SAR EVALUATION REPORT

IEEE Std 1528-2013

For

GSM/WCDMA/LTE phone with BT, DTS/UNII a/b/g/n/ac/11ax HE 20/40/80, ANT+ and NFC

FCC ID: A3LSMG975KOR
Model Name: SM-G975N

Report Number: 12563988-S1V2
Issue Date: 2/1/2019

Prepared for

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Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Date	Revisions	Revised By
V1	2/1/2019	Initial Issue	--
V2	2/1/2019	Sections 4.3: Added Probe Section 10.15: Corrected Typo Appendix D: Updated Plots Appendix F: Added Probe	Lance Fleischer

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1. Attestation of Test Results

Applicant Name		Samsung Electronics Co., Ltd.			
FCC ID		A3LSMG975KOR			
Model Name		SM-G975N			
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)		Extremities (hands, wrists, ankles, etc.) (10g of tissue)	
General population / Uncontrolled exposure		1.6		4	
RF Exposure Conditions		Equipment Class - Highest Reported SAR (W/kg)			
		PCE	DTS	NII	DSS
Head		0.290	0.549	0.472	0.791
Body-worn		0.786	0.106	0.398	0.078
Hotspot		1.283	0.224	0.738	0.207
Product specific 10g		3.216	N/A	2.600	N/A
Simultaneous TX	Head	1.429	0.931	1.429	1.429
	Body-worn	1.561	1.176	1.561	1.561
	Hotspot	1.594	1.542	1.594	1.567
	Product Specific 10g	3.520	N/A	3.520	N/A
Date Tested		11/6/2018 to 1/28/2019			
Test Results		Pass			

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

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 the U.S. government.

Approved & Released By:	Prepared By:
	
Devin Chang Senior Test Engineer UL Verification Services Inc.	Christopher Kuwatani Laboratory Technician UL Verification Services Inc.

2. Test Specification, Methods and Procedures

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

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

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

- TCB workshop October 2014; RF Exposure Procedures (Other LTE Considerations)
- TCB workshop April 2015; RF Exposure Procedures (Overlapping LTE Bands)
- TCB workshop October 2015; RF Exposure Procedures (KDB 941225 D05A)
- TCB workshop April 2016; RF Exposure Procedures (LTE Carrier Aggregation for DL)
- TCB workshop October 2016; RF Exposure Procedures (Bluetooth Duty Factor)
- TCB workshop October 2016; RF Exposure Procedures (DUT Holder Perturbations)
- TCB workshop May 2017; RF Exposure Procedures (Broadband Liquid Above 3 GHz)
- TCB workshop May 2017; RF Exposure Procedures (LTE Band 41 Power Class 2)
- TCB workshop April 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion)

3. Facilities and Accreditation

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

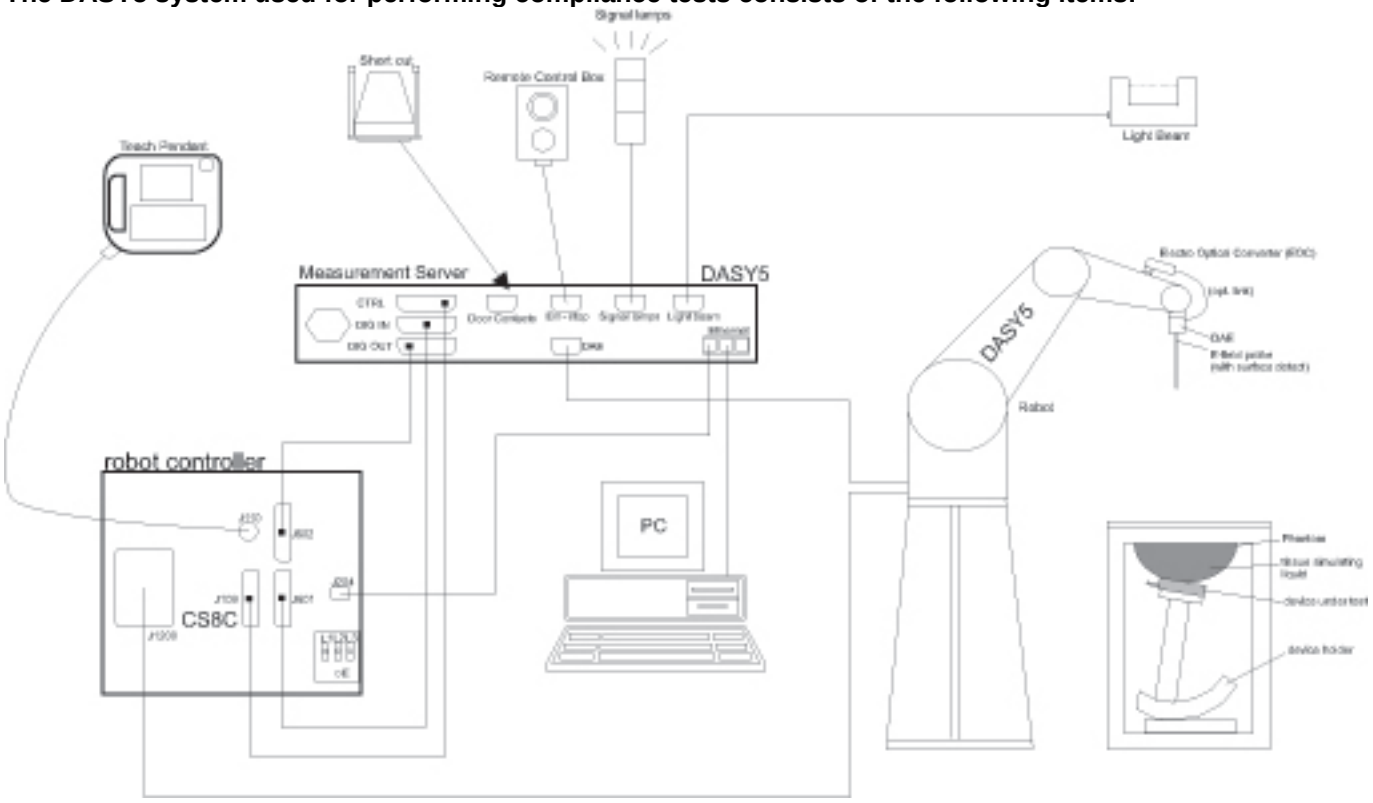
47173 Benicia Street	47266 Benicia Street
SAR Lab A	SAR Lab 1
SAR Lab B	SAR Lab 2
SAR Lab C	SAR Lab 3
SAR Lab D	SAR Lab 4
SAR Lab E	SAR Lab 5
SAR Lab F	
SAR Lab G	
SAR Lab H	

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

Step 3: Zoom Scan

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

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

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

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

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

Step 4: Power drift measurement

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

4.3. Test Equipment

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

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	ZNLE6	1323	7/16/2019
Dielectric Probe kit	SPEAG	DAK-3.5	1082	9/11/2019
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	9/11/2019
Thermometer	Traceable Calibration Control Co.	4242	122529162	3/14/2019

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Synthesized Signal Generator	Agilent	N5181A	MY50140610	6/7/2019
Power Meter	Keysight	N1912A	MY55196007	7/23/2019
Power Sensor	Agilent	N1921A	MY53020038	4/23/2019
Power Sensor	Agilent	N1921A	MY53260010	10/17/2019
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795093	N/A
Directional coupler	Werlatone	C8060-102	2148	N/A
DC Power Supply	Sorensen	1611	1817A2680	N/A
Synthesized Signal Generator	Agilent	N5181A	MY50240680	5/25/2019
Power Meter	Keysight	N1912A	MY55196004	7/26/2019
Power Sensor	Agilent	N1921A	MY52200012	10/18/2019
Power Sensor*	Agilent	N1921A	MY52270022	12/28/2018
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Directional coupler	Werlatone	C8060-102	2141	N/A
DC Power Supply	BK Precision	XT 15-4	215-02292	N/A
Synthesized Signal Generator	R & S	SMB 100A	1406	7/4/2019
Power Sensor	R & S	NRP18A	1424	6/19/2019

Note(s):

*Equipment not used past calibration due date.

Lab Equipment

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
E-Field Probe (SAR Lab A)	SPEAG	EX3DV4	3885	9/18/2019
E-Field Probe (SAR Lab B)	SPEAG	EX3DV4	3772	2/13/2019
E-Field Probe (SAR Lab C)	SPEAG	EX3DV4	7498	5/4/2019
E-Field Probe (SAR Lab D)	SPEAG	EX3DV4	3773	4/23/2019
E-Field Probe (SAR Lab E)	SPEAG	EX3DV4	3990	8/17/2019
E-Field Probe (SAR Lab F)	SPEAG	EX3DV4	3929	3/16/2019
E-Field Probe (SAR Lab F)	SPEAG	EX3DV4	3902	5/24/2019
E-Field Probe (SAR Lab G)	SPEAG	EX3DV4	7463	7/20/2019
E-Field Probe (SAR Lab H)	SPEAG	EX3DV4	7483	11/14/2019
Data Acquisition Electronics (SAR Lab A)	SPEAG	DAE4	1540	2/23/2019
Data Acquisition Electronics (SAR Lab B)	SPEAG	DAE4	1377	9/14/2019
Data Acquisition Electronics (SAR Lab C)	SPEAG	DAE4	1472	3/8/2019
Data Acquisition Electronics (SAR Lab D)	SPEAG	DAE4	1352	11/6/2019
Data Acquisition Electronics (SAR Lab E)	SPEAG	DAE4	1548	5/3/2019
Data Acquisition Electronics (SAR Lab F)	SPEAG	DAE4	1377	9/14/2019
Data Acquisition Electronics (SAR Lab G)	SPEAG	DAE4	1359	2/9/2019
Data Acquisition Electronics (SAR Lab H)	SPEAG	DAE4	1257	9/14/2019
System Validation Dipole	SPEAG	D750V3	1024	5/16/2019
System Validation Dipole	SPEAG	D835V2	4d142	8/23/2019
System Validation Dipole	SPEAG	D835V2	4d117	5/16/2019
System Validation Dipole	SPEAG	D1750V2	1050	4/10/2019
System Validation Dipole	SPEAG	D1900V2	5d140	4/11/2019
System Validation Dipole	SPEAG	D2450V2	899	3/16/2019
System Validation Dipole	SPEAG	D2450V2	706	5/18/2019
System Validation Dipole	SPEAG	D2600V2	1036	3/16/2019
System Validation Dipole	SPEAG	D2600V2	1006	10/16/2019
System Validation Dipole	SPEAG	D5GHzV2	1003	3/13/2019

Note(s):

*Equipment not used past calibration due date.

Other

Name of Equipment	Manufacturer	Type/Model	T Number	Serial No.	Cal. Due Date
Power Meter	Agilent	N1911A	T733	MY50001018	10/18/2019
Power Sensor	Agilent	N1921A	T734	MY52200012	10/18/2019
Power Sensor	Agilent	N1921A	T751	MY53260010	10/17/2019
Base Station Simulator	R & S	CMW500	T1871	164541	2/19/2019
Base Station Simulator	R & S	CMW500	T959	135384	6/1/2019
Spectrum Analyzer/PXA*	Agilent	N9030A	T1454	MY55410147	1/8/2019
Spectrum Analyzer/PXA	Agilent	N9030A	T1466	MY54410193	4/16/2019

Note(s):

*Equipment not used past calibration due date.

5. Measurement Uncertainty

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

Therefore, the measurement uncertainty is not required.

6. Device Under Test (DUT) Information

6.1. DUT Description

Device Dimension	Refer to Appendix A. This is a Phablet Device (display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm)
Back Cover	The Back Cover is not removable Glass back cover and Ceramic back cover
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 5.8 GHz)
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other. Wi-Fi Direct is only available in hand use configuration. ☒ Wi-Fi Direct (Wi-Fi 2.4 GHz) ☒ Wi-Fi Direct (Wi-Fi 5.2/5.8 GHz)
Bluetooth Tethering	BT Tethering mode permits the device to share its cellular data connection with other devices. ☒ BT Tethering (Bluetooth 2.4 GHz)
Test sample information	**S/N** / **IMEI** / **Notes** R39KA0KPK0 / 352675100055410 / Wi-Fi Radiated(Black Matrix) R39KA0KPK9 / 352675100055501 / Wi-Fi Radiated(Black Matrix) R39KA0KPK2D / 352675100055436 / Radiated(Black Matrix) R39KA0KPK1Y / 35275100055428 / Radiated(Black Matrix) R39KB0A1XYN / 352675100069700 / Radiated(Ceramic) R39KB0A1XXT / 352675100069692 / Radiated(Ceramic) R39KB0A1YLW / 352675100069924 / Radiated(Ceramic) R39KB0A26XH / N/A / Radiated(Ceramic) R39KB0A1YSH / 352675100069981 / Radiated(Ceramic) R39KB0A1YW / 352675100070013 / Wi-Fi Radiated(Ceramic) R39KB0A1Z4 / 352675100070096 / Wi-Fi Radiated(Ceramic) R39KA0FDGMX / 352675100050759 / Wi-Fi Conducted R39KA0FDGVE / 352675100050825 / License Conducted
Hardware Version	REV0.3
Software Version	G975N.001

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EDGE (8PSK)	GSM Class : B Multi-Slot Class: Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Cat. 14) HSUPA (Cat. 6) HSPA+ (DL Only)		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 TDD Band 41 FDD Band 66	QPSK 16QAM 64AQM Rel. 14 Carrier Aggregation (1 Uplink and 4 Downlinks)		100% (FDD) 63.3% (TDD) Refer to §6.4
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20) 802.11ax (HE20)		100.00% (802.11b) [1]
	5 GHz	802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (VHT20) 802.11ac (VHT40) 802.11ac (VHT80) 802.11ax (HE20) 802.11ax (HE40) 802.11ax (HE80)		93.47% (802.11a) [2] 65.79% (802.11ac 80MHz BW) [2]
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No			
	Does this device support Band gap channel(s)? ☒ Yes ☐ No			
Bluetooth	2.4 GHz	Version 5.0 LE		100% [3]
NFC	13.56 MHz	Type A/B/F		N/A [4]

Notes:

1. Refer to §9.5 for Wi-Fi DTS Duty Cycle.
2. Refer to §9.6 for Wi-Fi U-NII Duty Cycle.
3. Refer to §9.7 for Bluetooth GFSK Duty Cycle.
4. Measured Duty Cycle is not required due to SAR test exemption.

6.3. General LTE SAR Test and Reporting Considerations

Item	Description						
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz (BW = 60 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	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 (BW = 45 MHz)					
		Channel Bandwidth					
		20 MHz [1]	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 (BW = 25 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz [1]	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 (BW = 17 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz [1]	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 (BW = 10 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz [1]	5 MHz [1]	3 MHz	1.4 MHz
	Low				23205/ 779.5		
	Mid			**23230/ 782**	23230/ 782		
	High				23255/ 784.5		
	Band 17	Frequency range: 704 - 716 MHz (BW = 12 MHz)					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz [1]	5 MHz [1]	3 MHz	1.4 MHz
	Low			23780/ 709	23755/ 706.5		
	Mid			**23790/ 710**	23790/ 710		
	High			23800/ 711	23825/ 713.5		

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies

Band 25	Frequency range: 1850 - 1915 MHz (BW = 65 MHz)					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	**26140/ 1860**	26115/ 1857.5	26090/ 1855	26065/ 1852.5	26055/ 1851.5	26047/ 1850.7
Mid	**26365/ 1882.5**	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5
High	**26590/ 1905**	26615/ 1907.5	26640/ 1910	26665/ 1912.5	26675/ 1913.5	26683/ 1914.3

Band 26	Frequency range: 814 - 849 MHz (BW = 35 MHz)					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low		**26765/ 821.5**	26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7
Mid		**26865/ 831.5**	26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5
High		**26965/ 841.5**	26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3

Band 41[2]	Frequency range: 2496 - 2690 MHz (BW = 194MHz)					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	**39750 / 2506.0**					
Low-Mid	**40185 / 2549.5**					
Mid	**40620 / 2593.0**					
Mid-High	**41055 / 2636.5**					
High	**41490 / 2680.0**					

Band 66	Frequency range: 1710 - 1780 MHz (BW = 70 MHz)					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	**132072/ 1720**	132047/ 1717.5	132022/ 1715	131997/ 1712.5	131987/ 1711.5	131979/ 1710.7
Mid	**132322/ 1745**	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745
High	**132572/ 1770**	132597/ 1772.5	132622/ 1775	132647/ 1777.5	132657/ 1778.5	132665/ 1779.3

LTE transmitter and antenna implementation

Refer to Appendix A.

Maximum power reduction (MPR)

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

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

MPR Built-in by design

The manufacturer MPR values are always within the 3GPP maximum MPR allowance but may not follow the default MPR values.

A-MPR (additional MPR) was disabled during SAR testing

Power reduction

Yes

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.

Notes:

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

6.4. LTE (TDD) Considerations

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

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

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$(1+X) \cdot 2192 \cdot T_s$	$(1+X) \cdot 2560 \cdot T_s$	$7680 \cdot T_s$	$(1+X) \cdot 2192 \cdot T_s$	$(1+X) \cdot 2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$(2+X) \cdot 2192 \cdot T_s$	$(2+X) \cdot 2560 \cdot T_s$
5	$6592 \cdot T_s$	$(2+X) \cdot 2192 \cdot T_s$	$(2+X) \cdot 2560 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-
10	$13168 \cdot T_s$	$13152 \cdot T_s$	$12800 \cdot T_s$	-	-	-

Table 4.2-2: Uplink-downlink configurations & Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.3%
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.3%
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.3%
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.7%
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.7%
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.7%
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.3%

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

Note(s):

This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% duty cycle.

6.5. Dynamic Antenna Tuning Test Considerations & Procedure

This Device supports an AIT (Antenna impedance tuner) feature which optimizes antenna matching for actual certain use conditions. The device supports two states of Dynamic Antenna Tuning: default state and auto tuner state. Default state does not use the AIT, while the auto tuner state will dynamically change the impedance of the device to reach the optimal radiated state. Dynamic Antenna Tuning is supported only for LTE Band 5. Please refer to the Dynamic Antenna Tuning Operation Description for full details.

Single point measurements were performed using a time-sweep method on the worst case test position per test configuration for LTE Band 5 to determine which Index produced the highest result.

Band	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Reported SAR	Single Point Measurement											
							Default State				Auto Tuner States				Auto Tuner States			
						(W/kg)	Index	Tuner	XGND	(W/kg)	Index	Tuner	XGND	(W/kg)	Index	Tuner	XGND	(W/kg)
LTE Band 5 Glass Cover	Head	0	Right Touch	20525	836.5	0.233	1	2200	00009100	0.259	1	3A06	00029900	0.228	13	19F6	00039F00	0.110
	Hotspot	10	Rear	20525	836.5	0.291	1	2200	00029900	0.436	1	3A06	00029900	0.426	13	19F6	00039F00	0.191
	Body-worn	15	Rear	20525	836.5	0.618	1	2200	00029900	0.196	1	3A06	00029900	0.194	13	19F6	00039F00	0.085
Band	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Reported SAR	Single Point Measurement											
							Default State				Auto Tuner States				Auto Tuner States			
						(W/kg)	Index	Tuner	XGND	(W/kg)	Index	Tuner	XGND	Value (W/kg)	Index	Tuner	XGND	Value (W/kg)
LTE Band 5 Ceramic Cover	Head	0	Right Touch	20525	836.5	0.228	1	2200	00009100	0.300	1	3A06	00029900	0.270	13	19F6	00039F00	0.148
	Body-worn	15	Rear	20525	836.5	0.284	1	2200	00029900	0.309	1	3A06	00029900	0.282	13	19F6	00039F00	0.117
	Hotspot	10	Rear	20525	836.5	0.617	1	2200	00029900	0.596	1	3A06	00029900	0.544	13	19F6	00039F00	0.247

Note(s):

Testing was performed on Indexes that had unique Tuner ID and XGND codes, as shown in the Dynamic Antenna Tuning Operational Description and on Default state (DAT not active). From these single point measurement results, the Default state was determined to be the worst case. Full SAR testing was performed on Default state.

6.6. Wi-Fi RSDB (Real Simultaneous Dual Band) Activation Conditions

Please refer to table below for activation conditions for RSDB output power levels. These simultaneous conditions apply during both Max and Reduced Power. Refer to § 9.4 and §9.5 RSDB Output Power Results for further details.

	# TX	5GHz WIFI		2.4GHz WIFI		802.11 Modes
		Ant1	Ant2	Ant1	Ant2	
2.4 GHz + 5 GHz RSDB Only	2	✓	-	-	✓	2.4 GHz: b, g, n, ax 5 GHz: a, n, ac, ax
	2	-	✓	✓	-	
	2	✓	-	✓	-	
	2	-	✓	-	✓	
2.4 GHz + 5 GHz RSDB & MIMO	3	✓	✓	✓	-	2.4 GHz: b, g, n, ax 5 GHz: a, n, ac, ax (CDD+STBC Only)
	3	✓	✓	-	✓	
	3	✓	-	✓	✓	2.4 GHz: b, g, n, ax(CDD+STBC Only), 5 GHz: a, n, ac, ax
	3	-	✓	✓	✓	
2.4 GHz + 5 GHz RSDB MIMO	4	✓	✓	✓	✓	2.4 GHz: b, g, n, ax (CDD+STBC Only) 5 GHz: a, n, ac, ax (CDD+STBC Only)

7. RF Exposure Conditions (Test Configurations)

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

Wireless technologies	RF Exposure Conditions	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN (Main Ant. 1-1)	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	15 mm	Rear	N/A	Yes	
			Front	N/A	Yes	
	Hotspot	10 mm	Rear	< 25 mm	Yes	
			Front	< 25 mm	Yes	
			Edge 1 (Top)	> 25 mm	No	1
			Edge 2 (Right)	< 25 mm	Yes	
			Edge 3 (Bottom)	< 25 mm	Yes	
			Edge 4 (Left)	< 25 mm	Yes	
	Product Specifc 10g	0 mm	Rear	< 25 mm	Yes	3
			Front	< 25 mm	Yes	3
			Edge 1 (Top)	> 25 mm	No	1
			Edge 2 (Right)	< 25 mm	Yes	3
			Edge 3 (Bottom)	< 25 mm	Yes	3
			Edge 4 (Left)	< 25 mm	Yes	3
WWAN (Main Ant. 1-2)	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	15 mm	Rear	N/A	Yes	
			Front	N/A	Yes	
	Hotspot	10 mm	Rear	< 25 mm	Yes	
			Front	< 25 mm	Yes	
			Edge 1 (Top)	> 25 mm	No	1
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	< 25 mm	Yes	
			Edge 4 (Left)	< 25 mm	Yes	
	Product Specifc 10g	0 mm	Rear	< 25 mm	Yes	3
			Front	< 25 mm	Yes	3
			Edge 1 (Top)	> 25 mm	No	1
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	< 25 mm	Yes	3
			Edge 4 (Left)	< 25 mm	Yes	3

Notes:

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
2. For Phablet devices: when hotspot mode applies, Product Specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
3. For Phablet devices: when hotspot mode applies and power reduction applies to hotspot mode, Product Specific 10-g SAR is required for each test position that has an adjusted SAR to maximum power that is > 1.2 W/kg.
4. Cellular Sub Antenna is Rx only.

Wireless technologies	RF Exposure Conditions	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WLAN & BT (Ant. 1)	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	15 mm	Rear	N/A	Yes	
			Front	N/A	Yes	
	Hotspot (2.4/5.8 GHz Bands)	10 mm	Rear	< 25 mm	Yes	
			Front	< 25 mm	Yes	
			Edge 1 (Top)	< 25 mm	Yes	
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	< 25 mm	Yes	
	Product Specifc 10g (5.3/5.5 GHz Bands)	0 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
			Edge 1 (Top)	< 25 mm	Yes	2
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	< 25 mm	Yes	2
WLAN (Ant. 2 2.4GHz)	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	15 mm	Rear	N/A	Yes	
			Front	N/A	Yes	
	Hotspot	10 mm	Rear	< 25 mm	Yes	
			Front	< 25 mm	Yes	
			Edge 1 (Top)	< 25 mm	Yes	
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	< 25 mm	Yes	
WLAN (Ant. 2 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	15 mm	Rear	N/A	Yes	
			Front	N/A	Yes	
	Hotspot/ Wi-Fi Direct (5.2/5.8 GHz)	10 mm	Rear	< 25 mm	Yes	
			Front	< 25 mm	Yes	
			Edge 1 (Top)	< 25 mm	Yes	
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	< 25 mm	Yes	
	Product Specifc 10g	0 mm	Rear	< 25 mm	Yes	2
			Front	< 25 mm	Yes	2
			Edge 1 (Top)	< 25 mm	Yes	2
			Edge 2 (Right)	> 25 mm	No	1
			Edge 3 (Bottom)	> 25 mm	No	1
			Edge 4 (Left)	< 25 mm	Yes	2

Notes:

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
2. For Phablet devices: when Hotspot Mode is not supported, Product Specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
3. For Phablet devices: when hotspot mode applies, Product Specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

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

Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

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

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

Dielectric Property Measurements Results:

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
A	12/18/2018	835	Head	835	42.65	41.50	2.77	0.94	0.90	4.64
				805	42.72	41.68	2.50	0.93	0.90	3.83
				850	42.61	41.50	2.67	0.94	0.92	2.93
A	12/18/2018	835	Body	835	52.89	55.20	-4.18	1.00	0.97	2.58
				805	53.19	55.33	-3.88	0.96	0.97	-0.33
				850	52.75	55.16	-4.36	1.01	0.99	2.42
A	12/22/2018	835	Head	835	40.78	41.50	-1.73	0.92	0.90	2.66
				805	40.82	41.68	-2.06	0.92	0.90	1.99
				850	40.74	41.50	-1.83	0.93	0.92	1.58
A	12/22/2018	835	Body	835	53.74	55.20	-2.64	0.99	0.97	2.02
				805	53.96	55.33	-2.48	0.96	0.97	-0.73
				850	53.58	55.16	-2.86	1.00	0.99	1.71
A	12/23/2018	750	Head	750	40.78	41.96	-2.82	0.89	0.89	-0.55
				660	41.43	42.42	-2.34	0.86	0.89	-3.00
				800	40.89	41.71	-1.95	0.91	0.90	1.17
A	12/23/2018	750	Body	750	54.40	55.55	-2.06	0.98	0.96	1.30
				700	55.38	55.74	-0.64	0.92	0.96	-4.41
				725	54.97	55.64	-1.21	0.94	0.96	-2.17
A	1/10/2019	5250	Body	5250	49.44	48.95	1.00	5.32	5.35	-0.69
				5150	49.56	49.09	0.96	5.19	5.24	-0.92
				5350	49.26	48.82	0.91	5.47	5.47	-0.03
SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
B	12/25/2018	5600	Head	5600	35.93	35.53	1.11	4.84	5.06	-4.33
				5500	36.09	35.65	1.24	4.73	4.96	-4.60
				5725	35.68	35.39	0.82	4.99	5.19	-3.80
SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
C	1/24/2018	5600	Body	5600	47.85	48.48	-1.29	5.92	5.76	2.69
				5500	48.05	48.61	-1.16	5.75	5.64	1.94
				5725	47.54	48.31	-1.59	6.12	5.91	3.58
SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
D	12/19/2018	2600	Head	2600	39.52	39.01	1.31	1.98	1.96	0.96
				2495	39.68	39.14	1.37	1.89	1.85	2.45
				2690	39.35	38.90	1.16	2.06	2.06	-0.17
D	12/24/2018	2600	Body	2600	54.40	52.51	3.60	2.13	2.16	-1.29
				2495	54.65	52.64	3.81	2.01	2.01	-0.21
				2690	54.16	52.40	3.36	2.25	2.29	-1.85
D	12/24/2018	2600	Body	2600	52.25	52.51	-0.50	2.19	2.16	1.54
				2495	52.45	52.64	-0.37	2.07	2.01	2.87
				2690	52.04	52.40	-0.68	2.31	2.29	0.82
D	1/24/2018	5250	Body	5250	48.24	48.95	-1.45	5.53	5.35	3.33
				5150	48.44	49.09	-1.32	5.40	5.24	3.20
				5350	48.07	48.82	-1.53	5.68	5.47	3.76

Dielectric Property Measurements Results (continued):

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
E	12/7/2018	5200	Head	5250	34.74	35.93	-3.32	4.57	4.70	-2.85
				5150	34.92	36.05	-3.13	4.46	4.60	-3.00
				5350	34.56	35.82	-3.52	4.70	4.80	-2.24
E	12/7/2018	5600	Head	5600	34.15	35.53	-3.89	4.96	5.06	-1.98
				5500	34.32	35.65	-3.73	4.83	4.96	-2.56
				5725	33.88	35.39	-4.27	5.11	5.19	-1.47
E	12/7/2018	5750	Head	5750	33.83	35.36	-4.33	5.15	5.21	-1.30
				5700	33.95	35.42	-4.15	5.09	5.16	-1.48
				5850	33.68	35.30	-4.59	5.26	5.27	-0.17
E	12/11/2018	5250	Head	5250	37.02	35.93	3.02	4.75	4.70	1.10
				5150	37.20	36.05	3.20	4.65	4.60	1.09
				5350	36.83	35.82	2.82	4.89	4.80	1.78
E	12/11/2018	5600	Head	5600	36.40	35.53	2.44	5.16	5.06	1.89
				5500	36.59	35.65	2.64	5.03	4.96	1.51
				5725	36.10	35.39	2.00	5.34	5.19	2.93
E	12/11/2018	5750	Head	5750	36.08	35.36	2.03	5.38	5.21	3.23
				5700	36.24	35.42	2.32	5.30	5.16	2.70
				5850	35.92	35.30	1.76	5.48	5.27	3.98
E	12/11/2018	5250	Body	5250	47.85	48.95	-2.25	5.18	5.35	-3.16
				5150	48.03	49.09	-2.15	5.04	5.24	-3.73
				5350	47.63	48.82	-2.43	5.32	5.47	-2.66
E	12/11/2018	5600	Body	5600	47.17	48.48	-2.70	5.66	5.76	-1.70
				5500	47.37	48.61	-2.56	5.52	5.64	-2.17
				5725	46.92	48.31	-2.87	5.84	5.91	-1.08
E	12/11/2018	5750	Body	5750	46.88	48.27	-2.89	5.90	5.94	-0.67
				5700	46.99	48.34	-2.80	5.79	5.88	-1.42
				5850	46.71	48.20	-3.09	6.02	6.00	0.38
E	12/17/2018	5250	Body	5250	47.73	48.95	-2.50	5.21	5.35	-2.67
				5150	48.05	49.09	-2.11	5.21	5.24	-0.47
				5350	47.85	48.82	-1.98	5.39	5.47	-1.49
E	12/17/2018	5600	Body	5600	47.56	48.48	-1.89	5.76	5.76	-0.10
				5500	47.43	48.61	-2.43	5.52	5.64	-2.29
				5725	47.34	48.31	-2.00	5.95	5.91	0.77
E	12/17/2018	5750	Body	5750	47.12	48.27	-2.39	5.88	5.94	-0.94
				5700	47.27	48.34	-2.22	6.06	5.88	3.14
				5850	47.17	48.20	-2.14	6.18	6.00	2.92
E	12/20/2018	2450	Head	2450	37.90	39.20	-3.32	1.81	1.80	0.67
				2400	37.97	39.30	-3.38	1.77	1.75	1.22
				2480	37.92	39.16	-3.17	1.83	1.83	-0.02
E	12/20/2018	2450	Body	2450	51.44	52.70	-2.39	2.01	1.95	3.08
				2400	51.49	52.77	-2.43	1.97	1.90	3.63
				2480	51.45	52.66	-2.30	2.03	1.99	2.00
E	1/22/2019	2450	Body	2450	51.48	52.70	-2.31	2.01	1.95	2.97
				2400	51.53	52.77	-2.35	1.97	1.90	3.53
				2480	51.46	52.66	-2.28	2.03	1.99	1.85
E	1/28/2019	5750	Body	5750	46.57	48.27	-3.53	6.02	5.94	1.42
				5700	46.71	48.34	-3.38	6.15	5.88	4.62
				5850	46.73	48.20	-3.05	6.27	6.00	4.57

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
F	12/10/2018	1900	Body	1900	52.87	53.30	-0.81	1.58	1.52	3.75
				1850	52.97	53.30	-0.62	1.54	1.52	1.51
				1920	52.86	53.30	-0.83	1.59	1.52	4.74
F	12/10/2018	1900	Head	1900	38.89	40.00	-2.78	1.46	1.40	4.07
				1850	38.98	40.00	-2.55	1.43	1.40	1.86
				1920	38.85	40.00	-2.88	1.47	1.40	4.86
F	12/17/2018	835	Head	835	40.32	41.50	-2.84	0.91	0.90	0.90
				805	40.33	41.68	-3.24	0.90	0.90	0.17
				850	40.33	41.50	-2.82	0.91	0.92	-0.17
F	12/17/2018	835	Body	835	53.67	55.20	-2.77	0.96	0.97	-0.61
				805	53.66	55.33	-3.03	0.95	0.97	-1.41
				850	53.67	55.16	-2.70	0.97	0.99	-1.76
F	12/20/2018	1900	Head	1900	38.29	40.00	-4.28	1.40	1.40	-0.07
				1850	38.36	40.00	-4.10	1.38	1.40	-1.79
				1920	38.29	40.00	-4.28	1.41	1.40	1.00
F	12/20/2018	1900	Body	1900	50.73	53.30	-4.82	1.57	1.52	3.36
				1850	50.84	53.30	-4.62	1.54	1.52	1.45
				1920	50.74	53.30	-4.80	1.59	1.52	4.54
F	1/9/2019	5600	Body	5600	48.58	48.48	0.21	5.74	5.76	-0.33
				5500	48.78	48.61	0.34	5.55	5.64	-1.74
				5725	48.37	48.31	0.13	5.93	5.91	0.43
SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
G	12/21/2018	5250	Head	5250	35.36	35.93	-1.60	4.57	4.70	-2.75
				5150	35.54	36.05	-1.41	4.46	4.60	-3.00
				5350	35.16	35.82	-1.84	4.69	4.80	-2.30
G	12/21/2018	5750	Head	5750	34.47	35.36	-2.52	5.15	5.21	-1.15
				5700	34.58	35.42	-2.37	5.08	5.16	-1.54
				5850	34.32	35.30	-2.78	5.26	5.27	-0.27
G	12/21/2018	5250	Body	5250	49.36	48.95	0.83	5.21	5.35	-2.63
				5150	49.53	49.09	0.90	5.08	5.24	-3.06
				5350	49.18	48.82	0.74	5.36	5.47	-2.02
G	12/21/2018	5750	Body	5750	48.51	48.27	0.49	5.93	5.94	-0.05
				5700	48.58	48.34	0.49	5.87	5.88	-0.21
				5850	48.35	48.20	0.31	6.08	6.00	1.40
G	12/25/2018	5600	Body	5600	46.60	48.48	-3.87	5.83	5.76	1.21
				5500	46.79	48.61	-3.75	5.69	5.64	0.74
				5725	46.32	48.31	-4.12	6.02	5.91	1.92
G	1/7/2019	5600	Body	5600	46.27	48.48	-4.55	5.78	5.76	0.40
				5500	46.47	48.61	-4.41	5.66	5.64	0.24
				5725	46.06	48.31	-4.65	5.94	5.91	0.50
G	1/8/2019	5250	Body	5250	48.86	48.95	-0.19	5.44	5.35	1.55
				5150	49.21	49.09	0.25	5.23	5.24	-0.08
				5350	48.52	48.82	-0.61	5.52	5.47	0.96
G	1/8/2019	5600	Body	5600	48.00	48.48	-0.99	5.86	5.76	1.63
				5500	48.35	48.61	-0.54	5.81	5.64	2.93
				5725	47.71	48.31	-1.24	6.03	5.91	2.09
G	1/8/2019	5750	Body	5750	47.63	48.27	-1.34	6.20	5.94	4.45
				5700	48.08	48.34	-0.54	5.91	5.88	0.50
				5850	47.46	48.20	-1.54	6.18	6.00	3.07
G	1/24/2019	5750	Body	5750	46.69	48.27	-3.28	6.16	5.94	3.73
				5700	46.79	48.34	-3.21	6.07	5.88	3.21
				5850	46.50	48.20	-3.53	6.30	6.00	4.98
G	1/29/2019	5750	Body	5750	46.52	48.27	-3.63	6.03	5.94	1.52
				5700	46.43	48.34	-3.96	6.13	5.88	4.26
				5850	46.23	48.20	-4.09	6.26	6.00	4.33

SAR Lab	Date	Band (MHz)	Tissue Type	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta (%)	Measured	Target	Delta (%)
H	12/3/2018	750	Head	750	39.96	41.96	-4.77	0.91	0.89	1.40
				660	41.18	42.42	-2.93	0.87	0.89	-2.01
				800	40.38	41.71	-3.18	0.92	0.90	2.43
H	12/3/2018	750	Body	750	53.67	55.55	-3.38	0.96	0.96	0.12
				660	54.99	55.89	-1.61	0.92	0.96	-3.39
				800	54.19	55.35	-2.10	0.98	0.97	1.15
H	12/7/2018	835	Head	835	40.29	41.50	-2.92	0.94	0.90	4.07
				805	40.34	41.68	-3.21	0.93	0.90	3.29
				850	40.24	41.50	-3.04	0.94	0.92	2.92
H	12/7/2018	2600	Body	2600	50.89	52.51	-3.09	2.17	2.16	0.43
				2495	51.02	52.64	-3.08	2.06	2.01	2.42
				2690	50.71	52.40	-3.22	2.26	2.29	-1.06
H	12/11/2018	2600	Head	2600	39.41	39.01	1.02	1.98	1.96	0.91
				2495	39.54	39.14	1.01	1.88	1.85	1.91
				2690	39.22	38.90	0.83	2.06	2.06	-0.02
H	12/11/2018	2600	Body	2600	52.26	52.51	-0.48	2.16	2.16	-0.22
				2495	52.40	52.64	-0.46	2.05	2.01	1.68
				2690	52.06	52.40	-0.64	2.25	2.29	-1.67
H	12/13/2018	1750	Head	1750	40.38	40.08	0.74	1.36	1.37	-0.95
				1710	40.40	40.15	0.63	1.33	1.35	-1.22
				1755	40.36	40.08	0.71	1.36	1.37	-0.93
H	12/13/2018	1750	Body	1750	51.11	53.44	-4.36	1.49	1.49	0.12
				1710	51.13	53.54	-4.51	1.46	1.46	-0.04
				1755	51.10	53.43	-4.36	1.49	1.49	0.12
H	12/21/2018	1750	Head	1750	40.03	40.08	-0.14	1.37	1.37	-0.07
				1710	40.11	40.15	-0.09	1.35	1.35	-0.10
				1755	40.01	40.08	-0.17	1.37	1.37	-0.06
H	12/21/2018	1750	Body	1750	51.85	53.44	-2.98	1.46	1.49	-1.63
				1710	51.94	53.54	-2.99	1.43	1.46	-1.88
				1755	51.84	53.43	-2.97	1.47	1.49	-1.63
H	1/3/2019	835	Head	835	41.81	41.50	0.75	0.91	0.90	0.77
				805	41.83	41.68	0.36	0.90	0.90	0.10
				850	41.74	41.50	0.58	0.91	0.92	-0.33
H	1/3/2019	835	Body	835	52.79	55.20	-4.37	0.98	0.97	0.53
				805	52.82	55.33	-4.54	0.97	0.97	-0.21
				850	52.74	55.16	-4.38	0.98	0.99	-0.61
H	1/8/2019	5200	Body	5200	47.82	49.02	-2.45	5.22	5.29	-1.34
				5150	48.11	49.09	-1.99	5.21	5.24	-0.49
				5350	47.44	48.82	-2.82	5.50	5.47	0.46
H	1/8/2019	5600	Body	5600	46.93	48.48	-3.19	5.81	5.76	0.88
				5500	47.29	48.61	-2.72	5.77	5.64	2.26
				5725	46.64	48.31	-3.45	5.99	5.91	1.38

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. Refer to Appendix B for the SAR System Check Plots.

SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
A	12/18/2018	Head	D835V2 SN:4d117	5/16/2019	1.030	10.30	9.87	4.36	0.669	6.69	6.40	4.53	1,2
A	12/18/2018	Body	D835V2 SN:4d117	5/16/2019	1.040	10.40	10.31	0.87	0.681	6.81	6.84	-0.44	
A	12/22/2018	Head	D835V2 SN:4d117	5/16/2019	1.020	10.20	9.87	3.34	0.658	6.58	6.40	2.81	
A	12/22/2018	Body	D835V2 SN:4d117	5/16/2019	1.040	10.40	10.31	0.87	0.680	6.80	6.84	-0.58	
A	12/23/2018	Head	D750V3 SN:1024	5/16/2019	0.763	7.63	8.28	-7.85	0.511	5.11	5.41	-5.55	3,4
A	12/23/2018	Body	D750V3 SN:1024	5/16/2019	0.937	9.37	9.03	3.77	0.624	6.24	6.05	3.14	
A	1/10/2019	Body	D5GHzV2 SN:1138 (5.25 GHz)	8/21/2019	8.150	81.50	76.60	6.40	2.300	23.00	21.40	7.48	
SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
B	12/25/2018	Head	D5GHzV2 SN:1138 (5.6 GHz)	8/21/2019	8.170	81.70	86.00	-5.00	2.350	23.50	24.60	-4.47	5,6
SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
C	1/24/2019	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.140	81.40	77.70	4.76	2.280	22.80	21.70	5.07	7,8
SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
D	12/19/2018	Head	D2600V2 SN:1006	10/16/2019	5.930	59.30	59.31	-0.02	2.660	26.60	26.43	0.64	
D	12/19/2018	Body	D2600V2 SN:1006	10/16/2019	5.470	54.70	58.52	-6.53	2.410	24.10	26.15	-7.84	9,10
D	12/24/2018	Body	D2600V2 SN:1006	10/16/2019	5.580	55.80	58.52	-4.65	2.400	24.00	26.15	-8.22	
D	1/24/2019	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.920	79.20	73.60	7.61	2.220	22.20	20.50	8.29	11,12
SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
E	12/7/2018	Head	D5GHzV2 SN:1138 (5.25 GHz)	8/21/2019	8.050	80.50	82.60	-2.54	2.340	23.40	23.80	-1.68	
E	12/7/2018	Head	D5GHzV2 SN:1138 (5.6 GHz)	8/21/2019	8.640	86.40	86.00	0.47	2.460	24.60	24.60	0.00	
E	12/7/2018	Head	D5GHzV2 SN:1138 (5.75 GHz)	8/21/2019	8.440	84.40	82.40	2.43	2.410	24.10	23.60	2.12	
E	12/11/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	8.270	82.70	80.60	2.61	2.380	23.80	23.20	2.59	13,14
E	12/11/2018	Head	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	9.260	92.60	84.50	9.59	2.620	26.20	24.00	9.17	15,16
E	12/11/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	8.380	83.80	78.40	6.89	2.390	23.90	22.20	7.66	17,18
E	12/11/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.230	72.30	73.60	-1.77	2.050	20.50	20.50	0.00	
E	12/11/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.270	82.70	77.70	6.44	2.310	23.10	21.70	6.45	
E	12/17/2018	Body	D5GHzV2 SN:1138 (5.25 GHz)	8/21/2019	7.370	73.70	76.60	-3.79	2.080	20.80	21.40	-2.80	19,20
E	12/17/2018	Body	D5GHzV2 SN:1138 (5.6 GHz)	8/21/2019	8.000	80.00	79.50	0.63	2.290	22.90	22.20	3.15	21,22
E	12/17/2018	Body	D5GHzV2 SN:1138 (5.75 GHz)	8/21/2019	7.710	77.10	74.10	4.05	2.190	21.90	20.60	6.31	23,24
E	12/20/2018	Head	D2450V2 SN:899	3/16/2019	5.480	54.80	51.75	5.89	2.550	25.50	24.20	5.37	
E	12/20/2018	Body	D2450V2 SN:899	3/16/2019	5.180	51.80	50.55	2.47	2.390	23.90	23.20	3.02	
E	1/22/2019	Body	D2450V2 SN:706	5/18/2019	5.370	53.70	50.60	6.13	2.470	24.70	23.70	4.22	25,26
E	1/28/2019	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.020	70.20	73.90	-5.01	1.970	19.70	20.60	-4.37	

SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
F	12/10/2018	Head	D1900V2 SN:5d163	10/16/2019	3.970	39.70	38.77	2.40	2.050	20.50	20.10	1.99	
F	12/10/2018	Body	D1900V2 SN:5d163	10/16/2019	3.920	39.20	42.99	-8.82	2.020	20.20	21.97	-8.06	27,28
F	12/17/2018	Head	D835V2 SN:4d117	5/16/2019	0.976	9.76	9.87	-1.11	0.635	6.35	6.40	-0.78	
F	12/17/2018	Body	D835V2 SN:4d117	5/16/2019	0.962	9.62	10.31	-6.69	0.631	6.31	6.84	-7.75	29,30
F	12/20/2018	Head	D1900V2 SN:5d140	4/11/2019	3.850	38.50	38.93	-1.10	1.970	19.70	20.14	-2.18	
F	12/20/2018	Body	D1900V2 SN:5d140	4/11/2019	4.010	40.10	41.00	-2.20	2.070	20.70	21.05	-1.66	31,32
F	1/9/2019	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.230	82.30	77.70	5.92	2.300	23.00	21.70	5.99	33,34
SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
G	12/21/2018	Head	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.890	78.90	80.60	-2.11	2.330	23.30	23.20	0.43	
G	12/21/2018	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.350	73.50	73.60	-0.14	2.110	21.10	20.50	2.93	
G	12/21/2018	Head	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.920	79.20	78.40	1.02	2.320	23.20	22.20	4.50	
G	12/21/2018	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.730	77.30	73.90	4.60	2.220	22.20	20.60	7.77	
G	12/25/2018	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	8.140	81.40	77.70	4.76	2.360	23.60	21.70	8.76	
G	1/7/2019	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	7.330	73.30	77.70	-5.66	2.070	20.70	21.70	-4.61	
G	1/8/2019	Body	D5GHzV2 SN:1003 (5.25 GHz)	3/13/2019	7.830	78.30	73.60	6.39	2.230	22.30	20.50	8.78	35,36
G	1/8/2019	Body	D5GHzV2 SN:1003 (5.60 GHz)	3/13/2019	7.300	73.00	77.70	-6.05	2.050	20.50	21.70	-5.53	37,38
G	1/8/2019	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	6.880	68.80	73.90	-6.90	1.940	19.40	20.60	-5.83	39,40
G	1/24/2019	Body	D5GHzV2 SN:1138 (5.75 GHz)	8/21/2019	7.540	75.40	74.10	1.75	2.140	21.40	20.60	3.88	41,42
G	1/29/2019	Body	D5GHzV2 SN:1003 (5.75 GHz)	3/13/2019	7.670	76.70	73.90	3.79	2.160	21.60	20.60	4.85	
SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
H	12/3/2018	Head	D750V3 SN:1024	5/16/2019	0.847	8.47	8.28	2.29	0.556	5.56	5.41	2.77	
H	12/3/2018	Body	D750V3 SN:1024	5/16/2019	0.991	9.91	9.03	9.75	0.653	6.53	6.05	7.93	43,44
H	12/3/2018	Head	D835V2 SN:4d142	8/23/2019	0.996	9.96	9.48	5.06	0.648	6.48	6.10	6.23	45,46
H	12/3/2018	Body	D835V2 SN:4d142	8/23/2019	0.927	9.27	9.68	-4.24	0.607	6.07	6.36	-4.56	47,48
H	12/7/2018	Head	D835V2 SN:4d142	8/23/2019	0.983	9.83	9.48	3.69	0.638	6.38	6.10	4.59	
H	12/7/2018	Body	D2600V2 SN:1036	3/16/2019	5.750	57.50	56.13	2.44	2.530	25.30	25.04	1.04	
H	12/11/2018	Head	D2600V2 SN:1036	3/16/2019	5.750	57.50	54.54	5.43	2.560	25.60	24.56	4.23	49,50
H	12/11/2018	Body	D2600V2 SN:1036	3/16/2019	5.360	53.60	56.13	-4.51	2.360	23.60	25.04	-5.75	
H	12/13/2018	Head	D1750V2 SN:1050	4/10/2019	3.770	37.70	36.50	3.29	1.990	19.90	19.42	2.47	
H	12/13/2018	Body	D1750V2 SN:1050	4/10/2019	4.050	40.50	37.18	8.93	2.130	21.30	19.74	7.90	51,52
H	12/21/2018	Head	D1750V2 SN:1050	4/10/2019	3.970	39.70	36.50	8.77	2.090	20.90	19.42	7.62	
H	12/21/2018	Body	D1750V2 SN:1050	4/10/2019	3.980	39.80	37.18	7.05	2.110	21.10	19.74	6.89	
H	1/3/2019	Head	D835V2 SN:4d142	8/23/2019	0.908	9.08	9.48	-4.22	0.591	5.91	6.10	-3.11	
H	1/3/2019	Body	D835V2 SN:4d142	8/23/2019	1.010	10.10	9.68	4.34	0.664	6.64	6.36	4.40	
H	1/8/2019	Body	D5GHzV2 SN:1138 (5.6 GHz)	8/21/2019	8.060	80.60	79.50	1.38	2.230	22.30	22.20	0.45	

9. Conducted Output Power Measurements

9.1. GSM

Per KDB 941225 D01 3G SAR Procedures:

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

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

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

Per October 2013 TCB Workshop:

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

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

GSM850 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			
					Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	128	824.2	33.79	24.76	34.00	**24.97**
			190	836.6	34.00	24.97		
			251	848.8	33.90	24.87		
		2	128	824.2	31.67	25.65	32.50	26.48
			190	836.6	31.79	25.77		
			251	848.8	31.80	25.78		
		3	128	824.2	30.14	25.88	30.80	**26.54**
			190	836.6	30.25	25.99		
			251	848.8	30.25	25.99		
		4	128	824.2	29.09	26.08	29.50	26.49
			190	836.6	29.18	26.17		
			251	848.8	29.20	26.19		
EDGE (8PSK)	MCS5	1	128	824.2	27.10	18.07	27.50	18.47
			190	836.6	27.36	18.33		
			251	848.8	27.36	18.33		
		2	128	824.2	25.15	19.13	25.50	19.48
			190	836.6	25.10	19.08		
			251	848.8	25.30	19.28		
		3	128	824.2	24.02	19.76	24.30	20.04
			190	836.6	24.30	20.04		
			251	848.8	24.30	20.04		
		4	128	824.2	22.70	19.69	23.10	20.09
			190	836.6	22.74	19.73		
			251	848.8	23.00	19.99		

Notes:

1. Head and Body-worn RF Exposure Conditions only supports GMSK Voice mode with 1 time slot. SAR testing was performed on GMSK Voice mode with 1time slot.
2. Hotspot RF Exposure Condition supports GPRS/EDGE (GMSK) mode. SAR testing was performed on GPRS/EDGE (GMSK) mode with 3 time slots for Max power based on the Tune-up Procedure.

GSM1900 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)				Reduced Average Power (dBm)			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GPRS/EDGE (GMSK)	CS1	1	512	1850.2	30.79	21.76	31.00	**21.97**	30.79	21.76	31.00	**21.97**
			661	1880.0	30.96	21.93			30.96	21.93		
			810	1909.8	30.64	21.61			30.64	21.61		
		2	512	1850.2	28.83	22.81	29.00	22.98	25.35	19.33	25.70	19.68
			661	1880.0	29.00	22.98			25.70	19.68		
			810	1909.8	28.85	22.83			25.40	19.38		
		3	512	1850.2	26.30	22.04	27.00	22.74	23.38	19.12	24.50	20.24
			661	1880.0	26.75	22.49			23.83	19.57		
			810	1909.8	26.20	21.94			23.26	19.00		
		4	512	1850.2	24.44	21.43	25.50	22.49	21.85	18.84	23.00	19.99
			661	1880.0	25.06	22.05			22.09	19.08		
			810	1909.8	24.44	21.43			21.73	18.72		
EDGE (8PSK)	MCS5	1	512	1850.2	26.27	17.24	26.50	17.47	26.04	17.01	26.50	17.47
			661	1880.0	26.50	17.47			26.40	17.37		
			810	1909.8	26.14	17.11			26.16	17.13		
		2	512	1850.2	23.90	17.88	24.50	18.48	24.00	17.98	24.50	18.48
			661	1880.0	24.36	18.34			24.24	18.22		
			810	1909.8	23.90	17.88			24.01	17.99		
		3	512	1850.2	22.45	18.19	23.30	19.04	22.46	18.20	23.30	19.04
			661	1880.0	22.91	18.65			22.84	18.58		
			810	1909.8	22.41	18.15			22.56	18.30		
		4	512	1850.2	20.93	17.92	22.10	19.09	21.07	18.06	22.10	19.09
			661	1880.0	21.18	18.17			21.31	18.30		
			810	1909.8	20.93	17.92			21.00	17.99		

Notes:

1. Head and Body-worn RF Exposure Conditions only supports GMSK Voice mode with 1 time slot. SAR testing was performed on GMSK Voice mode with 1time slot.
2. Hotspot RF Exposure Condition supports GPRS/EDGE (GMSK) mode. SAR testing was performed on GPRS/EDGE (GMSK) mode with 1 time slot for Max power based on the Tune-up Procedure.

9.2. W-CDMA

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

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

Release 99 Setup Procedures used to establish the test signals

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1. A summary of these settings is illustrated below:

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

HSDPA Setup Procedures used to establish the test signals

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.

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

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

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

HSUPA Setup Procedures used to establish the test signals

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed}1: 47/15 β_{ed}2: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with β_{hs} = 5/15 * β_c.

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

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

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

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

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

HSPA+ Setup Procedures used to establish the test signals

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

W-CDMA Band II Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			Reduced Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	23.01	N/A	23.50	20.01	N/A	20.50
		9400	1880.0	23.05			20.00		
		9538	1907.6	23.10			20.08		
HSDPA	Subtest 1	9262	1852.4	23.04	0	23.50	20.02	0	20.50
		9400	1880.0	23.06			20.02		
		9538	1907.6	23.09			20.05		
	Subtest 2	9262	1852.4	22.67	0	23.50	20.02	0	20.50
		9400	1880.0	22.63			20.02		
		9538	1907.6	22.73			20.09		
	Subtest 3	9262	1852.4	22.21	0.5	23.00	20.02	0	20.50
		9400	1880.0	22.18			20.02		
		9538	1907.6	22.23			20.10		
	Subtest 4	9262	1852.4	21.68	0.5	23.00	20.04	0	20.50
		9400	1880.0	21.70			20.30		
		9538	1907.6	21.74			20.08		
HSUPA	Subtest 1	9262	1852.4	23.01	0	23.50	18.97	0	20.50
		9400	1880.0	23.03			18.97		
		9538	1907.6	23.08			19.05		
	Subtest 2	9262	1852.4	21.21	2.0	21.50	18.97	0	20.50
		9400	1880.0	21.15			18.97		
		9538	1907.6	21.21			19.04		
	Subtest 3	9262	1852.4	22.01	1.0	22.50	19.00	0	20.50
		9400	1880.0	21.98			19.00		
		9538	1907.6	22.06			19.05		
	Subtest 4	9262	1852.4	21.21	2.0	21.50	18.97	0	20.30
		9400	1880.0	21.15			18.97		
		9538	1907.6	21.21			19.04		
	Subtest 5	9262	1852.4	23.01	0	23.50	19.98	0	20.50
		9400	1880.0	23.03			19.98		
		9538	1907.6	23.08			20.04		

W-CDMA Band IV Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			Reduced Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	22.05	N/A	23.30	18.65	N/A	20.50
		1413	1732.6	22.47			18.93		
		1513	1752.6	23.10			19.60		
HSDPA	Subtest 1	1312	1712.4	21.81	0	23.30	18.28	0	20.50
		1413	1732.6	22.20			18.55		
		1513	1752.6	22.95			19.22		
	Subtest 2	1312	1712.4	20.90	0	23.30	18.28	0	20.50
		1413	1732.6	21.00			18.55		
		1513	1752.6	21.00			19.27		
	Subtest 3	1312	1712.4	20.80	0.5	22.80	18.26	0	20.50
		1413	1732.6	21.10			18.55		
		1513	1752.6	22.51			19.25		
	Subtest 4	1312	1712.4	21.54	0.5	22.80	18.28	0	20.50
		1413	1732.6	21.30			18.58		
		1513	1752.6	22.60			19.25		
HSUPA	Subtest 1	1312	1712.4	20.92	0	23.30	18.29	0	20.50
		1413	1732.6	21.32			18.60		
		1513	1752.6	22.02			19.27		
	Subtest 2	1312	1712.4	20.13	2.0	21.30	18.31	0	20.50
		1413	1732.6	20.59			18.60		
		1513	1752.6	21.28			19.34		
	Subtest 3	1312	1712.4	21.00	1.0	22.30	18.29	0	20.50
		1413	1732.6	21.41			18.60		
		1513	1752.6	21.99			19.27		
	Subtest 4	1312	1712.4	20.68	2.0	21.30	18.31	0	20.50
		1413	1732.6	21.06			18.60		
		1513	1752.6	21.28			19.34		
	Subtest 5	1312	1712.4	21.95	0	23.30	18.29	0	20.50
		1413	1732.6	22.42			18.60		
		1513	1752.6	23.05			19.27		

W-CDMA Band V Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.62	N/A	25.00
		4183	836.6	24.67		
		4233	846.6	24.50		
HSDPA	Subtest 1	4132	826.4	23.73	0	24.00
		4183	836.6	23.76		
		4233	846.6	23.59		
	Subtest 2	4132	826.4	23.17	0	24.00
		4183	836.6	23.26		
		4233	846.6	23.04		
	Subtest 3	4132	826.4	22.72	0.5	23.50
		4183	836.6	22.76		
		4233	846.6	22.57		
	Subtest 4	4132	826.4	22.24	0.5	23.50
		4183	836.6	22.30		
		4233	846.6	22.11		
HSUPA	Subtest 1	4132	826.4	22.43	0	23.50
		4183	836.6	22.50		
		4233	846.6	22.32		
	Subtest 2	4132	826.4	20.44	2.0	21.50
		4183	836.6	20.53		
		4233	846.6	20.33		
	Subtest 3	4132	826.4	21.45	1.0	22.50
		4183	836.6	21.58		
		4233	846.6	21.34		
	Subtest 4	4132	826.4	20.43	2.0	21.50
		4183	836.6	20.52		
		4233	846.6	20.31		
	Subtest 5	4132	826.4	23.42	0	23.50
		4183	836.6	23.50		
		4233	846.6	23.32		

9.3. LTE

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

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

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

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

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

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

Network Signalling value	Requirements (subclause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	N/A

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

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

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

SAR measurement is not required for the 16QAM and 64QAM. When the highest maximum output power for 16QAM and 64QAM is ≤ ½ dB higher than the QPSK or when the reported SAR for the QPSK configuration is ≤ 1.45 W/kg.

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

LTE Band 5 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				[redacted]	20525	[redacted]		
					836.5 MHz			
10 MHz	QPSK	1	0		24.67		0	25
		1	25		24.57		0	25
		1	49		24.53		0	25
		25	0		22.13		2	23
		25	12		22.05		2	23
		25	25		22.05		2	23
		50	0		22.08		2	23
	16QAM	1	0		22.17		2	23
		1	25		21.94		2	23
		1	49		22.06		2	23
		25	0		21.13		3	22
		25	12		21.07		3	22
		25	25		21.03		3	22
		50	0		21.12		3	22
	64QAM	1	0		21.30		3	22
		1	25		21.10		3	22
		1	49		21.19		3	22
		25	0		20.12		4	21
		25	12		20.09		4	21
		25	25		20.04		4	21
		50	0		20.09		4	21

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				20425	20525	20625		
				826.5 MHz	836.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	24.71	24.58	24.47	0	25
		1	12	24.71	24.47	24.43	0	25
		1	24	24.69	24.59	24.46	0	25
		12	0	22.18	22.11	22.00	2	23
		12	7	22.15	22.09	21.98	2	23
		12	13	22.16	22.10	21.96	2	23
		25	0	22.14	22.08	21.96	2	23
	16QAM	1	0	22.53	22.47	22.33	2	23
		1	12	22.59	22.55	22.22	2	23
		1	24	22.45	22.38	22.24	2	23
		12	0	21.22	21.16	21.01	3	22
		12	7	21.20	21.10	21.00	3	22
		12	13	21.23	21.09	21.01	3	22
		25	0	21.20	21.11	20.99	3	22
	64QAM	1	0	21.47	21.52	21.42	3	22
		1	12	21.31	21.36	21.23	3	22
		1	24	21.52	21.36	21.30	3	22
		12	0	20.31	20.14	20.06	4	21
		12	7	20.30	20.14	20.03	4	21
		12	13	20.28	20.15	20.04	4	21
		25	0	20.25	20.08	19.98	4	21

LTE Band 5 Measured Results (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				20415	20525	20635		
				825.5 MHz	836.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.75	24.63	24.59	0	25
		1	8	24.52	24.88	24.83	0	25
		1	14	24.66	24.67	24.61	0	25
		8	0	22.20	22.09	22.01	2	23
		8	4	22.18	22.05	22.02	2	23
		8	7	22.16	22.08	22.01	2	23
		15	0	22.19	22.07	22.02	2	23
	16QAM	1	0	22.48	22.19	22.23	2	23
		1	8	22.54	22.32	22.23	2	23
		1	14	22.36	22.28	22.29	2	23
		8	0	21.21	21.09	20.99	3	22
		8	4	21.22	21.07	20.97	3	22
		8	7	21.22	21.11	20.98	3	22
		15	0	21.20	21.13	21.01	3	22
	64QAM	1	0	21.53	21.26	21.33	3	22
		1	8	21.50	20.85	21.38	3	22
		1	14	21.57	21.27	21.37	3	22
		8	0	20.24	20.14	20.10	4	21
		8	4	20.27	20.14	20.07	4	21
		8	7	20.26	20.10	20.10	4	21
		15	0	20.19	20.11	20.02	4	21

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				20407	20525	20643		
				824.7 MHz	836.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.71	24.70	24.61	0	25
		1	3	24.63	24.60	24.52	0	25
		1	5	24.64	24.61	24.51	0	25
		3	0	24.53	24.58	24.51	0	25
		3	1	24.49	24.61	24.41	0	25
		3	3	24.61	24.55	24.53	0	25
		6	0	22.05	22.07	22.00	2	23
	16QAM	1	0	22.59	22.21	22.16	2	23
		1	3	22.51	21.96	21.92	2	23
		1	5	22.46	22.12	22.06	2	23
		3	0	22.20	22.09	22.10	2	23
		3	1	22.32	22.05	21.99	2	23
		3	3	22.32	22.10	22.05	2	23
		6	0	21.07	21.18	21.00	3	22
	64QAM	1	0	21.32	21.46	21.35	3	22
		1	3	21.26	21.38	21.27	3	22
		1	5	21.13	21.28	21.22	3	22
		3	0	21.13	21.09	21.06	3	22
		3	1	21.11	21.09	21.05	3	22
		3	3	21.13	21.09	21.11	3	22
		6	0	20.11	20.10	20.00	4	21

LTE Band 12 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				[redacted]	23095	[redacted]		
				[redacted]	707.5 MHz	[redacted]		
10 MHz	QPSK	1	0	[redacted]	24.00	[redacted]	0	25
		1	25	[redacted]	24.00	[redacted]	0	25
		1	49	[redacted]	24.00	[redacted]	0	25
		25	0	[redacted]	22.12	[redacted]	2	23
		25	12	[redacted]	22.08	[redacted]	2	23
		25	25	[redacted]	22.05	[redacted]	2	23
		50	0	[redacted]	22.10	[redacted]	2	23
	16QAM	1	0	[redacted]	22.22	[redacted]	1.5	23.5
		1	25	[redacted]	21.97	[redacted]	1.5	23.5
		1	49	[redacted]	22.12	[redacted]	1.5	23.5
		25	0	[redacted]	21.14	[redacted]	2.5	22.5
		25	12	[redacted]	21.10	[redacted]	2.5	22.5
		25	25	[redacted]	21.06	[redacted]	2.5	22.5
		50	0	[redacted]	21.11	[redacted]	2.5	22.5
	64QAM	1	0	[redacted]	21.22	[redacted]	2.5	22.5
		1	25	[redacted]	21.02	[redacted]	2.5	22.5
		1	49	[redacted]	21.00	[redacted]	2.5	22.5
		25	0	[redacted]	20.16	[redacted]	3.5	21.5
		25	12	[redacted]	20.11	[redacted]	3.5	21.5
		25	25	[redacted]	20.09	[redacted]	3.5	21.5
		50	0	[redacted]	20.10	[redacted]	3.5	21.5

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				23035	23095	23155		
				701.5 MHz	707.5 MHz	713.5 MHz		
5 MHz	QPSK	1	0	24.00	24.00	23.99	0	25
		1	12	24.00	24.00	23.89	0	25
		1	24	24.00	24.00	23.97	0	25
		12	0	22.28	22.09	22.03	2	23
		12	7	22.25	22.06	22.01	2	23
		12	13	22.23	22.05	22.01	2	23
		25	0	22.25	22.08	22.01	2	23
	16QAM	1	0	22.50	22.59	22.27	1.5	23.5
		1	12	22.45	22.51	22.22	1.5	23.5
		1	24	22.51	22.46	22.18	1.5	23.5
		12	0	21.31	21.12	21.05	2.5	22.5
		12	7	21.29	21.08	21.05	2.5	22.5
		12	13	21.28	21.11	21.05	2.5	22.5
		25	0	21.24	21.13	21.07	2.5	22.5
	64QAM	1	0	21.36	21.64	21.21	2.5	22.5
		1	12	21.23	21.41	20.98	2.5	22.5
		1	24	21.41	21.48	21.23	2.5	22.5
		12	0	20.40	20.14	20.14	3.5	21.5
		12	7	20.34	20.14	20.10	3.5	21.5
		12	13	20.34	20.13	20.08	3.5	21.5
		25	0	20.28	20.09	20.09	3.5	21.5

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	24.00	24.00	24.00	0	25
		1	8	24.00	24.00	24.00	0	25
		1	14	24.00	24.00	24.00	0	25
		8	0	22.24	22.07	22.01	2	23
		8	4	22.25	22.03	21.98	2	23
		8	7	22.20	22.02	21.97	2	23
		15	0	22.26	22.05	22.02	2	23
	16QAM	1	0	22.70	22.19	22.43	1.5	23.5
		1	8	22.60	22.19	22.76	1.5	23.5
		1	14	22.51	22.25	22.50	1.5	23.5
		8	0	21.29	21.13	21.02	2.5	22.5
		8	4	21.29	21.10	21.02	2.5	22.5
		8	7	21.30	21.11	21.02	2.5	22.5
		15	0	21.23	21.07	21.04	2.5	22.5
	64QAM	1	0	21.64	21.18	21.27	2.5	22.5
		1	8	21.59	21.29	21.43	2.5	22.5
		1	14	21.57	21.27	21.23	2.5	22.5
		8	0	20.32	20.20	20.15	3.5	21.5
		8	4	20.29	20.20	20.10	3.5	21.5
		8	7	20.30	20.16	20.12	3.5	21.5
		15	0	20.27	20.07	20.05	3.5	21.5

LTE Band 12 Measured Results (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				23017	23095	23173		
				699.7 MHz	707.5 MHz	715.3 MHz		
1.4 MHz	QPSK	1	0	24.00	24.00	24.00	0	25
		1	3	24.00	24.00	23.97	0	25
		1	5	24.00	24.00	23.95	0	25
		3	0	24.00	23.98	23.91	0	25
		3	1	24.00	23.91	23.93	0	25
		3	3	24.00	23.97	23.93	0	25
		6	0	22.23	22.02	21.93	2	23
	16QAM	1	0	22.48	22.33	22.49	1.5	23.5
		1	3	22.29	22.22	22.29	1.5	23.5
		1	5	22.38	22.20	22.38	1.5	23.5
		3	0	22.34	22.04	22.06	2	23
		3	1	22.25	21.91	22.15	2	23
		3	3	22.28	22.11	22.16	2	23
		6	0	21.33	21.12	20.99	2.5	22.5
	64QAM	1	0	21.61	21.35	21.22	2.5	22.5
		1	3	21.55	21.32	21.00	2.5	22.5
		1	5	21.47	21.19	21.05	2.5	22.5
		3	0	21.24	21.09	20.94	2.5	22.5
		3	1	21.26	21.10	20.89	2.5	22.5
		3	3	21.27	21.10	20.96	2.5	22.5
		6	0	20.25	20.09	20.03	3.5	21.5

LTE Band 13 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				[redacted]	23230	[redacted]		
					782 MHz			
10 MHz	QPSK	1	0		23.42		0	25
		1	25		23.29		0	25
		1	49		23.30		0	25
		25	0		22.34		2	23
		25	12		22.29		2	23
		25	25		22.25		2	23
		50	0		21.89		2	23
	16QAM	1	0		22.56		2	23
		1	25		22.27		2	23
		1	49		22.44		2	23
		25	0		21.27		3	22
		25	12		21.25		3	22
		25	25		21.19		3	22
		50	0		20.71		3	22
	64QAM	1	0		21.69		2.5	22.5
		1	25		21.55		2.5	22.5
		1	49		21.63		2.5	22.5
		25	0		20.33		3.5	21.5
		25	12		20.31		3.5	21.5
		25	25		20.25		3.5	21.5
		50	0		19.73		3.5	21.5

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				[redacted]	23230	[redacted]		
					782 MHz			
5 MHz	QPSK	1	0		23.35		0	25
		1	12		23.30		0	25
		1	24		23.34		0	25
		12	0		22.36		2	23
		12	7		22.33		2	23
		12	13		22.32		2	23
		25	0		22.33		2	23
	16QAM	1	0		22.84		2	23
		1	12		22.82		2	23
		1	24		22.72		2	23
		12	0		21.36		3	22
		12	7		21.34		3	22
		12	13		21.37		3	22
		25	0		21.38		3	22
	64QAM	1	0		21.74		2.5	22.5
		1	12		21.56		2.5	22.5
		1	24		21.60		2.5	22.5
		12	0		20.46		3.5	21.5
		12	7		20.48		3.5	21.5
		12	13		20.49		3.5	21.5
		25	0		20.40		3.5	21.5

LTE Band 25 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				26140	26365	26590	MPR	Tune-up Limit	26140	26365	26590	MPR	Tune-up Limit
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	23.39	23.64	23.32	0	24	20.38	20.62	20.28	0	21
		1	49	23.25	23.27	23.17	0	24	20.25	20.26	20.15	0	21
		1	99	23.07	23.36	23.07	0	24	20.06	20.35	20.06	0	21
		50	0	22.28	22.56	22.26	1	23	20.27	20.53	20.25	0	21
		50	24	22.21	22.48	22.21	1	23	20.23	20.47	20.20	0	21
		50	50	22.14	22.38	22.15	1	23	20.14	20.38	20.15	0	21
		100	0	22.21	22.47	22.21	1	23	20.22	20.46	20.19	0	21
	16QAM	1	0	22.53	22.99	22.62	1	23	20.63	21.00	20.55	0	21
		1	49	22.33	22.70	22.25	1	23	20.35	20.77	20.23	0	21
		1	99	22.25	22.65	22.39	1	23	20.34	20.78	20.34	0	21
		50	0	21.26	21.53	21.21	2	22	20.25	20.53	20.20	0	21
		50	24	21.18	21.43	21.16	2	22	20.19	20.45	20.17	0	21
		50	50	21.11	21.37	21.09	2	22	20.13	20.36	20.09	0	21
		100	0	21.11	21.40	21.16	2	22	20.11	20.40	20.17	0	21
	64QAM	1	0	21.66	21.96	21.37	2	22	20.43	20.99	20.82	0	21
		1	49	21.46	21.64	21.12	2	22	20.11	20.75	20.69	0	21
		1	99	21.40	21.69	21.15	2	22	20.09	20.62	20.58	0	21
		50	0	20.20	20.48	20.19	3	21	20.20	20.49	20.20	0	21
		50	24	20.15	20.39	20.16	3	21	20.14	20.38	20.16	0	21
		50	50	20.07	20.30	20.10	3	21	20.09	20.34	20.10	0	21
		100	0	20.13	20.39	20.13	3	21	20.12	20.40	20.15	0	21

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				26115	26365	26615	MPR	Tune-up Limit	26115	26365	26615	MPR	Tune-up Limit
				1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	QPSK	1	0	23.35	23.56	23.26	0	24	20.39	20.54	20.24	0	21
		1	37	23.46	23.43	23.39	0	24	20.53	20.36	20.42	0	21
		1	74	23.12	23.34	23.05	0	24	20.13	20.34	20.02	0	21
		36	0	22.32	22.58	22.26	1	23	20.31	20.57	20.24	0	21
		36	20	22.28	22.53	22.22	1	23	20.26	20.52	20.20	0	21
		36	39	22.23	22.47	22.19	1	23	20.22	20.49	20.17	0	21
		75	0	22.30	22.58	22.26	1	23	20.30	20.57	20.24	0	21
	16QAM	1	0	22.63	22.92	22.43	1	23	20.64	20.85	20.43	0	21
		1	37	22.81	22.80	22.56	1	23	20.76	20.76	20.56	0	21
		1	74	22.39	22.72	22.24	1	23	20.40	20.61	20.23	0	21
		36	0	21.29	21.53	21.21	2	22	20.27	20.54	20.20	0	21
		36	20	21.23	21.48	21.17	2	22	20.22	20.49	20.15	0	21
		36	39	21.20	21.44	21.12	2	22	20.17	20.44	20.12	0	21
		75	0	21.23	21.52	21.18	2	22	20.25	20.52	20.19	0	21
	64QAM	1	0	21.39	21.65	21.45	2	22	20.58	20.83	20.39	0	21
		1	37	21.36	21.69	21.54	2	22	20.56	20.85	20.39	0	21
		1	74	21.17	21.42	21.27	2	22	20.32	20.54	20.22	0	21
		36	0	20.23	20.51	20.27	3	21	20.26	20.53	20.25	0	21
		36	20	20.17	20.46	20.21	3	21	20.21	20.46	20.23	0	21
		36	39	20.14	20.40	20.17	3	21	20.17	20.43	20.18	0	21
		75	0	20.21	20.49	20.20	3	21	20.22	20.48	20.19	0	21

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				26090	26365	26640	MPR	Tune-up Limit	26090	26365	26640	MPR	Tune-up Limit
				1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	QPSK	1	0	23.24	23.56	23.18	0	24	20.21	20.55	20.24	0	21
		1	25	23.11	23.39	23.10	0	24	20.11	20.37	20.12	0	21
		1	49	23.14	23.42	23.06	0	24	20.14	20.39	20.09	0	21
		25	0	22.20	22.51	22.21	1	23	20.21	20.50	20.20	0	21
		25	12	22.19	22.47	22.17	1	23	20.18	20.44	20.15	0	21
		25	25	22.17	22.44	22.13	1	23	20.17	20.45	20.13	0	21
		50	0	22.20	22.47	22.17	1	23	20.21	20.46	20.16	0	21
	16QAM	1	0	22.67	22.77	22.37	1	23	20.55	20.74	20.49	0	21
		1	25	22.56	22.41	22.10	1	23	20.45	20.41	20.25	0	21
		1	49	22.61	22.58	22.22	1	23	20.54	20.56	20.35	0	21
		25	0	21.20	21.50	21.18	2	22	20.23	20.51	20.17	0	21
		25	12	21.20	21.47	21.13	2	22	20.19	20.46	20.13	0	21
		25	25	21.16	21.45	21.08	2	22	20.18	20.44	20.10	0	21
		50	0	21.16	21.45	21.16	2	22	20.16	20.43	20.17	0	21
	64QAM	1	0	21.26	21.88	21.41	2	22	20.50	20.78	20.38	0	21
		1	25	21.18	21.58	21.19	2	22	20.42	20.54	20.18	0	21
		1	49	21.26	21.76	21.19	2	22	20.49	20.68	20.14	0	21
		25	0	20.17	20.52	20.22	3	21	20.17	20.51	20.20	0	21
		25	12	20.16	20.49	20.19	3	21	20.15	20.47	20.16	0	21
		25	25	20.12	20.46	20.14	3	21	20.11	20.44	20.12	0	21
		50	0	20.14	20.46	20.16	3	21	20.15	20.45	20.16	0	21

LTE Band 25 Measured Results (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				26065	26365	26665	MPR	Tune-up Limit	26065	26365	26665	MPR	Tune-up Limit
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	QPSK	1	0	23.18	23.51	23.21	0	24	20.18	20.46	20.21	0	21
		1	12	23.40	23.44	23.13	0	24	20.27	20.28	20.35	0	21
		1	24	23.17	23.50	23.14	0	24	20.15	20.47	20.16	0	21
		12	0	22.16	22.47	22.20	1	23	20.14	20.46	20.19	0	21
		12	7	22.13	22.45	22.16	1	23	20.11	20.45	20.16	0	21
		12	13	22.12	22.45	22.14	1	23	20.11	20.46	20.13	0	21
		25	0	22.14	22.45	22.17	1	23	20.11	20.43	20.13	0	21
	16QAM	1	0	22.50	22.88	22.68	1	23	20.31	20.82	20.44	0	21
		1	12	22.47	22.96	22.74	1	23	20.44	20.89	20.24	0	21
		1	24	22.52	22.87	22.53	1	23	20.35	20.69	20.39	0	21
		12	0	21.20	21.49	21.18	2	22	20.19	20.43	20.19	0	21
		12	7	21.14	21.44	21.17	2	22	20.14	20.42	20.18	0	21
		12	13	21.16	21.41	21.18	2	22	20.13	20.44	20.14	0	21
		25	0	21.15	21.38	21.19	2	22	20.07	20.43	20.18	0	21
	64QAM	1	0	21.55	21.53	21.57	2	22	20.52	20.55	20.31	0	21
		1	12	21.15	21.54	21.49	2	22	20.34	20.62	20.27	0	21
		1	24	21.43	21.52	21.55	2	22	20.40	20.57	20.29	0	21
		12	0	20.18	20.47	20.27	3	21	20.17	20.48	20.27	0	21
		12	7	20.13	20.43	20.19	3	21	20.12	20.42	20.19	0	21
		12	13	20.14	20.45	20.15	3	21	20.12	20.44	20.16	0	21
		25	0	20.06	20.41	20.17	3	21	20.09	20.40	20.18	0	21

