	18.5	18.6	18.6
			1	74	0	21.0	20.9	20.9	0	20.9	20.9	20.9	0	22.7	22.5	22.6	0	18.7	18.5	18.6
			36	0	1	19.9	19.9	20.0	1	20.0	19.8	20.0	1	21.6	21.7	21.7	1	17.7	17.6	17.6
			36	18	1	20.0	20.0	19.9	1	19.9	19.8	20.0	1	21.7	21.6	21.6	1	17.7	17.6	17.6
			36	37	1	19.9	19.9	20.0	1	20.0	19.8	19.9	1	21.6	21.6	21.6	1	17.7	17.6	17.6
		16QAM	75	0	1	20.0	19.9	19.9	1	20.0	19.9	19.9	1	21.7	21.6	21.6	1	17.7	17.7	17.7
			1	0	1	19.9	19.9	20.0	1	19.8	19.9	20.0	1	21.6	21.7	21.6	1	17.6	17.7	17.7
			1	36	1	20.0	19.9	20.0	1	20.0	19.9	19.9	1	21.6	21.6	21.6	1	17.6	17.6	17.6
			1	74	1	19.9	20.0	20.0	1	19.9	19.8	19.8	1	21.6	21.6	21.6	1	17.7	17.6	17.7
			36	0	2	19.0	19.0	18.9	2	18.9	18.9	18.9	2	20.6	20.6	20.5	2	16.6	16.7	16.6
			36	18	2	18.9	18.9	18.9	2	18.9	18.9	18.9	2	20.5	20.6	20.7	2	16.7	16.6	16.5
			36	37	2	19.0	18.9	18.9	2	19.0	19.0	18.9	2	20.6	20.5	20.6	2	16.6	16.7	16.6
			75	0	2	18.8	18.9	19.0	2	18.9	18.9	18.9	2	20.6	20.6	20.7	2	16.6	16.6	16.6
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1855 MHz	1880 MHz	1905 MHz		1855 MHz	1880 MHz	1905 MHz		1855 MHz	1880 MHz	1905 MHz		1855 MHz	1880 MHz	1905 MHz
LTE Band 2	10	QPSK	1	0	0	20.9	21.0	20.9	0	21.0	20.9	20.9	0	22.7	22.6	22.7	0	18.7	18.6	18.7
			1	24	0	20.9	20.9	21.0	0	20.9	20.8	20.9	0	22.6	22.5	22.7	0	18.7	18.6	18.6
			1	49	0	20.9	20.9	20.9	0	20.9	20.9	20.9	0	22.6	22.6	22.6	0	18.6	18.7	18.6
			25	0	1	19.8	20.0	20.0	1	19.9	19.9	20.0	1	21.5	21.6	21.7	1	17.7	17.7	17.7
			25	12	1	19.8	19.9	19.9	1	19.9	20.0	19.9	1	21.7	21.6	21.5	1	17.6	17.7	17.6
			25	24	1	19.9	20.0	19.9	1	19.9	20.0	19.9	1	21.7	21.6	21.6	1	17.7	17.6	17.6
		16QAM	50	0	1	19.9	19.9	20.0	1	19.9	20.0	19.9	1	21.6	21.6	21.7	1	17.7	17.6	17.6
			1	0	1	20.0	19.9	19.9	1	19.9	19.9	19.9	1	21.6	21.7	21.6	1	17.7	17.6	17.6
			1	24	1	20.0	20.0	19.9	1	19.9	20.0	19.9	1	21.6	21.6	21.6	1	17.6	17.5	17.5
			1	49	1	20.0	19.9	19.9	1	20.0	19.9	19.9	1	21.6	21.7	21.6	1	17.6	17.6	17.6
			25	0	2	19.0	18.9	19.0	2	18.9	19.0	19.0	2	20.6	20.6	20.6	2	16.6	16.5	16.6
			25	12	2	19.0	18.9	19.0	2	18.9	18.9	18.9	2	20.6	20.7	20.7	2	16.6	16.6	16.6
			25	24	2	19.0	19.0	18.9	2	18.9	18.9	19.0	2	20.7	20.6	20.7	2	16.6	16.7	16.6
			50	0	2	18.9	18.9	18.9	2	18.8	18.9	18.9	2	20.7	20.6	20.6	2	16.6	16.6	16.6

LTE Band 2 Average Power (dBm) Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1852.5 MHz	1880 MHz	1907.5 MHz		1852.5 MHz	1880 MHz	1907.5 MHz		1852.5 MHz	1880 MHz	1907.5 MHz		1852.5 MHz	1880 MHz	1907.5 MHz
LTE Band 2	5	QPSK	1	0	0	21.0	21.0	20.9	0	20.9	20.9	20.9	0	22.6	22.6	22.7	0	18.6	18.6	18.7
			1	12	0	20.8	20.9	20.9	0	20.9	21.0	20.9	0	22.6	22.6	22.5	0	18.5	18.7	18.6
			1	24	0	21.0	20.9	21.0	0	20.9	21.0	21.0	0	22.6	22.6	22.6	0	18.6	18.6	18.6
			12	0	1	19.8	20.0	19.9	1	19.9	19.9	19.9	1	21.6	21.6	21.6	1	17.6	17.6	17.6
			12	7	1	19.9	19.9	20.0	1	19.9	20.0	19.9	1	21.7	21.6	21.7	1	17.6	17.6	17.7
			12	13	1	20.0	19.9	19.9	1	20.0	19.9	20.0	1	21.7	21.7	21.6	1	17.7	17.6	17.6
		16QAM	25	0	1	20.0	19.9	19.9	1	20.0	19.8	19.9	1	21.6	21.6	21.6	1	17.6	17.7	17.6
			1	0	1	20.0	19.8	19.9	1	19.9	19.9	19.9	1	21.6	21.6	21.6	1	17.5	17.6	17.6
			1	12	1	20.0	20.0	20.0	1	20.0	19.9	19.8	1	21.6	21.7	21.7	1	17.6	17.7	17.7
			1	24	1	20.0	19.9	19.9	1	19.8	19.8	19.9	1	21.6	21.7	21.6	1	17.6	17.6	17.5
			12	0	2	18.9	18.9	19.0	2	18.9	18.9	18.9	2	20.6	20.7	20.6	2	16.6	16.7	16.6
			12	7	2	18.9	19.0	18.9	2	19.0	18.9	18.9	2	20.5	20.7	20.6	2	16.6	16.7	16.6
			12	13	2	18.9	19.0	18.9	2	18.8	18.9	18.9	2	20.7	20.7	20.7	2	16.6	16.6	16.7
			25	0	2	18.9	19.0	19.0	2	18.9	19.0	19.0	2	20.7	20.6	20.7	2	16.7	16.6	16.6
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1851.5 MHz	1880 MHz	1908.5 MHz		1851.5 MHz	1880 MHz	1908.5 MHz		1851.5 MHz	1880 MHz	1908.5 MHz		1851.5 MHz	1880 MHz	1908.5 MHz
LTE Band 2	3	QPSK	1	0	0	20.9	20.9	21.0	0	21.0	20.8	20.9	0	22.6	22.6	22.6	0	18.6	18.6	18.7
			1	8	0	20.9	20.9	20.9	0	20.9	20.9	20.9	0	22.6	22.6	22.6	0	18.7	18.7	18.7
			1	14	0	21.0	20.9	21.0	0	20.9	20.9	20.8	0	22.6	22.7	22.6	0	18.6	18.7	18.6
			8	0	1	19.9	19.9	19.9	1	19.9	19.9	19.9	1	21.6	21.6	21.6	1	17.6	17.6	17.6
			8	4	1	19.9	19.9	19.9	1	20.0	20.0	19.9	1	21.6	21.6	21.7	1	17.7	17.6	17.6
			8	7	1	19.8	19.8	20.0	1	19.9	20.0	19.9	1	21.6	21.6	21.6	1	17.6	17.6	17.6
		16QAM	15	0	1	19.9	20.0	19.9	1	19.9	19.9	19.9	1	21.6	21.6	21.7	1	17.6	17.7	17.6
			1	0	1	20.0	19.9	20.0	1	19.9	19.9	19.9	1	21.6	21.6	21.6	1	17.6	17.7	17.5
			1	8	1	20.0	20.0	19.9	1	19.9	20.0	19.9	1	21.6	21.7	21.6	1	17.7	17.6	17.6
			1	14	1	19.9	19.9	19.9	1	19.9	19.9	19.9	1	21.7	21.7	21.7	1	17.7	17.7	17.6
			8	0	2	18.9	18.9	19.0	2	18.9	18.9	19.0	2	20.7	20.6	20.7	2	16.5	16.5	16.6
			8	4	2	18.9	18.9	18.9	2	19.0	18.9	18.9	2	20.6	20.6	20.6	2	16.7	16.7	16.6
			8	7	2	18.9	19.0	19.0	2	19.0	18.9	18.9	2	20.6	20.7	20.6	2	16.6	16.7	16.5
			15	0	2	19.0	18.9	18.9	2	18.9	19.0	18.9	2	20.6	20.6	20.6	2	16.6	16.6	16.7
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1850.7 MHz	1880 MHz	1909.3 MHz		1850.7 MHz	1880 MHz	1909.3 MHz		1850.7 MHz	1880 MHz	1909.3 MHz		1850.7 MHz	1880 MHz	1909.3 MHz
LTE Band 2	1.4	QPSK	1	0	0	21.0	20.9	20.9	0	20.9	20.9	20.9	0	22.6	22.7	22.7	0	18.6	18.6	18.6
			1	3	0	20.9	20.9	20.9	0	20.9	20.9	21.0	0	22.6	22.7	22.6	0	18.6	18.7	18.7
			1	5	0	21.0	20.9	20.9	0	20.9	20.9	20.8	0	22.7	22.6	22.5	0	18.6	18.7	18.6
			3	0	0	21.0	21.0	20.8	0	20.9	20.9	21.0	0	22.6	22.6	22.5	0	18.6	18.6	18.5
			3	1	0	21.0	20.9	20.9	0	21.0	21.0	20.9	0	22.7	22.6	22.7	0	18.7	18.7	18.6
			3	3	0	20.9	21.0	20.8	0	21.0	20.9	20.9	0	22.6	22.7	22.6	0	18.6	18.6	18.7
		16QAM	6	0	1	19.8	20.0	19.9	1	20.0	20.0	19.9	1	21.6	21.6	21.6	1	17.6	17.6	17.6
			1	0	1	19.9	19.9	20.0	1	19.9	19.8	19.9	1	21.6	21.6	21.6	1	17.6	17.6	17.6
			1	3	1	19.9	19.9	19.9	1	19.9	19.9	19.9	1	21.6	21.7	21.7	1	17.5	17.6	17.6
			1	5	1	19.9	19.9	19.9	1	19.9	19.9	19.9	1	21.6	21.6	21.6	1	17.6	17.7	17.6
			3	0	1	19.9	20.0	20.0	1	20.0	20.0	20.0	1	21.6	21.6	21.6	1	17.7	17.6	17.7
			3	1	1	19.9	19.9	19.9	1	19.9	19.9	19.9	1	21.6	21.7	21.6	1	17.6	17.6	17.6
			3	3	1	20.0	19.9	19.9	1	19.9	19.9	19.9	1	21.7	21.6	21.7	1	17.5	17.7	17.6
			6	0	2	18.9	19.0	18.9	2	19.0	19.0	18.9	2	20.7	20.6	20.6	2	16.5	16.6	16.6

LTE Band 4 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz
LTE Band 4	20	QPSK	1	0	0	22.5	22.4	22.4	0	23.4	23.4	23.4	0	22.9	23.0	23.0	0	19.9	19.9	19.9
			1	49	0	22.5	22.5	22.5	0	23.4	23.4	23.4	0	23.0	23.0	23.0	0	20.0	20.0	20.0
			1	99	0	22.4	22.4	22.4	0	23.3	23.3	23.3	0	22.9	22.9	22.9	0	19.8	19.9	19.9
			50	0	1	21.4	21.4	21.4	1	22.3	22.4	22.3	1	22.0	21.9	21.8	1	18.9	18.9	19.0
			50	24	1	21.5	21.5	21.5	1	22.4	22.4	22.4	1	22.0	22.0	22.0	1	19.0	19.0	19.0
			50	49	1	21.4	21.5	21.4	1	22.3	22.3	22.3	1	22.0	21.9	21.9	1	18.9	18.9	19.0
			100	0	1	21.4	21.4	21.5	1	22.3	22.4	22.3	1	21.9	22.0	21.9	1	18.9	19.0	18.9
		16QAM	1	0	1	21.4	21.4	21.4	1	22.3	22.4	22.2	1	21.9	21.9	21.9	1	18.9	19.0	19.0
			1	49	1	21.4	21.4	21.4	1	22.3	22.3	22.2	1	22.0	21.9	21.9	1	19.0	18.9	18.9
			1	99	1	21.4	21.4	21.4	1	22.4	22.4	22.4	1	22.0	21.9	21.9	1	19.0	18.9	18.9
			50	0	2	20.5	20.4	20.4	2	21.3	21.3	21.4	2	21.0	21.0	20.9	2	18.0	17.9	17.9
			50	24	2	20.5	20.4	20.4	2	21.4	21.3	21.3	2	20.9	20.9	20.9	2	17.9	18.0	18.0
			50	49	2	20.3	20.5	20.4	2	21.3	21.3	21.3	2	20.9	20.8	21.0	2	17.8	18.0	17.9
			100	0	2	20.4	20.4	20.5	2	21.3	21.4	21.3	2	20.9	20.8	21.0	2	17.9	17.8	17.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz
LTE Band 4	15	QPSK	1	0	0	22.5	22.4	22.4	0	23.4	23.4	23.3	0	22.9	22.9	23.0	0	20.0	19.9	19.9
			1	36	0	22.3	22.4	22.4	0	23.2	23.3	23.3	0	22.9	22.8	22.9	0	20.0	20.0	19.9
			1	74	0	22.4	22.3	22.5	0	23.4	23.3	23.3	0	22.9	23.0	22.9	0	19.9	19.9	20.0
			36	0	1	21.5	21.4	21.3	1	22.3	22.3	22.3	1	21.9	21.9	21.9	1	18.9	18.8	18.8
			36	18	1	21.4	21.4	21.4	1	22.3	22.4	22.3	1	21.9	22.0	21.9	1	18.9	18.9	18.9
			36	37	1	21.4	21.3	21.3	1	22.4	22.3	22.4	1	22.0	21.9	21.9	1	18.9	19.0	19.0
			75	0	1	21.5	21.3	21.4	1	22.4	22.4	22.3	1	22.0	22.0	21.9	1	19.0	18.9	18.9
		16QAM	1	0	1	21.4	21.4	21.4	1	22.3	22.3	22.3	1	21.9	21.9	22.0	1	18.9	18.9	18.8
			1	36	1	21.4	21.4	21.5	1	22.4	22.3	22.4	1	22.0	21.9	21.9	1	19.0	18.9	19.0
			1	74	1	21.4	21.4	21.5	1	22.3	22.3	22.3	1	21.9	21.9	21.9	1	18.9	18.9	18.9
			36	0	2	20.5	20.4	20.5	2	21.3	21.4	21.4	2	21.0	20.8	20.9	2	17.9	17.9	18.0
			36	18	2	20.5	20.4	20.3	2	21.4	21.4	21.3	2	21.0	21.0	20.9	2	17.9	17.9	17.9
			36	37	2	20.4	20.4	20.4	2	21.2	21.3	21.4	2	21.0	20.9	20.9	2	17.9	17.9	18.0
			75	0	2	20.4	20.4	20.4	2	21.4	21.4	21.3	2	20.9	20.9	21.0	2	18.0	17.9	17.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz
LTE Band 4	10	QPSK	1	0	0	22.4	22.4	22.5	0	23.3	23.3	23.2	0	22.9	22.9	23.0	0	20.0	19.9	20.0
			1	24	0	22.4	22.4	22.4	0	23.4	23.3	23.3	0	22.9	23.0	23.0	0	19.9	19.9	19.9
			1	49	0	22.4	22.4	22.4	0	23.3	23.2	23.4	0	23.0	22.9	22.8	0	19.9	19.9	19.9
			25	0	1	21.4	21.4	21.4	1	22.4	22.4	22.4	1	22.0	21.9	21.9	1	18.8	18.9	18.9
			25	12	1	21.4	21.4	21.5	1	22.3	22.3	22.4	1	22.0	21.9	21.9	1	18.9	19.0	18.9
			25	24	1	21.5	21.4	21.4	1	22.3	22.3	22.4	1	21.9	21.9	22.0	1	18.9	18.8	18.9
			50	0	1	21.4	21.4	21.4	1	22.4	22.4	22.3	1	21.9	22.0	21.9	1	18.9	19.0	18.9
		16QAM	1	0	1	21.4	21.4	21.3	1	22.4	22.4	22.3	1	22.0	21.9	21.9	1	18.9	18.9	19.0
			1	24	1	21.5	21.4	21.5	1	22.4	22.3	22.4	1	22.0	22.0	21.9	1	18.9	18.9	18.9
			1	49	1	21.3	21.4	21.4	1	22.3	22.4	22.3	1	21.9	21.8	21.9	1	18.9	18.9	18.8
			25	0	2	20.4	20.5	20.5	2	21.3	21.2	21.3	2	21.0	20.9	20.9	2	18.0	17.9	17.9
			25	12	2	20.4	20.4	20.4	2	21.2	21.3	21.3	2	21.0	21.0	20.9	2	18.0	17.9	18.0
			25	24	2	20.4	20.4	20.4	2	21.2	21.3	21.3	2	21.0	21.0	20.9	2	18.0	17.9	17.9
			50	0	2	20.4	20.4	20.4	2	21.3	21.3	21.3	2	20.9	20.9	20.9	2	17.9	18.0	17.8

LTE Band 4 Average Power (dBm) Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz
LTE Band 4	5	QPSK	1	0	0	22.4	22.4	22.4	0	23.3	23.4	23.4	0	22.9	23.0	22.9	0	19.8	19.9	20.0
			1	12	0	22.4	22.4	22.4	0	23.3	23.4	23.3	0	22.9	22.9	23.0	0	19.8	20.0	20.0
			1	24	0	22.4	22.5	22.4	0	23.4	23.3	23.3	0	22.8	22.9	23.0	0	20.0	19.9	19.9
			12	0	1	21.3	21.4	21.4	1	22.2	22.3	22.3	1	21.8	22.0	21.9	1	19.9	19.9	19.9
			12	7	1	21.4	21.4	21.4	1	22.4	22.3	22.3	1	21.9	21.9	21.9	1	19.0	19.0	18.8
			12	13	1	21.4	21.4	21.4	1	22.4	22.4	22.4	1	22.0	21.8	21.9	1	18.8	19.0	18.9
			25	0	1	21.4	21.4	21.5	1	22.4	22.3	22.3	1	21.9	22.0	21.9	1	19.0	18.9	18.9
		16QAM	1	0	1	21.4	21.4	21.4	1	22.4	22.4	22.4	1	21.9	21.8	22.0	1	18.9	19.0	18.9
			1	12	1	21.4	21.5	21.4	1	22.3	22.4	22.3	1	22.0	21.8	21.9	1	18.9	18.9	18.9
			1	24	1	21.4	21.4	21.4	1	22.4	22.3	22.3	1	21.9	21.9	22.0	1	18.9	19.0	18.9
			12	0	2	20.4	20.4	20.4	2	21.4	21.4	21.3	2	21.0	20.9	20.9	2	17.9	18.0	17.9
			12	7	2	20.3	20.4	20.4	2	21.4	21.3	21.3	2	20.9	21.0	21.0	2	17.9	17.8	18.0
			12	13	2	20.4	20.5	20.4	2	21.3	21.3	21.3	2	20.9	21.0	20.9	2	17.8	17.9	18.0
			25	0	2	20.5	20.4	20.5	2	21.3	21.3	21.3	2	20.9	21.0	21.0	2	17.9	17.8	17.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz
LTE Band 4	3	QPSK	1	0	0	22.4	22.3	22.4	0	23.4	23.3	23.3	0	22.9	23.0	23.0	0	19.9	20.0	19.9
			1	8	0	22.4	22.4	22.4	0	23.4	23.4	23.3	0	22.9	22.9	22.9	0	19.9	20.0	20.0
			1	14	0	22.4	22.4	22.4	0	23.3	23.3	23.3	0	23.0	22.9	22.9	0	19.8	19.9	20.0
			8	0	1	21.5	21.4	21.4	1	22.3	22.2	22.3	1	22.0	21.9	21.9	1	18.8	18.9	18.9
			8	4	1	21.4	21.4	21.5	1	22.3	22.3	22.3	1	21.9	22.0	21.8	1	18.9	19.0	18.9
			8	7	1	21.5	21.3	21.4	1	22.3	22.3	22.3	1	21.9	22.0	22.0	1	18.9	18.9	19.0
			15	0	1	21.4	21.5	21.5	1	22.3	22.4	22.3	1	21.9	21.9	22.0	1	18.9	19.0	18.9
		16QAM	1	0	1	21.4	21.4	21.5	1	22.3	22.4	22.4	1	22.0	21.9	22.0	1	18.9	19.0	19.0
			1	8	1	21.4	21.4	21.4	1	22.3	22.3	22.2	1	21.8	21.9	21.8	1	19.0	18.8	18.9
			1	14	1	21.5	21.5	21.4	1	22.4	22.3	22.3	1	21.9	21.9	22.0	1	19.0	19.0	18.9
			8	0	2	20.4	20.5	20.4	2	21.4	21.4	21.3	2	21.0	21.0	20.9	2	18.0	17.9	18.0
			8	4	2	20.3	20.4	20.4	2	21.3	21.3	21.3	2	21.0	21.0	21.0	2	18.0	17.9	17.8
			8	7	2	20.5	20.4	20.5	2	21.4	21.4	21.3	2	20.9	21.0	20.9	2	17.9	17.9	17.9
			15	0	2	20.4	20.4	20.4	2	21.3	21.3	21.3	2	20.9	20.9	20.9	2	17.9	18.0	18.0
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz
LTE Band 4	1.4	QPSK	1	0	0	22.5	22.4	22.4	0	23.3	23.3	23.3	0	23.0	22.9	23.0	0	19.9	19.9	19.9
			1	3	0	22.5	22.4	22.4	0	23.4	23.4	23.4	0	22.9	22.9	23.0	0	19.8	19.9	20.0
			1	5	0	22.4	22.5	22.5	0	23.4	23.2	23.3	0	22.9	22.9	22.9	0	20.0	19.9	20.0
			3	0	0	22.4	22.4	22.3	0	23.3	23.4	23.4	0	22.9	22.9	23.0	0	20.0	20.0	19.8
			3	1	0	22.4	22.4	22.5	0	23.2	23.3	23.3	0	22.9	22.9	22.9	0	19.8	19.8	19.9
			3	3	0	22.3	22.4	22.4	0	23.3	23.2	23.4	0	22.9	22.9	22.9	0	19.9	19.9	20.0
			6	0	1	21.5	21.4	21.4	1	22.3	22.4	22.4	1	21.9	22.0	21.9	1	18.9	19.0	18.9
		16QAM	1	0	1	21.4	21.4	21.4	1	22.4	22.4	22.3	1	22.0	21.9	22.0	1	18.9	18.9	18.9
			1	3	1	21.5	21.4	21.4	1	22.3	22.4	22.4	1	21.9	22.0	21.9	1	18.8	18.9	18.9
			1	5	1	21.4	21.3	21.5	1	22.3	22.3	22.4	1	22.0	21.9	21.9	1	18.9	18.9	19.0
			3	0	1	21.4	21.5	21.5	1	22.4	22.4	22.4	1	21.9	21.8	21.9	1	18.9	18.9	18.9
			3	1	1	21.4	21.4	21.5	1	22.3	22.4	22.3	1	21.9	22.0	21.9	1	19.0	18.9	19.0
			3	3	1	21.5	21.4	21.4	1	22.3	22.3	22.3	1	21.9	21.9	22.0	1	18.9	18.9	19.0
			6	0	2	20.4	20.5	20.4	2	21.3	21.3	21.4	2	21.0	20.9	21.0	2	17.9	18.0	17.9

