SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2013

For
Cellular Phone with Bluetooth and WLAN Radios

FCC ID: BCG-E3086A
Model Name: A1779

Report Number: 16U23310-S1V10
Issue Date: 9/1/2016

Prepared for
APPLE, INC.
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CUPERTINO, CA 95014-2084

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Date	Revisions	Revised By
V1	7/15/2016	Initial Issue	--
V2	7/19/2016	Report revised based on reviewer's comments: 1. Sec. 6.3 Wi-Fi tables, 9.6 and 9.8 tables: harmonized layout of tables. 2. Sec. 6.4., 9.4., 10.18., 12.37., 12.38., 12.77., 12.78.: LTE Band 27 updated frequency range. LTE Band 27 covered by LTE Band 26 testing. 3. Sec. 9.5. pg 94. Added note. 4. Appendix A: Updated dimensions 5. Appendix C: Removed Band 27 plots	Kenneth Mak
V3	7/26/2016	Report revised based on reviewer's comments: 1. Sec. 6.3.: Added LTE-2CA to tune-up procedure table. 2. Sec. 9.5.: Updated Intra-Band Contiguous table. Added note for CA SAR exclusion.	Kenneth Mak
V4	7/28/2016	Report revised based on reviewer's comments: 1. Sec. 6.2.: Updated table 2. Sec. 9.5.: Revised note	Kenneth Mak
V5	7/29/2016	Report revised based on reviewer's comments: 1. Sec. 9.6-9.9.: Added ch. 13 data.	Kenneth Mak
V6	8/10/2016	Report revised based on reviewer's comments: 1. Sec. 9.5.: Updated tables.	Kenneth Mak
V7	8/17/2016	Additional testing for LTE CA Band 7 and 41: 1. Sec. 1., 4.3., 8., 10., 12.: Updated for additional testing for LTE CA Band 7 and 41. 2. Sec. 9: Added note for Wi-Fi power 3. Sec. 9.5: Updated tables and notes 4. Appendixes B, C: Updated.	Kenneth Mak
V8	8/29/2016	Report revised based on reviewer's feedback: 1. Sec.1: Updated Table. Rounded values to 2 decimal places. 2. Sec.2: Updated note. 3. Sec. 6.1: Update DUT description. 4. Sec. 6.3.: Updated table. 5. Sec. 6.2 to 6.5.: Added note. 6. Sec. 7: Added note. 7. Sec. 9.4: Update. 8. Sec. 9.6-9.9: Added note. 9. Sec. 9.10.: Updated. 10. Sec. 10: Added note. 11. Sec. 10.27: Updated table. 12. Sec. 10.28: Updated. 13. Sec. 11.: Updated table. 14. Sec. 12.: Updated table 15. Appendix B & C: Updated	Ray Su
V9	8/31/2016	Report revised based on reviewer's feedback: 1. Sec.2: Updated note. 2. Sec. 6.2 to 6.5.: Updated note. 3. Sec. 9.5: Updated statement. 4. Sec. 9.6 to 9.9: Updated note. 5. Sec. 9.10.: Added note. 6. Sec. 10: Added note. 7. Sec. 12.2.: Removed table	Art Thammanvarat
V10	9/1/2016	Report revised based on reviewer's comments: 1. Sec. 9.5.: Added statement and measured output power tables for LTE-2CA SAR test cases	Kenneth Mak

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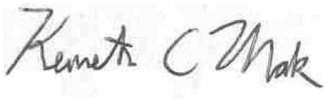
1. Attestation of Test Results

Applicant Name		APPLE, INC.			
FCC ID		BCG-E3086A			
Model Name		A1779			
Applicable Standards		FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013			
Exposure Category		SAR Limits (W/Kg)			
		Peak spatial-average(1g of tissue)			
General population / Uncontrolled exposure		1.6			
RF Exposure Conditions		Equipment Class - Highest Reported SAR (W/kg)			
		PCE	DTS	NII	DSS
Head		1.09	1.19	1.20	0.70
Body-worn		1.14	1.18	1.19	0.33
Hotspot/Airplay		1.14	1.18	1.19	N/A
Simultaneous TX	Head	1.46	1.45	1.46	1.46
	Body-worn	1.56	1.53	1.56	1.56
	Hotspot/ Airplay	1.56	1.53	1.56	1.56
Date Tested		6/8/2016 to 7/8/2016; Additional LTE CA testing: 8/15/2016 to 8/17/2016; Additional Bluetooth testing: 8/24/2016 to 8/25/2016			
Test Results		Pass			

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

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

Approved & Released By:	Prepared By:
	
Bobby Bayani Senior Engineer UL Verification Services Inc.	Kenneth C. Mak Laboratory Engineer UL Verification Services Inc.