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				26055	26365	26675	MPR	Tune-up Limit	26055	26365	26675	MPR	Tune-up Limit
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	23.15	23.55	23.30	0	24	20.16	20.46	20.25	0	21
		1	8	23.42	23.40	23.48	0	24	20.39	20.39	20.48	0	21
		1	14	23.20	23.42	23.25	0	24	20.17	20.38	20.26	0	21
		8	0	22.16	22.49	22.19	1	23	20.12	20.47	20.18	0	21
		8	4	22.13	22.48	22.15	1	23	20.07	20.48	20.13	0	21
		8	7	22.15	22.45	22.17	1	23	20.09	20.43	20.13	0	21
		15	0	22.12	22.45	22.17	1	23	20.09	20.44	20.15	0	21
	16QAM	1	0	22.54	22.79	22.24	1	23	20.44	20.79	20.29	0	21
		1	8	22.77	22.73	22.42	1	23	20.77	20.70	20.22	0	21
		1	14	22.61	22.60	22.28	1	23	20.61	20.53	20.26	0	21
		8	0	21.06	21.43	21.25	2	22	20.09	20.49	20.27	0	21
		8	4	21.09	21.47	21.27	2	22	20.06	20.52	20.24	0	21
		8	7	21.06	21.47	21.23	2	22	20.08	20.50	20.23	0	21
		15	0	21.08	21.39	21.17	2	22	20.10	20.39	20.17	0	21
	64QAM	1	0	21.45	21.58	21.27	2	22	20.07	20.62	20.34	0	21
		1	8	21.44	21.63	20.97	2	22	20.09	20.83	20.14	0	21
		1	14	21.23	21.55	21.11	2	22	20.16	20.65	20.25	0	21
		8	0	20.03	20.53	20.22	3	21	20.06	20.53	20.21	0	21
		8	4	20.01	20.46	20.22	3	21	20.06	20.50	20.20	0	21
		8	7	19.98	20.49	20.20	3	21	20.05	20.50	20.18	0	21
		15	0	20.06	20.45	20.15	3	21	20.06	20.47	20.14	0	21

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				26047	26365	26683	MPR	Tune-up Limit	26047	26365	26683	MPR	Tune-up Limit
				1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz		
1.4 MHz	QPSK	1	0	23.26	23.57	23.26	0	24	20.26	20.55	20.29	0	21
		1	3	23.14	23.46	23.19	0	24	20.09	20.45	20.19	0	21
		1	5	23.17	23.47	23.15	0	24	20.14	20.45	20.19	0	21
		3	0	23.08	23.34	23.06	0	24	20.02	20.36	20.12	0	21
		3	1	23.13	23.38	23.04	0	24	20.05	20.24	20.12	0	21
		3	3	23.10	23.39	23.09	0	24	20.07	20.33	20.17	0	21
		6	0	22.15	22.48	22.19	1	23	20.12	20.43	20.13	0	21
	16QAM	1	0	22.40	22.81	22.44	1	23	20.57	20.60	20.20	0	21
		1	3	22.11	22.92	22.26	1	23	20.36	20.43	19.98	0	21
		1	5	22.33	22.69	22.32	1	23	20.37	20.50	20.08	0	21
		3	0	22.24	22.44	22.12	1	23	20.09	20.37	20.17	0	21
		3	1	22.16	22.55	22.01	1	23	20.16	20.25	20.12	0	21
		3	3	22.21	22.56	22.23	1	23	20.21	20.43	20.14	0	21
		6	0	21.24	21.40	21.19	2	22	20.07	20.50	20.24	0	21
	64QAM	1	0	21.56	21.86	21.42	2	22	20.10	20.86	20.50	0	21
		1	3	21.51	21.73	21.30	2	22	20.30	20.67	20.44	0	21
		1	5	21.25	21.68	21.50	2	22	20.22	20.70	20.34	0	21
		3	0	21.15	21.53	21.14	2	22	20.13	20.44	20.28	0	21
		3	1	21.21	21.54	21.28	2	22	20.24	20.40	20.28	0	21
		3	3	21.21	21.55	21.24	2	22	20.18	20.44	20.29	0	21
		6	0	20.02	20.40	20.23	3	21	20.18	20.36	20.20	0	21

LTE Band 26 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				[redacted]	26865	[redacted]		
					831.5 MHz			
15 MHz	QPSK	1	0		24.71		0	25
		1	37		24.81		0	25
		1	74		24.41		0	25
		36	0		22.18		1.5	23.5
		36	20		22.09		1.5	23.5
		36	39		22.06		1.5	23.5
		75	0		22.18		1.5	23.5
	16QAM	1	0		22.39		1.5	23.5
		1	37		22.44		1.5	23.5
		1	74		22.17		1.5	23.5
		36	0		21.15		2.5	22.5
		36	20		21.08		2.5	22.5
		36	39		21.02		2.5	22.5
		75	0		21.14		2.5	22.5
	64QAM	1	0		21.34		2.5	22.5
		1	37		21.23		2.5	22.5
		1	74		21.10		2.5	22.5
		36	0		20.22		3.5	21.5
		36	20		20.14		3.5	21.5
		36	39		20.10		3.5	21.5
		75	0		20.13		3.5	21.5

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				26740	26865	26990		
				819 MHz	831.5 MHz	844 MHz		
10 MHz	QPSK	1	0	24.66	24.67	24.64	0	25
		1	25	24.54	24.56	24.55	0	25
		1	49	24.52	24.53	24.50	0	25
		25	0	22.13	22.13	22.12	1.5	23.5
		25	12	22.07	22.06	22.05	1.5	23.5
		25	25	22.07	22.05	22.06	1.5	23.5
		50	0	22.10	22.08	22.09	1.5	23.5
	16QAM	1	0	22.29	22.33	22.22	1.5	23.5
		1	25	22.04	22.13	21.94	1.5	23.5
		1	49	22.18	22.21	22.14	1.5	23.5
		25	0	21.13	21.11	21.14	2.5	22.5
		25	12	21.09	21.08	21.10	2.5	22.5
		25	25	21.07	21.03	21.08	2.5	22.5
		50	0	21.11	21.08	21.15	2.5	22.5
	64QAM	1	0	21.49	21.28	21.32	2.5	22.5
		1	25	21.29	21.09	21.17	2.5	22.5
		1	49	21.44	21.07	21.27	2.5	22.5
		25	0	20.15	20.12	20.16	3.5	21.5
		25	12	20.12	20.08	20.13	3.5	21.5
		25	25	20.09	20.05	20.12	3.5	21.5
		50	0	20.09	20.09	20.15	3.5	21.5

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				26715	26865	27015		
				816.5 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	24.62	24.59	24.64	0	25
		1	12	24.75	24.52	24.58	0	25
		1	24	24.61	24.58	24.61	0	25
		12	0	22.13	22.11	22.14	1.5	23.5
		12	7	22.10	22.09	22.14	1.5	23.5
		12	13	22.10	22.07	22.12	1.5	23.5
		25	0	22.09	22.08	22.11	1.5	23.5
	16QAM	1	0	22.58	22.46	22.44	1.5	23.5
		1	12	22.38	22.45	22.37	1.5	23.5
		1	24	22.56	22.37	22.35	1.5	23.5
		12	0	21.10	21.12	21.13	2.5	22.5
		12	7	21.15	21.09	21.14	2.5	22.5
		12	13	21.11	21.12	21.18	2.5	22.5
		25	0	21.15	21.08	21.11	2.5	22.5
	64QAM	1	0	21.28	21.38	21.39	2.5	22.5
		1	12	21.20	21.28	21.29	2.5	22.5
		1	24	21.30	21.37	21.41	2.5	22.5
		12	0	20.19	20.20	20.22	3.5	21.5
		12	7	20.10	20.11	20.20	3.5	21.5
		12	13	20.08	20.10	20.18	3.5	21.5
		25	0	20.08	20.10	20.15	3.5	21.5

LTE Band 26 Measured Results (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				26705	26865	27025		
				815.5 MHz	831.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.60	24.63	24.74	0	25
		1	8	24.82	24.89	24.50	0	25
		1	14	24.59	24.62	24.65	0	25
		8	0	22.06	22.06	22.22	1.5	23.5
		8	4	22.03	22.05	22.25	1.5	23.5
		8	7	22.05	22.06	22.20	1.5	23.5
		15	0	22.05	22.06	22.20	1.5	23.5
	16QAM	1	0	22.35	22.47	22.48	1.5	23.5
		1	8	22.30	22.84	22.48	1.5	23.5
		1	14	22.26	22.68	22.40	1.5	23.5
		8	0	21.08	21.04	21.24	2.5	22.5
		8	4	21.06	21.02	21.23	2.5	22.5
		8	7	21.06	21.04	21.24	2.5	22.5
		15	0	21.05	21.05	21.15	2.5	22.5
	64QAM	1	0	21.20	21.30	21.43	2.5	22.5
		1	8	21.17	21.47	21.52	2.5	22.5
		1	14	20.93	21.36	21.41	2.5	22.5
		8	0	20.08	20.21	20.25	3.5	21.5
		8	4	20.06	20.20	20.25	3.5	21.5
		8	7	20.04	20.18	20.24	3.5	21.5
		15	0	20.03	20.08	20.15	3.5	21.5

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			MPR	Tune-up Limit
				26697	26865	27033		
				814.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.62	24.70	24.74	0	25
		1	3	24.54	24.59	24.66	0	25
		1	5	24.56	24.63	24.67	0	25
		3	0	24.45	24.56	24.58	0	25
		3	1	24.45	24.55	24.59	0	25
		3	3	24.53	24.57	24.67	0	25
		6	0	22.05	22.06	22.17	1.5	23.5
	16QAM	1	0	22.45	22.30	22.62	1.5	23.5
		1	3	22.36	22.09	22.52	1.5	23.5
		1	5	22.34	22.20	22.51	1.5	23.5
		3	0	22.02	22.14	22.18	1.5	23.5
		3	1	22.16	22.03	22.29	1.5	23.5
		3	3	22.13	22.01	22.29	1.5	23.5
		6	0	21.00	21.10	21.10	2.5	22.5
	64QAM	1	0	21.38	21.19	21.27	2.5	22.5
		1	3	21.42	21.02	21.21	2.5	22.5
		1	5	21.23	21.03	21.12	2.5	22.5
		3	0	21.04	20.97	21.08	2.5	22.5
		3	1	21.08	21.05	21.15	2.5	22.5
		3	3	21.10	21.00	21.07	2.5	22.5
		6	0	20.06	20.02	20.01	3.5	21.5

LTE Band 41 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)							Reduced Average Power (dBm)						
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	22.86	22.82	22.79	22.79	22.78	0	25	20.02	20.26	20.10	20.41	20.32	0	22
		1	49	22.73	22.65	22.55	22.72	22.69	0	25	20.01	20.21	20.04	20.27	20.22	0	22
		1	99	22.53	22.54	22.55	22.52	22.58	0	25	19.74	19.99	19.82	19.96	20.06	0	22
		50	0	21.70	21.72	21.74	21.69	21.79	2	23	20.00	20.10	20.14	20.15	20.25	0	22
		50	24	21.61	21.68	21.68	21.64	21.74	2	23	19.91	20.05	20.06	20.08	20.22	0	22
		50	50	21.55	21.59	21.61	21.57	21.68	2	23	19.87	19.99	20.02	20.03	20.16	0	22
		100	0	21.62	21.66	21.65	21.63	21.72	2	23	19.91	20.03	20.07	20.08	20.19	0	22
	16QAM	1	0	22.06	21.79	22.29	22.09	22.18	2	23	20.52	20.50	20.85	20.59	20.82	0	22
		1	49	22.08	21.81	22.09	22.08	22.25	2	23	20.55	20.53	20.85	20.63	20.83	0	22
		1	99	21.71	21.51	22.06	21.84	21.95	2	23	20.22	20.24	20.57	20.33	20.56	0	22
		50	0	20.70	20.73	20.75	20.67	20.83	3	22	19.98	20.11	20.12	20.17	20.25	0	22
		50	24	20.63	20.69	20.68	20.62	20.78	3	22	19.91	20.08	20.06	20.12	20.20	0	22
		50	50	20.56	20.63	20.64	20.58	20.73	3	22	19.86	20.03	20.01	20.07	20.15	0	22
		100	0	20.61	20.63	20.63	20.62	20.71	3	22	19.89	20.05	20.08	20.08	20.22	0	22
	64QAM	1	0	21.40	21.55	21.20	21.92	21.94	3	22	20.29	20.52	20.70	20.68	20.51	0	22
		1	49	21.44	21.55	21.13	21.78	21.93	3	22	20.31	20.46	20.56	20.59	20.48	0	22
		1	99	21.13	21.41	21.00	21.40	21.77	3	22	20.03	20.32	20.47	20.47	20.31	0	22
		50	0	19.99	20.15	20.23	20.15	20.28	4	21	19.96	20.10	20.16	20.14	20.26	0	22
		50	24	19.91	20.11	20.17	20.10	20.24	4	21	19.89	20.06	20.11	20.10	20.22	0	22
		50	50	19.84	20.06	20.11	20.06	20.20	4	21	19.83	20.00	20.05	20.06	20.16	0	22
		100	0	19.88	20.02	20.10	20.08	20.17	4	21	19.88	20.04	20.09	20.09	20.22	0	22

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)							Reduced Average Power (dBm)						
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	22.73	22.76	22.71	22.72	22.83	0	25	20.00	20.08	20.18	20.15	20.26	0	22
		1	37	22.55	22.58	22.63	22.62	22.61	0	25	19.77	20.01	19.95	20.09	20.04	0	22
		1	74	22.50	22.53	22.50	22.50	22.62	0	25	19.76	19.84	19.94	19.91	20.04	0	22
		36	0	21.71	21.73	21.73	21.70	21.80	2	23	19.94	20.06	20.11	20.12	20.22	0	22
		36	20	21.66	21.67	21.69	21.64	21.74	2	23	19.90	19.99	20.07	20.05	20.18	0	22
		36	39	21.61	21.62	21.64	21.60	21.70	2	23	19.86	19.97	20.03	20.02	20.15	0	22
		75	0	21.71	21.73	21.73	21.70	21.80	2	23	19.96	20.06	20.13	20.12	20.24	0	22
	16QAM	1	0	21.59	22.09	21.91	21.56	22.17	2	23	20.51	20.43	20.47	20.48	20.61	0	22
		1	37	21.50	21.92	21.75	21.50	22.12	2	23	20.46	20.35	20.43	20.41	20.38	0	22
		1	74	21.50	21.93	21.73	21.50	22.01	2	23	20.34	20.28	20.30	20.33	20.46	0	22
		36	0	20.67	20.77	20.74	20.66	20.85	3	22	19.93	20.05	20.06	20.11	20.23	0	22
		36	20	20.61	20.71	20.69	20.61	20.80	3	22	19.89	20.01	20.02	20.06	20.18	0	22
		36	39	20.55	20.68	20.66	20.57	20.78	3	22	19.85	19.97	19.98	20.02	20.15	0	22
		75	0	20.68	20.69	20.72	20.68	20.78	3	22	19.98	20.09	20.13	20.14	20.28	0	22
	64QAM	1	0	21.37	21.28	21.60	21.51	21.46	3	22	20.36	20.62	20.76	20.46	20.80	0	22
		1	37	21.36	21.22	21.10	21.53	21.39	3	22	20.20	20.63	20.73	20.37	20.58	0	22
		1	74	21.15	21.14	21.42	21.32	21.31	3	22	20.13	20.45	20.56	20.27	20.62	0	22
		36	0	19.88	20.10	20.11	20.08	20.22	4	21	19.92	20.01	20.08	20.07	20.19	0	22
		36	20	19.83	20.03	20.06	20.02	20.17	4	21	19.86	19.95	20.04	20.01	20.13	0	22
		36	39	19.80	20.03	20.04	19.99	20.15	4	21	19.82	19.92	20.00	19.99	20.08	0	22
		75	0	19.95	20.07	20.15	20.12	20.25	4	21	19.95	20.07	20.13	20.12	20.27	0	22

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)							Reduced Average Power (dBm)						
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	22.73	22.72	22.70	22.72	22.78	0	25	19.98	20.10	20.11	20.22	20.29	0	22
		1	25	22.70	22.70	22.67	22.76	22.78	0	25	19.98	20.08	20.03	20.12	20.29	0	22
		1	49	22.57	22.61	22.62	22.57	22.70	0	25	19.87	19.96	19.97	20.05	20.18	0	22
		25	0	21.68	21.71	21.71	21.66	21.75	2	23	19.95	20.06	20.12	20.12	20.25	0	22
		25	12	21.63	21.67	21.69	21.62	21.72	2	23	19.93	20.03	20.09	20.07	20.22	0	22
		25	25	21.59	21.62	21.65	21.60	21.70	2	23	19.90	20.00	20.06	20.05	20.20	0	22
		50	0	21.63	21.65	21.65	21.63	21.73	2	23	19.90	20.02	20.07	20.07	20.20	0	22
	16QAM	1	0	21.98	21.93	22.12	21.95	21.99	2	23	20.23	20.33	20.76	20.70	20.70	0	22
		1	25	21.72	21.95	22.23	21.92	22.00	2	23	20.29	20.44	20.77	20.71	20.69	0	22
		1	49	21.76	21.79	21.96	21.81	21.86	2	23	20.01	20.15	20.60	20.55	20.51	0	22
		25	0	20.75	20.72	20.84	20.76	20.79	3	22	19.99	20.09	20.14	20.16	20.26	0	22
		25	12	20.72	20.68	20.81	20.71	20.75	3	22	19.95	20.06	20.11	20.12	20.23	0	22
		25	25	20.67	20.65	20.78	20.70	20.74	3	22	19.91	20.03	20.08	20.10	20.21	0	22
		50	0	20.64	20.72	20.71	20.64	20.79	3	22	19.89	20.06	20.08	20.08	20.23	0	22
	64QAM	1	0	21.62	21.36	21.33	21.81	21.21	3	22	20.52	20.63	20.69	20.67	20.71	0	22
		1	25	21.45	21.25	21.22	21.85	21.09	3	22	20.20	20.58	20.24	20.51	20.55	0	22
		1	49	21.48	21.20	21.22	21.68	21.03	3	22	20.34	20.47	20.25	20.49	20.54	0	22
		25	0	20.00	20.11	20.22	20.19	20.32	4	21	20.00	20.17	20.18	20.21	20.28	0	22
		25	12	19.97	20.08	20.20	20.15	20.28	4	21	19.96	20.16	20.14	20.15	20.22	0	22
		25	25	19.93	20.04	20.16	20.15	20.25	4	21	19.95	20.11	20.12	20.14	20.20	0	22
		50	0	19.96	20.08	20.14	20.14	20.22	4	21	19.96	20.08	20.14	20.10	20.23	0	22

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)							Reduced Average Power (dBm)						
				39750	40185	40620	41055	41490	MPR	Tune-up Limit	39750	40185	40620	41055	41490	MPR	Tune-up Limit
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	22.56	22.62	22.66	22.62	22.68	0	25	19.94	20.04	20.11	20.09	20.23	0	22
		1	12	22.50	22.55	22.50	22.55	22.59	0	25	19.87	19.98	20.13	19.89	20.17	0	22
		1	24	22.50	22.60	22.58	22.55	22.67	0	25	19.89	19.99	20.04	19.98	20.17	0	22
		12	0	21.62	21.65	21.67	21.61	21.70	2	23	19.88	20.01	20.05	20.09	20.19	0	22
		12	7	21.59	21.62	21.66	21.54	21.65	2	23	19.81	19.93	20.01	20.02	20.15	0	22
		12	13	21.55	21.63	21.65	21.57	21.67	2	23	19.83	19.96	20.01	20.02	20.17	0	22
		25	0	21.57	21.62	21.66	21.62	21.72	2	23	19.88	20.01	20.06	20.06	20.16	0	22
	16QAM	1	0	22.13	22.18	22.19	21.98	22.25	2	23	20.36	20.49	20.55	20.45	20.66	0	22
		1	12	22.16	21.95	22.00	21.88	21.93	2	23	20.47	20.62	20.46	20.53	20.76	0	22
		1	24	22.01	22.03	22.17	21.87	22.12	2	23	20.29	20.41	20.45	20.36	20.58	0	22
		12	0	20.55	20.68	20.74	20.54	20.74	3	22	19.93	19.99	20.01	20.03	20.14	0	22
		12	7	20.52	20.66	20.68	20.54	20.71	3	22	19.83	19.90	20.00	19.99	20.08	0	22
		12	13	20.54	20.62	20.72	20.53	20.72	3	22	19.89	19.96	20.01	20.01	20.13	0	22
		25	0	20.54	20.72	20.66	20.63	20.80	3	22	19.87	20.01	20.04	20.04	20.18	0	22
	64QAM	1	0	21.34	20.94	21.31	21.68	21.38	3	22	20.28	20.28	20.41	20.32	20.50	0	22
		1	12	20.97	21.10	21.29	21.32	21.51	3	22	20.06	20.23	20.34	20.12	20.62	0	22
		1	24	21.19	20.94	21.34	21.56	21.40	3	22	20.27	20.32	20.43	20.35	20.49	0	22
		12	0	19.90	19.98	20.23	20.25	20.18	4	21	19.97	20.18	20.22	20.13	20.26	0	22
		12	7	19.89	19.96	20.21	20.23	20.16	4	21	19.94	20.12	20.19	20.11	20.23	0	22
		12	13	19.89	19.97	20.19	20.23	20.16	4	21	19.90	20.17	20.14	20.13	20.20	0	22
		25	0	19.81	20.00	20.15	20.06	20.16	4	21	19.93	20.05	20.11	20.09	20.13	0	22

LTE Band 66 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				132072	132322	132572	MPR	Tune-up Limit	132072	132322	132572	MPR	Tune-up Limit
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	23.26	23.52	23.58	0	24	20.26	20.47	20.60	0	20.9
		1	49	22.90	23.07	23.21	0	24	20.08	20.30	20.26	0	20.9
		1	99	22.97	23.18	23.31	0	24	19.95	20.11	20.35	0	20.9
		50	0	22.18	22.41	22.52	1	23	20.14	20.38	20.54	0	20.9
		50	24	22.12	22.32	22.47	1	23	20.09	20.29	20.48	0	20.9
		50	50	22.03	22.23	22.39	1	23	20.00	20.21	20.40	0	20.9
		100	0	22.10	22.31	22.47	1	23	20.08	20.28	20.48	0	20.9
	16QAM	1	0	22.62	22.92	23.00	1	23	20.55	20.76	20.90	0	20.9
		1	49	22.33	22.59	22.76	1	23	20.15	20.44	20.72	0	20.9
		1	99	22.34	22.56	22.73	1	23	20.27	20.38	20.76	0	20.9
		50	0	21.15	21.41	21.53	2	22	20.11	20.37	20.52	0	20.9
		50	24	21.10	21.32	21.48	2	22	20.06	20.29	20.46	0	20.9
		50	50	21.02	21.23	21.41	2	22	19.97	20.21	20.41	0	20.9
		100	0	21.05	21.26	21.42	2	22	20.05	20.21	20.42	0	20.9
	64QAM	1	0	21.64	21.98	21.89	2	22	20.31	20.90	20.73	0	20.9
		1	49	21.27	21.64	21.75	2	22	19.98	20.69	20.38	0	20.9
		1	99	21.37	21.65	21.64	2	22	20.00	20.59	20.50	0	20.9
		50	0	20.13	20.37	20.48	3	21	20.08	20.39	20.43	0	20.9
		50	24	20.07	20.29	20.43	3	21	20.04	20.30	20.38	0	20.9
		50	50	20.01	20.20	20.38	3	21	19.96	20.22	20.33	0	20.9
		100	0	20.04	20.29	20.43	3	21	20.00	20.29	20.36	0	20.9

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				132047	132322	132597	MPR	Tune-up Limit	132047	132322	132597	MPR	Tune-up Limit
				1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	QPSK	1	0	23.22	23.45	23.57	0	24	20.20	20.43	20.56	0	20.9
		1	37	23.37	23.53	23.68	0	24	20.41	20.31	20.75	0	20.9
		1	74	22.99	23.16	23.33	0	24	19.95	20.13	20.33	0	20.9
		36	0	22.23	22.43	22.56	1	23	20.20	20.40	20.51	0	20.9
		36	20	22.18	22.36	22.50	1	23	20.15	20.32	20.46	0	20.9
		36	39	22.13	22.30	22.46	1	23	20.10	20.25	20.43	0	20.9
		75	0	22.22	22.40	22.55	1	23	20.18	20.38	20.51	0	20.9
	16QAM	1	0	22.41	22.74	22.73	1	23	20.65	20.67	20.74	0	20.9
		1	37	22.42	22.70	22.81	1	23	20.74	20.52	20.81	0	20.9
		1	74	22.20	22.46	22.52	1	23	20.39	20.40	20.56	0	20.9
		36	0	21.18	21.39	21.52	2	22	20.16	20.36	20.49	0	20.9
		36	20	21.13	21.31	21.48	2	22	20.11	20.30	20.44	0	20.9
		36	39	21.08	21.25	21.43	2	22	20.07	20.23	20.39	0	20.9
		75	0	21.15	21.33	21.52	2	22	20.12	20.33	20.47	0	20.9
	64QAM	1	0	21.34	21.73	21.81	2	22	20.36	20.63	20.82	0	20.9
		1	37	21.32	21.63	21.80	2	22	20.29	20.67	20.85	0	20.9
		1	74	21.14	21.43	21.57	2	22	20.12	20.33	20.61	0	20.9
		36	0	20.21	20.43	20.51	3	21	20.12	20.37	20.52	0	20.9
		36	20	20.16	20.36	20.46	3	21	20.08	20.31	20.48	0	20.9
		36	39	20.12	20.30	20.41	3	21	20.04	20.26	20.44	0	20.9
		75	0	20.14	20.39	20.48	3	21	20.10	20.32	20.48	0	20.9

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				132022	132322	132622	MPR	Tune-up Limit	132022	132322	132622	MPR	Tune-up Limit
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	23.14	23.43	23.55	0	24	20.12	20.35	20.53	0	20.9
		1	25	23.08	23.32	23.46	0	24	20.05	20.13	20.44	0	20.9
		1	49	23.06	23.28	23.45	0	24	20.04	20.15	20.41	0	20.9
		25	0	22.10	22.36	22.50	1	23	20.10	20.35	20.48	0	20.9
		25	12	22.07	22.32	22.45	1	23	20.07	20.31	20.45	0	20.9
		25	25	22.04	22.28	22.44	1	23	20.03	20.26	20.42	0	20.9
		50	0	22.07	22.32	22.46	1	23	20.07	20.30	20.45	0	20.9
	16QAM	1	0	22.35	22.50	22.67	1	23	20.58	20.72	20.70	0	20.9
		1	25	22.15	22.22	22.41	1	23	20.44	20.35	20.44	0	20.9
		1	49	22.26	22.36	22.55	1	23	20.51	20.52	20.60	0	20.9
		25	0	21.08	21.36	21.50	2	22	20.12	20.35	20.44	0	20.9
		25	12	21.04	21.33	21.45	2	22	20.08	20.31	20.43	0	20.9
		25	25	21.03	21.28	21.42	2	22	20.07	20.26	20.38	0	20.9
		50	0	21.06	21.34	21.45	2	22	20.05	20.27	20.46	0	20.9
	64QAM	1	0	21.33	21.64	21.74	2	22	20.28	20.70	20.56	0	20.9
		1	25	21.10	21.42	21.60	2	22	20.10	20.47	20.29	0	20.9
		1	49	21.16	21.51	21.66	2	22	20.23	20.59	20.37	0	20.9
		25	0	20.12	20.42	20.48	3	21	20.08	20.37	20.50	0	20.9
		25	12	20.09	20.37	20.46	3	21	20.06	20.33	20.48	0	20.9
		25	25	20.07	20.34	20.41	3	21	20.01	20.29	20.46	0	20.9
		50	0	20.07	20.35	20.43	3	21	20.02	20.29	20.45	0	20.9

LTE Band 66 Measured Results (continued)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				131997	132322	132647	MPR	Tune-up Limit	131997	132322	132647	MPR	Tune-up Limit
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	23.07	23.37	23.46	0	24	20.05	20.34	20.45	0	20.9
		1	12	23.09	23.42	23.32	0	24	20.16	20.33	20.39	0	20.9
		1	24	23.09	23.33	23.47	0	24	20.06	20.29	20.45	0	20.9
		12	0	22.06	22.35	22.48	1	23	20.05	20.28	20.49	0	20.9
		12	7	22.05	22.32	22.45	1	23	20.03	20.25	20.47	0	20.9
		12	13	22.05	22.32	22.46	1	23	20.02	20.23	20.48	0	20.9
		25	0	22.05	22.32	22.46	1	23	20.03	20.26	20.48	0	20.9
	16QAM	1	0	22.49	22.50	22.81	1	23	20.39	20.60	20.90	0	20.9
		1	12	22.50	22.46	22.73	1	23	20.22	20.50	20.90	0	20.9
		1	24	22.37	22.50	22.69	1	23	20.42	20.59	20.79	0	20.9
		12	0	21.09	21.40	21.47	2	22	20.00	20.33	20.46	0	20.9
		12	7	21.03	21.37	21.44	2	22	19.98	20.33	20.44	0	20.9
		12	13	21.07	21.34	21.46	2	22	20.00	20.33	20.47	0	20.9
		25	0	21.07	21.27	21.46	2	22	20.02	20.22	20.52	0	20.9
	64QAM	1	0	21.19	21.44	21.71	2	22	20.25	20.74	20.66	0	20.9
		1	12	21.26	21.61	21.55	2	22	20.21	20.50	20.83	0	20.9
		1	24	21.22	21.46	21.72	2	22	20.27	20.57	20.66	0	20.9
		12	0	20.07	20.46	20.64	3	21	20.08	20.34	20.45	0	20.9
		12	7	20.01	20.34	20.53	3	21	20.06	20.30	20.43	0	20.9
		12	13	20.03	20.35	20.50	3	21	20.03	20.30	20.46	0	20.9
		25	0	20.02	20.33	20.46	3	21	20.04	20.24	20.49	0	20.9

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				131987	132322	132657	MPR	Tune-up Limit	131987	132322	132657	MPR	Tune-up Limit
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	23.08	23.47	23.54	0	24	19.91	20.12	19.98	0	20.9
		1	8	23.36	23.30	23.78	0	24	20.11	20.02	20.21	0	20.9
		1	14	23.13	23.37	23.56	0	24	19.84	20.04	20.00	0	20.9
		8	0	22.06	22.33	22.46	1	23	19.82	20.09	19.95	0	20.9
		8	4	22.02	22.37	22.47	1	23	19.82	20.09	19.92	0	20.9
		8	7	22.04	22.33	22.45	1	23	19.83	20.06	19.91	0	20.9
		15	0	22.03	22.35	22.47	1	23	19.82	20.07	19.92	0	20.9
	16QAM	1	0	22.36	22.72	22.59	1	23	20.21	20.38	20.15	0	20.9
		1	8	22.29	22.80	22.69	1	23	20.57	20.35	20.10	0	20.9
		1	14	22.39	22.77	22.47	1	23	20.20	20.37	20.12	0	20.9
		8	0	21.20	21.39	21.52	2	22	19.86	20.15	19.94	0	20.9
		8	4	21.13	21.42	21.49	2	22	19.86	20.09	19.91	0	20.9
		8	7	21.15	21.39	21.49	2	22	19.85	20.16	19.92	0	20.9
		15	0	21.03	21.30	21.45	2	22	19.86	20.09	19.97	0	20.9
	64QAM	1	0	21.43	21.62	21.66	2	22	20.28	20.39	20.67	0	20.9
		1	8	21.20	21.14	21.80	2	22	20.52	20.71	20.32	0	20.9
		1	14	21.15	21.47	21.78	2	22	20.37	20.44	20.45	0	20.9
		8	0	20.10	20.39	20.56	3	21	19.92	20.42	20.50	0	20.9
		8	4	20.07	20.40	20.51	3	21	19.94	20.41	20.49	0	20.9
		8	7	20.05	20.34	20.51	3	21	19.91	20.39	20.48	0	20.9
		15	0	19.98	20.33	20.46	3	21	20.00	20.27	20.40	0	20.9

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm)				
				131979	132322	132665	MPR	Tune-up Limit	131979	132322	132665	MPR	Tune-up Limit
				1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz		
1.4 MHz	QPSK	1	0	23.14	23.43	23.23	0	24	19.95	20.25	20.15	0	20.9
		1	3	23.01	23.29	23.16	0	24	19.85	20.06	20.10	0	20.9
		1	5	23.05	23.33	23.15	0	24	19.84	20.12	20.20	0	20.9
		3	0	22.93	23.25	23.08	0	24	19.71	20.05	19.95	0	20.9
		3	1	22.91	23.11	23.10	0	24	19.70	20.10	20.02	0	20.9
		3	3	22.98	23.23	23.09	0	24	19.71	20.80	20.01	0	20.9
		6	0	22.03	22.33	22.10	1	23	19.78	20.05	20.08	0	20.9
	16QAM	1	0	22.48	22.64	22.39	1	23	20.04	20.37	20.57	0	20.9
		1	3	22.38	22.49	22.17	1	23	19.97	20.15	20.42	0	20.9
		1	5	22.37	22.53	22.27	1	23	19.97	20.36	20.30	0	20.9
		3	0	21.96	22.24	22.15	1	23	19.80	20.13	20.03	0	20.9
		3	1	22.06	22.20	22.09	1	23	19.73	20.09	20.09	0	20.9
		3	3	22.04	22.35	22.11	1	23	19.83	20.07	20.06	0	20.9
		6	0	21.00	21.33	21.23	2	22	19.86	20.12	20.12	0	20.9
	64QAM	1	0	21.30	21.76	21.42	2	22	20.27	20.44	20.21	0	20.9
		1	3	20.99	21.72	21.30	2	22	20.23	20.44	20.10	0	20.9
		1	5	21.43	21.60	21.25	2	22	20.10	20.69	20.05	0	20.9
		3	0	21.03	21.45	21.08	2	22	20.09	20.32	20.06	0	20.9
		3	1	21.16	21.52	21.07	2	22	20.18	20.45	20.14	0	20.9
		3	3	21.10	21.45	21.13	2	22	20.09	20.41	20.12	0	20.9
		6	0	20.16	20.31	20.07	3	21	20.01	20.33	20.01	0	20.9

9.4. Wi-Fi 2.4GHz (DTS Band)

When the proximity sensor is active in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.

Refer to Operational Description for WLAN explanation.

Wi-Fi 2.4GHz Measured Results

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

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

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

Typical Conducted Power

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
DSSS 2.4 GHz	802.11b	1 Mbps	1	2412	18.70	19.00	Yes	16.60	17.00	Yes	18.80	19.00	Yes	16.90	17.00	Yes
			6	2437	19.00	19.00		17.00	17.00		18.90	19.00		16.70	17.00	
			11	2462	18.50	19.00		16.80	17.00		18.70	19.00		16.60	17.00	
OFDM 2.4 GHz	802.11g	6 Mbps	1	2412	Not Required	17.00	No	Not Required	17.00	No	Not Required	17.00	No	Not Required	17.00	No
			6	2437		17.00			17.00			17.00			17.00	
			11	2462		16.00			16.00			16.00			16.00	
	802.11n (HT20)	6.5 Mbps	1	2412	Not Required	15.50	No	Not Required	15.50	No	Not Required	15.50	No	Not Required	15.50	No
			6	2437		17.00			17.00			17.00			17.00	
			11	2462		15.00			15.00			15.00			15.00	
OFDMA 2.4 GHz	802.11ax (HE20)	4 Mbps	1	2412	Not Required	15.00	No	Not Required	15.00	No	Not Required	15.00	No	Not Required	15.00	No
			6	2437		17.00			17.00			17.00			17.00	
			11	2462		15.00			15.00			15.00			15.00	

Note(s):

1. These conducted measurements are used during the Simultaneous condition WWAN + 2.4GHz + 5GHz and WWAN + 2.4GHz MIMO + 5GHz MIMO.
2. Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels.

RSDB (Real Simultaneous Dual Band) Conducted Power

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
DSSS 2.4 GHz	802.11b	1 Mbps	1	2412	16.60	17.00	Yes	13.80	14.00	Yes	16.90	17.00	Yes	13.60	14.00	Yes
			6	2437	17.00	17.00		14.00	14.00		16.70	17.00		13.80	14.00	
			11	2462	16.80	17.00		13.50	14.00		16.60	17.00		13.70	14.00	
OFDM 2.4 GHz	802.11g	6 Mbps	1	2412	Not Required	17.00	No	Not Required	14.00	No	Not Required	17.00	No	Not Required	14.00	No
			6	2437		17.00			14.00			17.00			14.00	
			11	2462		16.00			14.00			16.00			14.00	
	802.11n (HT20)	6.5 Mbps	1	2412	Not Required	15.50	No	Not Required	14.00	No	Not Required	15.50	No	Not Required	14.00	No
			6	2437		17.00			14.00			17.00			14.00	
			11	2462		15.00			14.00			15.00			14.00	
OFDMA 2.4 GHz	802.11ax (HE20)	4 Mbps	1	2412	Not Required	15.00	No	Not Required	14.00	No	Not Required	15.00	No	Not Required	14.00	No
			6	2437		17.00			14.00			17.00			14.00	
			11	2462		15.00			14.00			15.00			14.00	

Note(s):

1. These conducted measurements are used during the Simultaneous condition WWAN + 2.4GHz + 5GHz and WWAN + 2.4GHz MIMO + 5GHz MIMO.
2. Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels.