LTE Band 5 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						829 MHz	836.5 MHz	844 MHz		829 MHz	836.5 MHz	844 MHz		829 MHz	836.5 MHz	844 MHz		829 MHz	836.5 MHz	844 MHz
LTE Band 5	10	QPSK	1	0	0	23.6	23.6	23.6	0	23.7	23.6	23.6	0	23.9	23.9	23.9	0	23.3	23.3	23.3
			1	24	0	23.7	23.7	23.7	0	23.7	23.7	23.7	0	24.0	24.0	24.0	0	23.3	23.3	23.3
			1	49	0	23.7	23.6	23.7	0	23.6	23.7	23.6	0	24.0	23.9	23.9	0	23.2	23.2	23.2
			25	0	1	22.6	22.7	22.6	1	22.6	22.7	22.7	1	23.0	22.9	23.0	1	22.2	22.2	22.2
			25	12	1	22.7	22.7	22.7	1	22.7	22.7	22.7	1	23.0	23.0	23.0	1	22.3	22.3	22.3
			25	24	1	22.6	22.6	22.6	1	22.6	22.7	22.7	1	22.9	23.0	22.9	1	22.2	22.2	22.1
		16QAM	50	0	1	22.6	22.6	22.7	1	22.7	22.7	22.6	1	22.9	22.9	22.9	1	22.2	22.2	22.2
			1	0	1	22.6	22.6	22.6	1	22.6	22.6	22.6	1	23.0	23.0	22.9	1	22.2	22.2	22.1
			1	24	1	22.5	22.6	22.6	1	22.6	22.6	22.6	1	22.9	23.0	22.8	1	22.2	22.3	22.3
			1	49	1	22.6	22.6	22.7	1	22.6	22.6	22.6	1	22.9	22.9	23.0	1	22.2	22.2	22.2
			25	0	2	21.6	21.7	21.6	2	21.7	21.6	21.7	2	21.9	22.0	21.9	2	21.2	21.2	21.2
			25	12	2	21.7	21.6	21.7	2	21.6	21.5	21.6	2	21.9	21.9	21.9	2	21.2	21.3	21.2
			25	24	2	21.7	21.7	21.6	2	21.6	21.6	21.6	2	22.0	21.9	21.9	2	21.2	21.3	21.3
			50	0	2	21.6	21.6	21.7	2	21.6	21.6	21.6	2	21.9	21.9	21.9	2	21.2	21.2	21.2
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						826.5 MHz	836.5 MHz	846.5 MHz		826.5 MHz	836.5 MHz	846.5 MHz		826.5 MHz	836.5 MHz	846.5 MHz		826.5 MHz	836.5 MHz	846.5 MHz
LTE Band 5	5	QPSK	1	0	0	23.7	23.6	23.7	0	23.6	23.5	23.6	0	24.0	24.0	23.9	0	23.1	23.2	23.2
			1	12	0	23.6	23.5	23.6	0	23.7	23.6	23.6	0	23.9	23.9	23.9	0	23.3	23.3	23.3
			1	24	0	23.7	23.6	23.6	0	23.7	23.7	23.7	0	23.9	24.0	23.9	0	23.2	23.3	23.1
			12	0	1	22.7	22.6	22.7	1	22.7	22.6	22.6	1	22.9	22.9	22.9	1	22.2	22.3	22.2
			12	7	1	22.6	22.7	22.6	1	22.5	22.5	22.7	1	22.9	22.8	23.0	1	22.2	22.2	22.2
			12	13	1	22.6	22.6	22.6	1	22.7	22.7	22.6	1	23.0	22.9	22.9	1	22.1	22.2	22.2
		16QAM	25	0	1	22.7	22.6	22.6	1	22.6	22.6	22.7	1	22.9	22.9	22.8	1	22.3	22.2	22.2
			1	0	1	22.6	22.5	22.7	1	22.7	22.7	22.5	1	23.0	22.9	22.9	1	22.2	22.3	22.2
			1	12	1	22.6	22.6	22.6	1	22.6	22.7	22.7	1	22.9	23.0	22.9	1	22.2	22.3	22.3
			1	24	1	22.6	22.7	22.7	1	22.6	22.6	22.6	1	22.9	22.9	22.9	1	22.2	22.3	22.2
			12	0	2	21.6	21.6	21.6	2	21.6	21.6	21.7	2	21.9	22.0	22.0	2	21.2	21.2	21.2
			12	7	2	21.6	21.5	21.6	2	21.7	21.6	21.6	2	21.9	22.0	21.9	2	21.3	21.2	21.2
			12	13	2	21.5	21.6	21.6	2	21.6	21.6	21.6	2	21.9	22.0	21.9	2	21.3	21.3	21.2
			25	0	2	21.6	21.6	21.6	2	21.6	21.6	21.5	2	22.0	21.9	21.9	2	21.2	21.3	21.2
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						825.5 MHz	836.5 MHz	847.5 MHz		825.5 MHz	836.5 MHz	847.5 MHz		825.5 MHz	836.5 MHz	847.5 MHz		825.5 MHz	836.5 MHz	847.5 MHz
LTE Band 5	3	QPSK	1	0	0	23.7	23.7	23.6	0	23.7	23.7	23.7	0	23.9	23.9	23.9	0	23.3	23.2	23.2
			1	8	0	23.6	23.6	23.7	0	23.7	23.6	23.6	0	23.9	23.9	23.9	0	23.2	23.2	23.3
			1	14	0	23.6	23.5	23.6	0	23.6	23.6	23.6	0	24.0	23.9	24.0	0	23.2	23.3	23.2
			8	0	1	22.6	22.6	22.6	1	22.6	22.7	22.6	1	22.9	22.9	22.9	1	22.2	22.2	22.2
			8	4	1	22.7	22.6	22.6	1	22.6	22.7	22.6	1	22.9	22.9	23.0	1	22.3	22.2	22.2
			8	7	1	22.6	22.6	22.7	1	22.7	22.6	22.6	1	23.0	22.8	22.9	1	22.3	22.2	22.3
			15	0	1	22.5	22.7	22.7	1	22.6	22.6	22.6	1	22.9	23.0	23.0	1	22.3	22.3	22.2
		16QAM	1	0	1	22.5	22.6	22.6	1	22.7	22.6	22.7	1	23.0	22.9	23.0	1	22.2	22.3	22.3
			1	8	1	22.6	22.7	22.5	1	22.6	22.6	22.6	1	22.9	23.0	22.9	1	22.2	22.2	22.3
			1	14	1	22.7	22.7	22.6	1	22.7	22.7	22.6	1	23.0	23.0	22.9	1	22.2	22.3	22.2
			8	0	2	21.5	21.7	21.6	2	21.5	21.7	21.6	2	21.9	22.0	21.8	2	21.3	21.2	21.2
			8	4	2	21.6	21.7	21.7	2	21.6	21.5	21.6	2	21.9	22.0	21.8	2	21.2	21.2	21.3
			8	7	2	21.6	21.7	21.6	2	21.5	21.6	21.6	2	22.0	21.9	22.0	2	21.3	21.2	21.3
			15	0	2	21.7	21.7	21.6	2	21.7	21.7	21.6	2	21.9	21.9	21.9	2	21.2	21.2	21.2

LTE Band 5 Average Power (dBm) Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						824.7 MHz	836.5 MHz	848.3 MHz		824.7 MHz	836.5 MHz	848.3 MHz		824.7 MHz	836.5 MHz	848.3 MHz		824.7 MHz	836.5 MHz	848.3 MHz
LTE Band 5	1.4	QPSK	1	0	0	23.6	23.6	23.6	0	23.7	23.6	23.6	0	24.0	24.0	23.9	0	23.2	23.3	23.3
			1	2	0	23.6	23.5	23.7	0	23.6	23.6	23.6	0	24.0	23.9	23.9	0	23.3	23.2	23.2
			1	5	0	23.5	23.6	23.6	0	23.6	23.6	23.7	0	23.9	23.9	23.9	0	23.2	23.3	23.3
			3	0	0	23.6	23.6	23.7	0	23.6	23.7	23.6	0	23.9	23.8	24.0	0	23.1	23.2	23.2
			3	1	0	23.6	23.7	23.7	0	23.6	23.7	23.7	0	23.9	23.9	23.9	0	23.2	23.2	23.3
			3	2	0	23.5	23.6	23.6	0	23.6	23.7	23.7	0	24.0	23.8	23.9	0	23.2	23.2	23.3
		16QAM	6	0	1	22.7	22.6	22.7	1	22.6	22.6	22.7	1	22.9	22.9	23.0	1	22.2	22.2	22.3
			1	0	1	22.6	22.7	22.6	1	22.7	22.6	22.6	1	23.0	22.9	22.9	1	22.2	22.2	22.2
			1	2	1	22.6	22.6	22.6	1	22.7	22.6	22.5	1	22.9	22.8	22.9	1	22.3	22.2	22.2
			1	5	1	22.6	22.6	22.6	1	22.7	22.7	22.6	1	22.9	23.0	23.0	1	22.3	22.2	22.2
			3	0	1	22.6	22.7	22.7	1	22.7	22.6	22.6	1	23.0	22.9	22.9	1	22.2	22.3	22.3
			3	1	1	22.7	22.6	22.6	1	22.6	22.6	22.7	1	22.9	22.9	22.8	1	22.2	22.2	22.2
			3	2	1	22.7	22.6	22.7	1	22.6	22.7	22.7	1	22.9	22.9	22.9	1	22.2	22.2	22.3
			6	0	2	21.6	21.7	21.6	2	21.6	21.6	21.6	2	22.0	22.0	21.8	2	21.2	21.2	21.3

LTE Band 12 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						704 MHz	707.5 MHz	711 MHz		704 MHz	707.5 MHz	711 MHz		704 MHz	707.5 MHz	711 MHz		704 MHz	707.5 MHz	711 MHz
LTE Band 12	10	QPSK	1	0	0	23.6	23.7	23.7	0	23.7	23.6	23.6	0	23.9	23.9	23.8	0	24.0	23.8	23.8
			1	24	0	23.7	23.7	23.7	0	23.7	23.7	23.7	0	24.0	24.0	24.0	0	24.0	24.0	24.0
			1	49	0	23.7	23.5	23.7	0	23.6	23.7	23.6	0	24.0	23.9	23.9	0	23.9	23.9	23.9
			25	0	1	22.6	22.7	22.7	1	22.7	22.6	22.6	1	23.0	23.0	22.9	1	22.8	22.9	22.9
			25	12	1	22.7	22.7	22.7	1	22.7	22.7	22.7	1	23.0	23.0	23.0	1	23.0	23.0	23.0
			25	24	1	22.6	22.5	22.6	1	22.6	22.6	22.7	1	22.9	22.9	23.0	1	22.9	22.9	22.9
			50	0	1	22.6	22.6	22.6	1	22.6	22.5	22.6	1	23.0	22.9	22.9	1	23.0	22.9	22.9
		16QAM	1	0	1	22.6	22.6	22.7	1	22.7	22.7	22.6	1	23.0	22.9	22.9	1	22.9	22.9	22.9
			1	24	1	22.7	22.7	22.6	1	22.6	22.7	22.6	1	22.9	23.0	22.9	1	23.0	23.0	22.9
			1	49	1	22.6	22.7	22.7	1	22.6	22.7	22.6	1	23.0	23.0	22.9	1	22.9	22.9	22.9
			25	0	2	21.7	21.6	21.6	2	21.6	21.6	21.6	2	21.8	22.0	22.0	2	22.0	21.9	21.9
			25	12	2	21.6	21.7	21.6	2	21.6	21.7	21.6	2	21.9	21.9	21.9	2	22.0	22.0	22.0
			25	24	2	21.7	21.6	21.5	2	21.7	21.7	21.7	2	21.8	21.9	22.0	2	21.9	21.9	22.0
			50	0	2	21.7	21.6	21.6	2	21.7	21.6	21.6	2	21.9	22.0	21.9	2	22.0	21.9	21.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz
LTE Band 12	5	QPSK	1	0	0	23.6	23.7	23.6	0	23.6	23.6	23.7	0	23.9	23.9	23.9	0	23.9	23.9	23.9
			1	12	0	23.6	23.5	23.6	0	23.7	23.6	23.6	0	24.0	24.0	23.9	0	23.9	23.9	23.9
			1	24	0	23.6	23.7	23.7	0	23.7	23.7	23.6	0	24.0	23.9	23.9	0	23.9	23.9	23.9
			12	0	1	22.6	22.7	22.7	1	22.7	22.6	22.6	1	22.9	22.9	22.9	1	22.9	22.9	23.0
			12	7	1	22.6	22.6	22.7	1	22.6	22.6	22.6	1	22.9	22.9	23.0	1	22.9	22.9	23.0
			12	13	1	22.6	22.7	22.6	1	22.6	22.7	22.7	1	22.9	22.9	22.9	1	22.8	22.8	22.9
			25	0	1	22.6	22.7	22.6	1	22.6	22.6	22.7	1	22.9	22.9	22.9	1	22.9	22.9	23.0
		16QAM	1	0	1	22.6	22.7	22.6	1	22.6	22.6	22.7	1	23.0	23.0	22.9	1	22.9	22.9	22.9
			1	12	1	22.6	22.7	22.7	1	22.7	22.5	22.6	1	22.9	23.0	23.0	1	22.9	22.9	23.0
			1	24	1	22.7	22.7	22.6	1	22.6	22.6	22.6	1	22.9	23.0	23.0	1	22.9	23.0	22.9
			12	0	2	21.7	21.6	21.7	2	21.6	21.7	21.6	2	21.9	21.9	21.9	2	21.9	21.9	21.9
			12	7	2	21.7	21.7	21.7	2	21.7	21.6	21.7	2	22.0	21.9	21.9	2	21.9	21.9	21.9
			12	13	2	21.6	21.7	21.6	2	21.6	21.6	21.5	2	22.0	22.0	21.9	2	21.9	21.9	21.9
			25	0	2	21.7	21.7	21.7	2	21.6	21.7	21.6	2	22.0	21.9	21.8	2	21.9	22.0	21.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz
LTE Band 12	3	QPSK	1	0	0	23.7	23.6	23.6	0	23.7	23.5	23.6	0	23.9	23.9	23.9	0	23.9	24.0	23.9
			1	8	0	23.7	23.7	23.7	0	23.6	23.7	23.6	0	23.9	23.8	23.9	0	23.9	23.9	23.9
			1	14	0	23.7	23.7	23.6	0	23.7	23.7	23.5	0	23.9	23.9	23.9	0	23.9	23.9	23.9
			8	0	1	22.6	22.6	22.5	1	22.6	22.7	22.7	1	22.9	22.9	23.0	1	23.0	22.9	22.9
			8	4	1	22.6	22.6	22.6	1	22.7	22.7	22.6	1	22.8	23.0	22.9	1	23.0	22.9	22.9
			8	7	1	22.6	22.7	22.6	1	22.7	22.7	22.6	1	22.9	22.9	23.0	1	22.9	22.9	22.9
			15	0	1	22.6	22.6	22.6	1	22.6	22.6	22.7	1	22.8	23.0	22.8	1	22.9	22.9	22.9
		16QAM	1	0	1	22.7	22.7	22.6	1	22.7	22.6	22.5	1	23.0	22.9	22.9	1	23.0	22.9	23.0
			1	8	1	22.6	22.7	22.6	1	22.7	22.6	22.6	1	22.9	22.9	22.9	1	22.9	22.9	23.0
			1	14	1	22.6	22.6	22.7	1	22.6	22.7	22.7	1	23.0	23.0	22.9	1	23.0	23.0	22.9
			8	0	2	21.6	21.6	21.6	2	21.6	21.6	21.7	2	22.0	21.9	21.9	2	21.9	21.8	21.9
			8	4	2	21.6	21.6	21.7	2	21.6	21.5	21.7	2	22.0	22.0	22.0	2	21.9	21.9	21.9
			8	7	2	21.6	21.5	21.6	2	21.6	21.6	21.6	2	21.9	21.9	21.8	2	22.0	21.9	21.9
			15	0	2	21.6	21.5	21.6	2	21.6	21.7	21.7	2	21.9	21.9	21.9	2	21.9	21.9	21.9

LTE Band 12 Average Power (dBm) Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz
LTE Band 12	1.4	QPSK	1	0	0	23.6	23.5	23.5	0	23.6	23.6	23.6	0	23.9	23.9	24.0	0	23.9	23.8	24.0
			1	2	0	23.6	23.6	23.6	0	23.6	23.6	23.6	0	24.0	23.9	23.9	0	24.0	23.9	23.9
			1	5	0	23.5	23.6	23.7	0	23.6	23.6	23.6	0	23.9	23.9	24.0	0	24.0	23.8	23.9
			3	0	0	23.7	23.6	23.6	0	23.6	23.6	23.6	0	23.9	23.9	23.9	0	23.9	23.9	24.0
			3	1	0	23.6	23.6	23.6	0	23.5	23.7	23.6	0	24.0	24.0	23.9	0	23.9	23.9	24.0
			3	2	0	23.7	23.7	23.6	0	23.7	23.7	23.6	0	23.9	23.9	23.9	0	23.9	23.9	23.9
		16QAM	6	0	1	22.7	22.7	22.6	1	22.6	22.6	22.7	1	22.9	23.0	23.0	1	22.8	23.0	23.0
			1	0	1	22.7	22.7	22.6	1	22.7	22.6	22.7	1	22.9	22.9	22.9	1	23.0	22.9	22.9
			1	2	1	22.6	22.7	22.7	1	22.7	22.6	22.7	1	22.9	22.9	23.0	1	22.9	22.9	22.9
			1	5	1	22.6	22.7	22.6	1	22.6	22.5	22.6	1	22.8	22.9	23.0	1	23.0	22.9	22.9
			3	0	1	22.5	22.6	22.7	1	22.7	22.7	22.6	1	22.9	23.0	23.0	1	22.9	22.9	22.9
			3	1	1	22.6	22.5	22.6	1	22.6	22.6	22.5	1	22.9	22.9	22.9	1	22.9	22.9	22.9
			3	2	1	22.7	22.7	22.7	1	22.6	22.6	22.6	1	22.9	22.9	23.0	1	23.0	22.9	22.9
			6	0	2	21.6	21.5	21.7	2	21.7	21.7	21.6	2	21.9	22.0	22.0	2	22.0	21.8	22.0

LTE Band 13 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
							782 MHz				782 MHz				782 MHz				782 MHz	
LTE Band 13	10	QPSK	1	0	0		23.5		0		23.7		0		24.0		0		23.9	
			1	24	0		23.7		0		23.7		0		24.0		0		24.0	
			1	49	0		23.7		0		23.7		0		23.9		0		24.0	
			25	0	1		22.7		1		22.7		1		22.9		1		22.9	
			25	12	1		22.7		1		22.7		1		23.0		1		23.0	
			25	24	1		22.7		1		22.5		1		22.9		1		22.8	
			50	0	1		22.6		1		22.6		1		22.9		1		22.9	
		16QAM	1	0	1		22.6		1		22.6		1		22.9		1		22.9	
			1	24	1		22.7		1		22.7		1		22.9		1		23.0	
			1	49	1		22.6		1		22.7		1		22.9		1		22.9	
			25	0	2		21.7		2		21.7		2		22.0		2		21.9	
			25	12	2		21.6		2		21.6		2		21.9		2		22.0	
			25	24	2		21.6		2		21.6		2		21.9		2		22.0	
			50	0	2		21.6		2		21.7		2		21.9		2		21.9	
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz
LTE Band 13	5	QPSK	1	0	0	23.6	23.6	23.7	0	23.6	23.6	23.6	0	24.0	23.9	23.9	0	23.9	23.9	23.9
			1	12	0	23.6	23.7	23.6	0	23.6	23.6	23.7	0	24.0	24.0	23.9	0	23.9	23.9	23.9
			1	24	0	23.6	23.6	23.6	0	23.5	23.6	23.6	0	23.9	24.0	23.9	0	23.8	24.0	23.8
			12	0	1	22.6	22.7	22.7	1	22.7	22.5	22.6	1	23.0	23.0	22.9	1	22.9	22.9	22.9
			12	7	1	22.6	22.7	22.7	1	22.7	22.6	22.6	1	23.0	22.9	22.9	1	22.9	23.0	22.9
			12	13	1	22.5	22.5	22.7	1	22.6	22.7	22.6	1	22.9	22.9	23.0	1	22.9	22.9	22.9
			25	0	1	22.6	22.6	22.6	1	22.6	22.6	22.7	1	22.9	22.9	22.9	1	22.9	23.0	22.9
		16QAM	1	0	1	22.6	22.7	22.6	1	22.6	22.6	22.6	1	23.0	23.0	22.9	1	23.0	22.9	23.0
			1	12	1	22.6	22.6	22.7	1	22.6	22.6	22.6	1	22.9	23.0	22.9	1	22.9	22.9	23.0
			1	24	1	22.6	22.5	22.6	1	22.6	22.6	22.6	1	22.9	22.9	22.9	1	22.9	23.0	23.0
			12	0	2	21.6	21.7	21.6	2	21.6	21.7	21.6	2	21.9	22.0	22.0	2	21.9	21.9	21.8
			12	7	2	21.5	21.7	21.7	2	21.6	21.7	21.6	2	21.9	21.8	21.9	2	21.8	21.9	21.8
			12	13	2	21.7	21.7	21.6	2	21.6	21.6	21.5	2	21.8	21.9	21.9	2	21.9	22.0	21.9
			25	0	2	21.7	21.7	21.7	2	21.6	21.7	21.7	2	22.0	21.9	21.9	2	21.9	22.0	22.0

Note(s):

10 MHz 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 Band 17 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
							710 MHz				710 MHz				710 MHz				710 MHz	
LTE Band 17	10	QPSK	1	0	0		23.6		0		23.6		0		23.9		0		24.0	
			1	24	0		23.7		0		23.7		0		24.0		0		24.0	
			1	49	0		23.7		0		23.5		0		23.9		0		23.9	
			25	0	1		22.6		1		22.6		1		22.9		1		22.9	
			25	12	1		22.7		1		22.7		1		23.0		1		23.0	
			25	24	1		22.6		1		22.6		1		23.0		1		23.0	
			50	0	1		22.6		1		22.6		1		22.9		1		22.9	
			1	0	1		22.6		1		22.6		1		22.9		1		22.9	
		16QAM	1	24	1		22.6		1		22.7		1		22.9		1		22.9	
			1	49	1		22.7		1		22.7		1		23.0		1		22.9	
			25	0	2		21.6		2		21.6		2		22.0		2		22.0	
			25	12	2		21.7		2		21.7		2		21.9		2		21.8	
			25	24	2		21.6		2		21.5		2		21.9		2		21.8	
			50	0	2		21.7		2		21.6		2		21.9		2		21.9	
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						706.5 MHz	710 MHz	713.5 MHz		706.5 MHz	710 MHz	713.5 MHz		706.5 MHz	710 MHz	713.5 MHz		706.5 MHz	710 MHz	713.5 MHz
LTE Band 17	5	QPSK	1	0	0	23.7	23.7	23.7	0	23.6	23.7	23.7	0	23.9	23.9	23.9	0	23.9	23.9	24.0
			1	12	0	23.6	23.6	23.6	0	23.7	23.7	23.5	0	24.0	24.0	24.0	0	23.9	23.9	24.0
			1	24	0	23.6	23.7	23.7	0	23.5	23.7	23.7	0	24.0	23.9	23.9	0	23.9	23.9	23.9
			12	0	1	22.6	22.5	22.6	1	22.6	22.6	22.6	1	23.0	23.0	22.9	1	23.0	22.9	23.0
			12	7	1	22.6	22.6	22.7	1	22.6	22.6	22.5	1	22.9	23.0	22.9	1	22.9	22.9	22.9
			12	13	1	22.6	22.5	22.6	1	22.7	22.6	22.6	1	22.9	22.9	23.0	1	22.9	22.9	23.0
			25	0	1	22.7	22.7	22.6	1	22.6	22.6	22.6	1	22.8	22.9	22.9	1	23.0	22.9	23.0
			1	0	1	22.7	22.7	22.6	1	22.6	22.6	22.6	1	23.0	23.0	23.0	1	23.0	22.9	23.0
		16QAM	1	12	1	22.6	22.6	22.5	1	22.6	22.6	22.7	1	22.9	22.9	22.9	1	23.0	23.0	23.0
			1	24	1	22.7	22.7	22.6	1	22.7	22.6	22.6	1	22.9	23.0	23.0	1	23.0	23.0	23.0
			12	0	2	21.7	21.6	21.6	2	21.6	21.7	21.6	2	21.9	21.9	21.9	2	21.9	21.9	22.0
			12	7	2	21.7	21.7	21.7	2	21.7	21.7	21.7	2	21.9	22.0	21.9	2	21.8	21.9	21.9
			12	13	2	21.6	21.6	21.7	2	21.6	21.6	21.6	2	21.9	21.9	22.0	2	21.9	22.0	21.8
			25	0	2	21.6	21.6	21.7	2	21.7	21.6	21.7	2	21.9	21.9	21.8	2	22.0	21.9	21.9

Note(s):