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2. Test Specification, Methods and Procedures

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

- 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; Page 36, RF Exposure Procedures Update (Overlapping LTE Bands)
- TCB workshop October, 2014; Page 37, LTE Considerations (LTE Band 41 Test Channels)

Additional Guidance: Manufacturer KDB inquiry.

- Carrier Aggregation – KDB guidance to identify test cases with uplink carrier aggregation enabled in conjunction with FCC PAG Guidance for the test cases mentioned in Sec. 10.
- Detect Mode – KDB guidance related to SAR testing for proprietary detection mode used to determine proximity to head or body and set power accordingly for Wi-Fi and Cellular Transmitters.
- Cellular State Dependent Wi-Fi Power control – KDB guidance related to power control mechanism for Wi-Fi and Bluetooth transmitters based on the operational state of the Wi-Fi and Cellular Transmitters. The Wi-Fi and Bluetooth power configuration are listed as follows:
  - For Wi-Fi
    - P_{Cell_ON}: This will be used when both Cellular and Wi-Fi radios are ON.
    - P_{Cell_OFF}: This will be used when only Wi-Fi radio is ON
  - For Bluetooth
    - Bluetooth P_{high} is used when Wi-Fi antenna is active and Cellular antenna is inactive.
    - Bluetooth P_{low} is used with Wi-Fi and Cellular antenna is active or Wi-Fi antenna inactive and Cellular antenna is active.
    - Bluetooth $P_{standalone}$ is used with Wi-Fi and Cellular antennas are inactive.

The above power configurations for Wi-Fi and Bluetooth are triggered by all of the Cellular Bands with respect to the different Antennas and Exposure Conditions – Head, Body, and Hotspot has been verified and validated by the Manufacturer. Also, all of the UL CA conditions operate correctly with the intended maximum output power levels in simulated normal operating conditions using the Base Station Simulator and has been verified and validated by the Manufacturer.

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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.

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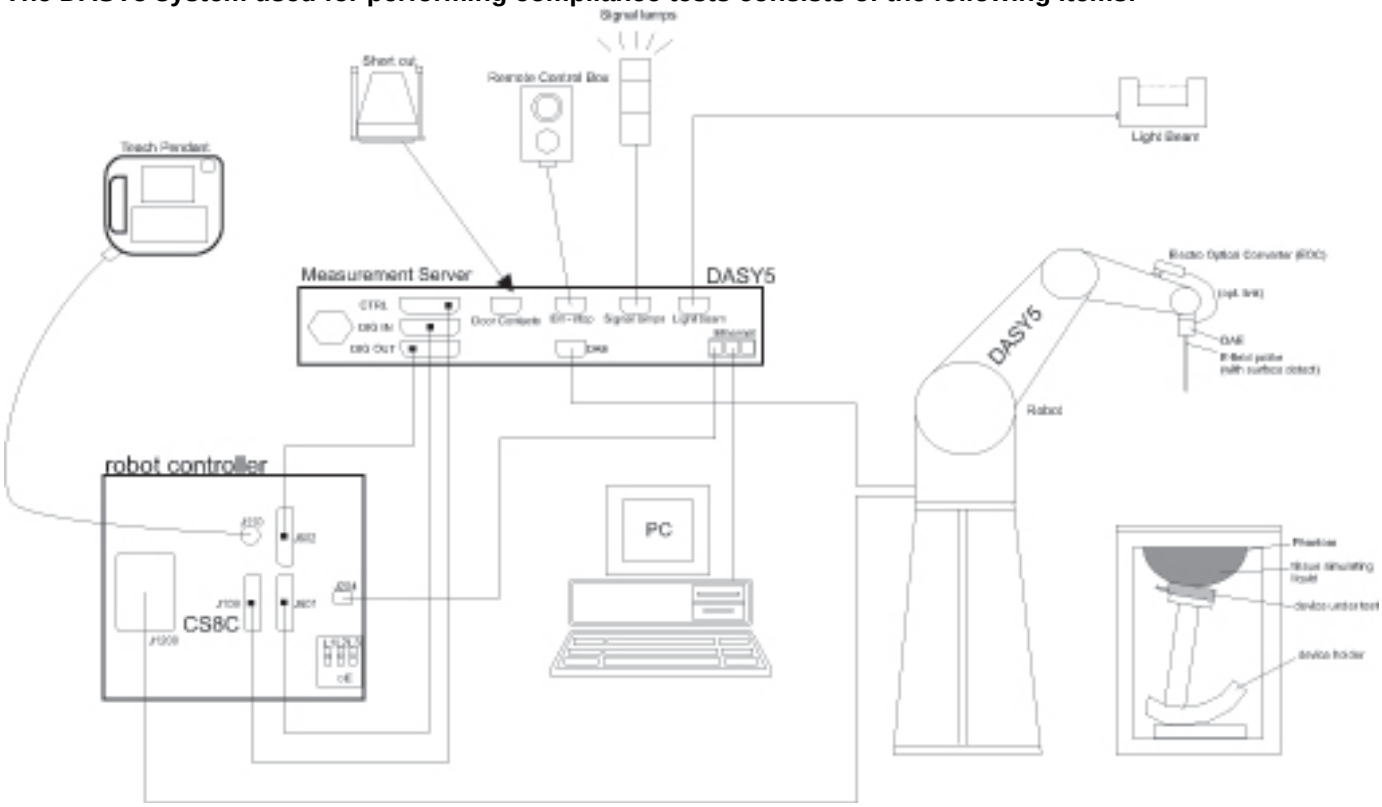
4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