Duty Factor Measured Results

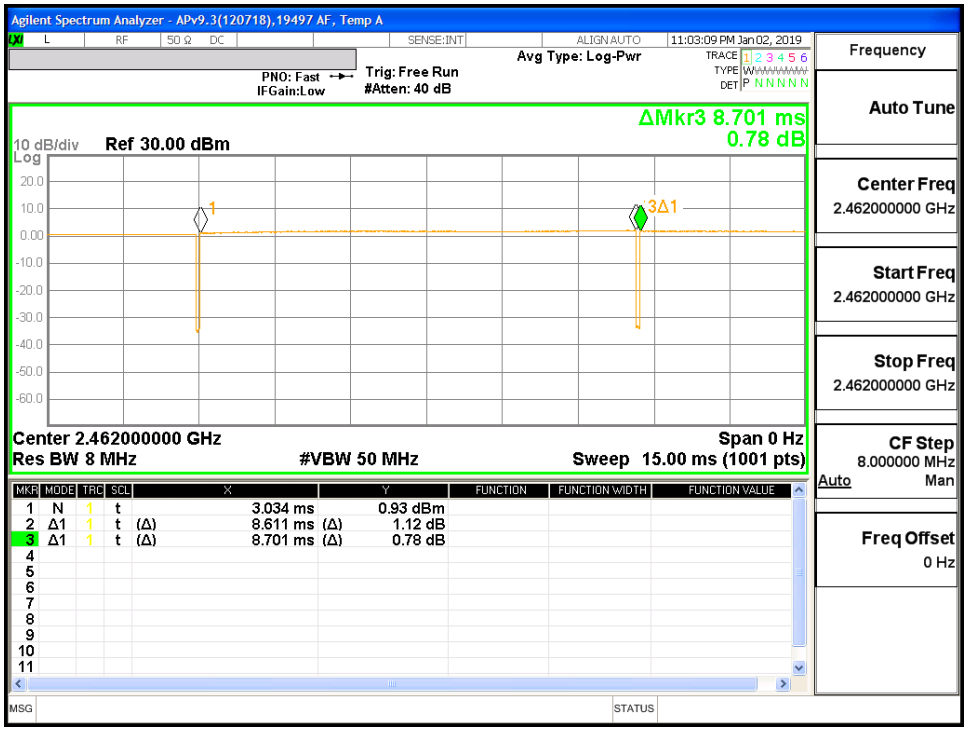
Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11b	1 Mbps	8.611	8.611	100.00%	1.00

Note(s):

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

Duty Cycle plots

802.11b



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

When the proximity sensor is active in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.

Refer to Operational Description for WLAN explanation.

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

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

Wi-Fi 5 GHz Measured Results

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

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.

Typical Conducted Power

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-1 5.2 GHz	802.11a	6 Mbps	36	5180	17.50	18.00	NO	Not Required	15.00	No	17.70	18.00	No	Not Required	15.00	No
			40	5200	17.90	18.00			15.00		17.70	18.00			15.00	
			44	5220	17.60	18.00			15.00		18.00	18.00			15.00	
			48	5240	17.80	18.00			15.00		17.80	18.00			15.00	
	802.11n (HT20)	6.5 Mbps	36	5180	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			40	5200		18.00			15.00			18.00			15.00	
			44	5220		18.00			15.00			18.00			15.00	
			48	5240		18.00			15.00			18.00			15.00	
	802.11ac (VHT20)	6.5 Mbps	36	5180	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			40	5200		18.00			15.00			18.00			15.00	
			44	5220		18.00			15.00			18.00			15.00	
			48	5240		18.00			15.00			18.00			15.00	
	802.11ax (HE20)	7.3 Mbps	36	5180	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			40	5200		18.00			15.00			18.00			15.00	
			44	5220		18.00			15.00			18.00			15.00	
			48	5240		18.00			15.00			18.00			15.00	
	802.11n (HT40)	13.5 Mbps	38	5190	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			46	5230		17.00			15.00			17.00			15.00	
	802.11ac (VHT40)	13.5 Mbps	38	5190	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			46	5230		17.00			15.00			17.00			15.00	
	802.11ax (HE40)	14.6 Mbps	38	5190	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			46	5230		17.00			15.00			17.00			15.00	
	802.11ac (VHT80)	29.3 Mbps	42	5210	Not Required	16.00	No	14.60	15.00	No	Not Required	16.00	No	14.90	15.00	No
	802.11ax (HE80)	30.6 Mbps	42	5210	Not Required	16.00	No	14.50	15.00	No	Not Required	16.00	No	Not Required	15.00	No

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-2A 5.3 GHz	802.11a	6 Mbps	52	5260	17.80	18.00	Yes	Not Required	15.00	No	18.00	18.00	Yes	Not Required	15.00	No
			56	5280	17.90	18.00			15.00		18.00	18.00			15.00	
			60	5300	16.00	16.00			15.00		16.00	16.00			15.00	
			64	5320	16.50	16.50			15.00		16.50	16.50			15.00	
	802.11n (HT20)	6.5 Mbps	52	5260	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			56	5280		18.00			15.00			18.00			15.00	
			60	5300		18.00			15.00			18.00			15.00	
			64	5320		18.00			15.00			18.00			15.00	
	802.11ac (VHT20)	6.5 Mbps	52	5260	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			56	5280		18.00			15.00			18.00			15.00	
			60	5300		18.00			15.00			18.00			15.00	
			64	5320		18.00			15.00			18.00			15.00	
	802.11ax (HE20)	7.3 Mbps	52	5260	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			56	5280		18.00			15.00			18.00			15.00	
			60	5300		18.00			15.00			18.00			15.00	
			64	5320		18.00			15.00			18.00			15.00	
	802.11n (HT40)	13.5 Mbps	54	5270	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			62	5310		17.00			15.00			17.00			15.00	
	802.11ac (VHT40)	13.5 Mbps	54	5270	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			62	5310		17.00			15.00			17.00			15.00	
	802.11ax (HE40)	14.6 Mbps	54	5270	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			62	5310		17.00			15.00			17.00			15.00	
	802.11ac (VHT80)	29.3 Mbps	58	5290	Not Required	16.00	No	14.60	15.00	Yes	Not Required	16.00	No	15.00	15.00	Yes
	802.11ax (HE80)	30.6 Mbps	58	5290	Not Required	16.00	No	14.50	15.00	No	Not Required	16.00	No	14.80	15.00	No

Note(s):

These conducted measurements are used during the Simultaneous condition WWAN + 5GHz MIMO and WWAN + 5GHz MIMO + BT.

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-2C 5.5 GHz	802.11a	6 Mbps	100	5500	17.60	18.00	Yes	Not Required	15.00	No	17.70	18.00	Yes	Not Required	15.00	No
			116	5580	17.70	18.00			15.00		17.60	18.00			15.00	
			124	5620	17.70	18.00			15.00		17.70	18.00			15.00	
			140	5700	17.00	17.00			15.00		17.00	17.00			15.00	
			144	5720	17.80	18.00			15.00		17.80	18.00			15.00	
	802.11n (HT20)	6.5 Mbps	100	5500	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			116	5580		18.00			15.00			18.00			15.00	
			124	5620		18.00			15.00			18.00			15.00	
			140	5700		17.00			15.00			17.00			15.00	
			144	5720		18.00			15.00			18.00			15.00	
	802.11ac (VHT20)	6.5 Mbps	100	5500	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			116	5580		18.00			15.00			18.00			15.00	
			124	5620		18.00			15.00			18.00			15.00	
			140	5700		17.00			15.00			17.00			15.00	
			144	5720		18.00			15.00			18.00			15.00	
	802.11ax (HE20)	7.3 Mbps	100	5500	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			116	5580		18.00			15.00			18.00			15.00	
			124	5620		18.00			15.00			18.00			15.00	
			140	5700		17.00			15.00			17.00			15.00	
			144	5720		18.00			15.00			18.00			15.00	
	802.11n (HT40)	13.5 Mbps	102	5510	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			118	5590		17.00			15.00			17.00			15.00	
			126	5630		17.00			15.00			17.00			15.00	
			134	5670		17.00			15.00			17.00			15.00	
			142	5710		17.00			15.00			17.00			15.00	
	802.11ac (VHT40)	13.5 Mbps	102	5510	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			118	5590		17.00			15.00			17.00			15.00	
			126	5630		17.00			15.00			17.00			15.00	
			134	5670		17.00			15.00			17.00			15.00	
			142	5710		17.00			15.00			17.00			15.00	
	802.11ax (HE40)	14.6 Mbps	102	5510	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			118	5590		17.00			15.00			17.00			15.00	
			126	5630		17.00			15.00			17.00			15.00	
			134	5670		17.00			15.00			17.00			15.00	
			142	5710		17.00			15.00			17.00			15.00	
	802.11ac (VHT80)	29.3 Mbps	106	5530	Not Required	16.00	No	14.60	15.00	Yes	Not Required	16.00	No	15.00	15.00	Yes
			122	5610		16.00		14.80	15.00			16.00		14.70	15.00	
			138	5690		16.00		14.60	15.00			16.00		14.80	15.00	
	802.11ax (HE80)	30.6 Mbps	106	5530	Not Required	16.00	No	14.55	15.00	No	Not Required	16.00	No	14.80	15.00	No
			122	5610		16.00		14.70	15.00			16.00		14.70	15.00	
			138	5690		16.00		14.55	15.00			16.00		14.80	15.00	

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-3 5.8 GHz	802.11a	6 Mbps	149	5745	17.60	18.00	Yes	Not Required	15.00	No	17.70	18.00	Yes	Not Required	15.00	No
			157	5785	17.50	18.00			15.00		18.00	18.00			15.00	
			165	5825	17.70	18.00			15.00		17.60	18.00			15.00	
	802.11n (HT20)	6.5 Mbps	149	5745	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			157	5785		18.00			15.00			18.00			15.00	
			165	5825		18.00			15.00			18.00			15.00	
	802.11ac (VHT20)	6.5 Mbps	149	5745	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			157	5785		18.00			15.00			18.00			15.00	
			165	5825		18.00			15.00			18.00			15.00	
	802.11ax (HE20)	7.3 Mbps	149	5745	Not Required	18.00	No	Not Required	15.00	No	Not Required	18.00	No	Not Required	15.00	No
			157	5785		18.00			15.00			18.00			15.00	
			165	5825		18.00			15.00			18.00			15.00	
	802.11n (HT40)	13.5 Mbps	151	5755	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			159	5795		17.00			15.00			17.00			15.00	
	802.11ac (VHT40)	13.5 Mbps	151	5755	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			159	5795		17.00			15.00			17.00			15.00	
	802.11ax (HE40)	14.6 Mbps	151	5755	Not Required	17.00	No	Not Required	15.00	No	Not Required	17.00	No	Not Required	15.00	No
			159	5795		17.00			15.00			17.00			15.00	
	802.11ac (VHT80)	29.3 Mbps	155	5775	Not Required	16.00	No	14.70	15.00	Yes	Not Required	16.00	No	14.90	15.00	Yes
	802.11ax (HE80)	30.6 Mbps	155	5775	Not Required	16.00	No	14.60	15.00	No	Not Required	16.00	No	14.80	15.00	No

Note(s):

These conducted measurements are used during the Simultaneous condition WWAN + 5GHz MIMO and WWAN + 5GHz MIMO + BT.

RSDB (Real Simultaneous Dual Band) Conducted Power

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-1 5.2 GHz	802.11a	6 Mbps	36	5180	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			40	5200		14.00			14.00			14.00			14.00	
			44	5220		14.00			14.00			14.00			14.00	
			48	5240		14.00			14.00			14.00			14.00	
	802.11n (HT20)	6.5 Mbps	36	5180	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			40	5200		14.00			14.00			14.00			14.00	
			44	5220		14.00			14.00			14.00			14.00	
			48	5240		14.00			14.00			14.00			14.00	
	802.11ac (VHT20)	6.5 Mbps	36	5180	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			40	5200		14.00			14.00			14.00			14.00	
			44	5220		14.00			14.00			14.00			14.00	
			48	5240		14.00			14.00			14.00			14.00	
	802.11ax (HE20)	7.3 Mbps	36	5180	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			40	5200		14.00			14.00			14.00			14.00	
			44	5220		14.00			14.00			14.00			14.00	
			48	5240		14.00			14.00			14.00			14.00	
	802.11n (HT40)	13.5 Mbps	38	5190	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			46	5230		14.00			14.00			14.00			14.00	
	802.11ac (VHT40)	13.5 Mbps	38	5190	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			46	5230		14.00			14.00			14.00			14.00	
	802.11ax (HE40)	14.6 Mbps	38	5190	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			46	5230		14.00			14.00			14.00			14.00	
	802.11ac (VHT80)	29.3 Mbps	42	5210	13.80	14.00	No	13.80	14.00	No	13.80	14.00	No	13.80	14.00	No
	802.11ax (HE80)	30.6 Mbps	42	5210	13.70	14.00	No	13.70	14.00	No	13.70	14.00	No	13.70	14.00	No

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Maximum Power			Reduced Power			Maximum Power			Reduced Power		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-2A 5.3 GHz	802.11a	6 Mbps	52	5260	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			56	5280		14.00			14.00			14.00			14.00	
			60	5300		14.00			14.00			14.00			14.00	
			64	5320		14.00			14.00			14.00			14.00	
	802.11n (HT20)	6.5 Mbps	52	5260	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			56	5280		14.00			14.00			14.00			14.00	
			60	5300		14.00			14.00			14.00			14.00	
			64	5320		14.00			14.00			14.00			14.00	
	802.11ac (VHT20)	6.5 Mbps	52	5260	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			56	5280		14.00			14.00			14.00			14.00	
			60	5300		14.00			14.00			14.00			14.00	
			64	5320		14.00			14.00			14.00			14.00	
	802.11ax (HE20)	7.3 Mbps	52	5260	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			56	5280		14.00			14.00			14.00			14.00	
			60	5300		14.00			14.00			14.00			14.00	
			64	5320		14.00			14.00			14.00			14.00	
	802.11n (HT40)	13.5 Mbps	54	5270	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			62	5310		14.00			14.00			14.00			14.00	
	802.11ac (VHT40)	13.5 Mbps	54	5270	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			62	5310		14.00			14.00			14.00			14.00	
	802.11ax (HE40)	14.6 Mbps	54	5270	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			62	5310		14.00			14.00			14.00			14.00	
	802.11ac (VHT80)	29.3 Mbps	58	5290	14.00	14.00	Yes	14.00	14.00	Yes	13.80	14.00	Yes	13.80	14.00	Yes
	802.11ax (HE80)	30.6 Mbps	58	5290	13.80	14.00	No	13.80	14.00	No	13.70	14.00	No	13.70	14.00	No

Note(s):

These conducted measurements are used during the Simultaneous condition WWAN + 2.4GHz + 5GHz and WWAN + 2.4GHz MIMO + 5GHz MIMO.

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Sensor Inactive			Sensor Active			Sensor Inactive			Sensor Active		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-2C 5.5 GHz	802.11a	6 Mbps	100	5500	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			116	5580		14.00			14.00			14.00			14.00	
			124	5620		14.00			14.00			14.00			14.00	
			140	5700		14.00			14.00			14.00			14.00	
			144	5720		14.00			14.00			14.00			14.00	
	802.11n (HT20)	6.5 Mbps	100	5500	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			116	5580		14.00			14.00			14.00			14.00	
			124	5620		14.00			14.00			14.00			14.00	
			140	5700		14.00			14.00			14.00			14.00	
			144	5720		14.00			14.00			14.00			14.00	
	802.11ac (VHT20)	6.5 Mbps	100	5500	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			116	5580		14.00			14.00			14.00			14.00	
			124	5620		14.00			14.00			14.00			14.00	
			140	5700		14.00			14.00			14.00			14.00	
			144	5720		14.00			14.00			14.00			14.00	
	802.11ax (HE20)	7.3 Mbps	100	5500	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			116	5580		14.00			14.00			14.00			14.00	
			124	5620		14.00			14.00			14.00			14.00	
			140	5700		14.00			14.00			14.00			14.00	
			144	5720		14.00			14.00			14.00			14.00	
	802.11n (HT40)	13.5 Mbps	102	5510	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			118	5590		14.00			14.00			14.00			14.00	
			126	5630		14.00			14.00			14.00			14.00	
			134	5670		14.00			14.00			14.00			14.00	
			142	5710		14.00			14.00			14.00			14.00	
	802.11ac (VHT40)	13.5 Mbps	102	5510	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			118	5590		14.00			14.00			14.00			14.00	
			126	5630		14.00			14.00			14.00			14.00	
			134	5670		14.00			14.00			14.00			14.00	
			142	5710		14.00			14.00			14.00			14.00	
	802.11ax (HE40)	14.6 Mbps	102	5510	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			118	5590		14.00			14.00			14.00			14.00	
			126	5630		14.00			14.00			14.00			14.00	
			134	5670		14.00			14.00			14.00			14.00	
			142	5710		14.00			14.00			14.00			14.00	
	802.11ac (VHT80)	29.3 Mbps	106	5530	13.60	14.00	Yes	13.60	14.00	Yes	14.00	14.00	Yes	14.00	14.00	Yes
			122	5610	14.00	14.00		14.00	14.00		13.70	14.00		13.70	14.00	
			138	5690	13.60	14.00		13.60	14.00		13.80	14.00		13.80	14.00	
	802.11ax (HE80)	30.6 Mbps	106	5530	13.50	14.00	No	13.50	14.00	No	13.90	14.00	No	13.90	14.00	No
			122	5610	13.70	14.00		13.70	14.00		13.60	14.00		13.60	14.00	
			138	5690	13.50	14.00		13.50	14.00		13.60	14.00		13.60	14.00	

Band	Mode	Data Rate	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 Average Power (dBm)						Wi-Fi Antenna #2 Average Power (dBm)					
					Sensor Inactive			Sensor Active			Sensor Inactive			Sensor Active		
					Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)	Meas Pwr	Tune-up	SAR Test (Yes/No)
UNII-3 5.8 GHz	802.11a	6 Mbps	149	5745	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			157	5785		14.00			14.00			14.00			14.00	
			165	5825		14.00			14.00			14.00			14.00	
	802.11n (HT20)	6.5 Mbps	149	5745	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			157	5785		14.00			14.00			14.00			14.00	
			165	5825		14.00			14.00			14.00			14.00	
	802.11ac (VHT20)	6.5 Mbps	149	5745	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			157	5785		14.00			14.00			14.00			14.00	
			165	5825		14.00			14.00			14.00			14.00	
	802.11ax (HE20)	7.3 Mbps	149	5745	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			157	5785		14.00			14.00			14.00			14.00	
			165	5825		14.00			14.00			14.00			14.00	
	802.11n (HT40)	13.5 Mbps	151	5755	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			159	5795		14.00			14.00			14.00			14.00	
	802.11ac (VHT40)	13.5 Mbps	151	5755	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			159	5795		14.00			14.00			14.00			14.00	
	802.11ax (HE40)	14.6 Mbps	151	5755	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No	Not Required	14.00	No
			159	5795		14.00			14.00			14.00			14.00	
	802.11ac (VHT80)	29.3 Mbps	155	5775	14.00	14.00	Yes	14.00	14.00	Yes	14.00	14.00	Yes	14.00	14.00	Yes
	802.11ax (HE80)	30.6 Mbps	155	5775	13.80	14.00	No	13.80	14.00	No	13.80	14.00	No	13.80	14.00	No

Note(s):

These conducted measurements are used during the Simultaneous condition WWAN + 2.4GHz + 5GHz and WWAN + 2.4GHz MIMO + 5GHz MIMO.

Duty Factor Measured Results

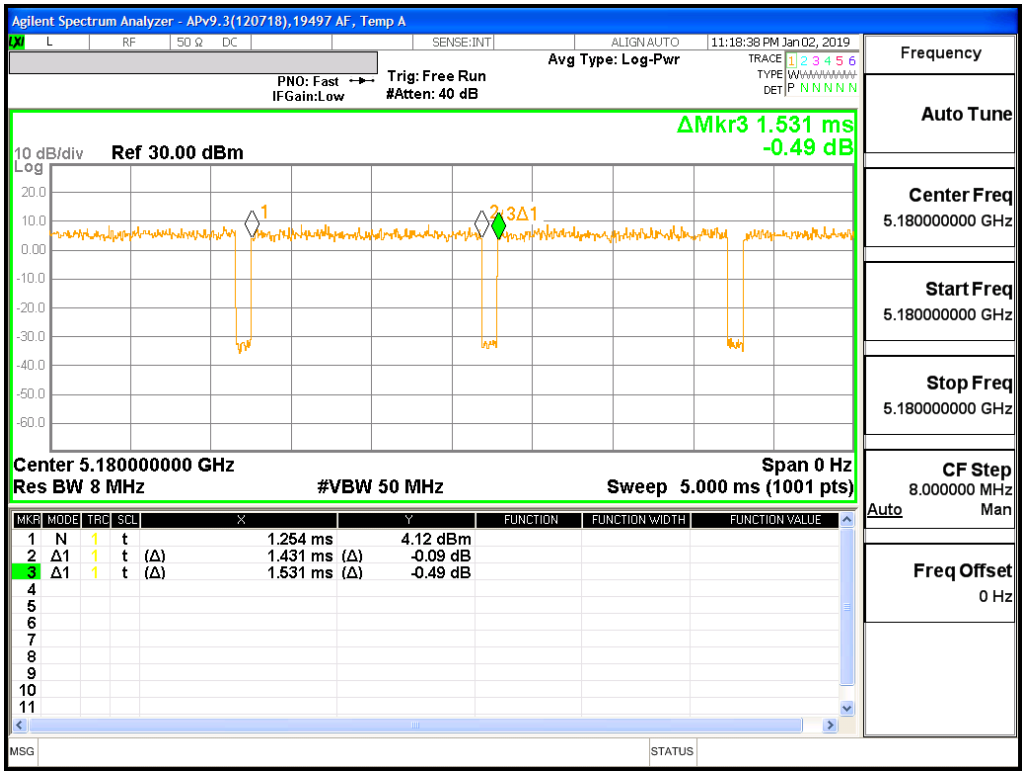
Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11a	6 Mbps	1.431	1.531	93.47%	1.07
802.11ac VHT80	29.3 Mbps	0.192	0.292	65.79%	1.52

Note(s):

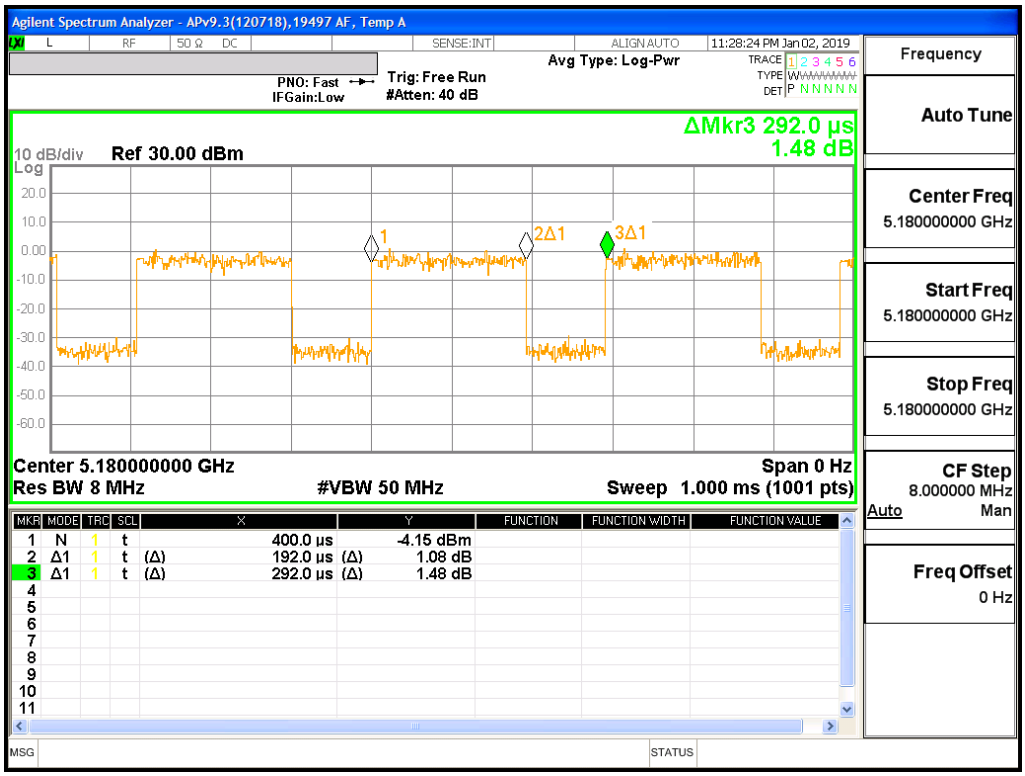
Duty Cycle = (T on / period) * 100%

Duty Cycle plots

802.11a



802.11ac VHT80



9.6. Bluetooth

Bluetooth Measured Results

SAR measurement is not required for the QPSK, 8PSK, and BLE. When the secondary mode is ≤ ¼ dB higher than the primary mode.

Band	Mode	Ch #	Freq. (MHz)	Wi-Fi Antenna #1 (dBm) Average Power (dBm)		
				Meas Pwr	Tune-up	SAR Test (Yes/No)
2.4	GFSK	0	2402	17.44	19.00	Yes
		39	2441	18.82	19.00	
		78	2480	17.30	19.00	
	EDR, π/4 DQPSK	0	2402	10.73	13.00	No
		39	2441	12.44	13.00	
		78	2480	11.30	13.00	
	EDR, 8-DPSK	0	2402	11.00	13.00	No
		39	2441	12.74	13.00	
		78	2480	11.45	13.00	
	LE 125 kbps, GFSK	0	2402	7.00	8.50	No
		19	2440	7.80	8.50	
		39	2480	6.00	8.50	
	LE 500 kbps, GFSK	0	2402	7.11	8.50	No
		19	2440	6.20	8.50	
		39	2480	7.08	8.50	
	LE 1 Mbps, GFSK	0	2402	7.60	8.50	No
		19	2440	7.90	8.50	
		39	2480	7.54	8.50	
	LE 2 Mbps, GFSK	0	2402	7.88	9.50	No
		19	2440	7.65	9.50	
		39	2480	8.30	9.50	

Duty Factor Measured Results

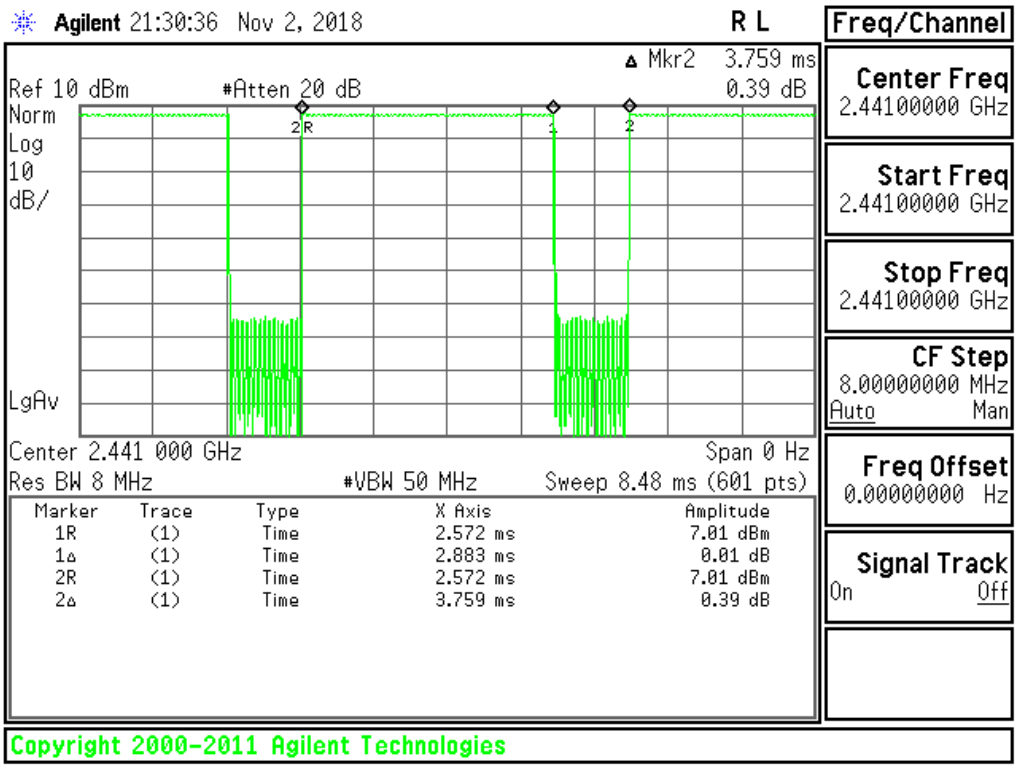
Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
GFSK	DH5	2.883	3.759	76.70%	1.30

Note(s):

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

Duty Cycle plots

GFSK



10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

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

KDB 447498 D01 General RF Exposure Guidance:

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

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

KDB 648474 D04 Handset SAR:

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

KDB 648474 D04 Handset SAR (Phablet Only):

When hotspot mode does not apply, 10-g Product Specific 10g SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions. When hotspot mode applies, 10-g Product Specific 10g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg .

KDB 941225 D01 SAR test for 3G devices:

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

KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
- When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
- Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
- Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.
- Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.
- For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing; therefore, the requirement for H, M and L channels may not fully apply.

KDB 248227 D01 SAR meas for 802.11:

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

configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.
The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the initial test position(s) by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The initial test position(s) is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). Initial Test Position SAR Test Reduction Procedure is outlined in KDB 248227 D01 §5.1.1. 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

Glass Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	GSM Voice	OFF	0	Left Touch	190	836.6	34.0	34.00	0.177	0.177	
				Left Tilt	190	836.6	34.0	34.00	0.117	0.117	
				Right Touch	190	836.6	34.0	34.00	0.225	**0.225**	1
				Right Tilt	190	836.6	34.0	34.00	0.111	0.111	
Body-worn	GSM Voice	OFF	15	Rear	190	836.6	34.0	34.00	0.243	**0.243**	2
				Front	190	836.6	34.0	34.00	0.208	0.208	
Hotspot	GPRS 3 Slots	OFF	10	Rear	190	836.6	29.6	29.18	0.004	**0.004**	3
				Front	190	836.6	29.6	29.18	0.004	0.004	
				Edge 2	190	836.6	29.6	29.18	0.001	0.001	
				Edge 3	190	836.6	29.6	29.18	0.003	0.004	
				Edge 4	190	836.6	29.6	29.18	<0.001	<0.001	

Ceramic Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	GSM Voice	OFF	0	Left Touch	190	836.6	34.0	34.00	0.181	0.181	
				Left Tilt	190	836.6	34.0	34.00	0.120	0.120	
				Right Touch	190	836.6	34.0	34.00	0.230	**0.230**	4
				Right Tilt	190	836.6	34.0	34.00	0.114	0.114	
Body-worn	GSM Voice	OFF	15	Rear	190	836.6	34.0	34.00	0.249	**0.249**	5
				Front	190	836.6	34.0	34.00	0.213	0.213	
Hotspot	GPRS 3 Slots	OFF	10	Rear	190	836.6	30.8	30.25	0.004	**0.005**	6
				Front	190	836.6	30.8	30.25	0.004	0.004	
				Edge 2	190	836.6	30.8	30.25	0.001	0.001	
				Edge 3	190	836.6	30.8	30.25	0.004	0.004	
				Edge 4	190	836.6	30.8	30.25	<0.001	<0.001	

10.2. GSM1900

Glass Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	GSM Voice	OFF	0	Left Touch	661	1880.0	31.0	30.96	0.130	**0.131**	7
				Left Tilt	661	1880.0	31.0	30.96	0.049	0.049	
				Right Touch	661	1880.0	31.0	30.96	0.081	0.082	
				Right Tilt	661	1880.0	31.0	30.96	0.049	0.049	
Body-worn	GSM Voice	OFF	15	Rear	661	1880.0	31.0	30.96	0.474	**0.478**	8
				Front	661	1880.0	31.0	30.96	0.366	0.369	
Hotspot	GPRS 1 Slots	ON	10	Rear	661	1880.0	31.0	30.96	0.447	0.451	
				Front	661	1880.0	31.0	30.96	0.351	0.354	
				Edge 2	661	1880.0	31.0	30.96	0.059	0.060	
				Edge 3	661	1880.0	31.0	30.96	0.712	**0.719**	9
				Edge 4	661	1880.0	31.0	30.96	0.094	0.095	

Ceramic Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	GSM Voice	OFF	0	Left Touch	661	1880.0	31.0	30.96	0.008	**0.008**	10
				Left Tilt	661	1880.0	31.0	30.96	0.002	0.002	
				Right Touch	661	1880.0	31.0	30.96	0.004	0.004	
				Right Tilt	661	1880.0	31.0	30.96	0.003	0.003	
Body-worn	GSM Voice	OFF	15	Rear	661	1880.0	31.0	30.96	0.040	**0.040**	11
				Front	661	1880.0	31.0	30.96	0.028	0.028	
Hotspot	GPRS 1 Slot	ON	10	Rear	661	1880.0	31.0	30.96	0.667	**0.673**	12
				Front	661	1880.0	31.0	30.96	0.496	0.501	
				Edge 2	661	1880.0	31.0	30.96	0.077	0.078	
				Edge 3	661	1880.0	31.0	30.96	0.597	0.603	
				Edge 4	661	1880.0	31.0	30.96	0.143	0.144	

10.3. W-CDMA Band II

Glass Cover:

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	Rel.99 RMC 12.2 kbps	OFF	0	Left Touch	9400	1880.0	23.50	23.05	0.081	**0.090**	13
				Left Tilt	9400	1880.0	23.50	23.05	0.041	0.045	
				Right Touch	9400	1880.0	23.50	23.05	0.063	0.070	
				Right Tilt	9400	1880.0	23.50	23.05	0.037	0.041	
Body-worn	Rel.99 RMC 12.2 kbps	OFF	15	Rear	9400	1880.0	23.50	23.05	0.709	**0.786**	14
				Front	9400	1880.0	23.50	23.05	0.578	0.641	
Hotspot	Rel.99 RMC 12.2 kbps	ON	10	Rear	9400	1880.0	20.50	20.00	0.655	0.735	
				Front	9400	1880.0	20.50	20.00	0.526	0.590	
				Edge 2	9400	1880.0	20.50	20.00	0.083	0.093	
				Edge 3	9262	1852.4	20.50	20.01	0.892	0.999	
					9400	1880.0	20.50	20.00	1.030	1.156	
					9538	1907.6	20.50	20.08	1.080	**1.190**	15
				Edge 4	9400	1880.0	20.50	20.00	0.129	0.145	

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific 10g	Rel. 99 RMC 12.2 kbps	OFF	7	Rear	9400	1880.0	23.50	23.05	1.120	1.242	
			9	Front	9400	1880.0	23.50	23.05	1.270	1.409	
Product Specfic10g	Rel. 99 RMC 12.2 kbps	ON	0	Rear	9262	1852.4	20.50	20.01	1.780	1.993	
					9400	1880.0	20.50	20.00	1.880	**2.109**	16
					9538	1907.6	20.50	20.08	1.730	1.906	
				Edge 3	9400	1880.0	20.50	20.00	1.740	1.952	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

Ceramic Cover:

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	Rel 99 RMC 12.2 kbps	OFF	0	Left Touch	9400	1880.0	23.50	23.05	0.140	**0.155**	17
				Left Tilt	9400	1880.0	23.50	23.05	0.073	0.081	
				Right Touch	9400	1880.0	23.50	23.05	0.090	0.100	
				Right Tilt	9400	1880.0	23.50	23.05	0.059	0.065	
Body-worn	Rel 99 RMC 12.2 kbps	OFF	15	Rear	9400	1880.0	23.50	23.05	0.306	0.339	
				Front	9400	1880.0	23.50	23.05	0.463	**0.514**	18
Hotspot	Rel 99 RMC 12.2 kbps	ON	10	Rear	9400	1880.0	20.50	20.00	0.587	0.659	
				Front	9400	1880.0	20.50	20.00	0.462	0.518	
				Edge 2	9400	1880.0	20.50	20.00	0.064	0.072	
				Edge 3	9262	1852.4	20.50	20.01	1.030	1.153	
					9400	1880.0	20.50	20.00	1.030	**1.156**	19
					9538	1907.6	20.50	20.08	1.040	1.146	
				Edge 4	9400	1880.0	20.50	20.00	0.122	0.137	

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	Rel 99 RMC 12.2 kbps	OFF	7	Rear	9400	1880.0	23.50	23.05	1.320	1.464	
			9	Edge 3	9400	1880.0	23.50	23.05	1.200	1.331	
		ON	0	Rear	9262	1852.4	20.50	20.01	2.230	**2.496**	20
					9400	1880.0	20.50	20.00	2.040	2.289	
					9538	1907.6	20.50	20.08	2.020	2.225	
				Edge 3	9262	1852.4	20.50	20.01	2.110	2.362	
					9400	1880.0	20.50	20.00	1.870	2.098	
					9538	1907.6	20.50	20.08	1.780	1.961	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

10.4. W-CDMA Band IV

Glass Cover:

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	Rel. 99 RMC 12.2 kbps	OFF	0	Left Touch	1513	1752.6	23.30	23.10	0.122	**0.128**	21
				Left Tilt	1513	1752.6	23.30	23.10	0.048	0.050	
				Right Touch	1513	1752.6	23.30	23.10	0.078	0.082	
				Right Tilt	1513	1752.6	23.30	23.10	0.038	0.040	
Body-worn	Rel. 99 RMC 12.2 kbps	OFF	15	Rear	1513	1752.6	23.30	23.10	0.409	**0.428**	22
				Front	1513	1752.6	23.30	23.10	0.309	0.324	
Hotspot	Rel. 99 RMC 12.2 kbps	ON	10	Rear	1513	1752.6	20.50	19.60	0.312	0.384	
				Front	1513	1752.6	20.50	19.60	0.216	0.266	
				Edge 2	1513	1752.6	20.50	19.60	0.039	0.047	
				Edge 3	1513	1752.6	20.50	19.60	0.619	**0.762**	23
				Edge 4	1513	1752.6	20.50	19.60	0.081	0.100	

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	Rel. 99 RMC 12.2 kbps	OFF	9	Edge 3	1513	1752.6	23.30	23.10	0.403	0.422	
		ON	0	Edge 3	1312	1712.4	20.50	18.65	1.950	**2.986**	24
					1413	1732.6	20.50	18.93	2.060	2.957	
					1513	1752.6	20.50	19.60	2.210	2.719	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

Ceramic Cover:

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	Rel. 99 RMC 12.2 kbps	OFF	0	Left Touch	1513	1752.6	23.30	23.10	0.131	**0.137**	25
				Left Tilt	1513	1752.6	23.30	23.10	0.063	0.066	
				Right Touch	1513	1752.6	23.30	23.10	0.085	0.089	
				Right Tilt	1513	1752.6	23.30	23.10	0.051	0.053	
Body-worn	Rel. 99 RMC 12.2 kbps	OFF	15	Rear	1513	1752.6	23.30	23.10	0.419	**0.439**	26
				Front	1513	1752.6	23.30	23.10	0.309	0.324	
Hotspot	Rel. 99 RMC 12.2 kbps	ON	10	Rear	1513	1752.6	20.50	19.60	0.389	0.479	
				Front	1513	1752.6	20.50	19.60	0.283	0.348	
				Edge 2	1513	1752.6	20.50	19.60	0.041	0.050	
				Edge 3	1513	1752.6	20.50	19.60	0.638	**0.785**	27
				Edge 4	1513	1752.6	20.50	19.60	0.099	0.122	

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	Rel. 99 RMC 12.2 kbps	OFF	9	Edge 3	1513	1752.6	23.30	23.10	0.368	0.385	
		ON	0	Edge 3	1312	1712.4	20.50	18.59	2.000	**3.105**	28
					1413	1732.6	20.50	18.93	2.090	3.000	
					1513	1752.6	20.50	19.60	2.200	2.707	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

10.5. W-CDMA Band V

Glass Cover:

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	Rel 99 RMC 12.2 kbps	OFF	0	Left Touch	4183	836.6	25.00	24.67	0.198	0.214	
				Left Tilt	4183	836.6	25.00	24.67	0.127	0.137	
				Right Touch	4183	836.6	25.00	24.67	0.261	**0.282**	29
				Right Tilt	4183	836.6	25.00	24.67	0.126	0.136	
Body-worn	Rel 99 RMC 12.2 kbps	OFF	15	Rear	4183	836.6	25.00	24.67	0.256	**0.276**	30
				Front	4183	836.6	25.00	24.67	0.212	0.229	
Hotspot	Rel 99 RMC 12.2 kbps	OFF	10	Rear	4183	836.6	25.00	24.67	0.590	**0.637**	31
				Front	4183	836.6	25.00	24.67	0.435	0.469	
				Edge 2	4183	836.6	25.00	24.67	0.187	0.202	
				Edge 3	4183	836.6	25.00	24.67	0.376	0.406	
				Edge 4	4183	836.6	25.00	24.67	0.086	0.093	

Ceramic Cover:

RF Exposure Conditions	Mode	Pwr Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
							Tune-up Limit	Meas.	Meas.	Scaled	
Head	Rel 99 RMC 12.2 kbps	OFF	0	Left Touch	4183	836.6	25.00	24.67	0.211	0.228	
				Left Tilt	4183	836.6	25.00	24.67	0.123	0.133	
				Right Touch	4183	836.6	25.00	24.67	0.269	**0.290**	32
				Right Tilt	4183	836.6	25.00	24.67	0.116	0.125	
Body-worn	Rel 99 RMC 12.2 kbps	OFF	15	Rear	4183	836.6	25.00	24.67	0.411	**0.443**	33
				Front	4183	836.6	25.00	24.67	0.308	0.332	
Hotspot	Rel 99 RMC 12.2 kbps	OFF	10	Rear	4132	826.4	25.00	24.62	0.785	0.857	
					4183	836.6	25.00	24.67	0.907	**0.979**	34
					4233	846.6	25.00	24.50	0.835	0.937	
				Front	4183	836.6	25.00	24.67	0.701	0.756	
				Edge 2	4183	836.6	25.00	24.67	0.198	0.214	
				Edge 3	4183	836.6	25.00	24.67	0.547	0.590	
				Edge 4	4183	836.6	25.00	24.67	0.079	0.085	

10.6. LTE Band 5 (10MHz Bandwidth)

Glass Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	20525	836.5	1	0	25.00	24.67	0.186	0.201	
							25	0	23.00	22.13	0.107	0.131	
				Left Tilt (15°)	20525	836.5	1	0	25.00	24.67	0.130	0.140	
							25	0	23.00	22.13	0.075	0.091	
				Right Touch	20525	836.5	1	0	25.00	24.67	0.216	**0.233**	35
							25	0	23.00	22.13	0.125	0.153	
				Right Tilt (15°)	20525	836.5	1	0	25.00	24.67	0.114	0.123	
							25	0	23.00	22.13	0.066	0.081	
Body-worn	QPSK	OFF	15	Rear	20525	836.5	1	0	25.00	24.67	0.270	**0.291**	36
							25	0	23.00	22.13	0.169	0.206	
				Front	20525	836.5	1	0	25.00	24.67	0.214	0.231	
							25	0	23.00	22.13	0.125	0.153	
Hotspot	QPSK	OFF	10	Rear	20525	836.5	1	0	25.00	24.67	0.573	**0.618**	37
							25	0	23.00	22.13	0.338	0.413	
				Front	20525	836.5	1	0	25.00	24.67	0.444	0.479	
							25	0	23.00	22.13	0.262	0.320	
				Edge 2	20525	836.5	1	0	25.00	24.67	0.187	0.202	
							25	0	23.00	22.13	0.106	0.130	
				Edge 3	20525	836.5	1	0	25.00	24.67	0.002	0.003	
							25	0	23.00	22.13	0.003	0.004	
				Edge 4	20525	836.5	1	0	25.00	24.67	0.090	0.097	
							25	0	23.00	22.13	0.051	0.062	

Ceramic Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	20525	836.5	1	0	25.00	24.67	0.159	0.172	
							25	0	23.00	22.13	0.092	0.112	
				Left Tilt (15°)	20525	836.5	1	0	25.00	24.67	0.101	0.109	
							25	0	23.00	22.13	0.056	0.068	
				Right Touch	20525	836.5	1	0	25.00	24.67	0.211	**0.228**	38
							25	0	23.00	22.13	0.124	0.152	
				Right Tilt (15°)	20525	836.5	1	0	25.00	24.67	0.097	0.105	
							25	0	23.00	22.13	0.056	0.068	
Body-worn	QPSK	OFF	15	Rear	20525	836.5	1	0	25.00	24.67	0.263	**0.284**	39
							25	0	23.00	22.13	0.155	0.189	
				Front	20525	836.5	1	0	25.00	24.67	0.218	0.235	
							25	0	23.00	22.13	0.128	0.156	
Hotspot	QPSK	OFF	10	Rear	20525	836.5	1	0	25.00	24.67	0.572	**0.617**	40
							25	0	23.00	22.13	0.337	0.412	
				Front	20525	836.5	1	0	25.00	24.67	0.470	0.507	
							25	0	23.00	22.13	0.274	0.335	
				Edge 2	20525	836.5	1	0	25.00	24.67	0.113	0.122	
							25	0	23.00	22.13	0.102	0.125	
				Edge 3	20525	836.5	1	0	25.00	24.67	0.351	0.379	
							25	0	23.00	22.13	0.209	0.255	
				Edge 4	20525	836.5	1	0	25.00	24.67	0.035	0.038	
							25	0	23.00	22.13	0.038	0.046	

10.7. LTE Band 12 (10MHz Bandwidth)

Glass Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	23095	707.5	1	0	25.00	24.00	0.120	0.151	
							25	0	23.00	22.12	0.078	0.096	
				Left Tilt (15°)	23095	707.5	1	0	25.00	24.00	0.073	0.092	
							25	0	23.00	22.12	0.048	0.059	
				Right Touch	23095	707.5	1	0	25.00	24.00	0.134	**0.169**	41
							25	0	23.00	22.12	0.082	0.100	
				Right Tilt (15°)	23095	707.5	1	0	25.00	24.00	0.066	0.083	
							25	0	23.00	22.12	0.043	0.053	
Body-worn	QPSK	OFF	15	Rear	23095	707.5	1	0	25.00	24.00	0.254	**0.320**	42
							25	0	23.00	22.12	0.164	0.201	
				Front	23095	707.5	1	0	25.00	24.00	0.233	0.293	
							25	0	23.00	22.12	0.152	0.186	
Hotspot	QPSK	OFF	10	Rear	23095	707.5	1	0	25.00	24.00	0.308	0.388	
							25	0	23.00	22.12	0.201	0.246	
				Front	23095	707.5	1	0	25.00	24.00	0.247	0.311	
							25	0	23.00	22.12	0.159	0.195	
				Edge 2	23095	707.5	1	0	25.00	24.00	0.317	**0.399**	43
							25	0	23.00	22.12	0.207	0.253	
				Edge 3	23095	707.5	1	0	25.00	24.00	0.169	0.213	
							25	0	23.00	22.12	0.111	0.136	
				Edge 4	23095	707.5	1	0	25.00	24.00	0.247	0.311	
							25	0	23.00	22.12	0.158	0.193	

Ceramic Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	23095	707.5	1	0	25.00	24.00	0.089	0.112	
							25	0	23.00	22.12	0.059	0.072	
				Left Tilt (15°)	23095	707.5	1	0	25.00	24.00	0.048	0.060	
							25	0	23.00	22.12	0.032	0.039	
				Right Touch	23095	707.5	1	0	25.00	24.00	0.115	**0.145**	44
							25	0	23.00	22.12	0.077	0.094	
				Right Tilt (15°)	23095	707.5	1	0	25.00	24.00	0.060	0.076	
							25	0	23.00	22.12	0.039	0.048	
Body-worn	QPSK	OFF	15	Rear	23095	707.5	1	0	25.00	24.00	0.184	**0.232**	45
							25	0	23.00	22.12	0.121	0.148	
				Front	23095	707.5	1	0	25.00	24.00	0.165	0.208	
							25	0	23.00	22.12	0.109	0.133	
Hotspot	QPSK	OFF	10	Rear	23095	707.5	1	0	25.00	24.00	0.234	0.295	
							25	0	23.00	22.12	0.154	0.189	
				Front	23095	707.5	1	0	25.00	24.00	0.187	0.235	
							25	0	23.00	22.12	0.124	0.152	
				Edge 2	23095	707.5	1	0	25.00	24.00	0.298	**0.375**	46
							25	0	23.00	22.12	0.193	0.236	
				Edge 3	23095	707.5	1	0	25.00	24.00	0.136	0.171	
							25	0	23.00	22.12	0.098	0.120	
				Edge 4	23095	707.5	1	0	25.00	24.00	0.173	0.218	
							25	0	23.00	22.12	0.109	0.133	

10.8. LTE Band 13 (10MHz Bandwidth)

Glass Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	23230	782.0	1	0	25.00	23.42	0.098	0.141	
							25	0	23.00	22.34	0.064	0.075	
				Left Tilt (15°)	23230	782.0	1	0	25.00	23.42	0.066	0.095	
							25	0	23.00	22.34	0.044	0.051	
				Right Touch	23230	782.0	1	0	25.00	23.42	0.120	**0.173**	47
							25	0	23.00	22.34	0.079	0.092	
				Right Tilt (15°)	23230	782.0	1	0	25.00	23.42	0.063	0.091	
							25	0	23.00	22.34	0.043	0.050	
Body-worn	QPSK	OFF	15	Rear	23230	782.0	1	0	25.00	23.42	0.194	**0.279**	48
							25	0	23.00	22.34	0.125	0.146	
				Front	23230	782.0	1	0	25.00	23.42	0.153	0.220	
							25	0	23.00	22.34	0.100	0.116	
Hotspot	QPSK	OFF	10	Rear	23230	782.0	1	0	25.00	23.42	0.264	**0.380**	49
							25	0	23.00	22.34	0.179	0.209	
				Front	23230	782.0	1	0	25.00	23.42	0.192	0.276	
							25	0	23.00	22.34	0.130	0.151	
				Edge 2	23230	782.0	1	0	25.00	23.42	0.161	0.232	
							25	0	23.00	22.34	0.104	0.121	
				Edge 3	23230	782.0	1	0	25.00	23.42	0.171	0.246	
							25	0	23.00	22.34	0.117	0.136	
				Edge 4	23230	782.0	1	0	25.00	23.42	0.079	0.114	
							25	0	23.00	22.34	0.050	0.058	

Ceramic Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	23230	782.0	1	0	25.00	23.42	0.105	0.151	
							25	0	23.00	22.34	0.068	0.079	
				Left Tilt (15°)	23230	782.0	1	0	25.00	23.42	0.069	0.099	
							25	0	23.00	22.34	0.045	0.052	
				Right Touch	23230	782.0	1	0	25.00	23.42	0.142	**0.204**	50
							25	0	23.00	22.34	0.091	0.106	
				Right Tilt (15°)	23230	782.0	1	0	25.00	23.42	0.071	0.102	
							25	0	23.00	22.34	0.045	0.052	
Body-worn	QPSK	OFF	15	Rear	23230	782.0	1	0	25.00	23.42	0.159	**0.229**	51
							25	0	23.00	22.34	0.108	0.126	
				Front	23230	782.0	1	0	25.00	23.42	0.152	0.219	
							25	0	23.00	22.34	0.103	0.120	
Hotspot	QPSK	OFF	10	Rear	23230	782.0	1	0	25.00	23.42	0.295	**0.425**	52
							25	0	23.00	22.34	0.203	0.236	
				Front	23230	782.0	1	0	25.00	23.42	0.229	0.330	
							25	0	23.00	22.34	0.158	0.184	
				Edge 2	23230	782.0	1	0	25.00	23.42	0.167	0.240	
							25	0	23.00	22.34	0.106	0.123	
				Edge 3	23230	782.0	1	0	25.00	23.42	0.188	0.271	
							25	0	23.00	22.34	0.125	0.146	
				Edge 4	23230	782.0	1	0	25.00	23.42	0.080	0.115	
							25	0	23.00	22.34	0.050	0.058	

10.9. LTE Band 25 (20MHz Bandwidth)

Glass Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	26365	1882.5	1	0	24.00	23.64	0.158	**0.172**	53
							50	0	23.00	22.56	0.121	0.134	
				Left Tilt	26365	1882.5	1	0	24.00	23.64	0.096	0.104	
							50	0	23.00	22.56	0.068	0.075	
				Right Touch	26365	1882.5	1	0	24.00	23.64	0.119	0.129	
							50	0	23.00	22.56	0.090	0.100	
				Right Tilt	26365	1882.5	1	0	24.00	23.64	0.074	0.080	
							50	0	23.00	22.56	0.057	0.063	
Body-worn	QPSK	OFF	15	Rear	26365	1882.5	1	0	24.00	23.64	0.687	**0.747**	54
							50	0	23.00	22.56	0.528	0.584	
				Front	26365	1882.5	1	0	24.00	23.64	0.559	0.608	
							50	0	23.00	22.56	0.430	0.476	
Hotspot	QPSK	ON	10	Rear	26365	1882.5	1	0	21.00	20.62	0.682	0.744	
							50	0	21.00	20.53	0.660	0.736	
				Front	26365	1882.5	1	0	21.00	20.62	0.560	0.611	
							50	0	21.00	20.53	0.541	0.603	
				Edge 2	26365	1882.5	1	0	21.00	20.62	0.073	0.080	
							50	0	21.00	20.53	0.072	0.080	
				Edge 3	26140	1860.0	1	0	21.00	20.38	0.875	1.009	
							50	0	21.00	20.27	0.871	1.030	
					26365	1882.5	1	0	21.00	20.62	0.993	1.083	
							50	0	21.00	20.53	0.980	1.093	
							100	0	21.00	20.46	0.979	1.109	
					26590	1905.0	1	0	21.00	20.28	1.000	1.180	
							50	0	21.00	20.25	1.010	**1.200**	55
				Edge 4	26365	1882.5	1	0	21.00	20.62	0.128	0.140	
							50	0	21.00	20.53	0.119	0.133	

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	QPSK	OFF	7	Rear	26365	1882.5	1	0	24.00	23.64	0.387	0.421	
			5	Front	26365	1882.5	1	0	24.00	23.64	0.631	0.686	
			9	Edge 3	26365	1882.5	1	0	24.00	23.64	0.955	1.038	
							50	0	23.00	22.56	0.743	0.822	
Product Specific	QPSK	ON	0	Rear	26140	1860.0	1	0	21.00	20.38	1.810	2.087	
					26365	1882.5	1	0	21.00	20.62	1.890	2.061	
					26590	1905.0	1	0	21.00	20.28	1.760	2.076	
				Front	26365	1882.5	1	0	21.00	20.62	1.770	1.930	
				Edge 3	26140	1860.0	1	0	21.00	20.38	1.790	2.064	
							50	0	21.00	20.27	1.780	2.104	
					26365	1882.5	1	0	21.00	20.62	2.040	2.224	
							50	0	21.00	20.53	2.010	**2.241**	56
							100	0	21.00	20.46	1.340	1.518	
					26590	1905.0	1	0	21.00	20.28	1.830	2.159	
							50	0	21.00	20.25	1.770	2.103	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

Ceramic Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	26365	1882.5	1	0	24.00	23.64	0.147	**0.160**	57
							50	0	23.00	22.56	0.112	0.124	
				Left Tilt	26365	1882.5	1	0	24.00	23.64	0.082	0.089	
							50	0	23.00	22.56	0.060	0.066	
				Right Touch	26365	1882.5	1	0	24.00	23.64	0.132	0.143	
							50	0	23.00	22.56	0.098	0.108	
				Right Tilt	26365	1882.5	1	0	24.00	23.64	0.080	0.087	
							50	0	23.00	22.56	0.060	0.066	
Body-worn	QPSK	OFF	15	Rear	26365	1882.5	1	0	24.00	23.64	0.636	**0.691**	58
							50	0	23.00	22.56	0.537	0.594	
				Front	26365	1882.5	1	0	24.00	23.64	0.449	0.488	
							50	0	23.00	22.56	0.385	0.426	
Hotspot	QPSK	ON	10	Rear	26365	1882.5	1	0	21.00	20.62	0.663	0.723	
							50	0	21.00	20.53	0.647	0.721	
				Front	26365	1882.5	1	0	21.00	20.62	0.490	0.534	
							50	0	21.00	20.53	0.473	0.527	
				Edge 2	26365	1882.5	1	0	21.00	20.62	0.082	0.089	
							50	0	21.00	20.53	0.079	0.088	
				Edge 3	26140	1860.0	1	0	21.00	20.38	0.969	1.117	
							50	0	21.00	20.27	0.964	1.139	
					26365	1882.5	1	0	21.00	20.62	1.030	1.123	
							50	0	21.00	20.53	1.010	1.126	
							100	0	21.00	20.46	1.010	1.144	
					26590	1905.0	1	0	21.00	20.28	1.080	1.274	
							50	0	21.00	20.25	1.080	**1.283**	59
				Edge 4	26365	1882.5	1	0	21.00	20.62	0.151	0.165	
							50	0	21.00	20.53	0.146	0.163	

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	QPSK	OFF	7	Rear	26365	1882.5	1	0	24.00	23.64	1.120	1.217	
			9	Edge 3	26365	1882.5	1	0	24.00	23.64	1.280	1.391	
							50	0	23.00	22.56	1.010	1.118	
		ON	0	Rear	26140	1860.0	1	0	21.00	20.38	2.150	**2.479**	60
					26365	1882.5	1	0	21.00	20.62	2.010	2.192	
					26590	1905.0	1	0	21.00	20.28	1.970	2.324	
				Edge 3	26140	1860.0	1	0	21.00	20.38	1.900	2.191	
							50	0	21.00	20.27	1.890	2.234	
					26365	1882.5	1	0	21.00	20.62	1.800	1.963	
							50	0	21.00	20.53	1.790	1.996	
							100	0	21.00	20.46	1.730	1.960	
					26590	1905.0	1	0	21.00	20.28	1.730	2.041	
							50	0	21.00	20.25	1.700	2.020	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

10.10. LTE Band 26 (15MHz Bandwidth)

Glass Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	26865	831.5	1	37	25.00	24.81	0.178	0.186	
							36	0	23.50	22.18	0.097	0.131	
				Left Tilt (15°)	26865	831.5	1	37	25.00	24.81	0.132	0.138	
							36	0	23.50	22.18	0.071	0.096	
				Right Touch	26865	831.5	1	37	25.00	24.81	0.209	**0.218**	61
							36	0	23.50	22.18	0.113	0.153	
				Right Tilt (15°)	26865	831.5	1	37	25.00	24.81	0.113	0.118	
							36	0	23.50	22.18	0.061	0.083	
Body-worn	QPSK	OFF	15	Rear	26865	831.5	1	37	25.00	24.81	0.248	**0.259**	62
							36	0	23.50	22.18	0.131	0.178	
				Front	26865	831.5	1	37	25.00	24.81	0.183	0.191	
							36	0	23.50	22.18	0.094	0.127	
Hotspot	QPSK	OFF	10	Rear	26865	831.5	1	37	25.00	24.81	0.541	**0.565**	63
							36	0	23.50	22.18	0.292	0.396	
				Front	26865	831.5	1	37	25.00	24.81	0.409	0.427	
							36	0	23.50	22.18	0.220	0.298	
				Edge 2	26865	831.5	1	37	25.00	24.81	0.184	0.192	
							36	0	23.50	22.18	0.104	0.141	
				Edge 3	26865	831.5	1	37	25.00	24.81	0.394	0.412	
							36	0	23.50	22.18	0.212	0.287	
				Edge 4	26865	831.5	1	37	25.00	24.81	0.078	0.081	
							36	0	23.50	22.18	0.043	0.059	

Ceramic Cover:

RF Exposure Conditions	Mode	Power back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	26865	831.5	1	37	25.00	24.81	0.137	0.143	
							36	0	23.50	22.18	0.077	0.105	
				Left Tilt (15°)	26865	831.5	1	37	25.00	24.81	0.086	0.090	
							36	0	23.50	22.18	0.051	0.069	
				Right Touch	26865	831.5	1	37	25.00	24.81	0.189	**0.197**	64
							36	0	23.50	22.18	0.110	0.149	
				Right Tilt (15°)	26865	831.5	1	37	25.00	24.81	0.086	0.090	
							36	0	23.50	22.18	0.052	0.070	
Body-worn	QPSK	OFF	15	Rear	26865	831.5	1	37	25.00	24.81	0.278	**0.290**	65
							36	0	23.50	22.18	0.158	0.214	
				Front	26865	831.5	1	37	25.00	24.81	0.196	0.205	
							36	0	23.50	22.18	0.113	0.153	
Hotspot	QPSK	OFF	10	Rear	26865	831.5	1	37	25.00	24.81	0.531	**0.555**	66
							36	0	23.50	22.18	0.310	0.420	
				Front	26865	831.5	1	37	25.00	24.81	0.384	0.401	
							36	0	23.50	22.18	0.225	0.305	
				Edge 2	26865	831.5	1	37	25.00	24.81	0.141	0.147	
							36	0	23.50	22.18	0.086	0.117	
				Edge 3	26865	831.5	1	37	25.00	24.81	0.323	0.337	
							36	0	23.50	22.18	0.193	0.262	
				Edge 4	26865	831.5	1	37	25.00	24.81	0.081	0.085	
							36	0	23.50	22.18	0.044	0.060	

10.11. LTE Band 41 (20MHz Bandwidth)

Glass Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	40620	2593.0	1	0	25.00	22.79	0.125	**0.208**	67
							50	0	23.00	21.74	0.075	0.100	
				Left Tilt	40620	2593.0	1	0	25.00	22.79	0.043	0.072	
							50	0	23.00	21.74	0.026	0.035	
				Right Touch	40620	2593.0	1	0	25.00	22.79	0.092	0.153	
							50	0	23.00	21.74	0.056	0.075	
				Right Tilt	40620	2593.0	1	0	25.00	22.79	0.076	0.126	
							50	0	23.00	21.74	0.046	0.061	
Body-worn	QPSK	OFF	15	Rear	40620	2593.0	1	0	25.00	22.79	0.320	**0.532**	68
							50	0	23.00	21.74	0.205	0.274	
				Front	40620	2593.0	1	0	25.00	22.79	0.182	0.303	
							50	0	23.00	21.74	0.115	0.154	
Hotspot	QPSK	ON	10	Rear	40620	2593.0	1	0	22.00	20.10	0.375	0.581	
							50	0	22.00	20.14	0.384	0.589	
				Front	40620	2593.0	1	0	22.00	20.10	0.189	0.293	
							50	0	22.00	20.14	0.197	0.302	
				Edge 3	40620	2593.0	1	0	22.00	20.10	0.399	**0.618**	69
							50	0	22.00	20.14	0.401	0.615	
				Edge 4	40620	2593.0	1	0	22.00	20.10	0.220	0.341	
							50	0	22.00	20.14	0.221	0.339	

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Product Specfic	QPSK	OFF	9	Edge 3	40620	2593.0	1	0	25.00	22.79	0.215	0.358	
							50	0	23.00	21.74	0.260	0.348	
Product Specfic	QPSK	ON	0	Edge 3	40620	2593.0	1	0	22.00	20.10	1.290	**1.997**	70
							50	0	22.00	20.14	1.270	1.948	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

Ceramic Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	40620	2593.0	1	0	25.00	22.79	0.060	**0.100**	71
							50	0	23.00	21.74	0.031	0.041	
				Left Tilt	40620	2593.0	1	0	25.00	22.79	0.016	0.027	
							50	0	23.00	21.74	0.010	0.013	
				Right Touch	40620	2593.0	1	0	25.00	22.79	0.024	0.040	
							50	0	23.00	21.74	0.021	0.028	
				Right Tilt	40620	2593.0	1	0	25.00	22.79	0.033	0.055	
							50	0	23.00	21.74	0.013	0.017	
Body-worn	QPSK	OFF	15	Rear	40620	2593.0	1	0	25.00	22.79	0.267	**0.444**	72
							50	0	23.00	21.74	0.200	0.267	
				Front	40620	2593.0	1	0	25.00	22.79	0.111	0.185	
							50	0	23.00	21.74	0.067	0.089	
Hotspot	QPSK	ON	10	Rear	39750	2506.0	1	0	22.00	20.02	0.688	1.084	
					40185	2549.5	1	0	22.00	20.26	0.827	**1.236**	73
					40620	2593.0	1	0	22.00	20.10	0.744	1.152	
							50	0	22.00	20.14	0.457	0.701	
					41055	2636.5	1	0	22.00	20.41	0.568	0.819	
					41490	2680.0	1	0	22.00	20.32	0.651	0.959	
				Front	40620	2593.0	1	0	22.00	20.10	0.218	0.337	
							50	0	22.00	20.14	0.135	0.207	
				Edge 3	40620	2593.0	1	0	22.00	20.10	0.190	0.294	
							50	0	22.00	20.14	0.184	0.282	
				Edge 4	40620	2593.0	1	0	22.00	20.10	0.266	0.412	
							50	0	22.00	20.14	0.163	0.250	

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Product Specfic	QPSK	OFF	7	Rear	40620	2593.0	1	0	25.00	22.79	0.822	1.367	
							50	0	23.00	21.74	0.523	0.699	
		ON	0	Rear	39750	2506.0	1	0	22.00	20.02	1.620	2.553	
							50	0	22.00	20.00	1.610	**2.553**	74
					40185	2549.5	1	0	22.00	20.26	1.550	2.316	
							50	0	22.00	20.10	1.540	2.386	
					40620	2593.0	1	0	22.00	20.10	1.320	2.043	
							50	0	22.00	20.14	1.320	2.025	
					41055	2636.5	1	0	22.00	20.41	1.130	1.629	
							50	0	22.00	20.15	1.120	1.714	
					41490	2680.0	1	0	22.00	20.32	1.220	1.798	
							50	0	22.00	20.25	1.250	1.869	
							100	0	22.00	20.19	1.240	1.881	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

10.12. LTE Band 66 (20MHz Bandwidth)

Glass Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	132322	1745.0	1	0	24.00	23.52	0.151	**0.169**	75
							50	0	23.00	22.41	0.115	0.132	
				Left Tilt	132322	1745.0	1	0	24.00	23.52	0.035	0.039	
							50	0	23.00	22.41	0.027	0.031	
				Right Touch	132322	1745.0	1	0	24.00	23.52	0.095	0.106	
							50	0	23.00	22.41	0.074	0.085	
				Right Tilt	132322	1745.0	1	0	24.00	23.52	0.035	0.039	
							50	0	23.00	22.41	0.029	0.033	
Body-worn	QPSK	OFF	15	Rear	132322	1745.0	1	0	24.00	23.52	0.493	**0.551**	76
							50	0	23.00	22.41	0.381	0.436	
				Front	132322	1745.0	1	0	24.00	23.52	0.376	0.420	
							50	0	23.00	22.41	0.296	0.339	
Hotspot	QPSK	ON	10	Rear	132322	1745.0	1	0	20.90	20.47	0.481	0.531	
							50	0	20.90	20.38	0.483	0.544	
				Front	132322	1745.0	1	0	20.90	20.47	0.391	0.432	
							50	0	20.90	20.38	0.391	0.441	
				Edge 2	132322	1745.0	1	0	20.90	20.47	0.058	0.064	
							50	0	20.90	20.38	0.059	0.067	
				Edge 3	132072	1720.0	1	0	20.90	20.26	0.710	0.823	
							50	0	20.90	20.14	0.713	0.849	
					132322	1745.0	1	0	20.90	20.47	0.872	0.963	
							50	0	20.90	20.38	0.871	0.982	
					132572	1770.0	1	0	20.90	20.60	0.948	1.016	
							50	0	20.90	20.54	0.939	**1.020**	77
							100	0	20.90	20.48	0.918	1.011	
				Edge 4	132322	1745.0	1	0	20.90	20.47	0.111	0.123	
							50	0	20.90	20.38	0.110	0.124	

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	QPSK	OFF	9	Edge 3	132322	1745.0	1	0	24.00	23.52	1.080	1.206	
							50	0	23.00	22.41	0.864	0.990	
Product Specific	QPSK	ON	0	Edge 3	132072	1720.0	1	0	20.90	20.26	2.430	2.816	
							50	0	20.90	20.14	2.430	2.895	
					132322	1745.0	1	0	20.90	20.47	2.770	3.058	
							50	0	20.90	20.38	2.770	3.122	
					132572	1770.0	1	0	20.90	20.60	2.890	3.097	
							50	0	20.90	20.54	2.890	3.140	
							100	0	20.90	20.48	2.860	**3.150**	78

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

Ceramic Cover:

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Head	QPSK	OFF	0	Left Touch	132322	1745.0	1	0	24.0	23.52	0.136	**0.152**	79
							50	0	23.0	22.41	0.106	0.121	
				Left Tilt	132322	1745.0	1	0	24.0	23.52	0.051	0.057	
							50	0	23.0	22.41	0.040	0.046	
				Right Touch	132322	1745.0	1	0	24.0	23.52	0.073	0.082	
							50	0	23.0	22.41	0.057	0.065	
				Right Tilt	132322	1745.0	1	0	24.0	23.52	0.048	0.054	
							50	0	23.0	22.41	0.038	0.043	
Body-worn	QPSK	OFF	15	Rear	132322	1745.0	1	0	24.0	23.52	0.417	**0.466**	80
							50	0	23.0	22.41	0.330	0.378	
				Front	132322	1745.0	1	0	24.0	23.52	0.337	0.376	
							50	0	23.0	22.41	0.266	0.305	
Hotspot	QPSK	ON	10	Rear	132322	1745.0	1	0	20.90	20.47	0.541	0.597	
							50	0	20.90	20.38	0.512	0.577	
				Front	132322	1745.0	1	0	20.90	20.47	0.396	0.437	
							50	0	20.90	20.38	0.388	0.437	
				Edge 2	132322	1745.0	1	0	20.90	20.47	0.060	0.066	
							50	0	20.90	20.38	0.060	0.068	
				Edge 3	132072	1720.0	1	0	20.90	20.26	0.888	1.029	
							50	0	20.90	20.14	0.890	1.060	
					132322	1745.0	1	0	20.90	20.47	1.020	1.126	
							50	0	20.90	20.38	1.020	**1.150**	81
					132572	1770.0	1	0	20.90	20.60	1.070	1.147	
							50	0	20.90	20.54	1.050	1.141	
							100	0	20.90	20.48	1.030	1.135	
				Edge 4	132322	1745.0	1	0	20.90	20.47	0.137	0.151	
							50	0	20.90	20.38	0.133	0.150	

RF Exposure Conditions	Mode	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot no.
									Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	QPSK	OFF	7	Rear	132322	1745.0	1	0	24.00	23.52	0.421	0.470	
			9	Edge 3	132322	1745.0	1	0	24.00	23.52	1.250	1.396	
							50	0	23.00	22.41	0.992	1.136	
		ON	0	Rear	132322	1745.0	1	0	20.90	20.47	1.690	1.866	
				Edge 3	132072	1720.0	1	0	20.90	20.26	2.390	2.769	
							50	0	20.90	20.14	2.360	2.811	
					132322	1745.0	1	0	20.90	20.47	2.780	3.069	
							50	0	20.90	20.38	2.770	3.122	
					132572	1770.0	1	0	20.90	20.60	2.950	3.161	
							50	0	20.90	20.54	2.960	**3.216**	82
							100	0	20.90	20.48	2.910	3.205	

Note(s):

Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is > 1.2 W/kg. Therefore, Product Specific 10g SAR testing is required for this band in accordance with KDB 648474 §2.5 b. at Max Power in accordance with KDB 648474.

10.13. Wi-Fi (DTS Band)

When the proximity sensor is active in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.

Refer to Operational Description for WLAN explanation.

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

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

Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11b 1 Mbps	Wi-Fi Antenna #1	ON	0	Left Touch	6	2437	100%	0.207	17.00	17.00			
					Left Tilt	6	2437	100%	0.205	17.00	17.00			
					Right Touch	6	2437	100%	0.709	17.00	17.00	0.484	0.484	
					Right Tilt	6	2437	100%	0.765	17.00	17.00	0.549	**0.549**	83
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	6	2437	100%	0.102	19.00	19.00	0.067	**0.067**	84
					Front	6	2437	100%	0.091	19.00	19.00			
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	10	Rear	6	2437	100%	0.275	19.00	19.00	0.161	**0.161**	85
					Front	6	2437	100%	0.184	19.00	19.00			
					Edge 1	6	2437	100%	0.196	19.00	19.00			
					Edge 4	6	2437	100%	0.223	19.00	19.00			
Head	802.11b 1 Mbps	Wi-Fi Antenna #2	ON	0	Left Touch	1	2412	100%	0.056	17.00	16.90			
					Left Tilt	1	2412	100%	0.049	17.00	16.90			
					Right Touch	1	2412	100%	0.080	17.00	16.90	0.044	**0.045**	86
					Right Tilt	1	2412	100%	0.076	17.00	16.90			
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	6	2437	100%	0.052	19.00	18.90	0.039	**0.040**	87
					Front	6	2437	100%	0.008	19.00	18.90			
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	10	Rear	6	2437	100%	0.124	19.00	18.90	0.108	**0.111**	88
					Front	6	2437	100%	0.013	19.00	18.90			
					Edge 1	6	2437	100%	0.040	19.00	18.90			
					Edge 4	6	2437	100%	0.012	19.00	18.90			

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11b 1 Mbps	Wi-Fi Antenna #1	ON	0	Left Touch	6	2437	100%	0.157	17.00	17.00			
					Left Tilt	6	2437	100%	0.181	17.00	17.00			
					Right Touch	6	2437	100%	0.733	17.00	17.00	0.449	**0.449**	89
					Right Tilt	6	2437	100%	0.697	17.00	17.00	0.435	0.435	
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	6	2437	100%	0.113	19.00	19.00	0.076	**0.076**	90
					Front	6	2437	100%	0.098	19.00	19.00			
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	10	Rear	6	2437	100%	0.267	19.00	19.00	0.160	**0.160**	91
					Front	6	2437	100%	0.184	19.00	19.00			
					Edge 1	6	2437	100%	0.196	19.00	19.00			
					Edge 4	6	2437	100%	0.224	19.00	19.00			
Head	802.11b 1 Mbps	Wi-Fi Antenna #2	ON	0	Left Touch	1	2412	100%	0.086	17.00	16.90			
					Left Tilt	1	2412	100%	0.103	17.00	16.90			
					Right Touch	1	2412	100%	0.143	17.00	16.90			
					Right Tilt	1	2412	100%	0.163	17.00	16.90	0.104	**0.106**	92
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	6	2437	100%	0.171	19.00	18.90	0.104	**0.106**	93
					Front	6	2437	100%	0.021	19.00	18.90			
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	10	Rear	6	2437	100%	0.371	19.00	18.90	0.219	**0.224**	94
					Front	6	2437	100%	0.034	19.00	18.90			
					Edge 1	6	2437	100%	0.105	19.00	18.90			
					Edge 4	6	2437	100%	0.030	19.00	18.90			

10.14. Wi-Fi (DTS Band) RSDB (Real Simultaneous Dual Band)

When the proximity sensor is active in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.

Refer to Operational Description for WLAN explanation.

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

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

Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11b 1 Mbps	Wi-Fi Antenna #1	ON	0	Right Touch	6	2437	100%	0.321	14.00	14.00	0.215	**0.215**	95
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	6	2437	100%	0.051	17.00	17.00	0.035	**0.035**	96
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	10	Rear	6	2437	100%	0.151	17.00	17.00	0.087	**0.087**	97
Head	802.11b 1 Mbps	Wi-Fi Antenna #2	ON	0	Right Touch	6	2437	100%	0.047	14.00	13.80	0.021	**0.022**	98
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	1	2412	100%	0.032	17.00	16.90	0.022	**0.023**	99
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	10	Rear	1	2412	100%	0.083	17.00	16.90	0.060	**0.061**	100

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11b 1 Mbps	Wi-Fi Antenna #1	ON	0	Right Touch	6	2437	100%	0.388	14.00	14.00	0.241	**0.241**	101
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	6	2437	100%	0.074	17.00	17.00	0.051	**0.051**	102
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #1	OFF	10	Rear	6	2437	100%	0.145	17.00	17.00	0.100	**0.100**	103
Head	802.11b 1 Mbps	Wi-Fi Antenna #2	ON	0	Right Tilt	6	2437	100%	0.108	14.00	13.80	0.061	**0.064**	104
Body-worn	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	1	2412	100%	0.060	17.00	16.90	0.037	**0.038**	105
Hotspot	802.11b 1 Mbps	Wi-Fi Antenna #2	OFF	10	Rear	1	2412	100%	0.162	17.00	16.90	0.103	**0.105**	106

10.15. Wi-Fi (U-NII Band)

When the proximity sensor is active in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.

Refer to Operational Description for WLAN explanation.

UNII-1 & 2A

When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest *reported* SAR for UNII band 2A is

- ≤ 1.2 W/kg, SAR is not required for UNII band I
- > 1.2 W/kg, both bands should be tested independently for SAR.

Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac (VHT80)	Wi-Fi Antenna #1	ON	0	Left Touch	58	5290	65.79%	0.395	15.00	14.60			
					Left Tilt	58	5290	65.79%	0.370	15.00	14.60			
					Right Touch	58	5290	65.79%	0.485	15.00	14.60	0.258	0.430	
					Right Tilt	58	5290	65.79%	0.495	15.00	14.60	0.283	**0.472**	107
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	56	5280	93.47%	0.263	18.00	17.90	0.133	0.146	108
					Front	56	5280	93.47%	0.094	18.00	17.90			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	58	5290	65.79%	0.026	15.00	15.00	0.010	0.015	
					Left Tilt	58	5290	65.79%	0.030	15.00	15.00			
					Right Touch	58	5290	65.79%	0.024	15.00	15.00			
					Right Tilt	58	5290	65.79%	0.039	15.00	15.00	0.014	0.021	109
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	56	5280	93.47%	0.591	18.00	18.00	0.287	0.307	110
					Front	56	5280	93.47%	0.015	18.00	18.00			
RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific 10g	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	0	Rear	56	5280	93.47%	3.880	18.00	17.90			
					Front	56	5280	93.47%	1.350	18.00	17.90			
					Edge 1	56	5280	93.47%	4.210	18.00	17.90			
					Edge 4	56	5280	93.47%	5.110	18.00	17.90	0.672	**0.736**	111
Product Specific 10g	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	0	Rear	52	5260	93.47%	53.20	18.00	18.00	2.430	**2.600**	112
						56	5280	93.47%	63.10	18.00	18.00	1.930	2.065	
					Front	56	5280	93.47%	0.06	18.00	18.00			
					Edge 1	56	5280	93.47%	0.36	18.00	18.00			
					Edge 4	56	5280	93.47%	1.97	18.00	18.00	0.186	0.199	

Note(s):

1. Highest Reported 1-g SAR for U-NII 2A mode is < 1.2 W/kg, therefore SAR testing is not required for U-NII 1 mode.
2. Highest Reported 10-g SAR for U-NII 2A mode is < 3.0 W/kg, therefor SAR testing is not required for U-NII 1 mode.