10 MHz Bandwidths 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 Band 25 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1860 MHz	1882.5 MHz	1905 MHz		1860 MHz	1882.5 MHz	1905 MHz		1860 MHz	1882.5 MHz	1905 MHz		1860 MHz	1882.5 MHz	1905 MHz
LTE Band 25	20	QPSK	1	0	0	21.0	21.0	20.9	0	20.9	20.9	20.9	0	21.8	21.9	21.8	0	18.7	18.6	18.7
			1	49	0	21.0	21.0	21.0	0	21.0	21.0	21.0	0	22.0	22.0	22.0	0	18.7	18.7	18.7
			1	99	0	20.9	20.9	20.9	0	20.9	21.0	20.9	0	22.0	21.9	22.0	0	18.7	18.7	18.6
			50	0	1	19.9	19.9	19.9	1	19.9	19.9	20.0	1	20.9	20.9	21.0	1	17.5	17.6	17.7
			50	24	1	20.0	20.0	20.0	1	20.0	20.0	20.0	1	21.0	21.0	21.0	1	17.7	17.7	17.7
			50	49	1	19.9	20.0	20.0	1	19.9	20.0	20.0	1	20.9	20.8	21.0	1	17.6	17.7	17.6
			100	0	1	19.9	20.0	20.0	1	19.9	19.9	20.0	1	20.9	21.0	20.9	1	17.6	17.7	17.6
		16QAM	1	0	1	19.9	20.0	19.9	1	20.0	20.0	19.9	1	20.9	20.9	21.0	1	17.7	17.7	17.6
			1	49	1	19.9	19.8	20.0	1	19.9	19.9	20.0	1	20.9	20.8	20.9	1	17.6	17.7	17.6
			1	99	1	19.9	20.0	19.9	1	20.0	19.9	19.8	1	20.9	21.0	21.0	1	17.6	17.6	17.6
			50	0	2	18.9	19.0	18.9	2	18.9	18.8	18.8	2	19.9	19.9	20.0	2	16.7	16.7	16.6
			50	24	2	18.9	18.8	18.9	2	18.8	19.0	18.9	2	19.9	20.0	19.9	2	16.5	16.7	16.6
			50	49	2	18.8	18.9	18.9	2	18.9	18.9	19.0	2	19.9	19.9	19.8	2	16.6	16.7	16.6
			100	0	2	18.9	19.0	19.0	2	19.0	18.9	18.9	2	19.9	19.9	19.9	2	16.7	16.6	16.6
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz
LTE Band 25	15	QPSK	1	0	0	20.9	21.0	21.0	0	21.0	20.9	20.9	0	21.9	21.9	21.9	0	18.7	18.7	18.7
			1	36	0	20.8	21.0	20.8	0	20.8	20.8	20.9	0	21.9	22.0	21.9	0	18.7	18.6	18.6
			1	74	0	20.9	21.0	20.9	0	20.9	20.9	20.8	0	21.9	22.0	21.9	0	18.6	18.6	18.6
			36	0	1	19.9	19.9	20.0	1	19.9	19.9	19.9	1	21.0	20.9	20.9	1	17.7	17.6	17.7
			36	18	1	19.9	20.0	20.0	1	20.0	20.0	19.9	1	20.9	21.0	20.8	1	17.6	17.7	17.6
			36	37	1	19.9	19.9	19.9	1	19.8	20.0	19.9	1	20.9	21.0	20.9	1	17.6	17.7	17.6
			75	0	1	19.9	20.0	19.9	1	19.9	20.0	20.0	1	20.9	21.0	21.0	1	17.7	17.6	17.5
		16QAM	1	0	1	20.0	19.9	19.9	1	19.9	19.9	20.0	1	20.8	20.9	21.0	1	17.6	17.6	17.5
			1	36	1	19.9	19.9	19.9	1	20.0	19.9	20.0	1	21.0	20.9	20.9	1	17.6	17.6	17.6
			1	74	1	19.9	19.9	19.9	1	20.0	20.0	19.9	1	20.9	20.8	21.0	1	17.7	17.5	17.7
			36	0	2	18.9	19.0	18.9	2	19.0	19.0	18.9	2	19.9	20.0	19.8	2	16.7	16.6	16.7
			36	18	2	19.0	18.9	18.9	2	19.0	18.9	18.9	2	19.9	19.9	20.0	2	16.6	16.7	16.7
			36	37	2	18.8	18.9	18.9	2	18.9	18.9	18.9	2	20.0	19.9	19.9	2	16.7	16.6	16.7
			75	0	2	18.9	19.0	19.0	2	18.9	18.9	18.9	2	19.9	19.8	19.8	2	16.6	16.6	16.6
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz
LTE Band 25	10	QPSK	1	0	0	20.9	20.9	20.9	0	20.9	20.9	20.8	0	21.9	21.9	21.9	0	18.6	18.6	18.7
			1	24	0	21.0	21.0	21.0	0	20.9	21.0	20.9	0	21.9	21.9	21.9	0	18.6	18.6	18.7
			1	49	0	20.9	21.0	20.9	0	21.0	20.9	21.0	0	21.9	21.8	21.9	0	18.6	18.6	18.6
			25	0	1	19.8	19.9	19.8	1	19.9	19.9	19.9	1	21.0	20.9	20.9	1	17.6	17.7	17.6
			25	12	1	19.9	20.0	19.9	1	19.9	19.9	19.9	1	20.9	20.9	20.9	1	17.7	17.6	17.6
			25	24	1	19.9	19.8	19.9	1	20.0	20.0	19.9	1	20.9	20.8	20.9	1	17.6	17.6	17.7
			50	0	1	20.0	19.9	19.9	1	19.9	19.9	19.9	1	21.0	20.9	20.9	1	17.6	17.6	17.6
		16QAM	1	0	1	20.0	19.9	20.0	1	19.9	19.9	19.9	1	21.0	20.8	21.0	1	17.6	17.6	17.6
			1	24	1	19.9	19.9	20.0	1	20.0	19.8	19.8	1	21.0	20.9	21.0	1	17.7	17.6	17.7
			1	49	1	19.9	20.0	20.0	1	19.9	19.9	19.9	1	20.9	20.9	20.9	1	17.6	17.7	17.6
			25	0	2	18.9	19.0	18.9	2	19.0	18.9	19.0	2	20.0	20.0	19.9	2	16.6	16.7	16.6
			25	12	2	19.0	19.0	18.8	2	18.9	18.9	19.0	2	19.9	20.0	19.9	2	16.6	16.6	16.6
			25	24	2	18.9	18.9	19.0	2	18.9	19.0	18.9	2	20.0	19.9	19.9	2	16.6	16.5	16.7
			50	0	2	18.9	18.9	19.0	2	18.9	18.9	18.9	2	19.9	19.9	19.9	2	16.6	16.7	16.6

LTE Band 25 Average Power (dBm) Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1852.5 MHz	1882.5 MHz	1912.5 MHz		1852.5 MHz	1882.5 MHz	1912.5 MHz		1852.5 MHz	1882.5 MHz	1912.5 MHz		1852.5 MHz	1882.5 MHz	1912.5 MHz
LTE Band 25	5	QPSK	1	0	0	21.0	20.8	20.9	0	21.0	20.9	20.9	0	21.9	22.0	21.8	0	18.7	18.7	18.6
			1	12	0	21.0	20.9	20.8	0	20.9	20.9	20.8	0	21.8	21.9	22.0	0	18.7	18.6	18.7
			1	24	0	20.9	20.9	21.0	0	20.9	21.0	21.0	0	21.9	21.8	21.9	0	18.6	18.6	18.6
			12	0	1	19.9	19.9	20.0	1	19.9	19.8	19.9	1	21.0	20.9	20.9	1	17.7	17.6	17.6
			12	7	1	20.0	19.9	19.9	1	19.9	20.0	19.9	1	20.8	20.9	20.9	1	17.5	17.6	17.6
			12	13	1	20.0	19.9	20.0	1	19.9	20.0	19.9	1	20.9	20.9	20.9	1	17.6	17.6	17.6
			25	0	1	20.0	19.9	19.9	1	19.9	19.8	19.9	1	21.0	21.0	20.9	1	17.7	17.6	17.6
		16QAM	1	0	1	19.9	19.9	19.9	1	19.8	20.0	20.0	1	20.9	21.0	20.9	1	17.6	17.6	17.6
			1	12	1	19.9	19.9	20.0	1	19.9	19.9	20.0	1	20.9	20.9	20.9	1	17.5	17.6	17.6
			1	24	1	19.9	19.9	19.9	1	19.9	19.8	19.9	1	21.0	21.0	20.9	1	17.7	17.6	17.6
			12	0	2	18.9	18.9	19.0	2	18.9	18.9	19.0	2	19.9	19.9	20.0	2	16.7	16.7	16.6
			12	7	2	19.0	18.9	19.0	2	19.0	18.9	18.9	2	19.9	20.0	19.9	2	16.7	16.6	16.6
			12	13	2	18.9	18.9	18.9	2	18.9	18.9	18.9	2	19.9	19.9	20.0	2	16.5	16.7	16.7
			25	0	2	19.0	18.9	18.9	2	18.9	18.9	19.0	2	19.9	19.8	19.9	2	16.7	16.6	16.7
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz
LTE Band 25	3	QPSK	1	0	0	21.0	20.9	20.9	0	20.9	20.9	20.9	0	21.9	21.9	22.0	0	18.6	18.6	18.7
			1	8	0	21.0	20.9	20.9	0	20.9	20.9	20.9	0	22.0	22.0	21.9	0	18.6	18.6	18.5
			1	14	0	21.0	20.9	20.9	0	20.9	21.0	20.9	0	22.0	22.0	22.0	0	18.6	18.6	18.6
			8	0	1	19.9	19.9	20.0	1	20.0	19.9	20.0	1	21.0	20.9	20.9	1	17.6	17.6	17.6
			8	4	1	19.9	19.9	20.0	1	19.9	19.9	19.9	1	21.0	21.0	21.0	1	17.7	17.6	17.6
			8	7	1	20.0	19.9	19.9	1	19.9	20.0	19.9	1	20.9	20.9	20.9	1	17.7	17.6	17.6
			15	0	1	20.0	19.8	19.9	1	19.9	19.9	20.0	1	20.9	21.0	21.0	1	17.5	17.7	17.7
		16QAM	1	0	1	20.0	20.0	19.9	1	19.9	20.0	19.9	1	21.0	20.9	20.9	1	17.6	17.6	17.6
			1	8	1	19.9	19.9	19.9	1	20.0	19.9	19.9	1	20.9	20.8	20.9	1	17.6	17.6	17.7
			1	14	1	19.9	19.9	20.0	1	20.0	20.0	20.0	1	21.0	21.0	20.8	1	17.7	17.7	17.6
			8	0	2	19.0	18.9	18.9	2	18.9	18.9	18.9	2	19.9	20.0	19.9	2	16.7	16.6	16.6
			8	4	2	18.9	18.9	19.0	2	18.9	18.9	18.9	2	19.9	19.9	19.9	2	16.6	16.7	16.7
			8	7	2	18.8	18.9	19.0	2	18.9	18.9	18.9	2	19.9	19.9	20.0	2	16.6	16.5	16.6
			15	0	2	18.9	18.9	19.0	2	18.9	18.9	19.0	2	20.0	20.0	20.0	2	16.6	16.7	16.6
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz
LTE Band 25	1.4	QPSK	1	0	0	21.0	20.9	20.9	0	20.9	20.9	20.9	0	21.8	21.9	21.9	0	18.6	18.6	18.6
			1	3	0	21.0	21.0	21.0	0	21.0	20.9	20.9	0	22.0	21.9	22.0	0	18.6	18.6	18.7
			1	5	0	20.9	20.9	20.9	0	21.0	20.9	20.8	0	21.9	21.9	21.9	0	18.7	18.6	18.6
			3	0	0	20.9	20.9	20.9	0	20.9	20.9	20.9	0	21.9	21.9	21.9	0	18.7	18.6	18.7
			3	1	0	20.9	21.0	21.0	0	20.8	20.9	20.9	0	21.9	21.9	21.9	0	18.6	18.7	18.5
			3	3	0	20.9	20.9	20.8	0	20.9	20.9	20.9	0	22.0	21.9	21.8	0	18.6	18.7	18.7
			6	0	1	19.8	20.0	20.0	1	20.0	19.9	20.0	1	20.9	20.8	20.8	1	17.6	17.7	17.6
		16QAM	1	0	1	19.9	19.8	19.9	1	20.0	20.0	20.0	1	21.0	21.0	21.0	1	17.6	17.7	17.5
			1	3	1	19.9	19.8	19.8	1	19.9	19.9	19.9	1	20.9	21.0	20.9	1	17.6	17.5	17.6
			1	5	1	20.0	20.0	20.0	1	19.8	19.9	20.0	1	21.0	20.9	20.9	1	17.6	17.6	17.6
			3	0	1	19.9	20.0	19.9	1	20.0	20.0	19.9	1	20.9	20.9	20.9	1	17.6	17.6	17.6
			3	1	1	20.0	20.0	19.8	1	19.9	19.8	19.9	1	20.9	20.9	21.0	1	17.6	17.7	17.6
			3	3	1	19.8	19.9	19.9	1	19.9	19.9	19.9	1	20.9	20.9	20.9	1	17.5	17.6	17.6
			6	0	2	18.9	18.9	18.9	2	18.9	18.9	19.0	2	19.9	19.8	19.9	2	16.6	16.7	16.7

LTE Band 26 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						819 MHz	831.5 MHz	844 MHz		819 MHz	831.5 MHz	844 MHz		819 MHz	831.5 MHz	844 MHz		819 MHz	831.5 MHz	844 MHz
LTE Band 26	10	QPSK	1	0	0	23.6	23.6	23.7	0	23.5	23.7	23.7	0	23.8	23.8	24.0	0	24.0	23.9	23.9
			1	24	0	23.7	23.7	23.7	0	23.7	23.7	23.7	0	24.0	24.0	24.0	0	24.0	24.0	24.0
			1	49	0	23.6	23.7	23.6	0	23.6	23.5	23.6	0	23.8	23.9	23.8	0	23.9	23.9	24.0
			25	0	1	22.5	22.6	22.6	1	22.6	22.7	22.7	1	23.0	22.9	22.9	1	23.0	23.0	23.0
			25	12	1	22.7	22.7	22.7	1	22.7	22.7	22.7	1	23.0	23.0	23.0	1	23.0	23.0	23.0
			25	24	1	22.6	22.6	22.7	1	22.6	22.6	22.6	1	22.8	22.9	22.9	1	22.9	23.0	22.9
			50	0	1	22.6	22.7	22.7	1	22.6	22.7	22.6	1	22.9	23.0	22.9	1	22.9	23.0	22.9
		16QAM	1	0	1	22.6	22.6	22.7	1	22.6	22.7	22.6	1	23.0	23.0	22.9	1	22.9	23.0	22.9
			1	24	1	22.6	22.7	22.7	1	22.7	22.6	22.6	1	22.8	23.0	22.9	1	22.9	23.0	22.9
			1	49	1	22.6	22.6	22.6	1	22.7	22.7	22.6	1	23.0	22.9	22.9	1	22.9	22.9	23.0
			25	0	2	21.6	21.7	21.6	2	21.6	21.6	21.6	2	22.0	21.9	21.9	2	22.0	21.9	22.0
			25	12	2	21.7	21.7	21.7	2	21.6	21.6	21.5	2	22.0	22.0	21.9	2	21.9	21.9	22.0
			25	24	2	21.6	21.5	21.7	2	21.7	21.7	21.6	2	22.0	21.9	21.9	2	22.0	22.0	21.8
			50	0	2	21.6	21.6	21.7	2	21.6	21.6	21.6	2	21.9	21.9	21.9	2	21.9	21.9	21.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						816.5 MHz	831.5 MHz	846.5 MHz		816.5 MHz	831.5 MHz	846.5 MHz		816.5 MHz	831.5 MHz	846.5 MHz		816.5 MHz	831.5 MHz	846.5 MHz
LTE Band 26	5	QPSK	1	0	0	23.7	23.6	23.7	0	23.6	23.7	23.7	0	24.0	24.0	24.0	0	23.9	23.9	23.9
			1	12	0	23.7	23.6	23.5	0	23.7	23.5	23.6	0	23.9	23.8	23.9	0	23.9	23.9	24.0
			1	24	0	23.7	23.6	23.7	0	23.7	23.6	23.6	0	23.8	24.0	23.9	0	23.9	23.9	23.9
			12	0	1	22.6	22.6	22.6	1	22.7	22.7	22.6	1	23.0	22.9	22.9	1	23.0	22.9	23.0
			12	7	1	22.6	22.7	22.5	1	22.6	22.7	22.6	1	22.9	22.9	23.0	1	22.9	22.9	22.9
			12	13	1	22.6	22.7	22.7	1	22.7	22.7	22.7	1	22.9	23.0	22.9	1	22.8	22.9	22.8
			25	0	1	22.7	22.7	22.6	1	22.6	22.7	22.6	1	22.9	23.0	23.0	1	22.9	23.0	23.0
		16QAM	1	0	1	22.7	22.6	22.6	1	22.6	22.7	22.6	1	23.0	22.9	23.0	1	22.9	22.9	22.8
			1	12	1	22.7	22.6	22.6	1	22.6	22.7	22.7	1	22.9	22.9	23.0	1	22.9	22.9	22.9
			1	24	1	22.6	22.6	22.6	1	22.6	22.6	22.7	1	23.0	22.9	23.0	1	22.9	22.9	23.0
			12	0	2	21.5	21.7	21.7	2	21.6	21.7	21.6	2	21.9	21.8	21.9	2	21.9	22.0	22.0
			12	7	2	21.7	21.6	21.7	2	21.6	21.6	21.6	2	21.9	21.8	22.0	2	21.8	22.0	22.0
			12	13	2	21.7	21.7	21.6	2	21.6	21.6	21.7	2	21.9	22.0	21.8	2	22.0	21.9	22.0
			25	0	2	21.5	21.7	21.7	2	21.6	21.6	21.6	2	21.9	21.9	22.0	2	21.9	21.9	21.9

LTE Band 26 Average Power (dBm) Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						815.5 MHz	831.5 MHz	847.5 MHz		815.5 MHz	831.5 MHz	847.5 MHz		815.5 MHz	831.5 MHz	847.5 MHz		815.5 MHz	831.5 MHz	847.5 MHz
LTE Band 26	3	QPSK	1	0	0	23.6	23.6	23.6	0	23.6	23.6	23.5	0	24.0	23.9	23.9	0	24.0	23.9	24.0
			1	8	0	23.6	23.6	23.6	0	23.6	23.6	23.5	0	23.9	23.9	23.9	0	23.9	24.0	24.0
			1	14	0	23.6	23.6	23.5	0	23.6	23.6	23.6	0	23.9	23.9	24.0	0	23.9	24.0	23.9
			8	0	1	22.7	22.6	22.6	1	22.6	22.6	22.7	1	23.0	22.9	22.9	1	23.0	22.9	22.9
			8	4	1	22.6	22.7	22.6	1	22.6	22.6	22.6	1	22.9	22.9	22.9	1	23.0	23.0	22.9
			8	7	1	22.7	22.5	22.6	1	22.6	22.5	22.6	1	22.9	22.9	22.9	1	23.0	22.9	23.0
			15	0	1	22.6	22.7	22.6	1	22.5	22.6	22.6	1	22.9	22.9	22.9	1	22.9	22.9	22.9
		16QAM	1	0	1	22.7	22.6	22.7	1	22.6	22.7	22.6	1	22.9	22.9	22.9	1	22.9	22.9	22.9
			1	8	1	22.7	22.7	22.6	1	22.6	22.6	22.6	1	22.9	22.9	22.8	1	23.0	22.9	22.8
			1	14	1	22.6	22.7	22.7	1	22.7	22.7	22.6	1	22.9	22.9	23.0	1	22.9	22.9	22.9
			8	0	2	21.6	21.6	21.7	2	21.7	21.6	21.6	2	21.9	21.9	21.9	2	22.0	21.9	21.9
			8	4	2	21.6	21.6	21.6	2	21.6	21.6	21.6	2	21.9	21.9	21.9	2	21.9	22.0	22.0
			8	7	2	21.6	21.6	21.6	2	21.6	21.6	21.6	2	21.9	22.0	21.9	2	21.9	21.9	22.0
			15	0	2	21.7	21.6	21.6	2	21.6	21.7	21.6	2	21.9	21.9	21.9	2	21.9	21.9	21.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz
LTE Band 26	1.4	QPSK	1	0	0	23.6	23.5	23.6	0	23.6	23.6	23.6	0	24.0	23.8	23.9	0	23.9	23.9	23.9
			1	3	0	23.6	23.7	23.6	0	23.7	23.6	23.6	0	24.0	23.9	24.0	0	24.0	24.0	24.0
			1	5	0	23.6	23.6	23.6	0	23.6	23.6	23.6	0	23.9	24.0	23.9	0	24.0	23.9	23.9
			3	0	0	23.7	23.6	23.6	0	23.6	23.7	23.6	0	23.9	24.0	23.9	0	24.0	24.0	23.9
			3	1	0	23.6	23.7	23.6	0	23.6	23.6	23.6	0	24.0	23.9	23.9	0	23.8	23.9	23.9
			3	3	0	23.6	23.7	23.6	0	23.7	23.6	23.7	0	23.9	24.0	24.0	0	24.0	23.9	23.9
			6	0	1	22.6	22.6	22.6	1	22.7	22.6	22.7	1	22.9	22.9	22.9	1	22.9	22.8	22.9
		16QAM	1	0	1	22.6	22.7	22.7	1	22.6	22.6	22.6	1	22.9	22.9	22.9	1	22.9	23.0	22.9
			1	3	1	22.6	22.6	22.6	1	22.6	22.7	22.6	1	22.9	23.0	22.9	1	22.9	23.0	23.0
			1	5	1	22.7	22.6	22.6	1	22.6	22.6	22.6	1	23.0	22.9	22.9	1	22.9	22.9	22.9
			3	0	1	22.7	22.7	22.7	1	22.5	22.7	22.6	1	22.8	22.9	23.0	1	23.0	22.9	22.9
			3	1	1	22.6	22.6	22.7	1	22.6	22.7	22.7	1	23.0	22.9	22.8	1	22.9	23.0	22.9
			3	3	1	22.6	22.7	22.7	1	22.6	22.7	22.7	1	22.9	22.9	23.0	1	22.9	23.0	22.9
			6	0	2	21.6	21.6	21.6	2	21.6	21.6	21.5	2	22.0	21.9	22.0	2	22.0	21.9	21.9

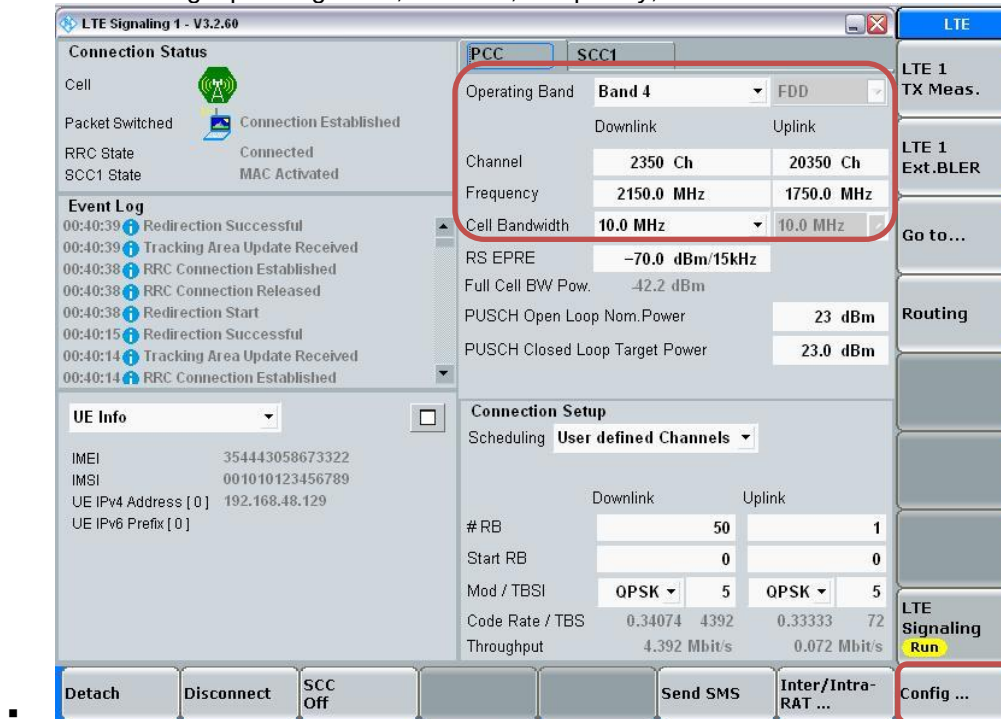
9.5. LTE Rel. 10 Carrier Aggregation

LTE Carrier Aggregation Test Signal Set-up Procedure

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

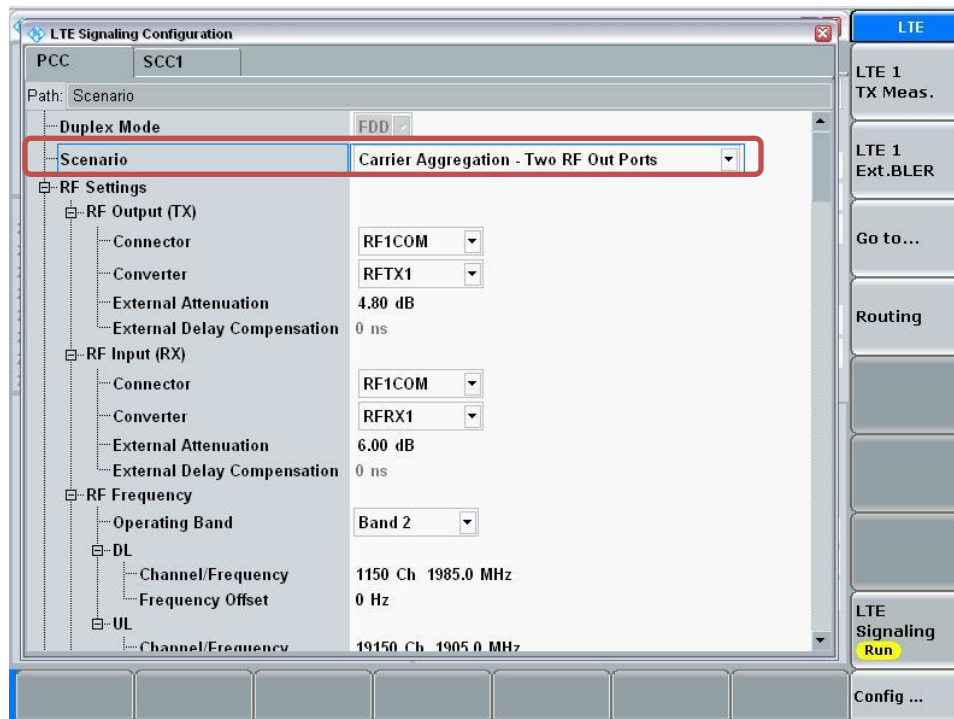
Set to CMW-500 with following parameters:

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

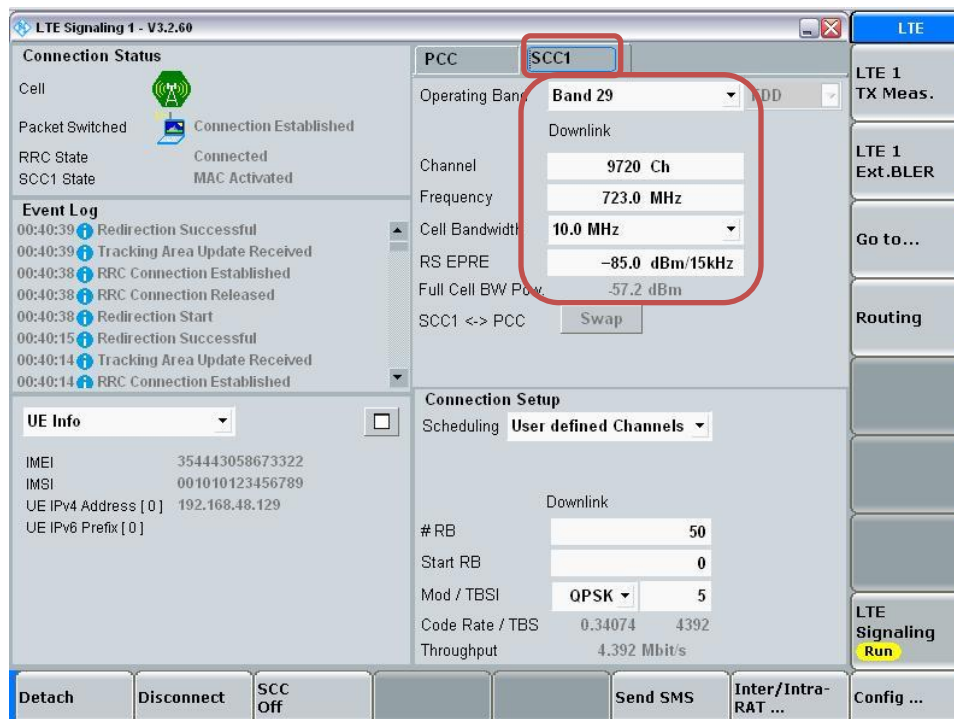


- Go to "Config...."

- Go to “Scenario”
- Select “Carrier Aggregation” and Set to “Carrier Aggregation – Two RF Out Ports”
- Select “LTE Signaling” button

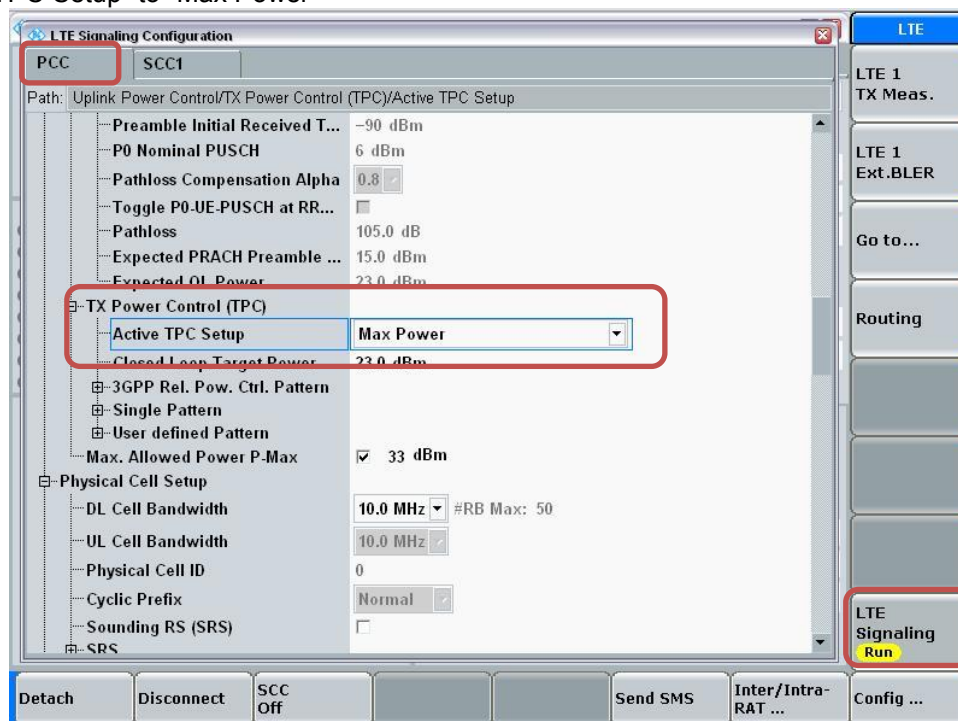


- Select “SCC1” tab
 - Select the testing Operating Band, Channel, Frequency, Cell Bandwidth

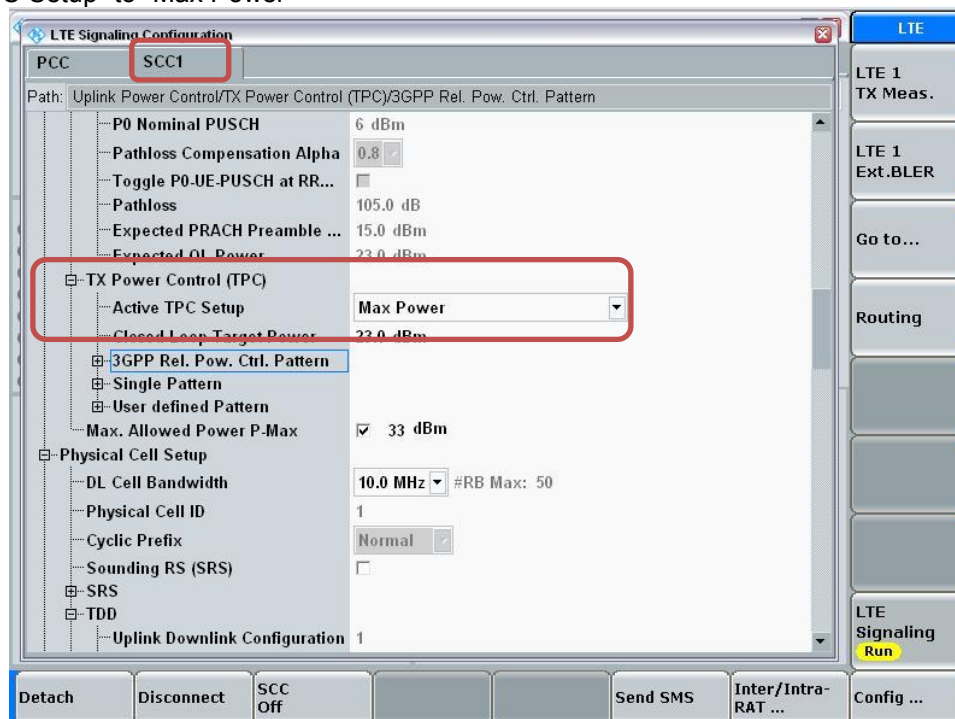


Max Power Setting

- Select “LTE Signaling” button
- Select PCC tab
- Set “Active TPC Setup” to “Max Power”



- Select SCC1 tab
- Set “Active TPC Setup” to “Max Power”



View TX Power

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



The device supports LTE Advanced Rel-10, Cat 4 and Carrier Aggregation (CA) on downlink only for Interband. Uplink CA is not supported. Supported bands and bandwidths are provided in Table 1.

Table 1

E-UTRA CA configuration	Bands	Bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
CA_2A-12A	B2			Yes	Yes		
	B12			Yes	Yes		
CA_2A-13A	B2			Yes	Yes		
	B13				Yes		
CA_2A-17A	B2			Yes	Yes		
	B17			Yes	Yes		
CA_2A-29A	B2			Yes	Yes		
	B29			Yes	Yes		
CA_4A-5A	B4			Yes	Yes		
	B5			Yes	Yes		
CA_4A-12A	B4			Yes	Yes		
	B12			Yes	Yes		
CA_4A-13A	B4			Yes	Yes		
	B13			Yes	Yes		
CA_4A-17A	B4			Yes	Yes		
	B17			Yes	Yes		
CA_4A-29A	B4			Yes	Yes		
	B29			Yes	Yes		

Table 3 provides the results for the combinations selected for measurement from Table 1. For all PCCs, UL power measurements were made for all supported DL bandwidths on the channel/RB combination resulting in the highest output power. For Band 2, UL power measurements were made for all PCC/SCC combinations. For the remaining PCC bands, UL power measurements were made for only one PCC/SCC combination. The exception is PCC Band 5. The FCC requested measurements for the Band 5/4 PCC/SCC combination.

For each LTE band, the maximum UL output power is capped in the cellular power table for all channel/bandwidth/RB combinations. Variations in output power measurements for a given band are dependent only upon bandwidth, resource block allocations, and measurement tolerances. Therefore, per KDB Publication 941225 D05A, Footnote 2, the maximum UL power with CA active is measured using the highest maximum output power configuration for uplink with downlink carrier aggregation inactive measured among the channel bandwidth, modulation and RB combinations in each frequency band.

The high, middle, and low channels and frequencies for all inter-band LTE Bands are provided in Table 2.

Table 2

LTE Band 2	DL Channel / Frequency						UL Channel / Frequency					
Bandwidth	Low		Mid		High		Low		Mid		High	
20	1940	700	1960	900	1980	1099	1860	18700	1880	18900	1900	19099
15	1937.5	675	1960	900	1982.5	1124	1857.5	18675	1880	18900	1902.5	19124
10	1935	650	1960	900	1985	1149	1855	18650	1880	18900	1905	19149
5	1932.5	625	1960	900	1987.5	1174	1852.5	18625	1880	18900	1907.5	19174
3	1931.5	615	1960	900	1988.5	1184	1851.5	18615	1880	18900	1908.5	19184
1.4	1930.7	607	1960	900	1989.3	1192	1850.7	18607	1880	18900	1909.3	19192
LTE Band 4	DL Channel / Frequency						UL Channel / Frequency					
Bandwidth	Low		Mid		High		Low		Mid		High	
20	2120	2050	2132.5	2175	2145	2299	1720	20050	1732.5	20175	1745	20299
15	2117.5	2025	2132.5	2175	2147.5	2324	1717.5	20025	1732.5	20175	1747.5	20324
10	2115	2000	2132.5	2175	2150	2349	1715	20000	1732.5	20175	1750	20349
5	2112.5	1975	2132.5	2175	2152.5	2374	1712.5	19975	1732.5	20175	1752.5	20374
3	2111.5	1965	2132.5	2175	2153.5	2384	1711.5	19965	1732.5	20175	1753.5	20384
1.4	2110.7	1957	2132.5	2175	2154.3	2392	1710.7	19957	1732.5	20175	1754.3	20392
LTE Band 5	DL Channel / Frequency						UL Channel / Frequency					
Bandwidth	Low		Mid		High		Low		Mid		High	
10	874	2450	881.5	2525	889	2599	829	20450	836.5	20525	844	20599
5	871.5	2425	881.5	2525	891.5	2624	826.5	20425	836.5	20525	846.5	20624
3	870.5	2415	881.5	2525	892.5	2634	825.5	20415	836.5	20525	847.5	20634
1.4	869.7	2407	881.5	2525	893.3	2642	824.7	20407	836.5	20525	848.3	20642
LTE Band 12	DL Channel / Frequency						UL Channel / Frequency					
Bandwidth	Low		Mid		High		Low		Mid		High	
10	734	5060	737.5	5095	741	5129	704	23060	707.5	23095	711	23129
5	731.5	5035	737.5	5095	743.5	5154	701.5	23035	707.5	23095	713.5	23154
3	730.5	5025	737.5	5095	744.5	5164	700.5	23025	707.5	23095	714.5	23164
1.4	729.7	5017	737.5	5095	745.3	5172	699.7	23017	707.5	23095	715.3	23172

LTE Band 13	DL Channel / Frequency						UL Channel / Frequency					
Bandwidth	Low		Mid		High		Low		Mid		High	
10	751	5230	751	5230	751	5230	782	23230	782	23230	782	23230
5	748.5	5205	751	5230	753.5	5254	779.5	23205	782	23230	784.5	23254
LTE Band 17	DL Channel / Frequency						UL Channel / Frequency					
Bandwidth	Low		Mid		High		Low		Mid		High	
10	739	5780	740	5790	741	5799	709	23780	710	23790	711	23799
5	736.5	5755	740	5790	743.5	5824	706.5	23755	710	23790	713.5	23824

Measurement results are provided in Table 3. Based upon the measurement results, uplink power is not affected by downlink CA and additional SAR measurements are not required.

Table 3

DL						UL					
PCC	SCC	PCC		SCC		PCC					
Band	Band	BW	Frequency	BW	Frequency	RB	Offset	Frequency	Standalone	CA Power	Delta
2	12	10	1935	10	737.5	1	24	1855	22.6		
2	12	10	1960	10	737.5	1	24	1880	22.5		
2	12	10	1985	10	737.5	1	24	1905	22.7	22.6	-0.1
2	13	10	1935	10	751	1	24	1855	22.6		
2	13	10	1960	10	751	1	24	1880	22.5		
2	13	10	1985	10	751	1	24	1905	22.7	22.7	0
2	17	10	1935	10	740	1	24	1855	22.6		
2	17	10	1960	10	740	1	24	1880	22.5		
2	17	10	1985	10	740	1	24	1905	22.7	22.7	0
2	29	10	1935	10	722.5	1	24	1855	22.6		
2	29	10	1960	10	722.5	1	24	1880	22.5		
2	29	10	1985	10	722.5	1	24	1905	22.7	22.6	-0.1
4	5	10	2115	10	881.5	1	24	1715	23.4	23.4	0
4	5	10	2132.5	10	881.5	1	24	1732.5	23.3		
4	5	10	2150	10	881.5	1	24	1750	23.3		
4	12	10	2115	10	737.5	1	24	1715	23.4	23.4	0
4	12	10	2132.5	10	737.5	1	24	1732.5	23.3		
4	12	10	2150	10	737.5	1	24	1750	23.3		

4	13	10	2115	10	751	1	24	1715	23.4	23.3	-0.1
4	13	10	2132.5	10	751	1	24	1732.5	23.3		
4	13	10	2150	10	751	1	24	1750	23.3		
4	17	10	2115	10	740	1	24	1715	23.4	23.4	0
4	17	10	2132.5	10	740	1	24	1732.5	23.3		
4	17	10	2150	10	740	1	24	1750	23.3		
4	29	10	2115	10	722.5	1	24	1715	23.4	23.3	-0.1
4	29	10	2132.5	10	722.5	1	24	1732.5	23.3		
4	29	10	2150	10	722.5	1	24	1750	23.3		
5	4	10	874	20	2132.5	1	24	829	24.0		
5	4	10	881.5	20	2132.5	1	24	836.5	24.0	23.9	-0.1
5	4	10	889	20	2132.5	1	24	844	24.0		
12	2	10	734	20	1960	1	24	704	24.0		
12	2	10	737.5	20	1960	1	24	707.5	24.0	23.9	-0.1
12	2	10	741	20	1960	1	24	711	24.0		
12	4	10	734	20	2132.5	1	24	704	24.0		
12	4	10	737.5	20	2132.5	1	24	707.5	24.0	24.0	0
12	4	10	741	20	2132.5	1	24	711	24.0		
13	2	10	751	20	1960	1	24	782	24.0		
13	2	10	751	20	1960	1	24	782	24.0	23.9	-0.1
13	2	10	751	20	1960	1	24	782	24.0		
13	4	10	751	20	2132.5	1	24	782	24.0		
13	4	10	751	20	2132.5	1	24	782	24.0	23.9	-0.1
13	4	10	751	20	2132.5	1	24	782	24.0		
17	2	10	739	20	1960	1	24	709	24.0		
17	2	10	740	20	1960	1	24	710	24.0	24.0	0
17	2	10	741	20	1960	1	24	711	24.0		
17	4	10	739	10	2132.5	1	24	709	24.0		
17	4	10	740	10	2132.5	1	24	710	24.0	23.9	-0.1
17	4	10	741	10	2132.5	1	24	711	24.0		
29	2	10	722	20	1960	1	24	Down Only	N/A	N/A	
29	2	10	722.5	20	1960	1	24	Down Only	N/A	N/A	
29	2	10	723	20	1960	1	24	Down Only	N/A	N/A	
29	4	10	722	20	2132.5	1	24	Down Only	N/A	N/A	
29	4	10	722.5	20	2132.5	1	24	Down Only	N/A	N/A	
29	4	10	723	20	2132.5	1	24	Down Only	N/A	N/A	

9.6. Wi-Fi 2.4GHz (DTS Band)

For 2.4 GHz band, there are two use cases:

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

Measured Results

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Average Power (dBm)			
					Head		Body	
					Cell On	Cell Off	Cell On	Cell Off
2.4	802.11b	1 Tx	1	2412	12.6	17.0	14.5	18.4
			6	2437	12.6	17.0	14.5	18.5
			11	2462	12.6	17.0	14.5	18.4
			12	2467	12.6	16.9	14.5	18.0
			13	2472	12.6	15.0	14.5	15.0

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

For 5 GHz band, there are two use cases:

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

Measured Results

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Average Power (dBm)			
					Head		Body	
					Cell On	Cell Off	Cell On	Cell Off
5.2	802.11n HT40	1 Tx	38	5190	Not required	16.0	Not required	
			46	5230	Not required	18.0		
	802.11ac VHT80	1 Tx	42	5210	13.0	Not required		
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Average Power (dBm)			
					Head		Body	
					Cell On	Cell Off	Cell On	Cell Off
5.3	802.11n HT40	1 Tx	54	5270	Not required		Not required	17.5
			62	5310			Not required	17.0
	802.11ac VHT80	1 Tx	58	5290			13.0	Not required
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Average Power (dBm)			
					Head		Body	
					Cell On	Cell Off	Cell On	Cell Off
5.5	802.11ac VHT80	1 Tx	106	5530	12.0	16.5	12.2	16.5
			122	5610	12.0	16.5	12.2	17.0
			138	5690	12.0	16.5	12.2	17.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Average Power (dBm)			
					Head		Body	
					Cell On	Cell Off	Cell On	Cell Off
5.8	802.11n HT40	1 Tx	151	5755	Not required	15.5	Not required	15.5
			159	5795	Not required	16.5	Not required	17.0
	802.11ac VHT80	1 Tx	155	5775	12.0	Not required	12.0	Not required

9.8. Bluetooth

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	V3.0 + EDR, GFSK	0	2402	11.5
		39	2441	11.5
		78	2480	11.5

10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

KDB 447498 D01 General RF Exposure Guidance:

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

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

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. GSM850**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
Head	Voice	0	Left Touch	190	836.6	33.2	33.0	0.709	0.742	0.525	0.550		
			Left Tilt	190	836.6	33.2	33.0	0.523	0.548	0.350	0.366		
			Right Touch	190	836.6	33.2	33.0	0.552	0.578	0.411	0.430		
			Right Tilt	190	836.6	33.2	33.0	0.429	0.449	0.281	0.294		
Head VoIP	GPRS 2 Slots	0	Left Touch	128	824.2	30.2	30.2	0.781	0.781	0.573	0.573		
				190	836.6	30.2	30.2	0.912	0.912	0.669	0.669	1	
				251	848.8	30.2	30.2	0.888	0.888	0.649	0.649		
			Left Tilt	190	836.6	30.2	30.2	0.584	0.584	0.384	0.384		
			Right Touch	190	836.6	30.2	30.2	0.657	0.657	0.447	0.447		
			Right Tilt	190	836.6	30.2	30.2	0.534	0.534	0.352	0.352		
Body-worn	Voice	5	Rear	190	836.6	33.2	33.0	0.449	0.470	0.322	0.337		
			Front	190	836.6	33.2	33.0	0.397	0.416	0.302	0.316		
Body-worn(VoIP) & Hotspot		GPRS 2 Slots	5	Rear	190	836.6	30.2	30.2	0.500	0.500	0.365	0.365	
				Front	190	836.6	30.2	30.2	0.413	0.413	0.310	0.310	
Hotspot				Edge 1	190	836.6	30.2	30.2	0.233	0.233	0.114	0.114	
				Edge 2	190	836.6	30.2	30.2	0.554	0.554	0.362	0.362	
		Edge 4	190	836.6	30.2	30.2	0.260	0.260	0.168	0.168			

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
Head	Voice	0	Left Touch	128	824.2	33.5	33.5	0.843	0.843	0.653	0.653		
				190	836.6	33.5	33.5	0.809	0.809	0.624	0.624		
				251	848.8	33.5	33.5	0.791	0.791	0.607	0.607		
			Left Tilt	190	836.6	33.5	33.5	0.508	0.508	0.390	0.390		
			Right Touch	190	836.6	33.5	33.5	0.716	0.716	0.535	0.535		
			Right Tilt	190	836.6	33.5	33.5	0.510	0.510	0.392	0.392		
Head VoIP	GPRS 2 Slots	0	Left Touch	128	824.2	30.5	30.5	0.752	0.752	0.576	0.576		
				190	836.6	30.5	30.5	0.812	0.812	0.619	0.619		
				251	848.8	30.5	30.5	0.737	0.737	0.561	0.561		
			Left Tilt	190	836.6	30.5	30.5	0.509	0.509	0.391	0.391		
			Right Touch	190	836.6	30.5	30.5	0.768	0.768	0.576	0.576		
			Right Tilt	190	836.6	30.5	30.5	0.536	0.536	0.409	0.409		
Body-worn	Voice	5	Rear	128	824.2	33.5	33.5	1.100	1.100	0.693	0.693	2	
				190	836.6	33.5	33.2	1.070	1.147	0.654	0.701		
				251	848.8	33.5	33.5	1.120	1.120	0.686	0.686		
			Front	128	824.2	33.5	33.5	0.884	0.884	0.669	0.669		
				190	836.6	33.5	33.2	0.829	0.888	0.623	0.668		
				251	848.8	33.5	33.5	0.864	0.864	0.652	0.652		
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	128	824.2	30.5	30.5	1.020	1.020	0.650	0.650		
				190	836.6	30.5	30.5	1.130	1.130	0.694	0.694		
				251	848.8	30.5	30.5	1.120	1.120	0.670	0.670		
			Front	128	824.2	30.5	30.5	0.808	0.808	0.609	0.609		
				190	836.6	30.5	30.5	0.843	0.843	0.633	0.633		
				251	848.8	30.5	30.5	0.781	0.781	0.586	0.586		
			Hotspot	Edge 2	190	836.6	30.5	30.5	0.718	0.718	0.464	0.464	
				Edge 3	190	836.6	30.5	30.5	0.473	0.473	0.231	0.231	
				Edge 4	128	824.2	30.5	30.5	0.723	0.723	0.481	0.481	
					190	836.6	30.5	30.5	0.952	0.952	0.625	0.625	
					251	848.8	30.5	30.5	0.725	0.725	0.477	0.477	