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



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

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4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

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

Step 2: Area Scan

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

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

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

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Step 3: Zoom Scan

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

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

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

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

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

Step 4: Power drift measurement

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

Step 5: Z-Scan (FCC only)

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

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4.3. Test Equipment

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

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	8753ES	MY40000980	4/27/2017
Dielectric Probe kit	SPEAG	DAK-3.5	1082	9/15/2016
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	Traceable Calibration Control Co.	4242	140562250	8/24/2016
Network Analyzer	Agilent	8753ES	MY40001647	7/28/2016
Dielectric Probe kit	SPEAG	DAK-3.5	1087	11/10/2016
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	11/10/2016
Thermometer	Fisher Scientific	Traceable	140493798	8/4/2016

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Synthesized Signal Generator	Agilent	N5181A	MY50140610	5/9/2017
Power Meter	Agilent	N1912A	MY50001018	10/19/2016
Power Sensor	Agilent	E9323A	MY53070007	2/27/2017
Power Sensor	Agilent	E9323A	MY53070002	3/22/2017
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795093	N/A
Directional coupler	Werlatone	C8060-102	2149	N/A
DC Power Supply	AMETEK	XT 15-4	1319A02778	N/A
Synthesized Signal Generator	Agilent	8665B	CCS-167	9/4/2016
Power Meter	HP	437B	3125U11347	8/28/2016
Power Meter	HP	437B	3125U11364	8/10/2016
Power Sensor	HP	8481A	2702A76223	9/3/2016
Power Sensor	HP	8481A	3318A95392	9/16/2016
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Directional coupler	Werlatone	C8000-102	2710	N/A
DC Power Supply	BK PRECISION	1611	215-02292	N/A
Signal Generator	Angilent	N5181A	MY50140630	5/9/2017
Power Meter	HP	437B	3125U12345	7/31/2016
Power Sensor	HP	8481A	1926A27048	12/17/2016
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Bi-directional coupler	Werlatone, Inc.	C8060-102	2141	N/A
DC Power Supply	HP	6296A	2841A-05955	N/A
Synthesized Signal Generator	HP	8665B	3546A00784[1]	6/27/2016
Power Meter	HP	437B	3125U09248	9/3/2016
Power Meter	HP	437B	3125U09516	9/17/2016
Power Sensor	Agilent	8481A	2349A36506	9/16/2016
Power Sensor	Agilent	8481A	3318A92374	9/16/2016
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1622052	N/A
Bi-directional coupler	Werlatone, Inc.	C8060-102	2711	N/A
DC Power Supply	Sorensen Ametek	XT 15-4	1319A02780	N/A