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	58	5290	65.79%	0.026	15.00	14.60			
					Left Tilt	58	5290	65.79%	0.052	15.00	14.60			
					Right Touch	58	5290	65.79%	0.051	15.00	14.60			
					Right Tilt	58	5290	65.79%	0.088	15.00	14.60	0.024	**0.040**	113
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	56	5280	93.47%	0.412	18.00	17.90	0.194	**0.212**	114
					Front	56	5280	93.47%	0.053	18.00	17.90			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	58	5290	65.79%	0.003	15.00	15.00			
					Left Tilt	58	5290	65.79%	0.015	15.00	15.00			
					Right Touch	58	5290	65.79%	0.017	15.00	15.00			
					Right Tilt	58	5290	65.79%	0.031	15.00	15.00	0.010	**0.015**	115
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	56	5280	93.47%	0.872	18.00	18.00	0.350	**0.374**	116
					Front	56	5280	93.47%	0.025	18.00	18.00			

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	0	Rear	56	5280	93.47%	2.800	18.00	17.90			
					Front	56	5280	93.47%	1.040	18.00	17.90			
					Edge 1	56	5280	93.47%	2.900	18.00	17.90			
					Edge 4	56	5280	93.47%	6.980	18.00	17.90	0.611	**0.669**	117
Product Specific	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	0	Rear	56	5280	93.47%	26.300	18.00	18.00	1.410	**1.509**	118
					Front	56	5280	93.47%	0.190	18.00	18.00			
					Edge 1	56	5280	93.47%	0.435	18.00	18.00			
					Edge 4	56	5280	93.47%	2.880	18.00	18.00	0.356	0.381	

Note(s):

1. Highest Reported 1-g SAR for U-NII 2A mode is < 1.2 W/kg, therefore SAR testing is not required for U-NII 1 mode.
2. Highest Reported 10-g SAR for U-NII 2A mode is < 3.0 W/kg, therefor SAR testing is not required for U-NII 1 mode.

UNII-2C

Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	122	5610	65.79%	0.230	15.00	14.80			
					Left Tilt	122	5610	65.79%	0.295	15.00	14.80			
					Right Touch	122	5610	65.79%	0.470	15.00	14.80			
					Right Tilt	122	5610	65.79%	0.518	15.00	14.80	0.216	**0.344**	119
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	144	5720	93.47%	0.246	18.00	17.80	0.124	**0.139**	120
					Front	144	5720	93.47%	0.071	18.00	17.80			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	106	5530	65.79%	0.031	15.00	15.00			
					Left Tilt	106	5530	65.79%	0.0366	15.00	15.00			
					Right Touch	106	5530	65.79%	0.032	15.00	15.00			
					Right Tilt	106	5530	65.79%	0.0372	15.00	15.00	0.017	**0.026**	121
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	144	5720	93.47%	0.659	18.00	17.80	0.352	**0.394**	122
					Front	144	5720	93.47%	0.020	18.00	17.80			

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific 10g	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	0	Rear	144	5720	93.47%	4.947	18.00	17.80	0.602	**0.674**	123
					Front	144	5720	93.47%	1.043	18.00	17.80			
					Edge 1	144	5720	93.47%	3.145	18.00	17.80			
					Edge 4	144	5720	93.47%	4.106	18.00	17.80			
Product Specific 10g	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	0	Rear	144	5720	93.47%	14.100	18.00	17.80	1.770	**1.983**	124
					Front	144	5720	93.47%	0.129	18.00	17.80			
					Edge 1	144	5720	93.47%	0.924	18.00	17.80			
					Edge 4	144	5720	93.47%	1.439	18.00	17.80	0.204	0.229	

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	122	5610	65.79%	0.126	15.00	14.80			
					Left Tilt	122	5610	65.79%	0.160	15.00	14.80			
					Right Touch	122	5610	65.79%	0.255	15.00	14.80			
					Right Tilt	122	5610	65.79%	0.338	15.00	14.80	0.118	**0.188**	125
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	144	5720	93.47%	0.217	18.00	17.80	0.109	**0.122**	126
					Front	144	5720	93.47%	0.075	18.00	17.80			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	106	5530	65.79%	0.049	15.00	15.00			
					Left Tilt	106	5530	65.79%	0.069	15.00	15.00			
					Right Touch	106	5530	65.79%	0.079	15.00	15.00			
					Right Tilt	106	5530	65.79%	0.111	15.00	15.00	0.040	**0.061**	127
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	144	5720	93.47%	0.749	18.00	17.80	0.355	**0.398**	128
					Front	144	5720	93.47%	0.014	18.00	17.80			

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	0	Rear	144	5720	93.47%	5.480	18.00	17.80	0.685	**0.767**	129
					Front	144	5720	93.47%	1.420	18.00	17.80			
					Edge 1	144	5720	93.47%	2.650	18.00	17.80			
					Edge 4	144	5720	93.47%	3.820	18.00	17.80			
Product Specific	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	0	Rear	144	5720	93.47%	16.600	18.00	17.80	0.509	0.570	130
					Front	144	5720	93.47%	0.270	18.00	17.80			
					Edge 1	144	5720	93.47%	0.751	18.00	17.80			
					Edge 4	144	5720	93.47%	0.293	18.00	17.80			

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Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	155	5775	65.79%	0.166	15.00	14.70			
					Left Tilt	155	5775	65.79%	0.200	15.00	14.70			
					Right Touch	155	5775	65.79%	0.295	15.00	14.70			
					Right Tilt	155	5775	65.79%	0.391	15.00	14.70	0.137	**0.223**	131
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	165	5825	93.47%	0.222	18.00	17.70	0.103	**0.118**	132
					Front	165	5825	93.47%	0.074	18.00	17.70			
Hotspot	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	10	Rear	165	5825	93.47%	0.430	18.00	17.70	0.208	**0.238**	133
					Front	165	5825	93.47%	0.110	18.00	17.70			
					Edge 1	165	5825	93.47%	0.284	18.00	17.70			
					Edge 4	165	5825	93.47%	0.353	18.00	17.70			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	155	5775	65.79%	0.035	15.00	14.90			
					Left Tilt	155	5775	65.79%	0.0437	15.00	14.90			
					Right Touch	155	5775	65.79%	0.033	15.00	14.90			
					Right Tilt	155	5775	65.79%	0.0572	15.00	14.90	0.022	**0.034**	134
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	157	5785	93.47%	1.060	18.00	18.00	0.510	**0.546**	135
					Front	157	5785	93.47%	0.025	18.00	18.00	0.019	0.020	
Hotspot	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	10	Rear	157	5785	93.47%	1.570	18.00	18.00	0.690	**0.738**	136
					Front	157	5785	93.47%	0.024	18.00	18.00			
					Edge 1	157	5785	93.47%	0.080	18.00	18.00			
					Edge 4	157	5785	93.47%	0.389	18.00	18.00	0.174	0.186	

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	155	5775	65.79%	0.089	15.00	14.70			
					Left Tilt	155	5775	65.79%	0.119	15.00	14.70			
					Right Touch	155	5775	65.79%	0.163	15.00	14.70			
					Right Tilt	155	5775	65.79%	0.365	15.00	14.70	0.138	**0.225**	137
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	15	Rear	165	5825	93.47%	0.089	18.00	17.70	0.086	**0.099**	138
					Front	165	5825	93.47%	0.048	18.00	17.70			
Hotspot	802.11a 6 Mbps	Wi-Fi Antenna #1	OFF	10	Rear	165	5825	93.47%	0.357	18.00	17.70	0.155	**0.178**	139
					Front	165	5825	93.47%	0.062	18.00	17.70			
					Edge 1	165	5825	93.47%	0.163	18.00	17.70			
					Edge 4	165	5825	93.47%	0.265	18.00	17.70			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	155	5775	65.79%	0.124	15.00	14.90			
					Left Tilt	155	5775	65.79%	0.120	15.00	14.90			
					Right Touch	155	5775	65.79%	0.225	15.00	14.90			
					Right Tilt	155	5775	65.79%	0.227	15.00	14.90	0.093	**0.145**	140
Body-worn	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	15	Rear	157	5785	93.47%	0.690	18.00	18.00	0.276	**0.295**	141
					Front	157	5785	93.47%	0.046	18.00	18.00			
Hotspot	802.11a 6 Mbps	Wi-Fi Antenna #2	OFF	10	Rear	157	5785	93.47%	1.070	18.00	18.00	0.432	**0.462**	142
					Front	157	5785	93.47%	0.046	18.00	18.00			
					Edge 1	157	5785	93.47%	0.159	18.00	18.00			
					Edge 4	157	5785	93.47%	0.287	18.00	18.00	0.114	0.122	

10.16. Wi-Fi (U-NII Band) RSDB (Real Simultaneous Dual Band)

When the proximity sensor is active in a held-to-ear user scenario, the output power level is reduced. The maximum allowed output powers in all conditions are included in the maximum power document.

Refer to Operational Description for WLAN explanation.

UNII-1 & 2A

When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest *reported* SAR for UNII band 2A is

- ≤ 1.2 W/kg, SAR is not required for UNII band I
- > 1.2 W/kg, both bands should be tested independently for SAR.

Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac (VHT80)	Wi-Fi Antenna #1	ON	0	Left Touch	58	5290	65.79%	0.301	14.00	14.00			
					Left Tilt	58	5290	65.79%	0.286	14.00	14.00			
					Right Touch	58	5290	65.79%	0.433	14.00	14.00	0.253	0.385	
					Right Tilt	58	5290	65.79%	0.639	14.00	14.00	0.322	**0.489**	143
Body-worn	802.11ac (VHT80)	Wi-Fi Antenna #1	ON	15	Rear	58	5290	65.79%	0.102	14.00	14.00	0.053	**0.081**	144
					Front	58	5290	65.79%	0.033	14.00	14.00			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	58	5290	65.79%	0.017	14.00	13.80			
					Left Tilt	58	5290	65.79%	0.020	14.00	13.80			
					Right Touch	58	5290	65.79%	0.015	14.00	13.80			
					Right Tilt	58	5290	65.79%	0.025	14.00	13.80	0.010	**0.015**	145
Body-worn	802.11ac VHT80	Wi-Fi Antenna #2	ON	15	Rear	58	5290	65.79%	0.211	14.00	13.80	0.094	**0.150**	146
					Front	58	5290	65.79%	0.012	14.00	13.80			

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific 10g	802.11ac (VHT80)	Wi-Fi Antenna #1	ON	0	Rear	58	5290	65.79%	1.750	14.00	14.00			
					Front	58	5290	65.79%	1.010	14.00	14.00			
					Edge 1	58	5290	65.79%	1.680	14.00	14.00			
					Edge 4	58	5290	65.79%	1.900	14.00	14.00	0.243	**0.369**	147
Product Specific 10g	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Rear	58	5290	65.79%	13.40	14.00	13.80	0.626	**0.996**	148
					Front	58	5290	65.79%	0.02	14.00	13.80			
					Edge 1	58	5290	65.79%	0.12	14.00	13.80			
					Edge 4	58	5290	65.79%	0.75	14.00	13.80	0.070	0.111	

Note(s):

1. Highest Reported 1-g SAR for U-NII 2A mode is < 1.2 W/kg, therefore SAR testing is not required for U-NII 1 mode.
2. Highest Reported 10-g SAR for U-NII 2A mode is < 3.0 W/kg, therefor SAR testing is not required for U-NII 1 mode.

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	58	5290	65.79%		14.00	14.00			
					Left Tilt	58	5290	65.79%		14.00	14.00			
					Right Touch	58	5290	65.79%		14.00	14.00			
					Right Tilt	58	5290	65.79%	0.334	14.00	14.00	0.127	**0.193**	149
Body-worn	802.11ac VHT80	Wi-Fi Antenna #1	ON	15	Rear	58	5290	65.79%	0.154	14.00	14.00	0.063	**0.096**	150
					Front	58	5290	65.79%	0.031	14.00	14.00			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	58	5290	65.79%		14.00	13.80			
					Left Tilt	58	5290	65.79%		14.00	13.80			
					Right Touch	58	5290	65.79%		14.00	13.80			
					Right Tilt	58	5290	65.79%	0.091	14.00	13.80	0.021	**0.033**	151
Body-worn	802.11ac VHT80	Wi-Fi Antenna #2	ON	15	Rear	58	5290	65.79%	0.281	14.00	13.80	0.118	**0.188**	152
					Front	58	5290	65.79%	0.020	14.00	13.80			

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Rear	58	5290	65.79%	1.800	14.00	14.00			
					Front	58	5290	65.79%	0.505	14.00	14.00			
					Edge 1	58	5290	65.79%	1.110	14.00	14.00			
					Edge 4	58	5290	65.79%	3.150	14.00	14.00	0.266	**0.404**	153
Product Specific	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Rear	58	5290	65.79%	19.600	14.00	13.80	0.793	**1.262**	154
					Front	58	5290	65.79%	0.048	14.00	13.80			
					Edge 1	58	5290	65.79%	0.213	14.00	13.80			
					Edge 4	58	5290	65.79%	0.599	14.00	13.80	0.131	0.209	

Note(s):

1. Highest Reported 1-g SAR for U-NII 2A mode is < 1.2 W/kg, therefore SAR testing is not required for U-NII 1 mode.
2. Highest Reported 10-g SAR for U-NII 2A mode is < 3.0 W/kg, therefor SAR testing is not required for U-NII 1 mode.

UNII-2C

Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	122	5610	65.79%	0.246	14.00	14.00			
					Left Tilt	122	5610	65.79%	0.224	14.00	14.00			
					Right Touch	122	5610	65.79%	0.286	14.00	14.00			
					Right Tilt	122	5610	65.79%	0.432	14.00	14.00	0.119	**0.181**	155
Body-worn	802.11ac VHT80	Wi-Fi Antenna #1	ON	15	Rear	122	5610	65.79%	0.098	14.00	14.00	0.048	**0.073**	156
					Front	122	5610	65.79%	0.035	14.00	14.00			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	106	5530	65.79%	0.021	14.00	14.00			
					Left Tilt	106	5530	65.79%	0.025	14.00	14.00			
					Right Touch	106	5530	65.79%	0.027	14.00	14.00			
					Right Tilt	106	5530	65.79%	0.029	14.00	14.00	0.009	**0.014**	157
Body-worn	802.11ac VHT80	Wi-Fi Antenna #2	ON	15	Rear	106	5530	65.79%	0.184	14.00	14.00	0.084	**0.128**	158
					Front	106	5530	65.79%	0.010	14.00	14.00			
RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific 10g	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Rear	122	5610	65.79%	2.030	14.00	14.00	0.207	**0.315**	159
					Front	122	5610	65.79%	0.793	14.00	14.00			
					Edge 1	122	5610	65.79%	0.869	14.00	14.00			
					Edge 4	122	5610	65.79%	1.520	14.00	14.00			
Product Specific 10g	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Rear	106	5530	65.79%	2.360	14.00	14.00	0.583	**0.886**	160
					Front	106	5530	65.79%	0.045	14.00	14.00			
					Edge 1	106	5530	65.79%	0.223	14.00	14.00			
					Edge 4	106	5530	65.79%	0.257	14.00	14.00			

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	122	5610	65.79%		14.00	14.00			
					Left Tilt	122	5610	65.79%		14.00	14.00			
					Right Touch	122	5610	65.79%		14.00	14.00			
					Right Tilt	122	5610	65.79%	0.266	14.00	14.00	0.111	**0.169**	161
Body-worn	802.11ac VHT80	Wi-Fi Antenna #1	ON	15	Rear	122	5610	65.79%	0.090	14.00	14.00	0.034	**0.054**	162
					Front	122	5610	65.79%	0.026	14.00	14.00			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	106	5530	65.79%		14.00	14.00			
					Left Tilt	106	5530	65.79%		14.00	14.00			
					Right Touch	106	5530	65.79%		14.00	14.00			
					Right Tilt	106	5530	65.79%	0.068	14.00	14.00	0.023	**0.035**	163
Body-worn	802.11ac VHT80	Wi-Fi Antenna #2	ON	15	Rear	106	5530	65.79%	0.367	14.00	14.00	0.171	**0.260**	164
					Front	106	5530	65.79%	0.004	14.00	14.00			
RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		10-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Product Specific	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Rear	122	5610	65.79%	2.090	14.00	14.00	0.209	0.318	
					Front	122	5610	65.79%	0.412	14.00	14.00			
					Edge 1	122	5610	65.79%	0.795	14.00	14.00			
					Edge 4	122	5610	65.79%	1.660	14.00	14.00	0.242	**0.368**	165
Product Specific	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Rear	106	5530	65.79%	4.160	14.00	14.00	0.795	**1.208**	166
					Front	106	5530	65.79%	0.072	14.00	14.00			
					Edge 1	106	5530	65.79%	0.495	14.00	14.00			
					Edge 4	106	5530	65.79%	1.390	14.00	14.00	0.115	0.175	

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Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Left Touch	155	5775	65.79%	0.164	14.00	14.00			
					Left Tilt	155	5775	65.79%	0.168	14.00	14.00			
					Right Touch	155	5775	65.79%	0.317	14.00	14.00	0.118	0.179	167
					Right Tilt	155	5775	65.79%	0.227	14.00	14.00			
Body-worn	802.11ac VHT80	Wi-Fi Antenna #1	ON	15	Rear	155	5775	65.79%	0.081	14.00	14.00	0.044	0.067	168
					Front	155	5775	65.79%	0.021	14.00	14.00			
Hotspot	802.11ac VHT80	Wi-Fi Antenna #1	ON	10	Rear	155	5775	65.79%	0.139	14.00	14.00	0.058	0.088	169
					Front	155	5775	65.79%	0.040	14.00	14.00			
					Edge 1	155	5775	65.79%	0.072	14.00	14.00			
					Edge 4	155	5775	65.79%	0.120	14.00	14.00			
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Left Touch	155	5775	65.79%	0.020	14.00	14.00			
					Left Tilt	155	5775	65.79%	0.032	14.00	14.00			
					Right Touch	155	5775	65.79%	0.041	14.00	14.00			
					Right Tilt	155	5775	65.79%	0.062	14.00	14.00	0.018	0.027	170
Body-worn	802.11ac VHT80	Wi-Fi Antenna #2	ON	15	Rear	155	5775	65.79%	0.313	14.00	14.00	0.165	0.251	171
					Front	155	5775	65.79%	0.012	14.00	14.00			
Hotspot	802.11ac VHT80	Wi-Fi Antenna #2	ON	10	Rear	155	5775	65.79%	0.539	14.00	14.00	0.287	0.436	172
					Front	155	5775	65.79%	0.012	14.00	14.00			
					Edge 1	155	5775	65.79%	0.026	14.00	14.00			
					Edge 4	155	5775	65.79%	0.120	14.00	14.00	0.058	0.088	

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Area Scan Max. SAR (W/kg)	Power (dBm)		1-g SAR (W/kg)		Plot no.
										Tune-up Limit	Meas.	Meas.	Scaled	
Head	802.11ac VHT80	Wi-Fi Antenna #1	ON	0	Right Tilt	155	5775	65.79%	0.153	14.00	14.00	0.071	**0.108**	173
Body-worn	802.11ac VHT80	Wi-Fi Antenna #1	ON	15	Rear	155	5775	65.79%	0.041	14.00	14.00	0.023	**0.035**	174
					Front	155	5775	65.79%						
Hotspot	802.11ac VHT80	Wi-Fi Antenna #1	ON	10	Rear	155	5775	65.79%	0.125	14.00	14.00	0.045	**0.068**	175
					Front	155	5775	65.79%						
					Edge 1	155	5775	65.79%						
					Edge 4	155	5775	65.79%						
Head	802.11ac VHT80	Wi-Fi Antenna #2	ON	0	Right Tilt	155	5775	65.79%	0.051	14.00	14.00	0.019	**0.029**	176
Body-worn	802.11ac VHT80	Wi-Fi Antenna #2	ON	15	Rear	155	5775	65.79%	0.180	14.00	14.00	0.085	**0.129**	177
					Front	155	5775	65.79%						
Hotspot	802.11ac VHT80	Wi-Fi Antenna #2	ON	10	Rear	155	5775	65.79%	0.288	14.00	14.00	0.132	**0.201**	195
					Front	155	5775	65.79%						178
					Edge 1	155	5775	65.79%						
					Edge 4	155	5775	65.79%						

10.17. Bluetooth

Glass Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
								Tune-up Limit	Meas.	Meas.	Scaled	
Head	GFSK	Antenna #1	OFF	0	Left Touch	39	2441	19.00	18.82	0.186	0.194	
					Left Tilt	39	2441	19.00	18.82	0.165	0.172	
					Right Touch	39	2441	19.00	18.82	0.665	0.693	179
					Right Tilt	39	2441	19.00	18.82	0.580	0.605	
Body-worn	GFSK	Antenna #1	OFF	15	Rear	39	2441	19.00	18.82	0.062	0.065	
					Front	39	2441	19.00	18.82	0.063	0.066	180
Hotspot	GFSK	Antenna #1	OFF	10	Rear	39	2441	19.00	18.82	0.134	0.140	
					Front	39	2441	19.00	18.82	0.107	0.112	
					Edge 1	39	2441	19.00	18.82	0.111	0.116	
					Edge 4	39	2441	19.00	18.82	0.155	0.162	181

Ceramic Cover:

RF Exposure Conditions	Mode	Antenna	Power Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot no.
								Tune-up Limit	Meas.	Meas.	Scaled	
Head	GFSK	Antenna #1	OFF	0	Left Touch	39	2441	19.00	18.82	0.204	0.213	
					Left Tilt	39	2441	19.00	18.82	0.180	0.188	
					Right Touch	39	2441	19.00	18.82	0.733	0.764	
					Right Tilt	39	2441	19.00	18.82	0.759	**0.791**	182
Body-worn	GFSK	Antenna #1	OFF	15	Rear	39	2441	19.00	18.82	0.075	**0.078**	183
					Front	39	2441	19.00	18.82	0.062	0.065	
Hotspot	GFSK	Antenna #1	OFF	10	Rear	39	2441	19.00	18.82	0.162	0.169	
					Front	39	2441	19.00	18.82	0.128	0.133	
					Edge 1	39	2441	19.00	18.82	0.011	0.011	
					Edge 4	39	2441	19.00	18.82	0.199	**0.207**	184

11. SAR Measurement Variability

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

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

Glass Cover:

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	First Repeated	
						Measured SAR (W/kg)	Largest to Smallest SAR Ratio
700	LTE Band 12	Hotspot	Edge 2	No	0.317	N/A	N/A
	LTE Band 13	Hotspot	Rear	No	0.264	N/A	N/A
850	GSM 850	Hotspot	Rear	No	0.243	N/A	N/A
	WCDMA Band V	Hotspot	Rear	No	0.590	N/A	N/A
	LTE Band 5	Hotspot	Rear	No	0.573	N/A	N/A
	LTE Band 26	Hotspot	Rear	No	0.541	N/A	N/A
1700	LTE Band 4	Hotspot	Edge 3	Yes	0.812	0.774	1.05
	WCDMA Band IV	Hotspot	Edge 3	No	0.619	N/A	N/A
	LTE Band 66	Hotspot	Edge 3	Yes	0.948	1.030	1.09
1900	GSM 1900	Hotspot	Edge 3	No	0.712	N/A	N/A
	WCDMA Band II	Hotspot	Edge 3	Yes	1.080	1.070	1.01
	LTE Band 2	Hotspot	Edge 3	Yes	1.030	0.952	1.08
	LTE Band 25	Hotspot	Edge 3	Yes	1.010	0.949	1.06
2400	Wi-Fi 802.11b/g/n	Head	Right Tilt	No	0.549	N/A	N/A
	BT	Head	Right Touch	No	0.665	N/A	N/A
2600	LTE Band 41	Hotspot	Edge 3	No	0.401	N/A	N/A
5300	Wi-Fi 802.11a/n/ac	Body	Rear	No	0.287	N/A	N/A
5500	Wi-Fi 802.11a/n/ac	Body	Rear	No	0.352	N/A	N/A
5800	Wi-Fi 802.11a/n/ac	Hotspot	Rear	No	0.690	N/A	N/A

Note(s):

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

Product Specific 10g SAR

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
1700	LTE Band 4	Product Specific 10g	Edge 3	Yes	2.240	2.110	1.06
	WCDMA Band IV	Product Specific 10g	Edge 3	Yes	2.210	2.210	1.00
	LTE Band 66	Product Specific 10g	Edge 3	Yes	2.890	2.920	1.01
1900	LTE Band 2	Product Specific 10g	Edge 3	Yes	2.100	2.020	1.04
	LTE Band 25	Product Specific 10g	Edge 3	Yes	2.040	1.800	1.13
5300	Wi-Fi 802.11a/n/ac	Product Specific 10g	Rear	Yes	2.430	2.420	1.00

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 < 3.0.

Ceramic Cover:

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	First Repeated	
						Measured SAR (W/kg)	Largest to Smallest SAR Ratio
700	LTE Band 12	Hotspot	Edge 2	No	0.298	N/A	N/A
	LTE Band 13	Hotspot	Rear	No	0.295	N/A	N/A
850	GSM 850	Body	Rear	No	0.243	N/A	N/A
	WCDMA Band V	Hotspot	Rear	Yes	0.907	0.906	1.00
	LTE Band 5	Hotspot	Rear	No	0.572	N/A	N/A
	LTE Band 26	Hotspot	Rear	No	0.531	N/A	N/A
1700	WCDMA Band IV	Hotspot	Edge 3	No	0.638	N/A	N/A
	LTE Band 66	Hotspot	Edge 3	Yes	1.070	1.030	1.04
1900	GSM 1900	Hotspot	Rear	No	0.667	N/A	N/A
	WCDMA Band II	Hotspot	Edge 3	No	1.040	1.040	N/A
	LTE Band 25	Hotspot	Edge 3	Yes	1.080	0.999	1.08
2400	Wi-Fi 802.11b/g/n	Head	Right Touch	No	0.449	N/A	N/A
	BT	Head	Right Tilt	No	0.759	N/A	N/A
2600	LTE Band 41	Hotspot	Rear	Yes	0.827	0.769	1.08
5300	Wi-Fi 802.11a/n/ac	Body	Rear	No	0.374	N/A	N/A
5500	Wi-Fi 802.11a/n/ac	Body	Rear	No	0.648	N/A	N/A
5800	Wi-Fi 802.11a/n/ac	Hotspot	Rear	No	0.432	N/A	N/A

Note(s):

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

Product Specific 10g SAR

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
1700	WCDMA Band IV	Product Specific 10g	Edge 3	No	2.200	2.200	1.00
	LTE Band 66	Product Specific 10g	Edge 3	Yes	2.960	2.950	1.00
1900	WCDMA Band II	Product Specific 10g	Rear	Yes	2.230	2.220	1.00
	LTE Band 25	Product Specific 10g	Rear	No	2.150	2.130	1.01
5500	Wi-Fi 802.11a/n/ac	Product Specific 10g	Rear	Yes	2.670	2.660	1.00

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 < 3.0.

12. Simultaneous Transmission Conditions

No.	Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet	Notes
1	GSM voice + 2.4 GHz Wi-Fi	Yes	Yes	N/A	Yes	
2	GSM voice + 5 GHz Wi-Fi	Yes	Yes	N/A	Yes	
3	GSM voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
4	GSM voice + 2.4 GHz Wi-Fi MIMO	Yes	Yes	N/A	Yes	
5	GSM voice + 5 GHz Wi-Fi MIMO	Yes	Yes	N/A	Yes	
6	GSM voice + 5 GHz Wi-Fi + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
7	GSM voice + 5 GHz Wi-Fi MIMO + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
8	GSM voice + 2.4 GHz Wi-Fi + 5 GHz Wi-Fi	Yes	Yes	N/A	Yes	Wi-Fi RSDB Combination
9	GSM voice + 2.4 GHz Wi-Fi MIMO + 5 GHz Wi-Fi MIMO	Yes	Yes	N/A	Yes	Wi-Fi RSDB Combination
10	UMTS + 2.4 GHz Wi-Fi	Yes	Yes	Yes	Yes	
11	UMTS + 5 GHz Wi-Fi	Yes	Yes	Yes	Yes	
12	UMTS + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
13	UMTS + 2.4 GHz Wi-Fi MIMO	Yes	Yes	Yes	Yes	
14	UMTS + 5 GHz Wi-Fi MIMO	Yes	Yes	Yes	Yes	
15	UMTS + 5 GHz Wi-Fi + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
16	UMTS + 5 GHz Wi-Fi MIMO + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
17	UMTS + 2.4 GHz Wi-Fi + 5 GHz Wi-Fi	Yes	Yes	Yes	Yes	Wi-Fi RSDB Combination
18	UMTS + 2.4 GHz Wi-Fi MIMO + 5 GHz Wi-Fi MIMO	Yes	Yes	Yes	Yes	Wi-Fi RSDB Combination
19	LTE + 2.4 GHz Wi-Fi	Yes	Yes	Yes	Yes	
20	LTE + 5 GHz Wi-Fi	Yes	Yes	Yes	Yes	
21	LTE + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
22	LTE + 2.4 GHz Wi-Fi MIMO	Yes	Yes	Yes	Yes	
23	LTE + 5 GHz Wi-Fi MIMO	Yes	Yes	Yes	Yes	
24	LTE + 5 GHz Wi-Fi + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
25	LTE + 5 GHz Wi-Fi MIMO + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
26	LTE + 2.4 GHz Wi-Fi + 5 GHz Wi-Fi	Yes	Yes	Yes	Yes	Wi-Fi RSDB Combination
27	LTE + 2.4 GHz Wi-Fi MIMO + 5 GHz Wi-Fi MIMO	Yes	Yes	Yes	Yes	Wi-Fi RSDB Combination
28	GPRS/EDGE + 2.4 GHz Wi-Fi	N/A	N/A	Yes	Yes	
29	GPRS/EDGE + 5 GHz Wi-Fi	N/A	N/A	Yes	Yes	
30	GPRS/EDGE + 2.4 GHz Bluetooth	N/A	N/A	Yes^	Yes	^Bluetooth Tethering is considered
31	GPRS/EDGE + 2.4 GHz Wi-Fi MIMO	N/A	N/A	Yes	Yes	
32	GPRS/EDGE + 5 GHz Wi-Fi MIMO	N/A	N/A	Yes	Yes	
33	GPRS/EDGE + 5 GHz Wi-Fi + 2.4 GHz Bluetooth	N/A	N/A	Yes^	Yes	^Bluetooth Tethering is considered
34	GPRS/EDGE + 5 GHz Wi-Fi MIMO + 2.4 GHz Bluetooth	N/A	N/A	Yes^	Yes	^Bluetooth Tethering is considered
35	GPRS/EDGE + 2.4 GHz Wi-Fi + 5 GHz Wi-Fi	N/A	N/A	Yes	Yes	Wi-Fi RSDB Combination
36	GPRS/EDGE + 2.4 GHz Wi-Fi MIMO + 5 GHz Wi-Fi MIMO	N/A	N/A	Yes	Yes	Wi-Fi RSDB Combination

12.1. Simultaneous transmission SAR test exclusion considerations

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

12.1.1. Sum of SAR

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

12.1.2. SAR to Peak Location Ratio (SPLSR)

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

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

Where:

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

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

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$

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

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

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

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

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

12.1.3. Simultaneous transmission SAR measurement

When simultaneous transmission SAR measurements are required in different frequency bands not covered by a single probe calibration point then separate tests for each frequency band are performed. The tests are performed using enlarged zoom scans which are processed, by means of superposition, using the DASY5 volume scan post-processing procedures to determine the 1-g SAR for the aggregate SAR distribution.

The spatial resolution used for all enlarged zoom scans is the same as used for the most stringent zoom scans. I.E. the scan parameters required for the highest frequency assessed are used for all enlarged zoom scans. The scans cover the complete area of the device to ensure all transmitting antennas and radiating structures are assessed.

DASY5 provides the ability to perform Multiband Evaluations according to the latest standards using the Volume Scan job as well as appropriate routines for the Post-processing.

In order to extract and process measurements within different frequency bands, the SEMCAD X Post-processor performs the combination and subsequent superposition of these measurement data via DASY5= Combined MultiBand Averaged SAR.

Combined Multi Band Averaged SAR allows - in addition to the data extraction - an evaluation of the 1 g, 10 g and/or arbitrary averaged mass SAR.
Power Scaling Factor is used to allow the volume scans to be scaled by a value other than "1", this is important when the results need to be scaled to different maximum power levels. The Power Scaling Factor is applied to each individual point of the scan. When power scaling is used in multi-band combinations the scaling factor is applied to each individual point of the first scan, the second factor is then applied to each individual point of the second scan and so on. The scans are then combined.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.177	0.484	0.045	0.430	0.015	0.194	0.371	0.706	0.622	0.386	0.816
	Left Tilt	0.117	0.484	0.045	0.430	0.015	0.172	0.289	0.646	0.562	0.304	0.734
	Right Touch	0.225	0.484	0.045	0.430	0.015	0.693	0.918	0.754	0.670	0.933	1.363
	Right Tilt	0.111	0.549	0.045	0.472	0.034	0.605	0.716	0.705	0.617	0.750	1.222
Body-worn	Rear	0.243	0.067	0.040	0.146	0.546	0.065	0.308	0.350	0.935	0.854	1.000
	Front	0.208	0.067	0.040	0.146	0.020	0.066	0.274	0.315	0.374	0.294	0.440
Hotspot	Rear	0.004	0.161	0.111	0.238	0.738	0.140	0.144	0.276	0.980	0.882	1.120
	Front	0.004	0.161	0.111	0.238	0.186	0.112	0.116	0.276	0.428	0.302	0.540
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.001										
	Edge 3	0.004										
	Edge 4	0.000	0.161	0.111	0.238	0.186	0.162	0.162	0.272	0.424	0.348	0.586

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.181	0.435	0.106	0.225	0.150	0.213	0.394	0.722	0.556	0.544	0.769
	Left Tilt	0.120	0.435	0.106	0.225	0.150	0.188	0.308	0.661	0.495	0.458	0.683
	Right Touch	0.230	0.449	0.106	0.225	0.150	0.764	0.994	0.785	0.605	1.144	1.369
	Right Tilt	0.114	0.435	0.106	0.225	0.150	0.791	0.905	0.655	0.489	1.055	1.280
Body-worn	Rear	0.249	0.076	0.106	0.212	0.398	0.078	0.327	0.431	0.859	0.725	0.937
	Front	0.213	0.076	0.106	0.212	0.398	0.065	0.278	0.395	0.823	0.676	0.888
Hotspot	Rear	0.005	0.160	0.224	0.178	0.462	0.169	0.173	0.389	0.645	0.635	0.813
	Front	0.004	0.160	0.224	0.178	0.122	0.133	0.138	0.388	0.304	0.260	0.438
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.001										
	Edge 3	0.004										
	Edge 4	0.000	0.160	0.224	0.178	0.122	0.207	0.207	0.384	0.300	0.329	0.507

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.

12.3. Sum of the SAR for GSM850 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.177	0.215	0.022	0.385	0.027	0.194	0.584	0.419	0.777	0.226	0.611	0.804	0.799	0.441	0.826
	Left Tilt	0.117	0.215	0.022	0.385	0.027	0.172	0.524	0.359	0.717	0.166	0.551	0.744	0.739	0.381	0.766
	Right Touch	0.225	0.215	0.022	0.385	0.027	0.693	0.632	0.467	0.825	0.274	0.659	0.852	0.847	0.489	0.874
	Right Tilt	0.111	0.215	0.022	0.489	0.027	0.605	0.622	0.353	0.815	0.160	0.649	0.842	0.837	0.375	0.864
Body-worn	Rear	0.243	0.035	0.023	0.081	0.251	0.065	0.347	0.529	0.359	0.517	0.598	0.610	0.382	0.552	0.633
	Front	0.208	0.035	0.023	0.081	0.251	0.066	0.312	0.494	0.324	0.482	0.563	0.575	0.347	0.517	0.598
Hotspot	Rear	0.004	0.087	0.061	0.088	0.436	0.140	0.153	0.527	0.179	0.501	0.589	0.615	0.240	0.588	0.676
	Front	0.004	0.087	0.061	0.088	0.088	0.112	0.153	0.179	0.179	0.153	0.241	0.267	0.240	0.240	0.328
	Edge 1		0.087	0.061	0.088	0.088	0.116									
	Edge 2	0.001														
	Edge 3	0.004														
	Edge 4	0.000	0.087	0.061	0.088	0.088	0.162	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.181	0.241	0.064	0.193	0.035	0.213	0.438	0.457	0.615	0.280	0.473	0.650	0.679	0.521	0.714
	Left Tilt	0.120	0.241	0.064	0.193	0.035	0.188	0.377	0.396	0.554	0.219	0.412	0.589	0.618	0.460	0.653
	Right Touch	0.230	0.241	0.064	0.193	0.035	0.764	0.487	0.506	0.664	0.329	0.522	0.699	0.728	0.570	0.763
	Right Tilt	0.114	0.241	0.064	0.193	0.035	0.791	0.371	0.390	0.548	0.213	0.406	0.583	0.612	0.454	0.647
Body-worn	Rear	0.249	0.051	0.038	0.096	0.260	0.078	0.383	0.560	0.396	0.547	0.643	0.656	0.434	0.598	0.694
	Front	0.213	0.051	0.038	0.096	0.260	0.065	0.347	0.524	0.360	0.511	0.607	0.620	0.398	0.562	0.658
Hotspot	Rear	0.005	0.100	0.105	0.068	0.201	0.169	0.178	0.306	0.173	0.311	0.379	0.374	0.278	0.411	0.479
	Front	0.004	0.100	0.105	0.068	0.201	0.133	0.177	0.305	0.172	0.310	0.378	0.373	0.277	0.410	0.478
	Edge 1		0.100	0.105	0.068	0.201	0.011									
	Edge 2	0.001														
	Edge 3	0.004														
	Edge 4	0.000	0.100	0.105	0.068	0.201	0.207	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.131	0.484	0.045	0.430	0.015	0.194	0.325	0.660	0.576	0.340	0.770
	Left Tilt	0.049	0.484	0.045	0.430	0.015	0.172	0.221	0.578	0.494	0.236	0.666
	Right Touch	0.082	0.484	0.045	0.430	0.015	0.693	0.775	0.611	0.527	0.790	1.220
	Right Tilt	0.049	0.549	0.045	0.472	0.034	0.605	0.654	0.643	0.555	0.688	1.160
Body-worn	Rear	0.478	0.067	0.040	0.146	0.546	0.065	0.543	0.585	1.170	1.089	1.235
	Front	0.369	0.067	0.040	0.146	0.020	0.066	0.435	0.476	0.535	0.455	0.601
Hotspot	Rear	0.451	0.161	0.111	0.238	0.738	0.140	0.591	0.723	1.427	1.329	1.567
	Front	0.354	0.161	0.111	0.238	0.186	0.112	0.466	0.626	0.778	0.652	0.890
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.060										
	Edge 3	0.719										
	Edge 4	0.095	0.161	0.111	0.238	0.186	0.162	0.257	0.367	0.519	0.443	0.681

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.008	0.435	0.106	0.225	0.150	0.213	0.221	0.549	0.383	0.371	0.596
	Left Tilt	0.002	0.435	0.106	0.225	0.150	0.188	0.190	0.544	0.377	0.340	0.565
	Right Touch	0.004	0.449	0.106	0.225	0.150	0.764	0.768	0.559	0.379	0.918	1.143
	Right Tilt	0.003	0.435	0.106	0.225	0.150	0.791	0.794	0.544	0.378	0.944	1.169
Body-worn	Rear	0.040	0.076	0.106	0.212	0.398	0.078	0.119	0.223	0.650	0.517	0.729
	Front	0.028	0.076	0.106	0.212	0.398	0.065	0.093	0.211	0.638	0.491	0.703
Hotspot	Rear	0.673	0.160	0.224	0.178	0.462	0.169	0.842	1.057	1.313	1.304	1.482
	Front	0.501	0.160	0.224	0.178	0.122	0.133	0.634	0.885	0.801	0.756	0.934
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.078										
	Edge 3	0.603										
	Edge 4	0.144	0.160	0.224	0.178	0.122	0.207	0.352	0.528	0.444	0.474	0.652

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.