10.2. GSM1900**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Voice	0	Left Touch	661	1880.0	29.9	29.9	0.517	0.517	0.282	0.282	3
			Left Tilt	661	1880.0	29.9	29.9	0.603	0.603	0.322	0.322	
			Right Touch	512	1850.2	29.9	29.7	0.875	0.916	0.464	0.486	
				661	1880.0	29.9	29.9	0.908	0.908	0.480	0.480	
				810	1909.8	29.9	29.7	0.902	0.945	0.470	0.492	
			Right Tilt	512	1850.2	29.9	29.7	0.814	0.852	0.433	0.453	
				661	1880.0	29.9	29.9	0.816	0.816	0.437	0.437	
				810	1909.8	29.9	29.7	0.802	0.840	0.425	0.445	
Head VoIP	GPRS 2 Slots	0	Left Touch	661	1880.0	26.9	26.9	0.501	0.501	0.274	0.274	
			Left Tilt	661	1880.0	26.9	26.9	0.624	0.624	0.335	0.335	
			Right Touch	512	1850.2	26.9	26.9	0.830	0.830	0.449	0.449	
				661	1880.0	26.9	26.9	0.902	0.902	0.472	0.472	
				810	1909.8	26.9	26.9	0.933	0.933	0.509	0.509	
			Right Tilt	512	1850.2	26.9	26.9	0.772	0.772	0.418	0.418	
				661	1880.0	26.9	26.9	0.847	0.847	0.457	0.457	
				810	1909.8	26.9	26.9	0.822	0.822	0.439	0.439	
Body-worn	Voice	5	Rear	661	1880.0	29.9	29.9	0.597	0.597	0.329	0.329	
			Front	661	1880.0	29.9	29.9	0.474	0.474	0.261	0.261	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	661	1880.0	26.9	26.9	0.565	0.565	0.316	0.316	
Front			661	1880.0	26.9	26.9	0.440	0.440	0.244	0.244		
Edge 1			661	1880.0	26.9	26.9	0.434	0.434	0.182	0.182		
Edge 2			661	1880.0	26.9	26.9	0.169	0.169	0.088	0.088		
Edge 4			661	1880.0	26.9	26.9	0.476	0.476	0.246	0.246		
Hotspot												

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Voice	0	Left Touch	661	1880.0	30.5	30.5	0.425	0.425	0.267	0.267	
			Left Tilt	661	1880.0	30.5	30.5	0.297	0.297	0.170	0.170	
			Right Touch	661	1880.0	30.5	30.5	0.682	0.682	0.404	0.404	
			Right Tilt	661	1880.0	30.5	30.5	0.309	0.309	0.181	0.181	
Head VoIP	GPRS 2 Slots	0	Left Touch	661	1880.0	27.5	27.5	0.460	0.460	0.296	0.296	
			Left Tilt	661	1880.0	27.5	27.5	0.235	0.235	0.130	0.130	
			Right Touch	661	1880.0	27.5	27.5	0.667	0.667	0.415	0.415	
			Right Tilt	661	1880.0	27.5	27.5	0.267	0.267	0.149	0.149	
Body-worn	Voice	5	Rear	512	1850.2	29.0	29.0	1.050	1.050	0.488	0.488	
				661	1880.0	29.0	29.0	1.060	1.060	0.495	0.495	
				810	1909.8	29.0	29.0	1.070	1.070	0.501	0.501	
			Front	661	1880.0	29.0	29.0	0.645	0.645	0.343	0.343	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	512	1850.2	26.0	26.0	1.130	1.130	0.530	0.530	4
				661	1880.0	26.0	26.0	1.030	1.030	0.475	0.475	
				810	1909.8	26.0	26.0	1.040	1.040	0.478	0.478	
			Front	661	1880.0	26.0	26.0	0.649	0.649	0.341	0.341	
Hotspot			Edge 2	661	1880.0	26.0	26.0	0.571	0.571	0.294	0.294	
			Edge 3	661	1880.0	26.0	26.0	0.729	0.729	0.347	0.347	
			Edge 4	661	1880.0	26.0	26.0	0.029	0.029	0.015	0.015	

10.3. W-CDMA Band V**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	4132	826.4	24.7	24.7	0.830	0.830	0.613	0.613	
				4183	836.6	24.7	24.7	0.860	0.860	0.633	0.633	
				4233	846.6	24.7	24.7	0.888	0.888	0.649	0.649	
			Left Tilt	4183	836.6	24.7	24.7	0.703	0.703	0.427	0.427	
			Right Touch	4183	836.6	24.7	24.7	0.640	0.640	0.424	0.424	
			Right Tilt	4183	836.6	24.7	24.7	0.578	0.578	0.353	0.353	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	24.7	24.7	0.461	0.461	0.332	0.332	
			Front	4183	836.6	24.7	24.7	0.372	0.372	0.277	0.277	
Hotspot	Rel 99 RMC	5	Edge 1	4183	836.6	24.7	24.7	0.231	0.231	0.112	0.112	
			Edge 2	4183	836.6	24.7	24.7	0.571	0.571	0.374	0.374	
			Edge 4	4183	836.6	24.7	24.7	0.240	0.240	0.155	0.155	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	4132	826.4	25.0	25.0	0.873	0.873	0.659	0.659	
				4183	836.6	25.0	25.0	0.919	0.919	0.692	0.692	5
				4233	846.6	25.0	25.0	0.907	0.907	0.681	0.681	
			Left Tilt	4183	836.6	25.0	25.0	0.603	0.603	0.465	0.465	
			Right Touch	4132	826.4	25.0	25.0	0.842	0.842	0.630	0.630	
				4183	836.6	25.0	25.0	0.880	0.880	0.654	0.654	
				4233	846.6	25.0	25.0	0.864	0.864	0.640	0.640	
			Right Tilt	4183	836.6	25.0	25.0	0.653	0.653	0.498	0.498	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4132	826.4	24.0	24.0	1.090	1.090	0.676	0.676	
				4183	836.6	24.0	24.0	1.130	1.130	0.693	0.693	6
				4233	846.6	24.0	24.0	1.130	1.130	0.690	0.690	
			Front	4132	826.4	24.0	24.0	0.824	0.824	0.625	0.625	
				4183	836.6	24.0	24.0	0.845	0.845	0.640	0.640	
				4233	846.6	24.0	24.0	0.828	0.828	0.624	0.624	
Hotspot	Rel 99 RMC	5	Edge 2	4183	836.6	24.0	24.0	0.645	0.645	0.418	0.418	
			Edge 3	4183	836.6	24.0	24.0	0.381	0.381	0.186	0.186	
			Edge 4	4132	826.4	24.0	24.0	0.940	0.940	0.618	0.618	
				4183	836.6	24.0	24.0	0.960	0.960	0.628	0.628	
				4233	846.6	24.0	24.0	0.977	0.977	0.637	0.637	

10.4. W-CDMA Band IV**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	1413	1732.6	22.5	22.5	0.488	0.488	0.276	0.276	
			Left Tilt	1413	1732.6	22.5	22.5	0.505	0.505	0.276	0.276	
			Right Touch	1312	1712.4	22.5	22.5	0.650	0.650	0.336	0.336	
				1413	1732.6	22.5	22.5	0.909	0.909	0.469	0.469	
			Right Tilt	1513	1752.6	22.5	22.5	0.974	0.974	0.497	0.497	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	24.0	23.9	0.621	0.635	0.336	0.344	
				1312	1712.4	24.0	23.9	0.797	0.816	0.425	0.435	
				1513	1752.6	24.0	23.9	0.963	0.985	0.521	0.533	
			Front	1413	1732.6	24.0	23.9	0.499	0.511	0.292	0.299	
Hotspot	Rel 99 RMC	5	Edge 1	1413	1732.6	24.0	23.9	0.344	0.352	0.153	0.157	
			Edge 2	1413	1732.6	24.0	23.9	0.093	0.095	0.052	0.054	
			Edge 4	1413	1732.6	24.0	23.9	0.414	0.424	0.223	0.228	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	1413	1732.6	23.0	23.0	0.678	0.678	0.451	0.451	
			Left Tilt	1413	1732.6	23.0	23.0	0.498	0.498	0.300	0.300	
			Right Touch	1312	1712.4	23.0	23.0	0.998	0.998	0.639	0.639	
				1413	1732.6	23.0	23.0	1.080	1.080	0.688	0.688	
			Right Tilt	1513	1752.6	23.0	23.0	1.120	1.120	0.700	0.700	7
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	20.0	19.8	1.040	1.089	0.579	0.606	
				1312	1712.4	20.0	19.8	1.060	1.110	0.581	0.608	
				1513	1752.6	20.0	19.8	1.080	1.131	0.578	0.605	8
			Front	1312	1712.4	20.0	19.8	0.997	1.044	0.560	0.586	
				1413	1732.6	20.0	19.8	0.946	0.991	0.535	0.560	
Hotspot	Rel 99 RMC	5	Edge 2	1513	1752.6	20.0	19.8	0.937	0.981	0.531	0.556	
			Edge 3	1413	1732.6	20.0	19.8	0.753	0.788	0.409	0.428	
			Edge 4	1413	1732.6	20.0	19.8	0.724	0.758	0.353	0.370	

10.5. W-CDMA Band II**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	9400	1880.0	21.0	21.0	0.546	0.546	0.292	0.292	
			Left Tilt	9400	1880.0	21.0	21.0	0.514	0.514	0.271	0.271	
			Right Touch	9262	1852.4	21.0	21.0	0.989	0.989	0.535	0.535	
				9400	1880.0	21.0	21.0	0.976	0.976	0.517	0.517	
				9538	1907.6	21.0	21.0	0.989	0.989	0.510	0.510	
			Right Tilt	9262	1852.4	21.0	21.0	0.785	0.785	0.400	0.400	
				9400	1880.0	21.0	21.0	0.805	0.805	0.424	0.424	
				9538	1907.6	21.0	21.0	0.797	0.797	0.415	0.415	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9262	1852.4	21.5	21.0	0.745	0.836	0.394	0.442	
				9400	1880.0	21.5	21.0	0.867	0.973	0.446	0.500	
				9538	1907.6	21.5	21.0	0.795	0.892	0.413	0.463	
			Front	9400	1880.0	21.5	21.0	0.584	0.655	0.318	0.357	
Hotspot	Rel 99 RMC	5	Edge 1	9400	1880.0	21.5	21.0	0.545	0.612	0.224	0.251	
			Edge 2	9400	1880.0	21.5	21.0	0.126	0.141	0.065	0.073	
			Edge 4	9400	1880.0	21.5	21.0	0.548	0.615	0.280	0.314	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	9400	1880.0	22.5	22.5	0.761	0.761	0.484	0.484	
			Left Tilt	9400	1880.0	22.5	22.5	0.515	0.515	0.295	0.295	
			Right Touch	9262	1852.4	22.5	22.5	1.120	1.120	0.667	0.667	
				9400	1880.0	22.5	22.5	1.120	1.120	0.673	0.673	9
				9538	1907.6	22.5	22.5	1.080	1.080	0.648	0.648	
			Right Tilt	9400	1880.0	22.5	22.5	0.456	0.456	0.266	0.266	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9262	1852.4	18.7	18.7	0.927	0.931	0.446	0.448	
				9400	1880.0	18.7	18.7	0.948	0.948	0.447	0.447	
				9538	1907.6	18.7	18.6	1.100	1.115	0.499	0.506	10
			Front	9400	1880.0	18.7	18.7	0.578	0.578	0.298	0.298	
Hotspot	Rel 99 RMC	5	Edge 2	9400	1880.0	18.7	18.7	0.642	0.642	0.336	0.336	
			Edge 3	9400	1880.0	18.7	18.7	0.688	0.688	0.328	0.328	
			Edge 4	9400	1880.0	18.7	18.7	0.073	0.073	0.037	0.037	

10.6. CDMA BC0**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	1013	824.7	24.7	24.6	0.803	0.822	0.539	0.552	11
				384	836.5	24.7	24.7	0.985	0.985	0.709	0.709	
				777	848.3	24.7	24.6	0.911	0.932	0.603	0.617	
			Left Tilt	384	836.5	24.7	24.7	0.739	0.739	0.424	0.424	
			Right Touch	384	836.5	24.7	24.7	0.668	0.668	0.427	0.427	
			Right Tilt	384	836.5	24.7	24.7	0.515	0.515	0.301	0.301	
	1xEVDO (Rel. 0)	0	Left Touch	1013	824.7	24.7	24.6	0.772	0.790	0.534	0.546	
				384	836.5	24.7	24.7	0.877	0.877	0.595	0.595	
				777	848.3	24.7	24.6	0.864	0.884	0.583	0.597	
			Left Tilt	384	836.5	24.7	24.7	0.653	0.653	0.397	0.397	
			Right Touch	384	836.5	24.7	24.7	0.643	0.643	0.414	0.414	
			Right Tilt	384	836.5	24.7	24.7	0.512	0.512	0.299	0.299	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	384	836.5	24.7	24.7	0.503	0.503	0.370	0.370	
			Front	384	836.5	24.7	24.7	0.420	0.420	0.315	0.315	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	384	836.5	24.7	24.7	0.239	0.239	0.116	0.116	
			Edge 2	384	836.5	24.7	24.7	0.596	0.596	0.391	0.391	
			Edge 4	384	836.5	24.7	24.7	0.263	0.263	0.169	0.169	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
Head	1xRTT (RC3 SO55)	0	Left Touch	1013	824.7	25.0	24.7	0.800	0.857	0.606	0.649		
				384	836.5	25.0	25.0	0.950	0.950	0.716	0.716		
				777	848.3	25.0	24.8	0.921	0.964	0.694	0.727		
			Left Tilt	384	836.5	25.0	25.0	0.641	0.641	0.494	0.494		
				Right Touch	1013	824.7	25.0	24.7	0.723	0.775	0.545	0.584	
					384	836.5	25.0	25.0	0.888	0.888	0.670	0.670	
			777		848.3	25.0	24.8	0.815	0.853	0.613	0.642		
	Right Tilt	384	836.5	25.0	25.0	0.567	0.567	0.434	0.434				
	1xEVDO (Rel. 0)	0	Left Touch	1013	824.7	25.0	24.7	0.749	0.803	0.579	0.620		
				384	836.5	25.0	25.0	0.882	0.882	0.678	0.678		
				777	848.3	25.0	24.8	0.864	0.905	0.663	0.694		
			Left Tilt	384	836.5	25.0	25.0	0.636	0.636	0.491	0.491		
			Right Touch	1013	824.7	25.0	24.7	0.721	0.773	0.543	0.582		
				384	836.5	25.0	25.0	0.846	0.846	0.635	0.635		
777				848.3	25.0	24.8	0.814	0.852	0.613	0.642			
Right Tilt	384	836.5	25.0	25.0	0.566	0.566	0.433	0.433					
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	1013	824.7	24.3	24.3	1.040	1.040	0.653	0.653		
				384	836.5	24.3	24.3	1.060	1.060	0.663	0.663		
				777	848.3	24.3	24.3	1.110	1.110	0.678	0.678	12	
			Front	384	836.5	24.3	24.3	0.513	0.513	0.387	0.387		
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	384	836.5	24.3	24.3	0.418	0.418	0.271	0.271		
			Edge 3	384	836.5	24.3	24.3	0.242	0.242	0.117	0.117		
			Edge 4	384	836.5	24.3	24.3	0.590	0.590	0.386	0.386		

10.7. CDMA BC1**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	20.7	20.7	0.626	0.626	0.334	0.334	
			Left Tilt	600	1880.0	20.7	20.7	0.703	0.703	0.367	0.367	
			Right Touch	25	1851.3	20.7	20.7	0.987	0.987	0.523	0.523	
				600	1880.0	20.7	20.7	0.997	0.997	0.532	0.532	
				1175	1908.8	20.7	20.7	0.995	0.995	0.527	0.527	
			Right Tilt	25	1851.3	20.7	20.7	0.879	0.879	0.437	0.437	
				600	1880.0	20.7	20.7	0.985	0.985	0.516	0.516	
				1175	1908.8	20.7	20.7	0.900	0.900	0.469	0.469	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	20.7	20.7	0.575	0.575	0.311	0.311	
			Left Tilt	600	1880.0	20.7	20.7	0.668	0.668	0.351	0.351	
			Right Touch	25	1851.3	20.7	20.7	0.940	0.940	0.500	0.500	
				600	1880.0	20.7	20.7	0.957	0.957	0.518	0.518	
				1175	1908.8	20.7	20.7	0.981	0.981	0.519	0.519	
			Right Tilt	25	1851.3	20.7	20.7	0.862	0.862	0.426	0.426	
				600	1880.0	20.7	20.7	0.966	0.966	0.494	0.494	
				1175	1908.8	20.7	20.7	0.883	0.883	0.459	0.459	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	25	1851.3	21.3	21.0	0.816	0.874	0.421	0.451	
				600	1880.0	21.3	21.0	0.892	0.956	0.452	0.484	
				1175	1908.8	21.3	21.0	0.882	0.945	0.439	0.470	
			Front	600	1880.0	21.3	21.0	0.635	0.680	0.347	0.372	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	600	1880.0	21.3	21.0	0.657	0.704	0.272	0.291	
			Edge 2	600	1880.0	21.3	21.0	0.156	0.167	0.080	0.085	
			Edge 4	600	1880.0	21.3	21.0	0.544	0.583	0.276	0.296	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	25	1851.3	22.0	22.0	0.720	0.720	0.465	0.465	
				600	1880.0	22.0	22.0	0.820	0.820	0.523	0.523	
				1175	1908.8	22.0	22.0	0.819	0.819	0.525	0.525	
			Left Tilt	600	1880.0	22.0	22.0	0.519	0.519	0.301	0.301	
			Right Touch	25	1851.3	22.0	22.0	1.100	1.100	0.662	0.662	13
				600	1880.0	22.0	22.0	1.080	1.080	0.646	0.646	
				1175	1908.8	22.0	22.0	1.040	1.040	0.615	0.615	
			Right Tilt	600	1880.0	22.0	22.0	0.516	0.516	0.310	0.310	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	22.0	22.0	0.535	0.535	0.337	0.337	
			Left Tilt	600	1880.0	22.0	22.0	0.377	0.377	0.216	0.216	
			Right Touch	25	1851.3	22.0	22.0	0.866	0.866	0.515	0.515	
				600	1880.0	22.0	22.0	0.863	0.863	0.508	0.508	
				1175	1908.8	22.0	22.0	0.826	0.826	0.481	0.481	
			Right Tilt	600	1880.0	22.0	22.0	0.367	0.367	0.216	0.216	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	25	1851.3	18.7	18.7	1.070	1.070	0.516	0.516	14
				600	1880.0	18.7	18.7	1.040	1.040	0.489	0.489	
				1175	1908.8	18.7	18.7	1.050	1.050	0.480	0.480	
			Front	600	1880.0	18.7	18.7	0.599	0.599	0.321	0.321	
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	600	1880.0	18.7	18.7	0.665	0.665	0.347	0.347	
			Edge 3	600	1880.0	18.7	18.7	0.749	0.749	0.358	0.358	
			Edge 4	600	1880.0	18.7	18.7	0.077	0.077	0.039	0.039	

10.8. CDMA BC10**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	476	817.9	24.7	24.6	0.764	0.782	0.562	0.575	15
				580	820.5	24.7	24.7	0.790	0.790	0.579	0.579	
				670	822.8	24.7	24.6	0.754	0.772	0.552	0.565	
			Left Tilt	580	820.5	24.7	24.7	0.673	0.673	0.407	0.407	
			Right Touch	580	820.5	24.7	24.7	0.673	0.673	0.430	0.430	
			Right Tilt	580	820.5	24.7	24.7	0.514	0.514	0.301	0.301	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	24.7	24.7	0.743	0.743	0.546	0.546	
			Left Tilt	580	820.5	24.7	24.7	0.533	0.533	0.351	0.351	
			Right Touch	580	820.5	24.7	24.7	0.646	0.646	0.416	0.416	
			Right Tilt	580	820.5	24.7	24.7	0.502	0.502	0.293	0.293	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	580	820.5	24.7	24.7	0.447	0.447	0.332	0.332	
			Front	580	820.5	24.7	24.7	0.377	0.377	0.287	0.287	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	580	820.5	24.7	24.7	0.204	0.204	0.099	0.099	
			Edge 2	580	820.5	24.7	24.7	0.494	0.494	0.327	0.327	
			Edge 4	580	820.5	24.7	24.7	0.267	0.267	0.173	0.173	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	25.0	25.0	0.748	0.748	0.567	0.567	
			Left Tilt	580	820.5	25.0	25.0	0.543	0.543	0.423	0.423	
			Right Touch	580	820.5	25.0	25.0	0.701	0.701	0.527	0.527	
			Right Tilt	580	820.5	25.0	25.0	0.565	0.565	0.438	0.438	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	25.0	25.0	0.742	0.742	0.564	0.564	
			Left Tilt	580	820.5	25.0	25.0	0.514	0.514	0.399	0.399	
			Right Touch	580	820.5	25.0	25.0	0.623	0.623	0.483	0.483	
			Right Tilt	580	820.5	25.0	25.0	0.545	0.545	0.422	0.422	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	476	817.9	24.0	24.0	0.953	0.953	0.593	0.593	
				580	820.5	24.0	24.0	0.965	0.965	0.600	0.600	
				670	822.8	24.0	24.0	0.985	0.985	0.611	0.611	
			Front	476	817.9	24.0	24.0	0.975	0.975	0.599	0.599	
				580	820.5	24.0	24.0	0.995	0.995	0.600	0.600	
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	580	820.5	24.0	24.0	0.681	0.681	0.442	0.442	
			Edge 3	580	820.5	24.0	24.0	0.252	0.252	0.125	0.125	
			Edge 4	476	817.9	24.0	24.0	0.900	0.900	0.595	0.595	
				580	820.5	24.0	24.0	0.912	0.912	0.602	0.602	
				670	822.8	24.0	24.0	0.914	0.914	0.604	0.604	

10.9. CDMA BC15**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	450	1732.5	22.5	22.5	0.604	0.604	0.339	0.339	
			Left Tilt	450	1732.5	22.5	22.5	0.624	0.624	0.338	0.338	
			Right Touch	25	1711.3	22.5	22.5	0.766	0.766	0.397	0.397	
				450	1732.5	22.5	22.5	0.939	0.939	0.484	0.484	
			Right Tilt	875	1753.8	22.5	22.5	0.976	0.976	0.500	0.500	
				450	1732.5	22.5	22.5	0.793	0.793	0.412	0.412	
	1xEVDO (Rel. 0)	0	Left Touch	450	1732.5	22.5	22.5	0.562	0.562	0.314	0.314	
			Left Tilt	450	1732.5	22.5	22.5	0.603	0.603	0.326	0.326	
			Right Touch	25	1711.3	22.5	22.5	0.696	0.696	0.361	0.361	
				450	1732.5	22.5	22.5	0.877	0.877	0.453	0.453	
			Right Tilt	875	1753.8	22.5	22.5	0.958	0.958	0.491	0.491	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	25	1711.3	23.7	23.7	0.692	0.692	0.384	0.384	
				450	1732.5	23.7	23.7	0.828	0.828	0.459	0.459	
				875	1753.8	23.7	23.7	0.972	0.972	0.537	0.537	
			Front	450	1732.5	23.7	23.7	0.556	0.556	0.320	0.320	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	450	1732.5	23.7	23.7	0.517	0.517	0.233	0.233	
			Edge 2	450	1732.5	23.7	23.7	0.110	0.110	0.062	0.062	
			Edge 4	450	1732.5	23.7	23.7	0.433	0.433	0.232	0.232	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	450	1732.5	22.0	22.0	0.619	0.619	0.417	0.417	
			Left Tilt	450	1732.5	22.0	22.0	0.414	0.414	0.248	0.248	
			Right Touch	25	1711.3	22.0	22.0	0.858	0.858	0.543	0.543	
				450	1732.5	22.0	22.0	1.000	1.000	0.629	0.629	
			Right Tilt	875	1753.8	22.0	22.0	1.140	1.140	0.703	0.703	17
				450	1732.5	22.0	22.0	0.417	0.417	0.253	0.253	
	1xEVDO (Rel. 0)	0	Left Touch	450	1732.5	22.0	22.0	0.603	0.603	0.401	0.401	
			Left Tilt	450	1732.5	22.0	22.0	0.398	0.398	0.238	0.238	
			Right Touch	25	1711.3	22.0	22.0	0.780	0.780	0.492	0.492	
				450	1732.5	22.0	22.0	0.887	0.887	0.555	0.555	
			Right Tilt	875	1753.8	22.0	22.0	1.010	1.010	0.633	0.633	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	25	1711.3	19.7	19.7	1.120	1.120	0.572	0.572	
				450	1732.5	19.7	19.7	1.130	1.130	0.636	0.636	18
				875	1753.8	19.7	19.7	1.120	1.120	0.608	0.608	
			Front	25	1711.3	19.7	19.7	0.983	0.983	0.543	0.543	
				450	1732.5	19.7	19.7	0.971	0.971	0.543	0.543	
				875	1753.8	19.7	19.7	0.956	0.956	0.535	0.535	
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	450	1732.5	19.7	19.7	0.711	0.711	0.388	0.388	
			Edge 3	450	1732.5	19.7	19.7	0.771	0.771	0.367	0.367	
			Edge 4	450	1732.5	19.7	19.7	0.063	0.063	0.035	0.035	