12.5. Sum of the SAR for GSM1900 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.131	0.215	0.022	0.385	0.027	0.194	0.538	0.373	0.731	0.180	0.565	0.758	0.753	0.395	0.780
	Left Tilt	0.049	0.215	0.022	0.385	0.027	0.172	0.456	0.291	0.649	0.098	0.483	0.676	0.671	0.313	0.698
	Right Touch	0.082	0.215	0.022	0.385	0.027	0.693	0.489	0.324	0.682	0.131	0.516	0.709	0.704	0.346	0.731
	Right Tilt	0.049	0.215	0.022	0.489	0.027	0.605	0.560	0.291	0.753	0.098	0.587	0.780	0.775	0.313	0.802
Body-worn	Rear	0.478	0.035	0.023	0.081	0.251	0.065	0.582	0.764	0.594	0.752	0.833	0.845	0.617	0.787	0.868
	Front	0.369	0.035	0.023	0.081	0.251	0.066	0.473	0.655	0.485	0.643	0.724	0.736	0.508	0.678	0.759
Hotspot	Rear	0.451	0.087	0.061	0.088	0.436	0.140	0.600	0.974	0.626	0.948	1.036	1.062	0.687	1.035	1.123
	Front	0.354	0.087	0.061	0.088	0.088	0.112	0.503	0.529	0.529	0.503	0.591	0.617	0.590	0.590	0.678
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.060						0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
	Edge 3	0.719						0.719	0.719	0.719	0.719	0.719	0.719	0.719	0.719	0.719
	Edge 4	0.095	0.087	0.061	0.088	0.088	0.162	0.244	0.270	0.270	0.244	0.332	0.358	0.331	0.331	0.419

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.008	0.241	0.064	0.193	0.035	0.213	0.265	0.284	0.442	0.107	0.300	0.477	0.506	0.348	0.541
	Left Tilt	0.002	0.241	0.064	0.193	0.035	0.188	0.259	0.278	0.436	0.101	0.294	0.471	0.500	0.342	0.535
	Right Touch	0.004	0.241	0.064	0.193	0.035	0.764	0.260	0.280	0.438	0.102	0.295	0.473	0.501	0.343	0.536
	Right Tilt	0.003	0.241	0.064	0.193	0.035	0.791	0.260	0.279	0.437	0.102	0.295	0.472	0.501	0.343	0.536
Body-worn	Rear	0.040	0.051	0.038	0.096	0.260	0.078	0.174	0.351	0.187	0.338	0.434	0.447	0.225	0.389	0.485
	Front	0.028	0.051	0.038	0.096	0.260	0.065	0.162	0.339	0.175	0.326	0.422	0.435	0.213	0.377	0.473
Hotspot	Rear	0.673	0.100	0.105	0.068	0.201	0.169	0.847	0.974	0.841	0.980	1.048	1.042	0.947	1.080	1.148
	Front	0.501	0.100	0.105	0.068	0.201	0.133	0.674	0.802	0.669	0.807	0.875	0.870	0.774	0.907	0.975
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.078						0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
	Edge 3	0.603						0.603	0.603	0.603	0.603	0.603	0.603	0.603	0.603	0.603
	Edge 4	0.144	0.100	0.105	0.068	0.201	0.207	0.318	0.445	0.312	0.451	0.519	0.513	0.418	0.551	0.619

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.090	0.484	0.045	0.430	0.015	0.194	0.284	0.619	0.535	0.299	0.729
	Left Tilt	0.045	0.484	0.045	0.430	0.015	0.172	0.217	0.574	0.490	0.232	0.662
	Right Touch	0.070	0.484	0.045	0.430	0.015	0.693	0.763	0.599	0.515	0.778	1.208
	Right Tilt	0.041	0.549	0.045	0.489	0.034	0.605	0.646	0.635	0.564	0.680	1.169
Body-worn	Rear	0.786	0.067	0.040	0.146	0.564	0.065	0.851	0.893	1.496	1.415	1.561
	Front	0.641	0.067	0.040	0.146	0.020	0.066	0.707	0.748	0.807	0.727	0.873
Hotspot	Rear	0.735	0.161	0.111	0.238	0.738	0.140	0.875	1.007	1.711	1.613	1.851
	Front	0.590	0.161	0.111	0.238	0.186	0.112	0.702	0.862	1.014	0.888	1.126
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.093										
	Edge 3	1.190										
	Edge 4	0.145	0.161	0.111	0.238	0.186	0.162	0.307	0.417	0.569	0.493	0.731

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.155	0.435	0.106	0.225	0.150	0.213	0.368	0.697	0.530	0.518	0.743
	Left Tilt	0.081	0.435	0.106	0.225	0.150	0.188	0.269	0.622	0.456	0.419	0.644
	Right Touch	0.100	0.449	0.106	0.225	0.150	0.764	0.864	0.655	0.475	1.014	1.239
	Right Tilt	0.065	0.435	0.106	0.225	0.150	0.791	0.857	0.607	0.440	1.007	1.232
Body-worn	Rear	0.339	0.076	0.106	0.212	0.398	0.078	0.418	0.522	0.949	0.816	1.028
	Front	0.514	0.076	0.106	0.212	0.398	0.065	0.578	0.696	1.124	0.976	1.188
Hotspot	Rear	0.659	0.160	0.224	0.178	0.462	0.169	0.827	1.043	1.299	1.289	1.467
	Front	0.518	0.160	0.224	0.178	0.122	0.133	0.652	0.902	0.818	0.774	0.952
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.072										
	Edge 3	1.156										
	Edge 4	0.137	0.160	0.224	0.178	0.122	0.207	0.344	0.521	0.437	0.466	0.644

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.

12.7. Sum of the SAR for WCDMA Band II & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.090	0.215	0.022	0.385	0.027	0.194	0.497	0.332	0.690	0.139	0.524	0.717	0.712	0.354	0.739
	Left Tilt	0.045	0.215	0.022	0.385	0.027	0.172	0.452	0.287	0.645	0.094	0.479	0.672	0.667	0.309	0.694
	Right Touch	0.070	0.215	0.022	0.385	0.027	0.693	0.477	0.312	0.670	0.119	0.504	0.697	0.692	0.334	0.719
	Right Tilt	0.041	0.215	0.022	0.489	0.027	0.605	0.552	0.283	0.745	0.090	0.579	0.772	0.767	0.305	0.794
Body-worn	Rear	0.786	0.035	0.023	0.081	0.251	0.065	0.890	1.072	0.902	1.060	1.141	1.153	0.925	1.095	1.176
	Front	0.641	0.035	0.023	0.081	0.251	0.066	0.745	0.927	0.757	0.915	0.996	1.008	0.780	0.950	1.031
Hotspot	Rear	0.735	0.087	0.061	0.088	0.436	0.140	0.884	1.258	0.910	1.232	1.320	1.346	0.971	1.319	1.407
	Front	0.590	0.087	0.061	0.088	0.088	0.112	0.739	0.765	0.765	0.739	0.827	0.853	0.826	0.826	0.914
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.093						0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
	Edge 3	1.190						1.190	1.190	1.190	1.190	1.190	1.190	1.190	1.190	1.190
	Edge 4	0.145	0.087	0.061	0.088	0.088	0.162	0.294	0.320	0.320	0.294	0.382	0.408	0.381	0.381	0.469

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.155	0.241	0.064	0.193	0.035	0.213	0.412	0.431	0.589	0.254	0.447	0.624	0.653	0.495	0.688
	Left Tilt	0.081	0.241	0.064	0.193	0.035	0.188	0.338	0.357	0.515	0.180	0.373	0.550	0.579	0.421	0.614
	Right Touch	0.100	0.241	0.064	0.193	0.035	0.764	0.357	0.376	0.534	0.199	0.392	0.569	0.598	0.440	0.633
	Right Tilt	0.065	0.241	0.064	0.193	0.035	0.791	0.322	0.341	0.499	0.164	0.357	0.534	0.563	0.405	0.598
Body-worn	Rear	0.339	0.051	0.038	0.096	0.260	0.078	0.473	0.650	0.486	0.637	0.733	0.746	0.524	0.688	0.784
	Front	0.514	0.051	0.038	0.096	0.260	0.065	0.647	0.825	0.661	0.811	0.907	0.921	0.698	0.862	0.958
Hotspot	Rear	0.659	0.100	0.105	0.068	0.201	0.169	0.832	0.960	0.827	0.965	1.033	1.028	0.932	1.065	1.133
	Front	0.518	0.100	0.105	0.068	0.201	0.133	0.692	0.819	0.686	0.825	0.893	0.887	0.792	0.925	0.993
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.072						0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072
	Edge 3	1.156						1.156	1.156	1.156	1.156	1.156	1.156	1.156	1.156	1.156
	Edge 4	0.137	0.100	0.105	0.068	0.201	0.207	0.310	0.438	0.305	0.443	0.511	0.506	0.410	0.543	0.611

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.128	0.484	0.045	0.430	0.015	0.194	0.322	0.657	0.573	0.337	0.767
	Left Tilt	0.050	0.484	0.045	0.430	0.015	0.172	0.222	0.579	0.495	0.237	0.667
	Right Touch	0.082	0.484	0.045	0.430	0.015	0.693	0.775	0.611	0.527	0.790	1.220
	Right Tilt	0.040	0.549	0.045	0.472	0.034	0.605	0.645	0.634	0.546	0.679	1.151
Body-worn	Rear	0.428	0.067	0.040	0.146	0.546	0.065	0.493	0.535	1.120	1.039	1.185
	Front	0.324	0.067	0.040	0.146	0.020	0.066	0.390	0.431	0.490	0.410	0.556
Hotspot	Rear	0.384	0.161	0.111	0.238	0.738	0.140	0.524	0.656	1.360	1.262	1.500
	Front	0.266	0.161	0.111	0.238	0.186	0.112	0.378	0.538	0.690	0.564	0.802
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.047										
	Edge 3	0.762										
	Edge 4	0.100	0.161	0.111	0.238	0.186	0.162	0.262	0.372	0.524	0.448	0.686

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.137	0.435	0.106	0.225	0.150	0.213	0.350	0.679	0.512	0.500	0.725
	Left Tilt	0.066	0.435	0.106	0.225	0.150	0.188	0.254	0.607	0.441	0.404	0.629
	Right Touch	0.089	0.449	0.106	0.225	0.150	0.764	0.853	0.644	0.464	1.003	1.228
	Right Tilt	0.053	0.435	0.106	0.225	0.150	0.791	0.845	0.595	0.428	0.995	1.220
Body-worn	Rear	0.439	0.076	0.106	0.212	0.398	0.078	0.517	0.621	1.049	0.915	1.127
	Front	0.324	0.076	0.106	0.212	0.398	0.065	0.388	0.506	0.934	0.786	0.998
Hotspot	Rear	0.479	0.160	0.224	0.178	0.462	0.169	0.648	0.863	1.119	1.110	1.288
	Front	0.324	0.160	0.224	0.178	0.122	0.133	0.457	0.708	0.624	0.579	0.757
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.050										
	Edge 3	0.785										
	Edge 4	0.122	0.160	0.224	0.178	0.122	0.207	0.329	0.506	0.422	0.451	0.629

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.

12.9. Sum of the SAR for WCDMA Band IV & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.128	0.215	0.022	0.385	0.027	0.194	0.535	0.370	0.728	0.177	0.562	0.755	0.750	0.392	0.777
	Left Tilt	0.050	0.215	0.022	0.385	0.027	0.172	0.457	0.292	0.650	0.099	0.484	0.677	0.672	0.314	0.699
	Right Touch	0.082	0.215	0.022	0.385	0.027	0.693	0.489	0.324	0.682	0.131	0.516	0.709	0.704	0.346	0.731
	Right Tilt	0.040	0.215	0.022	0.489	0.027	0.605	0.551	0.282	0.744	0.089	0.578	0.771	0.766	0.304	0.793
Body-worn	Rear	0.428	0.035	0.023	0.081	0.251	0.065	0.532	0.714	0.544	0.702	0.783	0.795	0.567	0.737	0.818
	Front	0.324	0.035	0.023	0.081	0.251	0.066	0.428	0.610	0.440	0.598	0.679	0.691	0.463	0.633	0.714
Hotspot	Rear	0.384	0.087	0.061	0.088	0.436	0.140	0.533	0.907	0.559	0.881	0.969	0.995	0.620	0.968	1.056
	Front	0.266	0.087	0.061	0.088	0.088	0.112	0.415	0.441	0.441	0.415	0.503	0.529	0.502	0.502	0.590
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.047														
	Edge 3	0.762														
	Edge 4	0.100	0.087	0.061	0.088	0.088	0.162	0.249	0.275	0.275	0.249	0.337	0.363	0.336	0.336	0.424

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.137	0.241	0.064	0.193	0.035	0.213	0.394	0.413	0.571	0.236	0.429	0.606	0.635	0.477	0.670
	Left Tilt	0.066	0.241	0.064	0.193	0.035	0.188	0.323	0.342	0.500	0.165	0.358	0.535	0.564	0.406	0.599
	Right Touch	0.089	0.241	0.064	0.193	0.035	0.764	0.346	0.365	0.523	0.188	0.381	0.558	0.587	0.429	0.622
	Right Tilt	0.053	0.241	0.064	0.193	0.035	0.791	0.310	0.329	0.487	0.152	0.345	0.522	0.551	0.393	0.586
Body-worn	Rear	0.439	0.051	0.038	0.096	0.260	0.078	0.573	0.750	0.586	0.737	0.833	0.846	0.624	0.788	0.884
	Front	0.324	0.051	0.038	0.096	0.260	0.065	0.457	0.635	0.471	0.621	0.717	0.731	0.508	0.672	0.768
Hotspot	Rear	0.479	0.100	0.105	0.068	0.201	0.169	0.652	0.780	0.647	0.785	0.853	0.848	0.752	0.885	0.953
	Front	0.324	0.100	0.105	0.068	0.201	0.133	0.497	0.625	0.492	0.630	0.698	0.693	0.597	0.730	0.798
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.050														
	Edge 3	0.785														
	Edge 4	0.122	0.100	0.105	0.068	0.201	0.207	0.295	0.423	0.290	0.428	0.496	0.491	0.395	0.528	0.596

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.214	0.484	0.045	0.430	0.015	0.194	0.408	0.743	0.659	0.423	0.853
	Left Tilt	0.137	0.484	0.045	0.430	0.015	0.172	0.309	0.666	0.582	0.324	0.754
	Right Touch	0.282	0.484	0.045	0.430	0.015	0.693	0.975	0.811	0.727	0.990	1.420
	Right Tilt	0.136	0.549	0.045	0.472	0.034	0.605	0.741	0.730	0.642	0.775	1.247
Body-worn	Rear	0.276	0.067	0.040	0.146	0.546	0.065	0.341	0.383	0.968	0.887	1.033
	Front	0.229	0.067	0.040	0.146	0.020	0.066	0.295	0.336	0.395	0.315	0.461
Hotspot	Rear	0.637	0.161	0.111	0.238	0.738	0.140	0.777	0.909	1.613	1.515	1.753
	Front	0.469	0.161	0.111	0.238	0.186	0.112	0.581	0.741	0.893	0.767	1.005
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.202										
	Edge 3	0.406										
	Edge 4	0.093	0.161	0.111	0.238	0.186	0.162	0.255	0.365	0.517	0.441	0.679

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.228	0.435	0.106	0.225	0.150	0.213	0.441	0.769	0.603	0.591	0.816
	Left Tilt	0.133	0.435	0.106	0.225	0.150	0.188	0.321	0.674	0.508	0.471	0.696
	Right Touch	0.290	0.449	0.106	0.225	0.150	0.764	1.054	0.845	0.665	1.204	1.429
	Right Tilt	0.125	0.435	0.106	0.225	0.150	0.791	0.916	0.666	0.500	1.066	1.291
Body-worn	Rear	0.443	0.076	0.106	0.212	0.398	0.078	0.521	0.625	1.053	0.919	1.131
	Front	0.332	0.076	0.106	0.212	0.398	0.065	0.397	0.514	0.942	0.795	1.007
Hotspot	Rear	0.979	0.160	0.224	0.178	0.462	0.169	1.148	1.363	1.619	1.610	1.788
	Front	0.756	0.160	0.224	0.178	0.122	0.133	0.889	1.140	1.056	1.011	1.189
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.214										
	Edge 3	0.590										
	Edge 4	0.085	0.160	0.224	0.178	0.122	0.207	0.292	0.469	0.385	0.414	0.592

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

12.11. Sum of the SAR for WCDMA Band V & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.214	0.215	0.022	0.385	0.027	0.194	0.621	0.456	0.814	0.263	0.648	0.841	0.836	0.478	0.863
	Left Tilt	0.137	0.215	0.022	0.385	0.027	0.172	0.544	0.379	0.737	0.186	0.571	0.764	0.759	0.401	0.786
	Right Touch	0.282	0.215	0.022	0.385	0.027	0.693	0.689	0.524	0.882	0.331	0.716	0.909	0.904	0.546	**0.931**
	Right Tilt	0.136	0.215	0.022	0.489	0.027	0.605	0.647	0.378	0.840	0.185	0.674	0.867	0.862	0.400	0.889
Body-worn	Rear	0.276	0.035	0.023	0.081	0.251	0.065	0.380	0.562	0.392	0.550	0.631	0.643	0.415	0.585	0.666
	Front	0.229	0.035	0.023	0.081	0.251	0.066	0.333	0.515	0.345	0.503	0.584	0.596	0.368	0.538	0.619
Hotspot	Rear	0.637	0.087	0.061	0.088	0.436	0.140	0.786	1.160	0.812	1.134	1.222	1.248	0.873	1.221	1.309
	Front	0.469	0.087	0.061	0.088	0.088	0.112	0.618	0.644	0.644	0.618	0.706	0.732	0.705	0.705	0.793
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.202														
	Edge 3	0.406														
	Edge 4	0.093	0.087	0.061	0.088	0.088	0.162	0.242	0.268	0.268	0.242	0.330	0.356	0.329	0.329	0.417

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.228	0.241	0.064	0.193	0.035	0.213	0.485	0.504	0.662	0.327	0.520	0.697	0.726	0.568	0.761
	Left Tilt	0.133	0.241	0.064	0.193	0.035	0.188	0.390	0.409	0.567	0.232	0.425	0.602	0.631	0.473	0.666
	Right Touch	0.290	0.241	0.064	0.193	0.035	0.764	0.547	0.566	0.724	0.389	0.582	0.759	0.788	0.630	0.823
	Right Tilt	0.125	0.241	0.064	0.193	0.035	0.791	0.382	0.401	0.559	0.224	0.417	0.594	0.623	0.465	0.658
Body-worn	Rear	0.443	0.051	0.038	0.096	0.260	0.078	0.577	0.754	0.590	0.741	0.837	0.850	0.628	0.792	0.888
	Front	0.332	0.051	0.038	0.096	0.260	0.065	0.466	0.643	0.479	0.630	0.726	0.739	0.517	0.681	0.777
Hotspot	Rear	0.979	0.100	0.105	0.068	0.201	0.169	1.152	1.280	1.147	1.285	1.353	1.348	1.252	1.385	1.453
	Front	0.756	0.100	0.105	0.068	0.201	0.133	0.929	1.057	0.924	1.062	1.130	1.125	1.029	1.162	1.230
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.214														
	Edge 3	0.590														
	Edge 4	0.085	0.100	0.105	0.068	0.201	0.207	0.258	0.386	0.253	0.391	0.459	0.454	0.358	0.491	0.559

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.

12.12. Sum of the SAR for LTE Band 5 & Wi-Fi & BT

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.201	0.484	0.045	0.430	0.015	0.194	0.395	0.730	0.646	0.410	0.840
	Left Tilt	0.140	0.484	0.045	0.430	0.015	0.172	0.312	0.669	0.585	0.327	0.757
	Right Touch	0.233	0.484	0.045	0.430	0.015	0.693	0.926	0.762	0.678	0.941	1.371
	Right Tilt	0.123	0.549	0.045	0.472	0.034	0.605	0.728	0.717	0.629	0.762	1.234
Body-worn	Rear	0.291	0.067	0.040	0.146	0.546	0.065	0.356	0.398	0.983	0.902	1.048
	Front	0.231	0.067	0.040	0.146	0.020	0.066	0.297	0.338	0.397	0.317	0.463
Hotspot	Rear	0.618	0.161	0.111	0.238	0.738	0.140	0.758	0.890	**1.594**	1.496	1.734
	Front	0.479	0.161	0.111	0.238	0.186	0.112	0.591	0.751	0.903	0.777	1.015
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.202										
	Edge 3	0.004										
	Edge 4	0.097	0.161	0.111	0.238	0.186	0.162	0.259	0.369	0.521	0.445	0.683

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.172	0.435	0.106	0.225	0.150	0.213	0.384	0.713	0.547	0.534	0.759
	Left Tilt	0.109	0.435	0.106	0.225	0.150	0.188	0.297	0.650	0.484	0.447	0.672
	Right Touch	0.228	0.449	0.106	0.225	0.150	0.764	0.992	0.783	0.603	1.142	1.367
	Right Tilt	0.105	0.435	0.106	0.225	0.150	0.791	0.896	0.646	0.480	1.046	1.271
Body-worn	Rear	0.284	0.076	0.106	0.212	0.398	0.078	0.362	0.466	0.894	0.760	0.972
	Front	0.235	0.076	0.106	0.212	0.398	0.065	0.300	0.418	0.845	0.698	0.910
Hotspot	Rear	0.617	0.160	0.224	0.178	0.462	0.169	0.786	1.001	1.257	1.248	1.426
	Front	0.507	0.160	0.224	0.178	0.122	0.133	0.641	0.891	0.807	0.763	0.941
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.125										
	Edge 3	0.379										
	Edge 4	0.046	0.160	0.224	0.178	0.122	0.207	0.254	0.431	0.346	0.376	0.554

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.

12.13. Sum of the SAR for LTE Band 5 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.201	0.215	0.022	0.385	0.027	0.194	0.608	0.443	0.801	0.250	0.635	0.828	0.823	0.465	0.850
	Left Tilt	0.140	0.215	0.022	0.385	0.027	0.172	0.547	0.382	0.740	0.189	0.574	0.767	0.762	0.404	0.789
	Right Touch	0.233	0.215	0.022	0.385	0.027	0.693	0.640	0.475	0.833	0.282	0.667	0.860	0.855	0.497	0.882
	Right Tilt	0.123	0.215	0.022	0.489	0.027	0.605	0.634	0.365	0.827	0.172	0.661	0.854	0.849	0.387	0.876
Body-worn	Rear	0.291	0.035	0.023	0.081	0.251	0.065	0.395	0.577	0.407	0.565	0.646	0.658	0.430	0.600	0.681
	Front	0.231	0.035	0.023	0.081	0.251	0.066	0.335	0.517	0.347	0.505	0.586	0.598	0.370	0.540	0.621
Hotspot	Rear	0.618	0.087	0.061	0.088	0.436	0.140	0.767	1.141	0.793	1.115	1.203	1.229	0.854	1.202	1.290
	Front	0.479	0.087	0.061	0.088	0.088	0.112	0.628	0.654	0.654	0.628	0.716	0.742	0.715	0.715	0.803
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.202														
	Edge 3	0.004														
	Edge 4	0.097	0.087	0.061	0.088	0.088	0.162	0.246	0.272	0.272	0.246	0.334	0.360	0.333	0.333	0.421

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.172	0.241	0.064	0.193	0.035	0.213	0.428	0.448	0.606	0.270	0.463	0.641	0.669	0.511	0.704
	Left Tilt	0.109	0.241	0.064	0.193	0.035	0.188	0.366	0.385	0.543	0.208	0.401	0.578	0.607	0.449	0.642
	Right Touch	0.228	0.241	0.064	0.193	0.035	0.764	0.485	0.504	0.662	0.327	0.520	0.697	0.726	0.568	0.761
	Right Tilt	0.105	0.241	0.064	0.193	0.035	0.791	0.362	0.381	0.539	0.204	0.397	0.574	0.603	0.445	0.638
Body-worn	Rear	0.284	0.051	0.038	0.096	0.260	0.078	0.418	0.595	0.431	0.582	0.678	0.691	0.469	0.633	0.729
	Front	0.235	0.051	0.038	0.096	0.260	0.065	0.369	0.546	0.382	0.533	0.629	0.642	0.420	0.584	0.680
Hotspot	Rear	0.617	0.100	0.105	0.068	0.201	0.169	0.791	0.918	0.785	0.924	0.992	0.986	0.891	1.024	1.092
	Front	0.507	0.100	0.105	0.068	0.201	0.133	0.681	0.808	0.675	0.814	0.882	0.876	0.781	0.914	0.982
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.125														
	Edge 3	0.379														
	Edge 4	0.046	0.100	0.105	0.068	0.201	0.207	0.220	0.347	0.214	0.353	0.421	0.415	0.320	0.453	0.521

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.151	0.484	0.045	0.430	0.015	0.194	0.345	0.680	0.596	0.360	0.790
	Left Tilt	0.092	0.484	0.045	0.430	0.015	0.172	0.264	0.621	0.537	0.279	0.709
	Right Touch	0.169	0.484	0.045	0.430	0.015	0.693	0.862	0.698	0.614	0.877	1.307
	Right Tilt	0.083	0.549	0.045	0.472	0.034	0.605	0.688	0.677	0.589	0.722	1.194
Body-worn	Rear	0.320	0.067	0.040	0.146	0.546	0.065	0.385	0.427	1.012	0.931	1.077
	Front	0.293	0.067	0.040	0.146	0.020	0.066	0.359	0.400	0.459	0.379	0.525
Hotspot	Rear	0.388	0.161	0.111	0.238	0.738	0.140	0.528	0.660	1.364	1.266	1.504
	Front	0.311	0.161	0.111	0.238	0.186	0.112	0.423	0.583	0.735	0.609	0.847
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.399										
	Edge 3	0.213										
	Edge 4	0.311	0.161	0.111	0.238	0.186	0.162	0.473	0.583	0.735	0.659	0.897

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.112	0.435	0.106	0.225	0.150	0.213	0.325	0.653	0.487	0.475	0.700
	Left Tilt	0.060	0.435	0.106	0.225	0.150	0.188	0.248	0.602	0.435	0.398	0.623
	Right Touch	0.145	0.449	0.106	0.225	0.150	0.764	0.909	0.700	0.520	1.059	1.284
	Right Tilt	0.076	0.435	0.106	0.225	0.150	0.791	0.867	0.617	0.451	1.017	1.242
Body-worn	Rear	0.232	0.076	0.106	0.212	0.398	0.078	0.310	0.414	0.842	0.708	0.920
	Front	0.208	0.076	0.106	0.212	0.398	0.065	0.272	0.390	0.818	0.670	0.882
Hotspot	Rear	0.295	0.160	0.224	0.178	0.462	0.169	0.463	0.679	0.935	0.925	1.103
	Front	0.235	0.160	0.224	0.178	0.122	0.133	0.369	0.620	0.535	0.491	0.669
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.375										
	Edge 3	0.171										
	Edge 4	0.218	0.160	0.224	0.178	0.122	0.207	0.425	0.602	0.518	0.547	0.725

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.

12.15. Sum of the SAR for LTE Band 12 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.151	0.215	0.022	0.385	0.027	0.194	0.558	0.393	0.751	0.200	0.585	0.778	0.773	0.415	0.800
	Left Tilt	0.092	0.215	0.022	0.385	0.027	0.172	0.499	0.334	0.692	0.141	0.526	0.719	0.714	0.356	0.741
	Right Touch	0.169	0.215	0.022	0.385	0.027	0.693	0.576	0.411	0.769	0.218	0.603	0.796	0.791	0.433	0.818
	Right Tilt	0.083	0.215	0.022	0.489	0.027	0.605	0.594	0.325	0.787	0.132	0.621	0.814	0.809	0.347	0.836
Body-worn	Rear	0.320	0.035	0.023	0.081	0.251	0.065	0.424	0.606	0.436	0.594	0.675	0.687	0.459	0.629	0.710
	Front	0.293	0.035	0.023	0.081	0.251	0.066	0.397	0.579	0.409	0.567	0.648	0.660	0.432	0.602	0.683
Hotspot	Rear	0.388	0.087	0.061	0.088	0.436	0.140	0.537	0.911	0.563	0.885	0.973	0.999	0.624	0.972	1.060
	Front	0.311	0.087	0.061	0.088	0.088	0.112	0.460	0.486	0.486	0.460	0.548	0.574	0.547	0.547	0.635
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.399														
	Edge 3	0.213														
	Edge 4	0.311	0.087	0.061	0.088	0.088	0.162	0.460	0.486	0.486	0.460	0.548	0.574	0.547	0.547	0.635

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.112	0.241	0.064	0.193	0.035	0.213	0.369	0.388	0.546	0.211	0.404	0.581	0.610	0.452	0.645
	Left Tilt	0.060	0.241	0.064	0.193	0.035	0.188	0.317	0.336	0.494	0.159	0.352	0.529	0.558	0.400	0.593
	Right Touch	0.145	0.241	0.064	0.193	0.035	0.764	0.402	0.421	0.579	0.244	0.437	0.614	0.643	0.485	0.678
	Right Tilt	0.076	0.241	0.064	0.193	0.035	0.791	0.332	0.352	0.510	0.174	0.367	0.545	0.573	0.415	0.608
Body-worn	Rear	0.232	0.051	0.038	0.096	0.260	0.078	0.366	0.543	0.379	0.530	0.626	0.639	0.417	0.581	0.677
	Front	0.208	0.051	0.038	0.096	0.260	0.065	0.342	0.519	0.355	0.506	0.602	0.615	0.393	0.557	0.653
Hotspot	Rear	0.295	0.100	0.105	0.068	0.201	0.169	0.468	0.596	0.463	0.601	0.669	0.664	0.568	0.701	0.769
	Front	0.235	0.100	0.105	0.068	0.201	0.133	0.409	0.536	0.403	0.542	0.610	0.604	0.509	0.642	0.710
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.375														
	Edge 3	0.171														
	Edge 4	0.218	0.100	0.105	0.068	0.201	0.207	0.391	0.519	0.386	0.524	0.592	0.587	0.491	0.624	0.692

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.141	0.484	0.045	0.430	0.015	0.194	0.335	0.670	0.586	0.350	0.780
	Left Tilt	0.095	0.484	0.045	0.430	0.015	0.172	0.267	0.624	0.540	0.282	0.712
	Right Touch	0.173	0.484	0.045	0.430	0.015	0.693	0.866	0.702	0.618	0.881	1.311
	Right Tilt	0.091	0.549	0.045	0.472	0.034	0.605	0.696	0.685	0.597	0.730	1.202
Body-worn	Rear	0.279	0.067	0.040	0.146	0.546	0.065	0.344	0.386	0.971	0.890	1.036
	Front	0.220	0.067	0.040	0.146	0.020	0.066	0.286	0.327	0.386	0.306	0.452
Hotspot	Rear	0.380	0.161	0.111	0.238	0.738	0.140	0.520	0.652	1.356	1.258	1.496
	Front	0.276	0.161	0.111	0.238	0.186	0.112	0.388	0.548	0.700	0.574	0.812
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.232										
	Edge 3	0.246										
	Edge 4	0.114	0.161	0.111	0.238	0.186	0.162	0.276	0.386	0.538	0.462	0.700

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.151	0.435	0.106	0.225	0.150	0.213	0.364	0.693	0.526	0.514	0.739
	Left Tilt	0.099	0.435	0.106	0.225	0.150	0.188	0.287	0.641	0.474	0.437	0.662
	Right Touch	0.204	0.449	0.106	0.225	0.150	0.764	0.968	0.760	0.579	1.118	1.343
	Right Tilt	0.102	0.435	0.106	0.225	0.150	0.791	0.893	0.644	0.477	1.043	1.268
Body-worn	Rear	0.229	0.076	0.106	0.212	0.398	0.078	0.307	0.411	0.839	0.705	0.917
	Front	0.219	0.076	0.106	0.212	0.398	0.065	0.283	0.401	0.829	0.681	0.893
Hotspot	Rear	0.425	0.160	0.224	0.178	0.462	0.169	0.593	0.809	1.065	1.055	1.233
	Front	0.330	0.160	0.224	0.178	0.122	0.133	0.463	0.714	0.630	0.585	0.763
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.240										
	Edge 3	0.271										
	Edge 4	0.115	0.160	0.224	0.178	0.122	0.207	0.323	0.499	0.415	0.445	0.623

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.

12.17. Sum of the SAR for LTE Band 13 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.141	0.215	0.022	0.385	0.027	0.194	0.548	0.383	0.741	0.190	0.575	0.768	0.763	0.405	0.790
	Left Tilt	0.095	0.215	0.022	0.385	0.027	0.172	0.502	0.337	0.695	0.144	0.529	0.722	0.717	0.359	0.744
	Right Touch	0.173	0.215	0.022	0.385	0.027	0.693	0.580	0.415	0.773	0.222	0.607	0.800	0.795	0.437	0.822
	Right Tilt	0.091	0.215	0.022	0.489	0.027	0.605	0.602	0.333	0.795	0.140	0.629	0.822	0.817	0.355	0.844
Body-worn	Rear	0.279	0.035	0.023	0.081	0.251	0.065	0.383	0.565	0.395	0.553	0.634	0.646	0.418	0.588	0.669
	Front	0.220	0.035	0.023	0.081	0.251	0.066	0.324	0.506	0.336	0.494	0.575	0.587	0.359	0.529	0.610
Hotspot	Rear	0.380	0.087	0.061	0.088	0.436	0.140	0.529	0.903	0.555	0.877	0.965	0.991	0.616	0.964	1.052
	Front	0.276	0.087	0.061	0.088	0.088	0.112	0.425	0.451	0.451	0.425	0.513	0.539	0.512	0.512	0.600
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.232														
	Edge 3	0.246														
	Edge 4	0.114	0.087	0.061	0.088	0.088	0.162	0.263	0.289	0.289	0.263	0.351	0.377	0.350	0.350	0.438

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.151	0.241	0.064	0.193	0.035	0.213	0.408	0.427	0.585	0.250	0.443	0.620	0.649	0.491	0.684
	Left Tilt	0.099	0.241	0.064	0.193	0.035	0.188	0.356	0.375	0.533	0.198	0.391	0.568	0.597	0.439	0.632
	Right Touch	0.204	0.241	0.064	0.193	0.035	0.764	0.461	0.480	0.638	0.303	0.496	0.673	0.702	0.544	0.737
	Right Tilt	0.102	0.241	0.064	0.193	0.035	0.791	0.359	0.378	0.536	0.201	0.394	0.571	0.600	0.442	0.635
Body-worn	Rear	0.229	0.051	0.038	0.096	0.260	0.078	0.363	0.540	0.376	0.527	0.623	0.636	0.414	0.578	0.674
	Front	0.219	0.051	0.038	0.096	0.260	0.065	0.353	0.530	0.366	0.517	0.613	0.626	0.404	0.568	0.664
Hotspot	Rear	0.425	0.100	0.105	0.068	0.201	0.169	0.598	0.726	0.593	0.731	0.799	0.794	0.698	0.831	0.899
	Front	0.330	0.100	0.105	0.068	0.201	0.133	0.503	0.631	0.498	0.636	0.704	0.699	0.603	0.736	0.804
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.240														
	Edge 3	0.271														
	Edge 4	0.115	0.100	0.105	0.068	0.201	0.207	0.289	0.416	0.283	0.422	0.490	0.484	0.389	0.522	0.590

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.172	0.484	0.045	0.430	0.015	0.194	0.366	0.701	0.617	0.381	0.811
	Left Tilt	0.104	0.484	0.045	0.430	0.015	0.172	0.276	0.633	0.549	0.291	0.721
	Right Touch	0.129	0.484	0.045	0.430	0.015	0.693	0.822	0.658	0.574	0.837	1.267
	Right Tilt	0.080	0.549	0.045	0.472	0.034	0.605	0.685	0.674	0.586	0.719	1.191
Body-worn	Rear	0.747	0.067	0.040	0.146	0.546	0.065	0.812	0.854	1.439	1.358	1.504
	Front	0.608	0.067	0.040	0.146	0.020	0.066	0.674	0.715	0.774	0.694	0.840
Hotspot	Rear	0.744	0.161	0.111	0.238	0.738	0.140	0.884	1.016	1.720	1.622	1.860
	Front	0.611	0.161	0.111	0.238	0.186	0.112	0.723	0.883	1.035	0.909	1.147
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.080										
	Edge 3	1.200										
	Edge 4	0.140	0.161	0.111	0.238	0.186	0.162	0.302	0.412	0.564	0.488	0.726

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.160	0.435	0.106	0.225	0.150	0.213	0.372	0.701	0.535	0.522	0.747
	Left Tilt	0.089	0.435	0.106	0.225	0.150	0.188	0.277	0.631	0.464	0.427	0.652
	Right Touch	0.143	0.449	0.106	0.225	0.150	0.764	0.908	0.699	0.518	1.058	1.283
	Right Tilt	0.087	0.435	0.106	0.225	0.150	0.791	0.878	0.628	0.462	1.028	1.253
Body-worn	Rear	0.691	0.076	0.106	0.212	0.398	0.078	0.770	0.874	1.301	1.168	1.380
	Front	0.488	0.076	0.106	0.212	0.398	0.065	0.553	0.671	1.098	0.951	1.163
Hotspot	Rear	0.723	0.160	0.224	0.178	0.462	0.169	0.892	1.107	1.363	1.354	1.532
	Front	0.534	0.160	0.224	0.178	0.122	0.133	0.668	0.918	0.834	0.790	0.968
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.089										
	Edge 3	1.283										
	Edge 4	0.165	0.160	0.224	0.178	0.122	0.207	0.372	0.549	0.465	0.494	0.672

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.

12.19. Sum of the SAR for LTE Band 25 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.172	0.215	0.022	0.385	0.027	0.194	0.579	0.414	0.772	0.221	0.606	0.799	0.794	0.436	0.821
	Left Tilt	0.104	0.215	0.022	0.385	0.027	0.172	0.511	0.346	0.704	0.153	0.538	0.731	0.726	0.368	0.753
	Right Touch	0.129	0.215	0.022	0.385	0.027	0.693	0.536	0.371	0.729	0.178	0.563	0.756	0.751	0.393	0.778
	Right Tilt	0.080	0.215	0.022	0.489	0.027	0.605	0.591	0.322	0.784	0.129	0.618	0.811	0.806	0.344	0.833
Body-worn	Rear	0.747	0.035	0.023	0.081	0.251	0.065	0.851	1.033	0.863	1.021	1.102	1.114	0.886	1.056	1.137
	Front	0.608	0.035	0.023	0.081	0.251	0.066	0.712	0.894	0.724	0.882	0.963	0.975	0.747	0.917	0.998
Hotspot	Rear	0.744	0.087	0.061	0.088	0.436	0.140	0.893	1.267	0.919	1.241	1.329	1.355	0.980	1.328	1.416
	Front	0.611	0.087	0.061	0.088	0.088	0.112	0.760	0.786	0.786	0.760	0.848	0.874	0.847	0.847	0.935
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.080														
	Edge 3	1.200														
	Edge 4	0.140	0.087	0.061	0.088	0.088	0.162	0.289	0.315	0.315	0.289	0.377	0.403	0.376	0.376	0.464

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.160	0.241	0.064	0.193	0.035	0.213	0.417	0.436	0.594	0.259	0.452	0.629	0.658	0.500	0.693
	Left Tilt	0.089	0.241	0.064	0.193	0.035	0.188	0.346	0.365	0.523	0.188	0.381	0.558	0.587	0.429	0.622
	Right Touch	0.143	0.241	0.064	0.193	0.035	0.764	0.400	0.419	0.577	0.242	0.435	0.612	0.641	0.483	0.676
	Right Tilt	0.087	0.241	0.064	0.193	0.035	0.791	0.344	0.363	0.521	0.186	0.379	0.556	0.585	0.427	0.620
Body-worn	Rear	0.691	0.051	0.038	0.096	0.260	0.078	0.825	1.002	0.838	0.989	1.085	1.098	0.876	1.040	1.136
	Front	0.488	0.051	0.038	0.096	0.260	0.065	0.622	0.799	0.635	0.786	0.882	0.895	0.673	0.837	0.933
Hotspot	Rear	0.723	0.100	0.105	0.068	0.201	0.169	0.896	1.024	0.891	1.029	1.097	1.092	0.996	1.129	1.197
	Front	0.534	0.100	0.105	0.068	0.201	0.133	0.708	0.835	0.702	0.841	0.909	0.903	0.808	0.941	1.009
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.089														
	Edge 3	1.283														
	Edge 4	0.165	0.100	0.105	0.068	0.201	0.207	0.338	0.466	0.333	0.471	0.539	0.534	0.438	0.571	0.639

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.186	0.484	0.045	0.430	0.015	0.194	0.380	0.715	0.631	0.395	0.825
	Left Tilt	0.138	0.484	0.045	0.430	0.015	0.172	0.310	0.667	0.583	0.325	0.755
	Right Touch	0.218	0.484	0.045	0.430	0.015	0.693	0.911	0.747	0.663	0.926	1.356
	Right Tilt	0.118	0.549	0.045	0.472	0.034	0.605	0.723	0.712	0.624	0.757	1.229
Body-worn	Rear	0.259	0.067	0.040	0.146	0.546	0.065	0.324	0.366	0.951	0.870	1.016
	Front	0.191	0.067	0.040	0.146	0.020	0.066	0.257	0.298	0.357	0.277	0.423
Hotspot	Rear	0.565	0.161	0.111	0.238	0.738	0.140	0.705	0.837	1.541	1.443	1.681
	Front	0.427	0.161	0.111	0.238	0.186	0.112	0.539	0.699	0.851	0.725	0.963
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.192										
	Edge 3	0.412										
	Edge 4	0.081	0.161	0.111	0.238	0.186	0.162	0.243	0.353	0.505	0.429	0.667

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.143	0.435	0.106	0.225	0.150	0.213	0.356	0.685	0.518	0.506	0.731
	Left Tilt	0.090	0.435	0.106	0.225	0.150	0.188	0.278	0.632	0.465	0.428	0.653
	Right Touch	0.197	0.449	0.106	0.225	0.150	0.764	0.961	0.753	0.572	1.111	1.336
	Right Tilt	0.090	0.435	0.106	0.225	0.150	0.791	0.881	0.631	0.465	1.031	1.256
Body-worn	Rear	0.290	0.076	0.106	0.212	0.398	0.078	0.369	0.473	0.900	0.767	0.979
	Front	0.205	0.076	0.106	0.212	0.398	0.065	0.269	0.387	0.815	0.667	0.879
Hotspot	Rear	0.555	0.160	0.224	0.178	0.462	0.169	0.724	0.939	1.195	1.186	1.364
	Front	0.401	0.160	0.224	0.178	0.122	0.133	0.535	0.785	0.701	0.657	0.835
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.147										
	Edge 3	0.337										
	Edge 4	0.085	0.160	0.224	0.178	0.122	0.207	0.292	0.469	0.385	0.414	0.592

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.

12.21. Sum of the SAR for LTE Band 26 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.186	0.215	0.022	0.385	0.027	0.194	0.593	0.428	0.786	0.235	0.620	0.813	0.808	0.450	0.835
	Left Tilt	0.138	0.215	0.022	0.385	0.027	0.172	0.545	0.380	0.738	0.187	0.572	0.765	0.760	0.402	0.787
	Right Touch	0.218	0.215	0.022	0.385	0.027	0.693	0.625	0.460	0.818	0.267	0.652	0.845	0.840	0.482	0.867
	Right Tilt	0.118	0.215	0.022	0.489	0.027	0.605	0.629	0.360	0.822	0.167	0.656	0.849	0.844	0.382	0.871
Body-worn	Rear	0.259	0.035	0.023	0.081	0.251	0.065	0.363	0.545	0.375	0.533	0.614	0.626	0.398	0.568	0.649
	Front	0.191	0.035	0.023	0.081	0.251	0.066	0.295	0.477	0.307	0.465	0.546	0.558	0.330	0.500	0.581
Hotspot	Rear	0.565	0.087	0.061	0.088	0.436	0.140	0.714	1.088	0.740	1.062	1.150	1.176	0.801	1.149	1.237
	Front	0.427	0.087	0.061	0.088	0.088	0.112	0.576	0.602	0.602	0.576	0.664	0.690	0.663	0.663	0.751
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.192														
	Edge 3	0.412														
	Edge 4	0.081	0.087	0.061	0.088	0.088	0.162	0.230	0.256	0.256	0.230	0.318	0.344	0.317	0.317	0.405

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.143	0.241	0.064	0.193	0.035	0.213	0.400	0.419	0.577	0.242	0.435	0.612	0.641	0.483	0.676
	Left Tilt	0.090	0.241	0.064	0.193	0.035	0.188	0.347	0.366	0.524	0.189	0.382	0.559	0.588	0.430	0.623
	Right Touch	0.197	0.241	0.064	0.193	0.035	0.764	0.454	0.473	0.631	0.296	0.489	0.666	0.695	0.537	0.730
	Right Tilt	0.090	0.241	0.064	0.193	0.035	0.791	0.347	0.366	0.524	0.189	0.382	0.559	0.588	0.430	0.623
Body-worn	Rear	0.290	0.051	0.038	0.096	0.260	0.078	0.424	0.601	0.437	0.588	0.684	0.697	0.475	0.639	0.735
	Front	0.205	0.051	0.038	0.096	0.260	0.065	0.339	0.516	0.352	0.503	0.599	0.612	0.390	0.554	0.650
Hotspot	Rear	0.555	0.100	0.105	0.068	0.201	0.169	0.728	0.856	0.723	0.861	0.929	0.924	0.828	0.961	1.029
	Front	0.401	0.100	0.105	0.068	0.201	0.133	0.575	0.702	0.569	0.708	0.776	0.770	0.675	0.808	0.876
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.147														
	Edge 3	0.337														
	Edge 4	0.085	0.100	0.105	0.068	0.201	0.207	0.258	0.386	0.253	0.391	0.459	0.454	0.358	0.491	0.559

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.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.208	0.484	0.045	0.430	0.015	0.194	0.402	0.737	0.653	0.417	0.847
	Left Tilt	0.072	0.484	0.045	0.430	0.015	0.172	0.244	0.601	0.517	0.259	0.689
	Right Touch	0.153	0.484	0.045	0.430	0.015	0.693	0.846	0.682	0.598	0.861	1.291
	Right Tilt	0.126	0.549	0.045	0.472	0.034	0.605	0.731	0.720	0.632	0.765	1.237
Body-worn	Rear	0.532	0.067	0.040	0.146	0.546	0.065	0.597	0.639	1.224	1.143	1.289
	Front	0.303	0.067	0.040	0.146	0.020	0.066	0.369	0.410	0.469	0.389	0.535
Hotspot	Rear	0.581	0.161	0.111	0.238	0.738	0.140	0.721	0.853	1.557	1.459	1.697
	Front	0.293	0.161	0.111	0.238	0.186	0.112	0.405	0.565	0.717	0.591	0.829
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 3	0.618										
	Edge 4	0.341	0.161	0.111	0.238	0.186	0.162	0.503	0.613	0.341	0.503	0.503

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	① + ⑥	① + ② + ③	① + ④ + ⑤	① + ⑤ + ⑥	① + ④ + ⑤ + ⑥
Head	Left Touch	0.100	0.435	0.106	0.225	0.150	0.213	0.312	0.641	0.475	0.462	0.687
	Left Tilt	0.027	0.435	0.106	0.225	0.150	0.188	0.214	0.568	0.402	0.364	0.589
	Right Touch	0.040	0.449	0.106	0.225	0.150	0.764	0.804	0.595	0.415	0.954	1.179
	Right Tilt	0.055	0.435	0.106	0.225	0.150	0.791	0.846	0.596	0.430	0.996	1.221
Body-worn	Rear	0.444	0.076	0.106	0.212	0.398	0.078	0.522	0.627	1.054	0.920	1.132
	Front	0.185	0.076	0.106	0.212	0.398	0.065	0.249	0.367	0.795	0.647	0.859
Hotspot	Rear	1.236	0.160	0.224	0.178	0.462	0.169	1.404	1.620	1.876	1.866	2.044
	Front	0.337	0.160	0.224	0.178	0.122	0.133	0.471	0.722	0.637	0.593	0.771
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 3	0.294										
	Edge 4	0.412	0.160	0.224	0.178	0.122	0.207	0.619	0.796	0.412	0.619	0.619

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

12.23. Sum of the SAR for LTE Band 41 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.208	0.215	0.022	0.385	0.027	0.194	0.615	0.450	0.808	0.257	0.642	0.835	0.830	0.472	0.857
	Left Tilt	0.072	0.215	0.022	0.385	0.027	0.172	0.479	0.314	0.672	0.121	0.506	0.699	0.694	0.336	0.721
	Right Touch	0.153	0.215	0.022	0.385	0.027	0.693	0.560	0.395	0.753	0.202	0.587	0.780	0.775	0.417	0.802
	Right Tilt	0.126	0.215	0.022	0.489	0.027	0.605	0.637	0.368	0.830	0.175	0.664	0.857	0.852	0.390	0.879
Body-worn	Rear	0.532	0.035	0.023	0.081	0.251	0.065	0.636	0.818	0.648	0.806	0.887	0.899	0.671	0.841	0.922
	Front	0.303	0.035	0.023	0.081	0.251	0.066	0.407	0.589	0.419	0.577	0.658	0.670	0.442	0.612	0.693
Hotspot	Rear	0.581	0.087	0.061	0.088	0.436	0.140	0.730	1.104	0.756	1.078	1.166	1.192	0.817	1.165	1.253
	Front	0.293	0.087	0.061	0.088	0.088	0.112	0.442	0.468	0.468	0.442	0.530	0.556	0.529	0.529	0.617
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 3	0.618														
	Edge 4	0.341	0.087	0.061	0.088	0.088	0.162	0.402	0.428	0.428	0.402	0.402	0.428	0.489	0.489	0.489

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.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.100	0.241	0.064	0.193	0.035	0.213	0.357	0.376	0.534	0.199	0.392	0.569	0.598	0.440	0.633
	Left Tilt	0.027	0.241	0.064	0.193	0.035	0.188	0.283	0.303	0.461	0.125	0.318	0.496	0.524	0.366	0.559
	Right Touch	0.040	0.241	0.064	0.193	0.035	0.764	0.297	0.316	0.474	0.139	0.332	0.509	0.538	0.380	0.573
	Right Tilt	0.055	0.241	0.064	0.193	0.035	0.791	0.312	0.331	0.489	0.154	0.347	0.524	0.553	0.395	0.588
Body-worn	Rear	0.444	0.051	0.038	0.096	0.260	0.078	0.578	0.755	0.591	0.742	0.838	0.851	0.629	0.793	0.889
	Front	0.185	0.051	0.038	0.096	0.260	0.065	0.319	0.496	0.332	0.483	0.579	0.592	0.370	0.534	0.630
Hotspot	Rear	1.236	0.100	0.105	0.068	0.201	0.169	1.409	1.537	1.404	1.542	1.610	1.605	1.509	1.642	1.710
	Front	0.337	0.100	0.105	0.068	0.201	0.133	0.511	0.638	0.505	0.644	0.712	0.706	0.611	0.744	0.812
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 3	0.294														
	Edge 4	0.412	0.100	0.105	0.068	0.201	0.207	0.517	0.512	0.512	0.517	0.517	0.512	0.617	0.617	0.617

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.27 for SPLSR calculations.

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

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.169	0.484	0.045	0.430	0.015	0.194	0.363	0.698	0.614	0.378	0.808
	Left Tilt	0.039	0.484	0.045	0.430	0.015	0.172	0.211	0.568	0.484	0.226	0.656
	Right Touch	0.106	0.484	0.045	0.430	0.015	0.693	0.799	0.635	0.551	0.814	1.244
	Right Tilt	0.039	0.549	0.045	0.472	0.034	0.605	0.644	0.633	0.545	0.678	1.150
Body-worn	Rear	0.551	0.067	0.040	0.146	0.546	0.065	0.616	0.658	1.243	1.162	1.308
	Front	0.420	0.067	0.040	0.146	0.020	0.066	0.486	0.527	0.586	0.506	0.652
Hotspot	Rear	0.544	0.161	0.111	0.238	0.738	0.140	0.684	0.816	1.520	1.422	1.660
	Front	0.441	0.161	0.111	0.238	0.186	0.112	0.553	0.713	0.865	0.739	0.977
	Edge 1		0.161	0.111	0.238	0.186	0.116	0.116	0.272	0.424	0.302	0.540
	Edge 2	0.067										
	Edge 3	1.020										
	Edge 4	0.124	0.161	0.111	0.238	0.186	0.162	0.286	0.396	0.548	0.472	0.710

Conclusion:

SPLSR analysis is required because the Sum of the SAR is > 1.6 W/kg. Refer to Section 12.26 for SPLSR calculations.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)				
		WWAN	DTS		U-NII		BT	WWAN + BT	WWAN + DTS	WWAN + U-NII	WWAN + U-NII + BT	WWAN + U-NII + BT
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+⑥	①+②+③	①+④+⑤	①+⑤+⑥	①+④+⑤+⑥
Head	Left Touch	0.152	0.435	0.106	0.225	0.150	0.213	0.365	0.693	0.527	0.515	0.740
	Left Tilt	0.057	0.435	0.106	0.225	0.150	0.188	0.244	0.598	0.432	0.394	0.619
	Right Touch	0.082	0.449	0.106	0.225	0.150	0.764	0.846	0.637	0.457	0.996	1.221
	Right Tilt	0.054	0.435	0.106	0.225	0.150	0.791	0.845	0.595	0.429	0.995	1.220
Body-worn	Rear	0.466	0.076	0.106	0.212	0.398	0.078	0.544	0.648	1.076	0.942	1.154
	Front	0.376	0.076	0.106	0.212	0.398	0.065	0.441	0.559	0.986	0.839	1.051
Hotspot	Rear	0.597	0.160	0.224	0.178	0.462	0.169	0.766	0.981	1.237	1.228	1.406
	Front	0.437	0.160	0.224	0.178	0.122	0.133	0.571	0.821	0.737	0.693	0.871
	Edge 1		0.160	0.224	0.178	0.122	0.011	0.011	0.384	0.300	0.133	0.311
	Edge 2	0.068										
	Edge 3	1.150										
	Edge 4	0.151	0.160	0.224	0.178	0.122	0.207	0.359	0.535	0.451	0.481	0.659

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.

12.25. Sum of the SAR for LTE Band 66 & Wi-Fi RSDB

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.169	0.215	0.022	0.385	0.027	0.194	0.576	0.411	0.769	0.218	0.603	0.796	0.791	0.433	0.818
	Left Tilt	0.039	0.215	0.022	0.385	0.027	0.172	0.446	0.281	0.639	0.088	0.473	0.666	0.661	0.303	0.688
	Right Touch	0.106	0.215	0.022	0.385	0.027	0.693	0.513	0.348	0.706	0.155	0.540	0.733	0.728	0.370	0.755
	Right Tilt	0.039	0.215	0.022	0.489	0.027	0.605	0.550	0.281	0.743	0.088	0.577	0.770	0.765	0.303	0.792
Body-worn	Rear	0.551	0.035	0.023	0.081	0.251	0.065	0.655	0.837	0.667	0.825	0.906	0.918	0.690	0.860	0.941
	Front	0.420	0.035	0.023	0.081	0.251	0.066	0.524	0.706	0.536	0.694	0.775	0.787	0.559	0.729	0.810
Hotspot	Rear	0.544	0.087	0.061	0.088	0.436	0.140	0.693	1.067	0.719	1.041	1.129	1.155	0.780	1.128	1.216
	Front	0.441	0.087	0.061	0.088	0.088	0.112	0.590	0.616	0.616	0.590	0.678	0.704	0.677	0.677	0.765
	Edge 1		0.087	0.061	0.088	0.088	0.116	0.149	0.175	0.175	0.149	0.237	0.263	0.236	0.236	0.324
	Edge 2	0.067														
	Edge 3	1.020														
	Edge 4	0.124	0.087	0.061	0.088	0.088	0.162	0.273	0.299	0.299	0.273	0.361	0.387	0.360	0.360	0.448

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)						∑ 1-g SAR (W/kg)								
		WWAN	DTS		U-NII		BT	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII	WWAN+DTS+U-NII
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥	①+③+④	①+②+⑤	①+②+④	①+③+⑤	①+③+④+⑤	①+②+④+⑤	①+②+③+④	①+②+③+⑤	①+②+③+④+⑤
Head	Left Touch	0.152	0.241	0.064	0.193	0.035	0.213	0.409	0.428	0.586	0.251	0.444	0.621	0.650	0.492	0.685
	Left Tilt	0.057	0.241	0.064	0.193	0.035	0.188	0.314	0.333	0.491	0.156	0.349	0.526	0.555	0.397	0.590
	Right Touch	0.082	0.241	0.064	0.193	0.035	0.764	0.339	0.358	0.516	0.181	0.374	0.551	0.580	0.422	0.615
	Right Tilt	0.054	0.241	0.064	0.193	0.035	0.791	0.310	0.330	0.488	0.152	0.345	0.523	0.551	0.393	0.586
Body-worn	Rear	0.466	0.051	0.038	0.096	0.260	0.078	0.600	0.777	0.613	0.764	0.860	0.873	0.651	0.815	0.911
	Front	0.376	0.051	0.038	0.096	0.260	0.065	0.510	0.687	0.523	0.674	0.770	0.783	0.561	0.725	0.821
Hotspot	Rear	0.597	0.100	0.105	0.068	0.201	0.169	0.771	0.898	0.765	0.904	0.972	0.966	0.871	1.004	1.072
	Front	0.437	0.100	0.105	0.068	0.201	0.133	0.611	0.738	0.605	0.744	0.812	0.806	0.711	0.844	0.912
	Edge 1		0.100	0.105	0.068	0.201	0.011	0.173	0.301	0.168	0.306	0.374	0.369	0.273	0.406	0.474
	Edge 2	0.068														
	Edge 3	1.150														
	Edge 4	0.151	0.100	0.105	0.068	0.201	0.207	0.325	0.452	0.319	0.458	0.526	0.520	0.425	0.558	0.626

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.

12.26. Worst case SPLSR for WWAN & Wi-Fi & BT

Glass Cover:

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)				∑ 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
		WWAN	U-NII		BT					
		Main #1 ①	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥					
Hotspot	Rear	0.744	0.238	0.738	0.140	① + ④ + ⑤ + ⑥	1.860			
		0.744	0.238			① + ④	0.982	150.6	0.01	No
		0.744		0.738		① + ⑤	1.482	136.2	0.01	No
		0.744			0.140	① + ⑥	0.884	163.6	0.01	No
			0.238	0.738		④ + ⑤	0.976	14.4	0.07	Yes
				0.738	0.140	⑤ + ⑥	0.878	28.9	0.03	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Hotspot	Rear	WWAN	①	1.010	-0.002	-0.081	-0.179	① + ④	150.6
		Ant #1 U-NII	④	0.586	0.031	0.066	-0.177		
		WWAN	①	1.010	-0.002	-0.081	-0.179	① + ⑤	136.2
		Ant #2 U-NII	⑤	1.780	0.028	0.052	-0.178		
		WWAN	①	1.010	-0.002	-0.081	-0.179	① + ⑥	163.6
		Ant #1 BT	⑥	0.230	0.024	0.081	-0.178		
		Ant #1 U-NII	④	0.586	0.031	0.066	-0.177	④ + ⑤	14.4
		Ant #2 U-NII	⑤	1.780	0.028	0.052	-0.178		
		Ant #2 U-NII	⑤	1.780	0.028	0.052	-0.178	⑤ + ⑥	28.9
		Ant #1 BT	⑥	0.230	0.024	0.081	-0.178		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

1. Wi-Fi and Bluetooth values used for SPLSR Analysis are the same for all WWAN technologies.
2. Simultaneous transmission SAR measurement (Volume Scan) is required because the SPLSR is > 0.04. Refer to Section 12.28 for Volume Scan.

Ceramic Cover:

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)				∑ 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
		WWAN	U-NII		BT					
		Main #1 ①	Ant #1 ④	Ant #2 ⑤	Ant #1 ⑥					
Hotspot	Rear	1.236	0.178	0.462	0.169	① + ④ + ⑤ + ⑥	2.044			
		1.236	0.178			① + ④	1.414	145.0	0.01	No
		1.236		0.462		① + ⑤	1.698	136.7	0.02	No
		1.236			0.169	① + ⑥	1.405	158.0	0.01	No
			0.178	0.462		④ + ⑤	0.640	8.9	0.06	Yes
				0.462	0.169	⑤ + ⑥	0.631	21.6	0.02	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Hotspot	Rear	WWAN	①	1.490	0.019	-0.078	-0.179	① + ④	145.0
		Ant #1 U-NII	④	0.666	0.032	0.066	-0.180		
		WWAN	①	1.490	0.019	-0.078	-0.179	① + ⑤	136.7
		Ant #2 U-NII	⑤	2.630	0.028	0.058	-0.180		
		WWAN	①	1.490	0.019	-0.078	-0.179	① + ⑥	158.0
		Ant #1 BT	⑥	0.266	0.026	0.079	-0.178		
		Ant #1 U-NII	④	0.666	0.032	0.066	-0.180	④ + ⑤	8.9
		Ant #2 U-NII	⑤	2.630	0.028	0.058	-0.180		
		Ant #2 U-NII	⑤	2.630	0.028	0.058	-0.180	⑤ + ⑥	21.6
		Ant #1 BT	⑥	0.266	0.026	0.079	-0.178		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

1. Wi-Fi and Bluetooth values used for SPLSR Analysis are the same for all WWAN technologies.
2. Simultaneous transmission SAR measurement (Volume Scan) is required because the SPLSR is > 0.04. Refer to Section 12.28 for Volume Scan.

12.27. Worst case SPLSR for WWAN & Wi-Fi RSDB

Ceramic Cover:

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)					∑ 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
		WWAN	DTS		U-NII						
		①	Ant #1 ②	Ant #2 ③	Ant #1 ④	Ant #2 ⑤					
Hotspot	Rear	1.236	0.100	0.105	0.161	0.699	① + ② + ③ + ④ + ⑤	2.301	107.2	0.03	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Hotspot	Rear	WWAN	①	0.799	0.041	-0.057	-0.176	① + ⑤	107.2
		Ant #2 U-NII	⑤	0.356	0.029	0.050	-0.180		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

1. Wi-Fi and Bluetooth values used for SPLSR Analysis are the same for all WWAN technologies. Refer to Section 12.26 for SPLSR calculations.
2. Simultaneous transmission SAR measurement (Volume Scan) is required because the SPLSR is > 0.04.

12.28. Worst case Volume Scan for Wi-Fi & BT

Glass Cover:

RF Exposure Conditions	Test Position	Mode	Antenna	Dist. (mm)	Ch #.	Freq. (MHz)	Volume Scan 1-g SAR (W/kg)		Plot No.
							Measured	Combined Multi-Band	
Hotspot	Rear	802.11a	1	10	165	5825.0	0.324	0.52	1-3
		802.11a	2	10	157	5785.0	0.381		

Conclusion:

The combined 1g SAR is < 1.6 W/kg and is therefore compliant. Refer to Appendix H for test plots.

Ceramic Cover:

RF Exposure Conditions	Test Position	Mode	Antenna	Dist. (mm)	Ch #.	Freq. (MHz)	Volume Scan 1-g SAR (W/kg)		Plot No.
							Measured	Combined Multi-Band	
Hotspot	Rear	802.11a	1	10	165	5825.0	0.114	1.34	4-6
		802.11a	2	10	157	5785.0	0.973		

Conclusion:

The combined 1g SAR is < 1.6 W/kg and is therefore compliant. Refer to Appendix H for test plots.

12.29. Sum of the SAR for W-CDMA Band II & Wi-Fi & BT Product Specific 10g

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.109	0.736	2.600	5.445

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.109	0.736		① + ④	2.845	149.6	0.03	No
		2.109		2.600	① + ⑤	4.709	131.0	0.08	No
		2.109	0.736	2.600	① + ④ + ⑤	5.445	131.0	0.10	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	UMTS B2	①	6.820	-0.001	-0.077	-0.179	① + ④	149.6
		Ant #1 U-NII	④	8.460	0.029	0.070	-0.177		
		UMTS B2	①	6.820	-0.001	-0.077	-0.179	① + ⑤	131.0
		Ant #2 U-NII	⑤	62.200	0.029	0.051	-0.178		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.496	0.767	1.509	4.772

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.496	0.767		① + ④	3.263	136.4	0.04	No
		2.496		1.509	① + ⑤	4.005	122.5	0.07	No
		2.496	0.767	1.509	① + ④ + ⑤	4.772	122.5	0.09	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	UMTS B2	①	6.500	0.016	-0.061	-0.148	① + ④	136.4
		Ant #1 U-NII	④	10.700	0.030	0.072	-0.177		
		UMTS B2	①	6.500	0.016	-0.061	-0.148	① + ⑤	122.5
		Ant #2 U-NII	⑤	38.700	0.029	0.057	-0.180		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

12.30. Sum of the SAR for W-CDMA Band II & Wi-Fi RSDB Product Specific 10g

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.496	0.318	1.262	4.076

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.496	0.318		① + ④	2.814	143.4	0.03	No
		2.496		1.262	① + ⑤	3.759	126.2	0.06	No
		2.496	0.318	1.262	① + ④ + ⑤	4.077	126.2	0.07	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	UMTS B2	①	6.500	0.016	-0.061	-0.148	① + ④	143.4
		Ant #1 U-NII	④	3.000	0.030	0.079	-0.178		
		UMTS B2	①	6.500	0.016	-0.061	-0.148	① + ⑤	126.2
		Ant #2 U-NII	⑤	20.900	0.030	0.061	-0.179		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

12.31. Sum of the SAR for LTE Band 25 & Wi-Fi & BT Product Specific 10g

Glass Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.087	0.736	2.600	5.423

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.087	0.736		① + ④	2.823	149.2	0.03	No
		2.087		2.600	① + ⑤	4.687	130.5	0.08	No
		2.087	0.736	2.600	① + ④ + ⑤	5.423	130.5	0.10	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	LTE B25	①	6.170	0.001	-0.077	-0.179	① + ④	149.2
		Ant #1 U-NII	④	8.460	0.029	0.070	-0.177		
		LTE B25	①	6.170	0.001	-0.077	-0.179	① + ⑤	130.5
		Ant #2 U-NII	⑤	62.200	0.029	0.051	-0.178		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.479	0.767	1.509	4.755

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.479	0.767		① + ④	3.246	150.0	0.04	No
		2.479		1.509	① + ⑤	3.988	135.0	0.06	No
		2.479	0.767	1.509	① + ④ + ⑤	4.755	135.0	0.08	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	LTE B25	①	7.340	0.009	-0.077	-0.179	① + ④	150.0
		Ant #1 U-NII	④	10.700	0.030	0.072	-0.177		
		LTE B25	①	7.340	0.009	-0.077	-0.179	① + ⑤	135.0
		Ant #2 U-NII	⑤	38.700	0.029	0.057	-0.180		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

12.32. Sum of the SAR for LTE Band 25 & Wi-Fi RSDB Product Specific 10g

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.479	0.318	1.262	4.059

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.479	0.318		① + ④	2.797	156.9	0.03	No
		2.479		1.262	① + ⑤	3.742	139.1	0.05	No
		2.479	0.318	1.262	① + ④ + ⑤	4.060	139.1	0.06	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	LTE B25	①	7.340	0.009	-0.077	-0.179	① + ④	156.9
		Ant #1 U-NII	④	3.000	0.030	0.079	-0.178		
		LTE B25	①	7.340	0.009	-0.077	-0.179	① + ⑤	139.1
		Ant #2 U-NII	⑤	20.900	0.030	0.061	-0.179		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

12.33. Sum of the SAR for LTE Band 41 & Wi-Fi & BT Product Specific 10g

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.553	0.767	1.509	4.829

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.553	0.767		① + ④	3.320	144.5	0.04	No
		2.553		1.509	① + ⑤	4.062	129.6	0.06	No
		2.553	0.767	1.509	① + ④ + ⑤	4.829	129.6	0.08	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	LTE B41	①	7.830	0.021	-0.072	-0.174	① + ④	144.5
		Ant #1 U-NII	④	10.700	0.030	0.072	-0.177		
		LTE B41	①	7.830	0.021	-0.072	-0.174	① + ⑤	129.6
		Ant #2 U-NII	⑤	38.700	0.029	0.057	-0.180		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

12.34. Sum of the SAR for LTE Band 41 & Wi-Fi RSDB Product Specific 10g

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	2.553	0.318	1.262	4.133

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	2.553	0.318		① + ④	2.871	151.5	0.03	No
		2.553		1.262	① + ⑤	3.815	133.6	0.06	No
		2.553	0.318	1.262	① + ④ + ⑤	4.133	133.6	0.06	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	LTE B41	①	7.830	0.021	-0.072	-0.174	① + ④	151.5
		Ant #1 U-NII	④	3.000	0.030	0.079	-0.178		
		LTE B41	①	7.830	0.021	-0.072	-0.174	① + ⑤	133.6
		Ant #2 U-NII	⑤	20.900	0.030	0.061	-0.179		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

12.35. Sum of the SAR for LTE Band 66 & Wi-Fi & BT Product Specific 10g

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	1.866	0.767	1.509	4.142

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific 10g	Rear	1.866	0.767		① + ④	2.633	145.0	0.03	No
		1.866		1.509	① + ⑤	3.375	136.6	0.05	No
		1.866	0.767	1.509	① + ④ + ⑤	4.142	136.6	0.06	No

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific 10g	Rear	LTE B66	①	6.150	0.010	-0.077	-0.165	① + ④	150.4
		Ant #1 U-NII	④	10.700	0.030	0.072	-0.177		
		LTE B66	①	6.150	0.010	-0.077	-0.165	① + ⑤	135.7
		Ant #2 U-NII	⑤	38.700	0.029	0.057	-0.180		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the SPLSR is ≤ 0.1.

12.36. Sum of the SAR for LTE Band 66 & Wi-Fi RSDB Product Specific 10g

Ceramic Cover:

RF Exposure conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)
		WWAN	U-NII		WWAN + U-NII
		①	Ant #1 ④	Ant #2 ⑤	① + ④ + ⑤
Product Specific 10g	Rear	1.866	0.318	1.262	3.446

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because either the sum of the 1-g SAR is < 4.0 W/kg or the SPLSR is ≤ 0.10 for all circumstances that require SPLSR calculation.

12.37. SPSLR for Wi-Fi & BT Product Specific 10g

Glass Cover:

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)
		WWAN	U-NII						
		①	Ant #1 ④	Ant #2 ⑤					
Product Specific	Rear	2.109	0.736	2.600	① + ④ + ⑤	5.445			
		2.109	0.736		① + ④	2.845	149.2	0.03	No
		2.109		2.600	① + ⑤	4.709	130.5	0.08	No
			0.736	2.600	④ + ⑤	3.336	19.0	0.32	Yes

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific	Rear	LTE B41	①	6.170	0.001	-0.077	-0.179	① + ④	149.2
		Ant #1 U-NII	④	8.460	0.029	0.070	-0.177		
		LTE B41	①	6.170	0.001	-0.077	-0.179	① + ⑤	130.5
		Ant #2 U-NII	⑤	62.200	0.029	0.051	-0.178		
		Ant #1 U-NII	④	8.460	0.029	0.070	-0.177	④ + ⑤	19.0
		Ant #2 U-NII	⑤	62.200	0.029	0.051	-0.178		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

1. Wi-Fi values used for SPLSR Analysis are the same for all WWAN technologies.
2. Simultaneous transmission SAR measurement (Volume Scan) is required because the SPLSR is > 0.10. Refer to Section 12.39 for Volume Scan.

Ceramic Cover:

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)	Figure
		WWAN	U-NII							
		①	Ant #1 ④	Ant #2 ⑤						
Product Specific	Rear	2.553	0.767	1.509	① + ④ + ⑤	4.829				
		2.553	0.767		① + ④	3.320	144.5	0.04	No	
		2.553		1.509	① + ⑤	4.062	129.6	0.06	No	
			0.767	1.509	④ + ⑤	2.276	15.3	0.22	Yes	

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific	Rear	LTE B41	①	7.830	0.021	-0.072	-0.174	① + ④	144.5
		Ant #1 U-NII	④	10.700	0.030	0.072	-0.177		
		LTE B41	①	7.830	0.021	-0.072	-0.174	① + ⑤	129.6
		Ant #2 U-NII	⑤	38.700	0.029	0.057	-0.180		
		Ant #1 U-NII	④	10.700	0.030	0.072	-0.177	④ + ⑤	15.3
		Ant #2 U-NII	⑤	38.700	0.029	0.057	-0.180		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

1. Wi-Fi values used for SPLSR Analysis are the same for all WWAN technologies.
2. Simultaneous transmission SAR measurement (Volume Scan) is required because the SPLSR is > 0.10. Refer to Section 12.39 for Volume Scan.

12.38. SPSLR for Wi-Fi & RSDB Product Specific 10g

Ceramic Cover:

RF Exposure Conditions	Test Position	Standalone SAR (W/kg)			∑ 10-g SAR (W/kg)		Calculated distance (mm)	SPLSR (≤ 0.10)	Volume Scan (Yes/ No)	Figure
		WWAN	U-NII							
		①	Ant #1 ④	Ant #2 ⑤						
Product Specific	Rear	2.553	0.318	1.262	① + ④ + ⑤	4.133				
		2.553	0.318		① + ④	2.871	151.5	0.03	No	
		2.553		1.262	① + ⑤	3.815	133.6	0.06	No	
			0.318	1.262	④ + ⑤	1.580	18.0	0.11	Yes	

RF Exposure Conditions	Test Position	Mode		Peak SAR	X	Y	Z	d: Calculated distance (mm)	
				W/kg	m	m	m		
Product Specific	Rear	LTE B41	①	7.830	0.021	-0.072	-0.174	① + ④	151.5
		Ant #1 U-NII	④	3.000	0.030	0.079	-0.178		
		LTE B41	①	7.830	0.021	-0.072	-0.174	① + ⑤	133.6
		Ant #2 U-NII	⑤	20.900	0.030	0.061	-0.179		
		Ant #1 U-NII	④	3.000	0.030	0.079	-0.178	④ + ⑤	18.0
		Ant #2 U-NII	⑤	20.900	0.030	0.061	-0.179		

The Peak Location Separation Distance is computed by using the formula: SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Conclusion:

1. Wi-Fi values used for SPLSR Analysis are the same for all WWAN technologies.
2. Simultaneous transmission SAR measurement (Volume Scan) is required because the SPLSR is > 0.10. Refer to Section 12.40 for Volume Scan.

12.39. Worst case Volume Scan for Wi-Fi & BT Product Specific 10g

Glass Cover:

RF Exposure Conditions	Test Position	Mode	Antenna	Dist. (mm)	Ch #.	Freq. (MHz)	Volume Scan 10-g SAR (W/kg)		Plot No.
							Measured	Combined Multi-Band	
Product Specific 10g	Rear	802.11a	1	0	124	5620.0	0.619	2.32	7-9
		802.11a	2	0	52	5260.0	1.930		

Conclusion:

The combined 10g SAR is < 4.0 W/kg and is therefore compliant. Refer to Appendix H for test plots.

Ceramic Cover:

RF Exposure Conditions	Test Position	Mode	Antenna	Dist. (mm)	Ch #.	Freq. (MHz)	Volume Scan 1-g SAR (W/kg)		Plot No.
							Measured	Combined Multi-Band	
Product Specific 10g	Rear	802.11a	1	0	144	5720.0	0.537	3.52	10-12
		802.11a	2	0	56	5280.0	3.010		

Conclusion:

The combined 10g SAR is < 4.0 W/kg and is therefore compliant. Refer to Appendix H for test plots.

12.40. Worst case Volume Scan for Wi-Fi & RSDB Product Specific 10g

Ceramic Cover:

RF Exposure Conditions	Test Position	Mode	Antenna	Dist. (mm)	Ch #.	Freq. (MHz)	Volume Scan 1-g SAR (W/kg)		Plot No.
							Measured	Combined Multi-Band	
Product Specific 10g	Rear	802.11ac80	1	0	122	5610.0	0.242	2.04	13-15
		802.11ac80	2	0	58	5290.0	1.060		

Conclusion:

The combined 10g SAR is < 4.0 W/kg and is therefore compliant. Refer to Appendix H for test plots.

Appendixes

Refer to separated files for the following appendixes.

Appendix A: SAR Setup Photos – Ceramic

Appendix B: SAR Setup Photos – Glass

Appendix C: SAR System Check Plots

Appendix D: SAR Highest Test Plots

Appendix E: SAR Tissue Ingredients

Appendix F: SAR Probe Certificates

Appendix G: SAR Dipole Certificates

Appendix H: SAR Volume Scan Plots

END OF REPORT