10.10. LTE Band 2 (20MHz Bandwidth)**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	18900	1880.0	1	49	21.0	21.0	0.552	0.552	0.294	0.294	
						50	24	20.0	20.0	0.433	0.433	0.230	0.230	
			Left Tilt	18900	1880.0	1	49	21.0	21.0	0.648	0.648	0.348	0.348	
						50	24	20.0	20.0	0.503	0.503	0.269	0.269	
			Right Touch	18700	1860.0	1	49	21.0	21.0	0.997	0.997	0.530	0.530	
						50	24	20.0	20.0	0.840	0.840	0.445	0.445	
				18900	1880.0	1	49	21.0	21.0	0.976	0.976	0.510	0.510	
						50	24	20.0	20.0	0.867	0.867	0.457	0.457	
						100	0	20.0	20.0	0.805	0.805	0.414	0.414	
				19100	1900.0	1	49	21.0	21.0	0.996	0.996	0.524	0.524	
						50	24	20.0	20.0	0.840	0.840	0.439	0.439	
			Right Tilt	18700	1860.0	1	49	21.0	21.0	0.859	0.859	0.463	0.463	
				18900	1880.0	1	49	21.0	21.0	0.879	0.879	0.463	0.463	
						50	24	20.0	20.0	0.669	0.669	0.346	0.346	
				19100	1900.0	1	49	21.0	21.0	0.855	0.855	0.446	0.446	
Body-worn & Hotspot	QPSK	5	Rear	18700	1860.0	1	49	21.5	21.0	0.883	0.991	0.480	0.539	
				18900	1880.0	1	49	21.5	21.0	0.865	0.971	0.462	0.518	
						50	24	20.5	20.0	0.664	0.745	0.346	0.388	
			Front	18900	1880.0	1	49	21.5	21.0	0.523	0.587	0.283	0.318	
						50	24	20.5	20.0	0.432	0.485	0.241	0.270	
Hotspot	QPSK	5	Edge 1	18900	1880.0	1	49	21.5	21.0	0.480	0.539	0.198	0.222	
						50	24	20.5	20.0	0.395	0.443	0.163	0.183	
			Edge 2	18900	1880.0	1	49	21.5	21.0	0.244	0.274	0.124	0.139	
						50	24	20.5	20.0	0.212	0.238	0.108	0.121	
			Edge 4	18900	1880.0	1	49	21.5	21.0	0.606	0.680	0.314	0.352	
						50	24	20.5	20.0	0.544	0.610	0.279	0.313	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	18900	1880.0	1	49	22.7	22.7	0.752	0.752	0.494	0.494	
						50	24	21.7	21.7	0.622	0.622	0.407	0.407	
			Left Tilt	18900	1880.0	1	49	22.7	22.7	0.405	0.405	0.233	0.233	
						50	24	21.7	21.7	0.334	0.334	0.191	0.191	
			Right Touch	18700	1860.0	1	49	22.7	22.7	1.110	1.110	0.670	0.670	
						50	24	21.7	21.7	0.923	0.923	0.556	0.556	
				18900	1880.0	1	49	22.7	22.7	1.120	1.120	0.671	0.671	19
						50	24	21.7	21.7	0.959	0.959	0.570	0.570	
						100	0	21.7	21.7	1.050	1.050	0.636	0.636	
				19100	1900.0	1	49	22.7	22.7	1.060	1.060	0.629	0.629	
						50	24	21.7	21.7	0.932	0.932	0.549	0.549	
			Right Tilt	18900	1880.0	1	49	22.7	22.7	0.373	0.373	0.223	0.223	
						50	24	21.7	21.7	0.298	0.298	0.179	0.179	
Body-worn & Hotspot	QPSK	5	Rear	18700	1860.0	1	49	18.7	18.7	1.040	1.040	0.493	0.493	
						50	24	17.7	17.7	0.809	0.809	0.390	0.390	
				18900	1880.0	1	49	18.7	18.7	1.080	1.080	0.515	0.515	20
						50	24	17.7	17.7	0.823	0.823	0.394	0.394	
						100	0	17.7	17.7	0.923	0.923	0.430	0.430	
				19100	1900.0	1	49	18.7	18.7	1.040	1.040	0.495	0.495	
						50	24	17.7	17.7	0.813	0.813	0.388	0.388	
			Front	18900	1880.0	1	49	18.7	18.7	0.633	0.633	0.323	0.323	
						50	24	17.7	17.7	0.604	0.604	0.324	0.324	
			Hotspot	QPSK	5	Edge 2	18900	1880.0	1	49	18.7	18.7	0.498	0.498
50	24	17.7							17.7	0.438	0.438	0.229	0.229	
Edge 3	18900	1880.0				1	49	18.7	18.7	0.713	0.713	0.341	0.341	
						50	24	17.7	17.7	0.672	0.672	0.322	0.322	
Edge 4	18900	1880.0				1	49	18.7	18.7	0.049	0.049	0.024	0.024	
						50	24	17.7	17.7	0.025	0.025	0.120	0.120	

10.11. LTE Band 4 (20MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	22.5	22.5	0.629	0.629	0.354	0.354	
						50	24	21.5	21.5	0.480	0.480	0.272	0.272	
			Left Tilt	20175	1732.5	1	49	22.5	22.5	0.688	0.688	0.376	0.376	
						50	24	21.5	21.5	0.577	0.577	0.318	0.318	
			Right Touch	20050	1720.0	1	49	22.5	22.5	0.827	0.827	0.426	0.426	
				20175	1732.5	1	49	22.5	22.5	0.961	0.961	0.495	0.495	
						50	24	21.5	21.5	0.797	0.797	0.418	0.418	
				20300	1745.0	1	49	22.5	22.5	0.966	0.966	0.503	0.503	
			Right Tilt	20175	1732.5	1	49	22.5	22.5	0.795	0.795	0.413	0.413	
						50	24	21.5	21.5	0.703	0.703	0.369	0.369	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	23.4	23.4	0.702	0.702	0.382	0.382	
						50	24	22.4	22.4	0.567	0.567	0.305	0.305	
			Front	20175	1732.5	1	49	23.4	23.4	0.479	0.479	0.269	0.269	
						50	24	22.4	22.4	0.387	0.387	0.217	0.217	
Hotspot	QPSK	5	Edge 1	20175	1732.5	1	49	23.4	23.4	0.414	0.414	0.186	0.186	
						50	24	22.4	22.4	0.283	0.283	0.125	0.125	
			Edge 2	20175	1732.5	1	49	23.4	23.4	0.101	0.101	0.057	0.057	
						50	24	22.4	22.4	0.081	0.081	0.045	0.045	
			Edge 4	20175	1732.5	1	49	23.4	23.4	0.071	0.071	0.038	0.038	
						50	24	22.4	22.4	0.067	0.067	0.036	0.036	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	23.0	23.0	0.654	0.654	0.437	0.437	
						50	24	22.0	22.0	0.528	0.528	0.352	0.352	
			Left Tilt	20175	1732.5	1	49	23.0	23.0	0.342	0.342	0.204	0.204	
						50	24	22.0	22.0	0.279	0.279	0.167	0.167	
			Right Touch	20050	1720.0	1	49	23.0	23.0	1.040	1.040	0.658	0.658	
						50	24	22.0	22.0	0.857	0.857	0.540	0.540	
				20175	1732.5	1	49	23.0	23.0	1.050	1.050	0.661	0.661	
						50	24	22.0	22.0	0.876	0.876	0.550	0.550	
						100	0	22.0	22.0	0.874	0.874	0.546	0.546	
				20300	1745.0	1	49	23.0	23.0	1.110	1.110	0.696	0.696	21
						50	24	22.0	22.0	0.864	0.864	0.543	0.543	
			Right Tilt	20175	1732.5	1	49	23.0	23.0	0.367	0.367	0.226	0.226	
						50	24	22.0	22.0	0.306	0.306	0.187	0.187	
Body-worn & Hotspot	QPSK	5	Rear	20050	1720.0	1	49	20.5	20.0	0.911	1.022	0.508	0.570	
						50	24	19.5	19.0	0.879	0.986	0.477	0.535	
				20175	1732.5	1	49	20.5	20.0	0.902	1.012	0.500	0.561	
						50	24	19.5	19.0	0.776	0.871	0.419	0.470	
						100	0	19.5	19.0	0.784	0.880	0.435	0.488	
				20300	1745.0	1	49	20.5	20.0	0.975	1.094	0.532	0.597	22
						50	24	19.5	19.0	0.774	0.868	0.436	0.489	
			Front	20050	1720.0	1	49	20.5	20.0	0.834	0.936	0.452	0.507	
						50	24	19.5	19.0	0.674	0.756	0.372	0.417	
				20175	1732.5	1	49	20.5	20.0	0.812	0.911	0.447	0.502	
						50	24	19.5	19.0	0.725	0.813	0.393	0.441	
						100	0	19.5	19.0	0.673	0.755	0.377	0.423	
				20300	1745.0	1	49	20.5	20.0	0.845	0.948	0.461	0.517	
						50	24	19.5	19.0	0.683	0.766	0.383	0.430	
Hotspot	QPSK	5	Edge 2	20175	1732.5	1	49	20.5	20.0	0.582	0.653	0.319	0.358	
						50	24	19.5	19.0	0.466	0.523	0.256	0.287	
			Edge 3	20175	1732.5	1	49	20.5	20.0	0.643	0.721	0.306	0.343	
						50	24	19.5	19.0	0.588	0.660	0.283	0.318	
			Edge 4	20175	1732.5	1	49	20.5	20.0	0.045	0.051	0.023	0.026	
						50	24	19.5	19.0	0.039	0.043	0.022	0.024	

10.12. LTE Band 5 (10MHz Bandwidth)**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20525	836.5	1	24	23.7	23.7	0.616	0.616	0.450	0.450	
						25	12	22.7	22.7	0.507	0.507	0.371	0.371	
			Left Tilt	20525	836.5	1	24	23.7	23.7	0.415	0.415	0.242	0.242	
						25	12	22.7	22.7	0.320	0.320	0.186	0.186	
			Right Touch	20525	836.5	1	24	23.7	23.7	0.533	0.533	0.342	0.342	
						25	12	22.7	22.7	0.434	0.434	0.279	0.279	
			Right Tilt	20525	836.5	1	24	23.7	23.7	0.380	0.380	0.212	0.212	
						25	12	22.7	22.7	0.354	0.354	0.137	0.137	
Body-worn & Hotspot	QPSK	5	Rear	20525	836.5	1	24	23.7	23.7	0.371	0.371	0.253	0.253	
						25	12	22.7	22.7	0.309	0.309	0.212	0.212	
			Front	20525	836.5	1	24	23.7	23.7	0.300	0.300	0.202	0.202	
						25	12	22.7	22.7	0.240	0.240	0.163	0.163	
Hotspot	QPSK	5	Edge 1	20525	836.5	1	24	23.7	23.7	0.204	0.204	0.098	0.098	
						25	12	22.7	22.7	0.176	0.176	0.083	0.083	
			Edge 2	20525	836.5	1	24	23.7	23.7	0.242	0.242	0.159	0.159	
						25	12	22.7	22.7	0.212	0.212	0.139	0.139	
			Edge 4	20525	836.5	1	24	23.7	23.7	0.142	0.142	0.086	0.086	
						25	12	22.7	22.7	0.103	0.103	0.063	0.063	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20525	836.5	1	24	24.0	24.0	0.634	0.634	0.486	0.486	23
						25	12	23.0	23.0	0.483	0.483	0.368	0.368	
			Left Tilt	20525	836.5	1	24	24.0	24.0	0.263	0.263	0.205	0.205	
						25	12	23.0	23.0	0.207	0.207	0.160	0.160	
			Right Touch	20525	836.5	1	24	24.0	24.0	0.584	0.584	0.429	0.429	
						25	12	23.0	23.0	0.465	0.465	0.343	0.343	
			Right Tilt	20525	836.5	1	24	24.0	24.0	0.287	0.287	0.219	0.219	
						25	12	23.0	23.0	0.234	0.234	0.178	0.178	
Body-worn & Hotspot	QPSK	5	Rear	20450	829.0	1	24	23.3	23.3	1.080	1.080	0.641	0.641	
						25	12	22.3	22.3	0.847	0.847	0.507	0.507	
				20525	836.5	1	24	23.3	23.3	1.140	1.140	0.668	0.668	
						25	12	22.3	22.3	0.891	0.891	0.536	0.536	
			Front	20600	844.0	1	24	23.3	23.3	1.140	1.140	0.678	0.678	24
						25	12	22.3	22.3	0.883	0.883	0.523	0.523	
				20525	836.5	1	24	23.3	23.3	0.769	0.769	0.475	0.475	
						25	12	22.3	22.3	0.587	0.587	0.376	0.376	
Hotspot	QPSK	5	Edge 2	20525	836.5	1	24	23.3	23.3	0.575	0.575	0.365	0.365	
						25	12	22.3	22.3	0.472	0.472	0.302	0.302	
			Edge 3	20525	836.5	1	24	23.3	23.3	0.423	0.423	0.205	0.205	
						25	12	22.3	22.3	0.348	0.348	0.170	0.170	
			Edge 4	20450	829.0	1	24	23.3	23.3	0.830	0.830	0.545	0.545	
						1	24	23.3	23.3	0.844	0.844	0.556	0.556	
				20525	836.5	25	12	22.3	22.3	0.739	0.739	0.481	0.481	
						1	24	23.3	23.3	0.849	0.849	0.558	0.558	

10.13. LTE Band 12 (10MHz Bandwidth)**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24	23.7	23.7	0.550	0.550	0.408	0.408	25
						25	12	22.7	22.7	0.440	0.440	0.327	0.327	
			Left Tilt	23095	707.5	1	24	23.7	23.7	0.492	0.492	0.306	0.306	
						25	12	22.7	22.7	0.385	0.385	0.240	0.240	
			Right Touch	23095	707.5	1	24	23.7	23.7	0.474	0.474	0.281	0.281	
						25	12	22.7	22.7	0.383	0.383	0.244	0.244	
			Right Tilt	23095	707.5	1	24	23.7	23.7	0.503	0.503	0.295	0.295	
						25	12	22.7	22.7	0.411	0.411	0.239	0.239	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	23.7	23.7	0.333	0.333	0.193	0.193	
						25	12	22.7	22.7	0.264	0.264	0.153	0.153	
			Front	23095	707.5	1	24	23.7	23.7	0.290	0.290	0.167	0.167	
						25	12	22.7	22.7	0.230	0.230	0.132	0.132	
Hotspot	QPSK	5	Edge 1	23095	707.5	1	24	23.7	23.7	0.192	0.192	0.094	0.094	
						25	12	22.7	22.7	0.147	0.147	0.071	0.071	
			Edge 2	23095	707.5	1	24	23.7	23.7	0.287	0.287	0.195	0.195	
						25	12	22.7	22.7	0.221	0.221	0.150	0.150	
			Edge 4	23095	707.5	1	24	23.7	23.7	0.181	0.181	0.116	0.116	
						25	12	22.7	22.7	0.131	0.131	0.085	0.085	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24	24.0	24.0	0.360	0.360	0.276	0.276	
						25	12	23.0	23.0	0.291	0.291	0.223	0.223	
			Left Tilt	23095	707.5	1	24	24.0	24.0	0.203	0.203	0.158	0.158	
						25	12	23.0	23.0	0.162	0.162	0.126	0.126	
			Right Touch	23095	707.5	1	24	24.0	24.0	0.361	0.361	0.261	0.261	
						25	12	23.0	23.0	0.288	0.288	0.209	0.209	
			Right Tilt	23095	707.5	1	24	24.0	24.0	0.218	0.218	0.168	0.168	
						25	12	23.0	23.0	0.178	0.178	0.137	0.137	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	24.0	24.0	0.688	0.688	0.456	0.456	26
						25	12	23.0	23.0	0.540	0.540	0.358	0.358	
			Front	23095	707.5	1	24	24.0	24.0	0.612	0.612	0.448	0.448	
						25	12	23.0	23.0	0.484	0.484	0.354	0.354	
Hotspot	QPSK	5	Edge 2	23095	707.5	1	24	24.0	24.0	0.417	0.417	0.270	0.270	
						25	12	23.0	23.0	0.342	0.342	0.221	0.221	
			Edge 3	23095	707.5	1	24	24.0	24.0	0.234	0.234	0.115	0.115	
						25	12	23.0	23.0	0.189	0.189	0.093	0.093	
			Edge 4	23095	707.5	1	24	24.0	24.0	0.498	0.498	0.337	0.337	
						25	12	23.0	23.0	0.410	0.410	0.276	0.276	

10.14. LTE Band 13 (10MHz Bandwidth)**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	23.7	23.7	0.545	0.545	0.398	0.398	27
						25	12	22.7	22.7	0.437	0.437	0.319	0.319	
			Left Tilt	23230	782.0	1	24	23.7	23.7	0.422	0.422	0.257	0.257	
						25	12	22.7	22.7	0.340	0.340	0.207	0.207	
			Right Touch	23230	782.0	1	24	23.7	23.7	0.440	0.440	0.292	0.292	
						25	12	22.7	22.7	0.351	0.351	0.230	0.230	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	23.7	23.7	0.330	0.330	0.235	0.235	
						25	12	22.7	22.7	0.256	0.256	0.182	0.182	
			Front	23230	782.0	1	24	23.7	23.7	0.265	0.265	0.195	0.195	
						25	12	22.7	22.7	0.174	0.174	0.103	0.103	
Hotspot	QPSK	5	Edge 1	23230	782.0	1	24	23.7	23.7	0.159	0.159	0.077	0.077	
						25	12	22.7	22.7	0.112	0.112	0.054	0.054	
			Edge 2	23230	782.0	1	24	23.7	23.7	0.400	0.400	0.263	0.263	
						25	12	22.7	22.7	0.328	0.328	0.216	0.216	
			Edge 4	23230	782.0	1	24	23.7	23.7	0.146	0.146	0.094	0.094	
						25	12	22.7	22.7	0.117	0.117	0.075	0.075	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	24.0	24.0	0.444	0.444	0.335	0.335	
						25	12	23.0	23.0	0.360	0.360	0.272	0.272	
			Left Tilt	23230	782.0	1	24	24.0	24.0	0.252	0.252	0.194	0.194	
						25	12	23.0	23.0	0.205	0.205	0.158	0.158	
			Right Touch	23230	782.0	1	24	24.0	24.0	0.458	0.458	0.328	0.328	
						25	12	23.0	23.0	0.374	0.374	0.266	0.266	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	24.0	24.0	0.866	0.866	0.501	0.501	28
						25	12	23.0	23.0	0.708	0.708	0.403	0.403	
			Front	23230	782.0	1	24	24.0	24.0	0.593	0.593	0.431	0.431	
						25	12	23.0	23.0	0.489	0.489	0.355	0.355	
Hotspot	QPSK	5	Edge 2	23230	782.0	1	24	24.0	24.0	0.412	0.412	0.267	0.267	
						25	12	23.0	23.0	0.342	0.342	0.221	0.221	
			Edge 3	23230	782.0	1	24	24.0	24.0	0.320	0.320	0.153	0.153	
						25	12	23.0	23.0	0.262	0.262	0.125	0.125	
			Edge 4	23230	782.0	1	24	24.0	24.0	0.663	0.663	0.439	0.439	
						25	12	23.0	23.0	0.548	0.548	0.362	0.362	

10.15. LTE Band 17 (10MHz Bandwidth)**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23790	710.0	1	24	23.7	23.7	0.588	0.588	0.410	0.410	29
						25	12	22.7	22.7	0.463	0.463	0.323	0.323	
			Left Tilt	23790	710.0	1	24	23.7	23.7	0.567	0.567	0.348	0.348	
						25	12	22.7	22.7	0.452	0.452	0.277	0.277	
			Right Touch	23790	710.0	1	24	23.7	23.7	0.549	0.549	0.351	0.351	
						25	12	22.7	22.7	0.449	0.449	0.287	0.287	
Body-worn & Hotspot	QPSK	5	Rear	23790	710.0	1	24	23.7	23.7	0.344	0.344	0.239	0.239	
						25	12	22.7	22.7	0.269	0.269	0.187	0.187	
			Front	23790	710.0	1	24	23.7	23.7	0.268	0.268	0.156	0.156	
						25	12	22.7	22.7	0.223	0.223	0.129	0.129	
Hotspot	QPSK	5	Edge 1	23790	710.0	1	24	23.7	23.7	0.175	0.175	0.086	0.086	
						25	12	22.7	22.7	0.134	0.134	0.066	0.066	
			Edge 2	23790	710.0	1	24	23.7	23.7	0.276	0.276	0.186	0.186	
						25	12	22.7	22.7	0.219	0.219	0.147	0.147	
			Edge 4	23790	710.0	1	24	23.7	23.7	0.160	0.160	0.102	0.102	
						25	12	22.7	22.7	0.123	0.123	0.079	0.079	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23790	710.0	1	24	24.0	24.0	0.394	0.394	0.299	0.299	
						25	12	23.0	23.0	0.314	0.314	0.239	0.239	
			Left Tilt	23790	710.0	1	24	24.0	24.0	0.220	0.220	0.171	0.171	
						25	12	23.0	23.0	0.176	0.176	0.137	0.137	
			Right Touch	23790	710.0	1	24	24.0	24.0	0.387	0.387	0.283	0.283	
						25	12	23.0	23.0	0.308	0.308	0.226	0.226	
Body-worn & Hotspot	QPSK	5	Rear	23790	710.0	1	24	24.0	24.0	0.721	0.721	0.468	0.468	30
						25	12	23.0	23.0	0.587	0.587	0.381	0.381	
			Front	23790	710.0	1	24	24.0	24.0	0.635	0.635	0.462	0.462	
						25	12	23.0	23.0	0.501	0.501	0.365	0.365	
Hotspot	QPSK	5	Edge 2	23790	710.0	1	24	24.0	24.0	0.426	0.426	0.276	0.276	
						25	12	23.0	23.0	0.339	0.339	0.220	0.220	
			Edge 3	23790	710.0	1	24	24.0	24.0	0.229	0.229	0.113	0.113	
						25	12	23.0	23.0	0.183	0.183	0.090	0.090	
			Edge 4	23790	710.0	1	24	24.0	24.0	0.532	0.532	0.358	0.358	
						25	12	23.0	23.0	0.430	0.430	0.289	0.289	

10.16. LTE Band 25 (20MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26365	1882.5	1	49	21.0	21.0	0.585	0.585	0.316	0.316	
						50	24	20.0	20.0	0.442	0.442	0.232	0.232	
			Left Tilt	26365	1882.5	1	49	21.0	21.0	0.652	0.652	0.353	0.353	
						50	24	20.0	20.0	0.519	0.519	0.284	0.284	
			Right Touch	26140	1860.0	1	49	21.0	21.0	0.958	0.958	0.503	0.503	
				26365	1882.5	1	49	21.0	21.0	0.957	0.957	0.516	0.516	
						50	24	20.0	20.0	0.758	0.758	0.394	0.394	
			Right Tilt	26590	1905.0	1	49	21.0	21.0	0.946	0.946	0.488	0.488	
				26140	1860.0	1	49	21.0	21.0	0.910	0.910	0.491	0.491	
						1	49	21.0	21.0	0.801	0.801	0.423	0.423	
						50	24	20.0	20.0	0.662	0.662	0.345	0.345	
				26590	1905.0	1	49	21.0	21.0	0.829	0.829	0.430	0.430	
Body-worn & Hotspot	QPSK	5	Rear	26140	1860.0	1	49	21.0	21.0	0.974	0.974	0.525	0.525	
				26365	1882.5	1	49	21.0	21.0	0.960	0.960	0.501	0.501	
						50	24	20.0	20.0	0.778	0.778	0.409	0.409	
			Front	26590	1905.0	1	49	21.0	21.0	0.943	0.943	0.485	0.485	
				26365	1882.5	1	49	21.0	21.0	0.643	0.643	0.344	0.344	
						50	24	20.0	20.0	0.507	0.507	0.274	0.274	
Hotspot	QPSK	5	Edge 1	26365	1882.5	1	49	21.0	21.0	0.526	0.526	0.215	0.215	
						50	24	20.0	20.0	0.431	0.431	0.175	0.175	
			Edge 2	26365	1882.5	1	49	21.0	21.0	0.251	0.251	0.128	0.128	
						50	24	20.0	20.0	0.210	0.210	0.106	0.106	
			Edge 4	26365	1882.5	1	49	21.0	21.0	0.625	0.625	0.324	0.324	
						50	24	20.0	20.0	0.547	0.547	0.280	0.280	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26140	1860.0	1	49	22.0	22.0	0.890	0.890	0.573	0.573	
				26365	1882.5	1	49	21.0	21.0	0.876	0.876	0.562	0.562	
						50	24	22.0	22.0	0.701	0.701	0.446	0.446	
			Left Tilt	26590	1905.0	1	49	21.0	21.0	0.819	0.819	0.524	0.524	
				26365	1882.5	1	49	22.0	22.0	0.451	0.451	0.264	0.264	
						50	24	21.0	21.0	0.415	0.415	0.171	0.171	
			Right Touch	26140	1860.0	1	49	22.0	22.0	1.120	1.120	0.669	0.669	31
						50	24	21.0	21.0	0.857	0.857	0.512	0.512	
				26365	1882.5	1	49	22.0	22.0	1.080	1.080	0.644	0.644	
						50	24	21.0	21.0	0.915	0.915	0.544	0.544	
						100	0	21.0	21.0	0.887	0.887	0.529	0.529	
				26590	1905.0	1	49	22.0	22.0	1.080	1.080	0.636	0.636	
			Right Tilt			50	24	21.0	21.0	0.891	0.891	0.522	0.522	
				26365	1882.5	1	49	22.0	22.0	0.363	0.363	0.223	0.223	
						50	24	21.0	21.0	0.291	0.291	0.179	0.179	
Body-worn & Hotspot	QPSK	5	Rear	26140	1860.0	1	49	18.7	18.7	1.060	1.060	0.510	0.510	
						50	24	17.7	17.7	0.941	0.941	0.453	0.453	
				26365	1882.5	1	49	18.7	18.7	1.030	1.030	0.482	0.482	
						50	24	17.7	17.7	0.903	0.903	0.433	0.433	
						100	0	17.7	17.7	0.909	0.909	0.435	0.435	
				26590	1905.0	1	49	18.7	18.7	1.080	1.080	0.506	0.506	
			Front			50	24	17.7	17.7	0.861	0.861	0.402	0.402	32
				26365	1882.5	1	49	18.7	18.7	0.619	0.619	0.346	0.346	
						50	24	17.7	17.7	0.543	0.543	0.301	0.301	
Hotspot	QPSK	5	Edge 2	26365	1882.5	1	49	18.7	18.7	0.681	0.681	0.350	0.350	
						50	24	17.7	17.7	0.532	0.532	0.271	0.271	
			Edge 3	26365	1882.5	1	49	18.7	18.7	0.740	0.740	0.357	0.357	
						50	24	17.7	17.7	0.534	0.534	0.254	0.254	
			Edge 4	26365	1882.5	1	49	18.7	18.7	0.035	0.035	0.017	0.017	
						50	24	17.7	17.7	0.023	0.023	0.010	0.010	

10.17. LTE Band 26 (10MHz Bandwidth)**UAT**

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	23.7	23.7	0.751	0.751	0.490	0.490	33
						25	12	22.7	22.7	0.558	0.558	0.370	0.370	
			Left Tilt	26865	831.5	1	24	23.7	23.7	0.550	0.550	0.303	0.303	
						25	12	22.7	22.7	0.458	0.458	0.256	0.256	
			Right Touch	26865	831.5	1	24	23.7	23.7	0.543	0.543	0.358	0.358	
						25	12	22.7	22.7	0.430	0.430	0.287	0.287	
			Right Tilt	26865	831.5	1	24	23.7	23.7	0.423	0.423	0.248	0.248	
						25	12	22.7	22.7	0.312	0.312	0.240	0.240	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	23.7	23.7	0.328	0.328	0.226	0.226	
						25	12	22.7	22.7	0.268	0.268	0.183	0.183	
			Front	26865	831.5	1	24	23.7	23.7	0.266	0.266	0.181	0.181	
						25	12	22.7	22.7	0.214	0.214	0.144	0.144	
Hotspot	QPSK	5	Edge 1	26865	831.5	1	24	23.7	23.7	0.194	0.194	0.092	0.092	
						25	12	22.7	22.7	0.146	0.146	0.069	0.069	
			Edge 2	26865	831.5	1	24	23.7	23.7	0.330	0.330	0.218	0.218	
						25	12	22.7	22.7	0.250	0.250	0.165	0.165	
			Edge 4	26865	831.5	1	24	23.7	23.7	0.096	0.096	0.058	0.058	
						25	12	22.7	22.7	0.075	0.075	0.045	0.045	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	24.0	24.0	0.680	0.680	0.516	0.516	
						25	12	23.0	23.0	0.530	0.530	0.400	0.400	
			Left Tilt	26865	831.5	1	24	24.0	24.0	0.375	0.375	0.290	0.290	
						25	12	23.0	23.0	0.289	0.289	0.224	0.224	
			Right Touch	26865	831.5	1	24	24.0	24.0	0.653	0.653	0.485	0.485	
						25	12	23.0	23.0	0.483	0.483	0.359	0.359	
			Right Tilt	26865	831.5	1	24	24.0	24.0	0.451	0.451	0.348	0.348	
						25	12	23.0	23.0	0.300	0.300	0.231	0.231	
Body-worn & Hotspot	QPSK	5	Rear	26740	819.0	1	24	24.0	24.0	0.956	0.956	0.625	0.625	
						25	12	23.0	23.0	0.752	0.752	0.469	0.469	
				26865	831.5	1	24	24.0	24.0	1.020	1.020	0.627	0.627	
						25	12	23.0	23.0	0.828	0.828	0.508	0.508	
			Front	26990	844.0	50	0	23.0	23.0	0.835	0.835	0.514	0.514	
						1	24	24.0	24.0	1.070	1.070	0.662	0.662	34
				26865	831.5	25	12	23.0	23.0	0.848	0.848	0.522	0.522	
						1	24	24.0	24.0	0.785	0.785	0.585	0.585	
Hotspot	QPSK	5	Edge 2	26865	831.5	1	24	24.0	24.0	0.555	0.555	0.361	0.361	
						25	12	23.0	23.0	0.400	0.400	0.260	0.260	
			Edge 3	26865	831.5	1	24	24.0	24.0	0.367	0.367	0.178	0.178	
						25	12	23.0	23.0	0.287	0.287	0.139	0.139	
			Edge 4	26740	819.0	1	24	24.0	24.0	0.961	0.961	0.642	0.642	
						1	24	24.0	24.0	0.942	0.942	0.627	0.627	
				26865	831.5	25	12	23.0	23.0	0.722	0.722	0.479	0.479	
						1	24	24.0	24.0	0.921	0.921	0.612	0.612	

10.18. Wi-Fi (DTS Band)**Cell On**

Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4GHz	802.11b	Head	0	Left Touch	6	2437.0	0.172	13.0	12.6					
				Left Tilt	6	2437.0	0.149	13.0	12.6					
				Right Touch	6	2437.0	0.478	13.0	12.6	0.406	0.445	0.184	0.202	
				Right Tilt	6	2437.0	0.387	13.0	12.6	0.269	0.295	0.120	0.132	
		Body-worn & Hotspot & Airplay	5	Rear	6	2437.0	0.781	14.5	14.5	0.429	0.429	0.184	0.184	
				Front	6	2437.0	0.274	14.5	14.5					
				Edge 1	6	2437.0	0.132	14.5	14.5					
				Edge 2	6	2437.0	0.023	14.5	14.5					
				Edge 4	6	2437.0	0.298	14.5	14.5	0.264	0.264	0.127	0.127	

Cell Off

Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4GHz	802.11b	Head	0	Left Touch	6	2437.0	0.424	17.0	17.0					
				Left Tilt	6	2437.0	0.366	17.0	17.0					
				Right Touch	6	2437.0	1.390	17.0	17.0	1.150	1.150	0.500	0.500	35
				Right Tilt	11	2462.0		17.0	17.0	1.120	1.120	0.479	0.479	
		Body-worn & Hotspot & Airplay	5	Right Tilt	6	2437.0	1.000	17.0	17.0	0.644	0.644	0.294	0.294	
				Rear	6	2437.0	1.690	18.5	18.5	1.050	1.050	0.447	0.447	
					11	2462.0		18.5	18.4	1.130	1.156	0.478	0.489	36
				Front	6	2437.0	0.853	18.5	18.5	0.560	0.560	0.260	0.260	
				Edge 1	6	2437.0	0.403	18.5	18.5					
				Edge 2	6	2437.0	0.065	18.5	18.5					
				Edge 4	6	2437.0	0.778	18.5	18.5					

10.19. Wi-Fi (U-NII Band)**Cell On**

Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
5.2 GHz U-NII 1	802.11ac VHT80	Head	0	Left Touch	42	5210.0	0.626	13.0	13.0					
				Left Tilt	42	5210.0	0.596	13.0	13.0					
				Right Touch	42	5210.0	0.698	13.0	13.0	0.384	0.384	0.096	0.096	
				Right Tilt	42	5210.0	0.607	13.0	13.0					
5.3 GHz U-NII 2A	802.11ac VHT80	Body-worn & Airplay	5	Rear	58	5290.0	0.755	13.0	13.0	0.378	0.378	0.106	0.106	
				Front	58	5290.0	0.214	13.0	13.0					
				Edge 1	58	5290.0	0.112	13.0	13.0					
				Edge 4	58	5290.0	0.025	13.0	13.0					
Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
5.5 GHz U-NII 2C	802.11ac VHT80	Head	0	Left Touch	122	5610.0	0.607	12.0	12.0					
				Left Tilt	122	5610.0	0.588	12.0	12.0					
				Right Touch	122	5610.0	0.779	12.0	12.0	0.359	0.359	0.084	0.084	
				Right Tilt	122	5610.0	0.560	12.0	12.0					
		Body-worn & Airplay	5	Rear	122	5610.0	0.522	12.5	12.2	0.333	0.357	0.089	0.095	
				Front	122	5610.0	0.212	12.5	12.2					
				Edge 1	122	5610.0	0.081	12.5	12.2					
				Edge 4	122	5610.0	0.053	12.5	12.2					
5.8 GHz U-NII 3	802.11ac VHT80	Head	0	Left Touch	155	5775.0	0.553	12.0	12.0					
				Left Tilt	155	5775.0	0.615	12.0	12.0					
				Right Touch	155	5775.0	0.668	12.0	12.0					
				Right Tilt	155	5775.0	0.670	12.0	12.0	0.382	0.382	0.081	0.081	
		Body-worn & Airplay	5	Rear	155	5775.0	0.770	12.0	12.0	0.382	0.382	0.102	0.102	
				Front	155	5775.0	0.253	12.0	12.0					
				Edge 1	155	5775.0	0.100	12.0	12.0					
				Edge 4	155	5775.0	0.050	12.0	12.0					

Cell Off

Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
5.2 GHz U-NII 1	802.11n HT40	Head	0	Left Touch	46	5230.0	1.260	18.0	18.0	0.672	0.672	0.202	0.202	37
				Left Tilt	46	5230.0	1.200	18.0	18.0					
				Right Touch	38	5190.0		16.0	16.0	0.709	0.709	0.190	0.190	
				Right Tilt	46	5230.0	2.050	18.0	18.0	1.130	1.130	0.316	0.316	
					38	5190.0		16.0	16.0	0.658	0.658	0.158	0.158	
					46	5230.0	1.590	18.0	18.0	1.100	1.100	0.271	0.271	
5.3 GHz U-NII 2A	802.11n HT40	Body-worn & Airplay	5	Rear	54	5270.0	2.160	17.5	17.5	1.080	1.080	0.296	0.296	38
					62	5310.0		17.0	17.0	0.735	0.735	0.194	0.194	
				Front	54	5270.0	1.090	17.5	17.5	0.538	0.538	0.156	0.156	
				Edge 1	54	5270.0	0.285	17.5	17.5					
				Edge 4	54	5270.0	0.202	17.5	17.5					
Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
5.5 GHz U-NII 2C	802.11ac VHT80	Head	0	Left Touch	122	5610.0	1.300	16.5	16.5					
				Left Tilt	122	5610.0	1.340	16.5	16.5					
				Right Touch	122	5610.0	2.190	16.5	16.5	0.925	0.925	0.197	0.197	
				Right Tilt	138	5690.0		16.5	16.5	1.060	1.060	0.248	0.248	
					122	5610.0	1.440	16.5	16.5	0.799	0.799	0.171	0.171	
		Body-worn & Airplay	5	Rear	122	5610.0	2.260	17.0	17.0	1.190	1.190	0.350	0.350	40
					138	5690.0		17.0	17.0	0.882	0.882	0.252	0.252	
				Front	122	5610.0	1.050	17.0	17.0	0.462	0.462	0.120	0.120	
				Edge 1	122	5610.0	0.319	17.0	17.0					
				Edge 4	122	5610.0	0.190	17.0	17.0					
Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
5.8 GHz U-NII 3	802.11n HT40	Head	0	Left Touch	159	5795.0	0.899	16.5	16.5	0.482	0.482	0.144	0.144	
				Left Tilt	159	5795.0	0.874	16.5	16.5					
				Right Touch	151	5755.0		15.5	15.5	0.645	0.645	0.147	0.147	
					159	5795.0	1.690	16.5	16.5	1.170	1.170	0.276	0.276	
				Right Tilt	151	5755.0		15.5	15.5	0.576	0.576	0.131	0.131	
		Body-worn & Airplay	5	Rear	151	5755.0		15.5	15.5	0.770	0.770	0.195	0.195	42
					159	5795.0	2.220	17.0	17.0	1.170	1.170	0.300	0.300	
				Front	159	5795.0	0.553	17.0	17.0	0.273	0.273	0.067	0.067	
				Edge 1	159	5795.0	0.192	17.0	17.0					
				Edge 4	159	5795.0	0.156	17.0	17.0					

10.20. Wi-Fi Variant 2 Spotcheck

Band	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4	Head	802.11b 1Mbps	0	Right Touch	6	2437	17.0	17.0	1.100	1.100	0.504	0.504	
	Body & Hotspot	802.11b 1Mbps	5	Rear	11	2462	18.5	18.5	1.030	1.030	0.445	0.445	
5.2	Head	802.11n HT40	0	Right Touch	46	5230	18.0	18.0	1.070	1.070	0.280	0.280	
5.3	Body & Airplay	802.11n HT40	5	Rear	54	5270	17.5	17.5	1.070	1.070	0.293	0.293	
5.5	Head	802.11ac VHT80	0	Right Touch	138	5690	16.5	16.5	1.010	1.010	0.216	0.216	
	Body & Airplay	802.11ac VHT80	5	Rear	122	5610	17.0	17.0	1.160	1.160	0.339	0.339	
5.8	Head	802.11n HT40	0	Right Touch	159	5795	16.5	16.5	1.120	1.120	0.249	0.249	
	Body & Airplay	802.11n HT40	5	Rear	159	5795	17.0	17.0	1.140	1.140	0.302	0.302	

10.21. Bluetooth

Frequency Band	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4 GHz	Head	GFSK	0	Left Touch	39	2441.0	11.5	11.5	0.001	0.001	0.000	0.000	
				Left Tilt	39	2441.0	11.5	11.5	<0.001	<0.001	<0.001	<0.001	
				Right Touch	39	2441.0	11.5	11.5	0.046	0.046	0.017	0.017	43
				Right Tilt	39	2441.0	11.5	11.5	0.025	0.025	0.009	0.009	
	Body-worn	GFSK	5	Rear	39	2441.0	11.5	11.5	0.042	0.042	0.017	0.017	44
				Front	39	2441.0	11.5	11.5	0.022	0.022	0.008	0.008	

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 3 (1-g or 10-g respectively) or when the original or repeated measurement is ≥ 1.45 or 3.6 W/kg ($\sim 10\%$ from the 1-g or 10-g respective SAR limit).
- 4) Perform a third repeated measurement only if the original, first, or second repeated measurement is ≥ 1.5 or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 or 3 (1-g or 10-g respectively).

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	First Repeated	
						Measured SAR (W/kg)	Largest to Smallest SAR Ratio
700	LTE Band 12	Body & Hotspot	Rear	No	0.688	N/A	N/A
	LTE Band 13	Body & Hotspot	Rear	Yes	0.866	0.850	1.02
	LTE Band 17	Body & Hotspot	Rear	No	0.721	N/A	N/A
850	GSM 850	Body	Rear	No	1.120	N/A	N/A
	CDMA BC0	Body & Hotspot	Rear	No	1.110	N/A	N/A
	CDMA BC10	Body & Hotspot	Front	No	1.000	N/A	N/A
	WCDMA Band V	Body & Hotspot	Rear	No	1.130	N/A	N/A
	LTE Band 5	Body & Hotspot	Rear	Yes	1.140	1.120	1.02
	LTE Band 26	Body & Hotspot	Rear	No	1.070	N/A	N/A
1900	GSM 1900	Body & Hotspot	Rear	Yes	1.130	1.110	1.02
	CDMA BC1	Head	Right Touch	No	1.100	N/A	N/A
	WCDMA Band II	Head	Right Touch	No	1.120	N/A	N/A
	LTE Band 2	Head	Right Touch	No	1.120	N/A	N/A
	LTE Band 25	Head	Right Touch	No	1.120	N/A	N/A
1700	LTE Band 4	Head	Right Touch	No	1.110	N/A	N/A
	WCDMA Band IV	Head	Right Touch	No	1.120	N/A	N/A
	CDMA BC15	Head	Right Touch	Yes	1.140	1.070	1.07
2400	Wi-Fi 802.11b/g/n	Head	Right Touch	Yes	1.150	1.090	1.06
	BT	Head	Right Touch	No	0.046	N/A	N/A
5200	Wi-Fi 802.11a/n/ac	Head	Right Touch	Yes	1.130	1.120	1.01
5300	Wi-Fi 802.11a/n/ac	Body & Hotspot	Rear	Yes	1.08	1.06	1.02
5500	Wi-Fi 802.11a/n/ac	Body & Hotspot	Rear	Yes	1.19	1.18	1.01
5800	Wi-Fi 802.11a/n/ac	Body & Hotspot	Rear	Yes	1.17	0.996	1.17

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 or 3 (1-g or 10-g respectively).

12. Simultaneous Transmission SAR Analysis

KDB 447498 D01 General RF Exposure Guidance introduces a new formula for calculating the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

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

Where:

SAR₁ is the highest measured or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR₂ is the highest measured 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:

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

Simultaneous Transmission Condition

RF Exposure Condition	Item	Capable Transmit Configurations			
Head Body-worn Accessory Hotspot Airplay	1	WWAN	+	DTS	
	2	WWAN	+	U-NII	
	3	WWAN	+	Bluetooth	
	4	WWAN	+	U-NII	+ Bluetooth
	5			U-NII	+ Bluetooth
Notes:					
1. Only DTS supports Hotspot.					
2. GPRS/EDGE, W-CDMA, CDMA and LTE support Hotspot.					
3. VoIP is supported in GPRS/EDGE, W-CDMA, CDMA and LTE.					
4. DTS Radio cannot transmit simultaneously with Bluetooth Radio.					

12.1. Sum of the SAR for GSM850 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.912	0.445	0.384	0.001	1357	1296	0.913	1297
	Left Tilt	0.584	0.445	0.384	0.001	1029	0.968	0.585	0.969
	Right Touch	0.657	0.445	0.384	0.046	1102	1041	0.703	1087
	Right Tilt	0.534	0.295	0.382	0.025	0.829	0.916	0.559	0.941
Body-worn & Hotspot & Airplay	Rear	0.500	0.429	0.382	0.042	0.929	0.882	0.542	0.924
	Front	0.416	0.429	0.382	0.022	0.845	0.798	0.438	0.820
Hotspot & Airplay	Edge 1	0.233	0.429	0.382	N/A	0.662	0.615		
	Edge 2	0.554	0.429	0.382	N/A	0.983	0.936		
	Edge 4	0.260	0.264	0.382	N/A	0.524	0.642		

12.2. Sum of the SAR for GSM850 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.843	0.445	0.384	0.001	1288	1227	0.844	1228
	Left Tilt	0.509	0.445	0.384	0.001	0.954	0.893	0.510	0.894
	Right Touch	0.768	0.445	0.384	0.046	1213	1152	0.814	1198
	Right Tilt	0.536	0.295	0.382	0.025	0.831	0.918	0.561	0.943
Body-worn & Hotspot & Airplay	Rear	1147	0.429	0.382	0.042	1576	1529	1189	1571
	Front	0.888	0.429	0.382	0.022	1317	1270	0.910	1292
Hotspot & Airplay	Edge 2	0.718	0.429	0.382	N/A	1147	1100		
	Edge 3	0.473	0.429	0.382	N/A	0.902	0.855		
	Edge 4	0.952	0.264	0.382	N/A	1216	1334		

12.3. Sum of the SAR for GSM1900 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.517	0.445	0.384	0.001	0.962	0.901	0.518	0.902
	Left Tilt	0.624	0.445	0.384	0.001	1069	1008	0.625	1009
	Right Touch	0.945	0.445	0.384	0.046	1390	1329	0.991	1375
	Right Tilt	0.852	0.295	0.382	0.025	1147	1234	0.877	1259
Body-worn & Hotspot & Airplay	Rear	0.597	0.429	0.382	0.042	1026	0.979	0.639	1021
	Front	0.474	0.429	0.382	0.022	0.903	0.856	0.496	0.878
Hotspot & Airplay	Edge 1	0.434	0.429	0.382	N/A	0.863	0.816		
	Edge 2	0.169	0.429	0.382	N/A	0.598	0.551		
	Edge 4	0.476	0.264	0.382	N/A	0.740	0.858		

12.4. Sum of the SAR for GSM1900 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.460	0.445	0.384	0.001	0.905	0.844	0.461	0.845
	Left Tilt	0.297	0.445	0.384	0.001	0.742	0.681	0.298	0.682
	Right Touch	0.682	0.445	0.384	0.046	1127	1066	0.728	1112
	Right Tilt	0.309	0.295	0.382	0.025	0.604	0.691	0.334	0.716
Body-worn & Hotspot & Airplay	Rear	1130	0.429	0.382	0.042	1559	1512	1172	1554
	Front	0.649	0.429	0.382	0.022	1078	1031	0.671	1053
Hotspot & Airplay	Edge 2	0.571	0.429	0.382	N/A	1000	0.953		
	Edge 3	0.729	0.429	0.382	N/A	1158	1111		
	Edge 4	0.029	0.264	0.382	N/A	0.293	0.411		

12.5. Sum of the SAR for WCDMA Band V (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.888	0.445	0.384	0.001	1333	1272	0.889	1273
	Left Tilt	0.703	0.445	0.384	0.001	1148	1087	0.704	1088
	Right Touch	0.640	0.445	0.384	0.046	1085	1024	0.686	1070
	Right Tilt	0.578	0.295	0.382	0.025	0.873	0.960	0.603	0.985
Body-worn & Hotspot & Airplay	Rear	0.461	0.429	0.382	0.042	0.890	0.843	0.503	0.885
	Front	0.372	0.429	0.382	0.022	0.801	0.754	0.394	0.776
Hotspot & Airplay	Edge 1	0.231	0.429	0.382	N/A	0.660	0.613		
	Edge 2	0.571	0.429	0.382	N/A	1000	0.953		
	Edge 4	0.240	0.264	0.382	N/A	0.504	0.622		

12.6. Sum of the SAR for WCDMA Band V (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.919	0.445	0.384	0.001	1364	1303	0.920	1304
	Left Tilt	0.603	0.445	0.384	0.001	1048	0.987	0.604	0.988
	Right Touch	0.880	0.445	0.384	0.046	1325	1264	0.926	1310
	Right Tilt	0.653	0.295	0.382	0.025	0.948	1035	0.678	1060
Body-worn & Hotspot & Airplay	Rear	1.130	0.429	0.382	0.042	1559	1512	1.172	1554
	Front	0.845	0.429	0.382	0.022	1274	1227	0.867	1249
Hotspot & Airplay	Edge 2	0.645	0.429	0.382	N/A	1074	1027		
	Edge 3	0.381	0.429	0.382	N/A	0.810	0.763		
	Edge 4	0.977	0.264	0.382	N/A	1241	1359		

12.7. Sum of the SAR for WCDMA Band IV (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.488	0.445	0.384	0.001	0.933	0.872	0.489	0.873
	Left Tilt	0.505	0.445	0.384	0.001	0.950	0.889	0.506	0.890
	Right Touch	0.974	0.445	0.384	0.046	1419	1358	1020	1404
	Right Tilt	0.667	0.295	0.382	0.025	0.962	1049	0.692	1074
Body-worn & Hotspot & Airplay	Rear	0.985	0.429	0.382	0.042	1414	1367	1027	1409
	Front	0.511	0.429	0.382	0.022	0.940	0.893	0.533	0.915
Hotspot & Airplay	Edge 1	0.352	0.429	0.382	N/A	0.781	0.734		
	Edge 2	0.095	0.429	0.382	N/A	0.524	0.477		
	Edge 4	0.424	0.264	0.382	N/A	0.688	0.806		

12.8. Sum of the SAR for WCDMA Band IV (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.678	0.445	0.384	0.001	1123	1062	0.679	1063
	Left Tilt	0.498	0.445	0.384	0.001	0.943	0.882	0.499	0.883
	Right Touch	1.120	0.445	0.384	0.046	1565	1504	1.166	1550
	Right Tilt	0.537	0.295	0.382	0.025	0.832	0.919	0.562	0.944
Body-worn & Hotspot & Airplay	Rear	1.131	0.429	0.382	0.042	1560	1513	1.173	1555
	Front	1.044	0.429	0.382	0.022	1473	1426	1.066	1448
Hotspot & Airplay	Edge 2	0.788	0.429	0.382	N/A	1217	1170		
	Edge 3	0.758	0.429	0.382	N/A	1187	1140		
	Edge 4	0.080	0.264	0.382	N/A	0.344	0.462		

12.9. Sum of the SAR for WCDMA Band II (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.546	0.445	0.384	0.001	0.991	0.930	0.547	0.931
	Left Tilt	0.514	0.445	0.384	0.001	0.959	0.898	0.515	0.899
	Right Touch	0.989	0.445	0.384	0.046	1434	1373	1035	1419
	Right Tilt	0.805	0.295	0.382	0.025	1100	1187	0.830	1212
Body-worn & Hotspot & Airplay	Rear	0.973	0.429	0.382	0.042	1402	1355	1015	1397
	Front	0.655	0.429	0.382	0.022	1084	1037	0.677	1059
Hotspot & Airplay	Edge 1	0.612	0.429	0.382	N/A	1041	0.994		
	Edge 2	0.141	0.429	0.382	N/A	0.570	0.523		
	Edge 4	0.615	0.264	0.382	N/A	0.879	0.997		

12.10. Sum of the SAR for WCDMA Band II (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.761	0.445	0.384	0.001	1206	1145	0.762	1146
	Left Tilt	0.515	0.445	0.384	0.001	0.960	0.899	0.516	0.900
	Right Touch	1120	0.445	0.384	0.046	1565	1504	1166	1550
	Right Tilt	0.456	0.295	0.382	0.025	0.751	0.838	0.481	0.863
Body-worn & Hotspot & Airplay	Rear	1115	0.429	0.382	0.042	1544	1497	1157	1539
	Front	0.578	0.429	0.382	0.022	1007	0.960	0.600	0.982
Hotspot & Airplay	Edge 2	0.642	0.429	0.382	N/A	1071	1024		
	Edge 3	0.688	0.429	0.382	N/A	1117	1070		
	Edge 4	0.073	0.264	0.382	N/A	0.337	0.455		

12.11. Sum of the SAR for CDMA BC0 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.985	0.445	0.384	0.001	1430	1369	0.986	1370
	Left Tilt	0.739	0.445	0.384	0.001	1184	1123	0.740	1124
	Right Touch	0.668	0.445	0.384	0.046	1113	1052	0.714	1098
	Right Tilt	0.515	0.295	0.382	0.025	0.810	0.897	0.540	0.922
Body-worn & Hotspot & Airplay	Rear	0.503	0.429	0.382	0.042	0.932	0.885	0.545	0.927
	Front	0.420	0.429	0.382	0.022	0.849	0.802	0.442	0.824
Hotspot & Airplay	Edge 1	0.239	0.429	0.382	N/A	0.668	0.621		
	Edge 2	0.596	0.429	0.382	N/A	1025	0.978		
	Edge 4	0.263	0.264	0.382	N/A	0.527	0.645		

12.12. Sum of the SAR for CDMA BC0 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.964	0.445	0.384	0.001	1409	1348	0.965	1349
	Left Tilt	0.641	0.445	0.384	0.001	1086	1025	0.642	1026
	Right Touch	0.888	0.445	0.384	0.046	1333	1272	0.934	1318
	Right Tilt	0.567	0.295	0.382	0.025	0.862	0.949	0.592	0.974
Body-worn & Hotspot & Airplay	Rear	1110	0.429	0.382	0.042	1539	1492	1152	1534
	Front	0.513	0.429	0.382	0.022	0.942	0.895	0.535	0.917
Hotspot & Airplay	Edge 2	0.418	0.429	0.382	N/A	0.847	0.800		
	Edge 3	0.242	0.429	0.382	N/A	0.671	0.624		
	Edge 4	0.590	0.264	0.382	N/A	0.854	0.972		

12.13. Sum of the SAR for CDMA BC1 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.626	0.445	0.384	0.001	1071	1010	0.627	1011
	Left Tilt	0.703	0.445	0.384	0.001	1148	1087	0.704	1088
	Right Touch	0.997	0.445	0.384	0.046	1442	1381	1043	1427
	Right Tilt	0.985	0.295	0.382	0.025	1280	1367	1010	1392
Body-worn & Hotspot & Airplay	Rear	0.956	0.429	0.382	0.042	1385	1338	0.998	1380
	Front	0.680	0.429	0.382	0.022	1109	1062	0.702	1084
Hotspot & Airplay	Edge 1	0.704	0.429	0.382	N/A	1133	1086		
	Edge 2	0.167	0.429	0.382	N/A	0.596	0.549		
	Edge 4	0.583	0.264	0.382	N/A	0.847	0.965		

12.14. Sum of the SAR for CDMA BC1 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.820	0.445	0.384	0.001	1265	1204	0.821	1205
	Left Tilt	0.519	0.445	0.384	0.001	0.964	0.903	0.520	0.904
	Right Touch	1100	0.445	0.384	0.046	1545	1484	1146	1530
	Right Tilt	0.516	0.295	0.382	0.025	0.811	0.898	0.541	0.923
Body-worn & Hotspot & Airplay	Rear	1070	0.429	0.382	0.042	1499	1452	1112	1494
	Front	0.599	0.429	0.382	0.022	1028	0.981	0.621	1003
Hotspot & Airplay	Edge 2	0.665	0.429	0.382	N/A	1094	1047		
	Edge 3	0.749	0.429	0.382	N/A	1178	1131		
	Edge 4	0.077	0.264	0.382	N/A	0.341	0.459		

12.15. Sum of the SAR for CDMA BC10 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.790	0.445	0.384	0.001	1235	1174	0.791	1175
	Left Tilt	0.673	0.445	0.384	0.001	1118	1057	0.674	1058
	Right Touch	0.673	0.445	0.384	0.046	1118	1057	0.719	1103
	Right Tilt	0.514	0.295	0.382	0.025	0.809	0.896	0.539	0.921
Body-worn & Hotspot & Airplay	Rear	0.447	0.429	0.382	0.042	0.876	0.829	0.489	0.871
	Front	0.377	0.429	0.382	0.022	0.806	0.759	0.399	0.781
Hotspot & Airplay	Edge 1	0.204	0.429	0.382	N/A	0.633	0.586		
	Edge 2	0.494	0.429	0.382	N/A	0.923	0.876		
	Edge 4	0.267	0.264	0.382	N/A	0.531	0.649		

12.16. Sum of the SAR for CDMA BC10 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.748	0.445	0.384	0.001	1193	1132	0.749	1133
	Left Tilt	0.543	0.445	0.384	0.001	0.988	0.927	0.544	0.928
	Right Touch	0.701	0.445	0.384	0.046	1146	1085	0.747	1131
	Right Tilt	0.565	0.295	0.382	0.025	0.860	0.947	0.590	0.972
Body-worn & Hotspot & Airplay	Rear	0.985	0.429	0.382	0.042	1414	1367	1027	1409
	Front	1000	0.429	0.382	0.022	1429	1382	1022	1404
Hotspot & Airplay	Edge 2	0.681	0.429	0.382	N/A	1110	1063		
	Edge 3	0.252	0.429	0.382	N/A	0.681	0.634		
	Edge 4	0.914	0.264	0.382	N/A	1178	1296		

12.17. Sum of the SAR for CDMA BC15 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.604	0.445	0.384	0.001	1049	0.988	0.605	0.989
	Left Tilt	0.624	0.445	0.384	0.001	1069	1008	0.625	1009
	Right Touch	0.976	0.445	0.384	0.046	1421	1360	1022	1406
	Right Tilt	0.793	0.295	0.382	0.025	1088	1175	0.838	1200
Body-worn & Hotspot & Airplay	Rear	0.972	0.429	0.382	0.042	1401	1354	1014	1396
	Front	0.556	0.429	0.382	0.022	0.985	0.938	0.578	0.960
Hotspot & Airplay	Edge 1	0.517	0.429	0.382	N/A	0.946	0.899		
	Edge 2	0.110	0.429	0.382	N/A	0.539	0.492		
	Edge 4	0.433	0.264	0.382	N/A	0.697	0.815		

12.18. Sum of the SAR for CDMA BC15 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.619	0.445	0.384	0.001	1064	1003	0.620	1004
	Left Tilt	0.414	0.445	0.384	0.001	0.859	0.798	0.415	0.799
	Right Touch	1140	0.445	0.384	0.046	1585	1524	1186	1570
	Right Tilt	0.417	0.295	0.382	0.025	0.712	0.799	0.442	0.824
Body-worn & Hotspot & Airplay	Rear	1130	0.429	0.382	0.042	1559	1512	1172	1554
	Front	0.983	0.429	0.382	0.022	1412	1365	1005	1387
Hotspot & Airplay	Edge 2	0.711	0.429	0.382	N/A	1140	1093		
	Edge 3	0.771	0.429	0.382	N/A	1200	1153		
	Edge 4	0.063	0.264	0.382	N/A	0.327	0.445		

12.19. Sum of the SAR for LTE Band 2 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.552	0.445	0.384	0.001	0.997	0.936	0.553	0.937
	Left Tilt	0.648	0.445	0.384	0.001	1093	1032	0.649	1033
	Right Touch	0.997	0.445	0.384	0.046	1442	1381	1043	1427
	Right Tilt	0.879	0.295	0.382	0.025	1174	1261	0.904	1286
Body-worn & Hotspot & Airplay	Rear	0.991	0.429	0.382	0.042	1420	1373	1033	1415
	Front	0.587	0.429	0.382	0.022	1016	0.969	0.609	0.991
Hotspot & Airplay	Edge 1	0.539	0.429	0.382	N/A	0.968	0.921		
	Edge 2	0.274	0.429	0.382	N/A	0.703	0.656		
	Edge 4	0.680	0.264	0.382	N/A	0.944	1062		

12.20. Sum of the SAR for LTE Band 2 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.752	0.445	0.384	0.001	1197	1136	0.753	1137
	Left Tilt	0.405	0.445	0.384	0.001	0.850	0.789	0.406	0.790
	Right Touch	1120	0.445	0.384	0.046	1565	1504	1166	1550
	Right Tilt	0.373	0.295	0.382	0.025	0.668	0.755	0.398	0.780
Body-worn & Hotspot & Airplay	Rear	1080	0.429	0.382	0.042	1509	1462	1122	1504
	Front	0.633	0.429	0.382	0.022	1062	1015	0.655	1037
Hotspot & Airplay	Edge 2	0.498	0.429	0.382	N/A	0.927	0.880		
	Edge 3	0.713	0.429	0.382	N/A	1142	1095		
	Edge 4	0.049	0.264	0.382	N/A	0.313	0.431		

12.21. Sum of the SAR for LTE Band 4 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.629	0.445	0.384	0.001	1074	1013	0.630	1014
	Left Tilt	0.688	0.445	0.384	0.001	1133	1072	0.689	1073
	Right Touch	0.966	0.445	0.384	0.046	1411	1350	1012	1396
	Right Tilt	0.795	0.295	0.382	0.025	1090	1177	0.820	1202
Body-worn & Hotspot & Airplay	Rear	0.702	0.429	0.382	0.042	1131	1084	0.744	1126
	Front	0.479	0.429	0.382	0.022	0.908	0.861	0.501	0.883
Hotspot & Airplay	Edge 1	0.414	0.429	0.382	N/A	0.843	0.796		
	Edge 2	0.101	0.429	0.382	N/A	0.530	0.483		
	Edge 4	0.071	0.264	0.382	N/A	0.335	0.453		

12.22. Sum of the SAR for LTE Band 4 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.654	0.445	0.384	0.001	1099	1038	0.655	1039
	Left Tilt	0.342	0.445	0.384	0.001	0.787	0.726	0.343	0.727
	Right Touch	1.110	0.445	0.384	0.046	1555	1494	1.156	1540
	Right Tilt	0.367	0.295	0.382	0.025	0.662	0.749	0.392	0.774
Body-worn & Hotspot & Airplay	Rear	1.094	0.429	0.382	0.042	1523	1476	1.136	1518
	Front	0.948	0.429	0.382	0.022	1377	1330	0.970	1352
Hotspot & Airplay	Edge 2	0.653	0.429	0.382	N/A	1.082	1.035		
	Edge 3	0.721	0.429	0.382	N/A	1.150	1.103		
	Edge 4	0.051	0.264	0.382	N/A	0.315	0.433		

12.23. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.616	0.445	0.384	0.001	1061	1000	0.617	1001
	Left Tilt	0.415	0.445	0.384	0.001	0.860	0.799	0.416	0.800
	Right Touch	0.533	0.445	0.384	0.046	0.978	0.917	0.579	0.963
	Right Tilt	0.380	0.295	0.382	0.025	0.675	0.762	0.405	0.787
Body-worn & Hotspot & Airplay	Rear	0.371	0.429	0.382	0.042	0.800	0.753	0.413	0.795
	Front	0.300	0.429	0.382	0.022	0.729	0.682	0.322	0.704
Hotspot & Airplay	Edge 1	0.204	0.429	0.382	N/A	0.633	0.586		
	Edge 2	0.242	0.429	0.382	N/A	0.671	0.624		
	Edge 4	0.142	0.264	0.382	N/A	0.406	0.524		

12.24. Sum of the SAR for LTE Band 5 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.634	0.445	0.384	0.001	1079	1018	0.635	1019
	Left Tilt	0.263	0.445	0.384	0.001	0.708	0.647	0.264	0.648
	Right Touch	0.584	0.445	0.384	0.046	1029	0.968	0.630	1014
	Right Tilt	0.287	0.295	0.382	0.025	0.582	0.669	0.312	0.694
Body-worn & Hotspot & Airplay	Rear	1.140	0.429	0.382	0.042	1569	1522	1.182	1564
	Front	0.769	0.429	0.382	0.022	1.198	1.151	0.791	1.173
Hotspot & Airplay	Edge 2	0.575	0.429	0.382	N/A	1.004	0.957		
	Edge 3	0.423	0.429	0.382	N/A	0.852	0.805		
	Edge 4	0.849	0.264	0.382	N/A	1.113	1.231		

12.25. Sum of the SAR for LTE Band 12 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.550	0.445	0.384	0.001	0.995	0.934	0.551	0.935
	Left Tilt	0.492	0.445	0.384	0.001	0.937	0.876	0.493	0.877
	Right Touch	0.474	0.445	0.384	0.046	0.919	0.858	0.520	0.904
	Right Tilt	0.503	0.295	0.382	0.025	0.798	0.885	0.528	0.910
Body-worn & Hotspot & Airplay	Rear	0.333	0.429	0.382	0.042	0.762	0.715	0.375	0.757
	Front	0.290	0.429	0.382	0.022	0.719	0.672	0.312	0.694
Hotspot & Airplay	Edge 1	0.192	0.429	0.382	N/A	0.621	0.574		
	Edge 2	0.287	0.429	0.382	N/A	0.716	0.669		
	Edge 4	0.181	0.264	0.382	N/A	0.445	0.563		

12.26. Sum of the SAR for LTE Band 12 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.360	0.445	0.384	0.001	0.805	0.744	0.361	0.745
	Left Tilt	0.203	0.445	0.384	0.001	0.648	0.587	0.204	0.588
	Right Touch	0.361	0.445	0.384	0.046	0.806	0.745	0.407	0.791
	Right Tilt	0.218	0.295	0.382	0.025	0.513	0.600	0.243	0.625
Body-worn & Hotspot & Airplay	Rear	0.688	0.429	0.382	0.042	1.117	1.070	0.730	1.112
	Front	0.612	0.429	0.382	0.022	1.041	0.994	0.634	1.016
Hotspot & Airplay	Edge 2	0.417	0.429	0.382	N/A	0.846	0.799		
	Edge 3	0.234	0.429	0.382	N/A	0.663	0.616		
	Edge 4	0.498	0.264	0.382	N/A	0.762	0.880		

12.27. Sum of the SAR for LTE Band 13 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.545	0.445	0.384	0.001	0.990	0.929	0.546	0.930
	Left Tilt	0.422	0.445	0.384	0.001	0.867	0.806	0.423	0.807
	Right Touch	0.440	0.445	0.384	0.046	0.885	0.824	0.486	0.870
	Right Tilt	0.393	0.295	0.382	0.025	0.688	0.775	0.418	0.800
Body-worn & Hotspot & Airplay	Rear	0.330	0.429	0.382	0.042	0.759	0.712	0.372	0.754
	Front	0.265	0.429	0.382	0.022	0.694	0.647	0.287	0.669
Hotspot & Airplay	Edge 1	0.159	0.429	0.382	N/A	0.588	0.541		
	Edge 2	0.400	0.429	0.382	N/A	0.829	0.782		
	Edge 4	0.146	0.264	0.382	N/A	0.410	0.528		

12.28. Sum of the SAR for LTE Band 13 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.444	0.445	0.384	0.001	0.889	0.828	0.445	0.829
	Left Tilt	0.252	0.445	0.384	0.001	0.697	0.636	0.253	0.637
	Right Touch	0.458	0.445	0.384	0.046	0.903	0.842	0.504	0.888
	Right Tilt	0.306	0.295	0.382	0.025	0.601	0.688	0.331	0.713
Body-worn & Hotspot & Airplay	Rear	0.866	0.429	0.382	0.042	1.295	1.248	0.908	1.290
	Front	0.593	0.429	0.382	0.022	1.022	0.975	0.615	0.997
Hotspot & Airplay	Edge 2	0.412	0.429	0.382	N/A	0.841	0.794		
	Edge 3	0.320	0.429	0.382	N/A	0.749	0.702		
	Edge 4	0.663	0.264	0.382	N/A	0.927	1.045		

12.29. Sum of the SAR for LTE Band 17 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.588	0.445	0.384	0.001	1033	0.972	0.589	0.973
	Left Tilt	0.567	0.445	0.384	0.001	1012	0.951	0.568	0.952
	Right Touch	0.549	0.445	0.384	0.046	0.994	0.933	0.595	0.979
	Right Tilt	0.499	0.295	0.382	0.025	0.794	0.881	0.524	0.906
Body-worn & Hotspot & Airplay	Rear	0.344	0.429	0.382	0.042	0.773	0.726	0.386	0.768
	Front	0.268	0.429	0.382	0.022	0.697	0.650	0.290	0.672
Hotspot & Airplay	Edge 1	0.175	0.429	0.382	N/A	0.604	0.557		
	Edge 2	0.276	0.429	0.382	N/A	0.705	0.658		
	Edge 4	0.160	0.264	0.382	N/A	0.424	0.542		

12.30. Sum of the SAR for LTE Band 17 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.394	0.445	0.384	0.001	0.839	0.778	0.395	0.779
	Left Tilt	0.220	0.445	0.384	0.001	0.665	0.604	0.221	0.605
	Right Touch	0.387	0.445	0.384	0.046	0.832	0.771	0.433	0.817
	Right Tilt	0.258	0.295	0.382	0.025	0.553	0.640	0.283	0.665
Body-worn & Hotspot & Airplay	Rear	0.721	0.429	0.382	0.042	1.150	1.103	0.763	1.145
	Front	0.635	0.429	0.382	0.022	1.064	1.017	0.657	1.039
Hotspot & Airplay	Edge 2	0.426	0.429	0.382	N/A	0.855	0.808		
	Edge 3	0.229	0.429	0.382	N/A	0.658	0.611		
	Edge 4	0.532	0.264	0.382	N/A	0.796	0.914		

12.31. Sum of the SAR for LTE Band 25 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.585	0.445	0.384	0.001	1030	0.969	0.586	0.970
	Left Tilt	0.652	0.445	0.384	0.001	1097	1036	0.653	1037
	Right Touch	0.958	0.445	0.384	0.046	1403	1342	1004	1388
	Right Tilt	0.910	0.295	0.382	0.025	1205	1292	0.935	1317
Body-worn & Hotspot & Airplay	Rear	0.974	0.429	0.382	0.042	1403	1356	1016	1398
	Front	0.643	0.429	0.382	0.022	1072	1025	0.665	1047
Hotspot & Airplay	Edge 1	0.526	0.429	0.382	N/A	0.955	0.908		
	Edge 2	0.251	0.429	0.382	N/A	0.680	0.633		
	Edge 4	0.625	0.264	0.382	N/A	0.889	1007		

12.32. Sum of the SAR for LTE Band 25 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.890	0.445	0.384	0.001	1335	1274	0.891	1275
	Left Tilt	0.451	0.445	0.384	0.001	0.896	0.835	0.452	0.836
	Right Touch	1.120	0.445	0.384	0.046	1565	1504	1.166	1550
	Right Tilt	0.363	0.295	0.382	0.025	0.658	0.745	0.388	0.770
Body-worn & Hotspot & Airplay	Rear	1080	0.429	0.382	0.042	1509	1462	1.122	1504
	Front	0.619	0.429	0.382	0.022	1048	1001	0.641	1023
Hotspot & Airplay	Edge 2	0.681	0.429	0.382	N/A	1.110	1.063		
	Edge 3	0.534	0.429	0.382	N/A	0.963	0.916		
	Edge 4	0.035	0.264	0.382	N/A	0.299	0.417		

12.33. Sum of the SAR for LTE Band 26 (UAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.751	0.445	0.384	0.001	1.196	1.135	0.752	1.136
	Left Tilt	0.550	0.445	0.384	0.001	0.995	0.934	0.551	0.935
	Right Touch	0.543	0.445	0.384	0.046	0.988	0.927	0.589	0.973
	Right Tilt	0.423	0.295	0.382	0.025	0.718	0.805	0.448	0.830
Body-worn & Hotspot & Airplay	Rear	0.328	0.429	0.382	0.042	0.757	0.710	0.370	0.752
	Front	0.266	0.429	0.382	0.022	0.695	0.648	0.288	0.670
Hotspot & Airplay	Edge 1	0.194	0.429	0.382	N/A	0.623	0.576		
	Edge 2	0.330	0.429	0.382	N/A	0.759	0.712		
	Edge 4	0.096	0.264	0.382	N/A	0.360	0.478		

12.34. Sum of the SAR for LTE Band 26 (LAT) & Wi-Fi Cell On & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)				Σ 1-g SAR (W/kg)			
		WWAN ①	DTS ②	U-NII ③	BT ④	WWAN + DTS ① + ②	WWAN + U-NII ① + ③	WWAN + BT ① + ④	WWAN+U-NII+BT ① + ③ + ④
Head	Left Touch	0.680	0.445	0.384	0.001	1.125	1.064	0.681	1.065
	Left Tilt	0.375	0.445	0.384	0.001	0.820	0.759	0.376	0.760
	Right Touch	0.653	0.445	0.384	0.046	1.098	1.037	0.699	1.083
	Right Tilt	0.451	0.295	0.382	0.025	0.746	0.833	0.476	0.858
Body-worn & Hotspot & Airplay	Rear	1.070	0.429	0.382	0.042	1.499	1.452	1.112	1.494
	Front	0.785	0.429	0.382	0.022	1.214	1.167	0.807	1.189
Hotspot & Airplay	Edge 2	0.555	0.429	0.382	N/A	0.984	0.937		
	Edge 3	0.367	0.429	0.382	N/A	0.796	0.749		
	Edge 4	0.961	0.264	0.382	N/A	1.225	1.343		

12.35. Sum of the SAR for Wi-Fi Cell Off & BT

RF Exposure conditions	Test Position	Standalone SAR (W/kg)		Σ 1-g SAR (W/kg)
		U-NII ①	BT ②	U-NII + BT ① + ②
Head	Left Touch	0.672	0.001	0.673
	Left Tilt	1.170	0.001	1.171
	Right Touch	1.170	0.046	1.216
	Right Tilt	1.100	0.025	1.125
Body-worn	Rear	1.190	0.042	1.232
	Front	0.538	0.022	0.560

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because either the sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is ≤ 0.04 for all circumstances that require SPLSR calculation.

Appendixes

Refer to separated files for the following appendixes.

15U21634-S1V1 SAR_App A Photos (STC_180days)

15U21634-S1V2 SAR_App B System Check Plots

15U21634-S1V2 SAR_App C Highest Test Plots

15U21634-S1V1 SAR_App D Tissue Ingredients

15U21634-S1V1 SAR_App E Probe Cal. Certificates

15U21634-S1V1 SAR_App F Dipole Cal. Certificates

END OF REPORT