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Lab Equipment

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
E-Field Probe (SAR Lab A)	SPEAG	EX3DV4	3751	11/18/2016
E-Field Probe (SAR Lab B)	SPEAG	EX3DV4	3991	5/12/2017
E-Field Probe (SAR Lab C)	SPEAG	EX3DV4	3902	5/17/2017
E-Field Probe (SAR Lab D)	SPEAG	EX3DV4	3885	9/18/2016
E-Field Probe (SAR Lab E)	SPEAG	EX3DV4	7335	3/22/2017
E-Field Probe (SAR Lab F)	SPEAG	EX3DV4	3749	1/26/2017
E-Field Probe (SAR Lab G)	SPEAG	EX3DV4	3990	3/22/2017
E-Field Probe (SAR Lab H)	SPEAG	EX3DV4	3989	2/23/2017
E-Field Probe (SAR Lab 1)	SPEAG	EX3DV4	3929	3/22/2017
E-Field Probe (SAR Lab 2)	SPEAG	EX3DV4	3772	2/23/2017
E-Field Probe (SAR Lab 3)	SPEAG	EX3DV4	3901	1/26/2017
E-Field Probe (SAR Lab 4)	SPEAG	EX3DV4	3773	4/19/2017
E-Field Probe (SAR Lab 5)	SPEAG	EX3DV4	3871	8/14/2016
Data Acquisition Electronics (SAR Lab A)	SPEAG	DAE4	1377	9/14/2016
Data Acquisition Electronics (SAR Lab B)	SPEAG	DAE4	1259	1/21/2017
Data Acquisition Electronics (SAR Lab C)	SPEAG	DAE4	1380	7/13/2016
Data Acquisition Electronics (SAR Lab D)	SPEAG	DAE4	1433	3/17/2017
Data Acquisition Electronics (SAR Lab E)	SPEAG	DAE4	1472	3/24/2017
Data Acquisition Electronics (SAR Lab F)	SPEAG	DAE4	1352	11/11/2016
Data Acquisition Electronics (SAR Lab G)	SPEAG	DAE4	1359	2/19/2017
Data Acquisition Electronics (SAR Lab H)	SPEAG	DAE4	1357	2/19/2017
Data Acquisition Electronics (SAR Lab 1)	SPEAG	DAE4	1434	4/15/2017
Data Acquisition Electronics (SAR Lab 2)	SPEAG	DAE4	1257	9/16/2016
Data Acquisition Electronics (SAR Lab 3)	SPEAG	DAE4	1360	3/16/2017
Data Acquisition Electronics (SAR Lab 4)	SPEAG	DAE4	1239	4/14/2017
Data Acquisition Electronics (SAR Lab 5)	SPEAG	DAE4	1258	5/10/2017
Thermometer (SAR Lab A)	EXTECH	445703	CCS-249	9/16/2016
Thermometer (SAR Lab B)	EXTECH	445703	CCS-206	3/17/2017
Thermometer (SAR Lab C)	EXTECH	445703	CCS-202	3/17/2017
Thermometer (SAR Lab D)	EXTECH	445703	CCS-201	5/10/2017
Thermometer (SAR Lab E,F,G,H)	EXTECH	445703	CCS-282	1/11/2017
Thermometer (SAR Lab 1)	EXTECH	445703	CCS-205	3/24/2017
Thermometer (SAR Lab 2)	EXTECH	445703	CCS-203	3/24/2017
Thermometer (SAR Lab 3)	EXTECH	445703	CCS-237	6/6/2017
Thermometer (SAR Lab 4)	EXTECH	445703	CCS-238	6/6/2017
Thermometer (SAR Lab 5)	EXTECH	445703	CCS-239	6/13/2017

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Dipoles

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
System Validation Dipole	SPEAG	D750V3	1071	11/12/2016
System Validation Dipole	SPEAG	D835V2	4d142	9/23/2016
System Validation Dipole	SPEAG	D835V2	4d002	11/12/2016
System Validation Dipole	SPEAG	D1750V2	1053	8/11/2016
System Validation Dipole	SPEAG	D1750V2	1077	9/22/2016
System Validation Dipole	SPEAG	D1750V2	1050	4/13/2017
System Validation Dipole	SPEAG	D1900V2	5d043	11/17/2016
System Validation Dipole	SPEAG	D1900V2	5d163	9/21/2016
System Validation Dipole	SPEAG	D1900V2	5d140	4/12/2017
System Validation Dipole	SPEAG	D2300V2	1002	3/18/2017
System Validation Dipole	SPEAG	D2450V2	706	5/10/2017
System Validation Dipole	SPEAG	D2450V2	748	2/22/2017
System Validation Dipole	SPEAG	D2600V2	1006	9/21/2016
System Validation Dipole	SPEAG	D2600V2	1036	3/18/2017
System Validation Dipole	SPEAG	D5GHzV2	1003	2/24/2017
System Validation Dipole	SPEAG	D5GHzV2	1138	9/23/2016
System Validation Dipole	SPEAG	D5GHzV2	1168	11/13/2016

Other

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Power Meter	Agilent	N1912A	MY55196009	5/3/2017
Power Sensor	Agilent	N1921A	MY53020038	3/22/2017
Base Station Simulator	R & S	CMW500	137877	8/10/2016
Base Station Simulator	R & S	CMW500	134855	5/26/2017
Base Station Simulator	R & S	CMW500	135393	3/21/2017
Base Station Simulator	R & S	CMW500	104245	1/28/2017
Base Station Simulator	R & S	CMW500	135390	4/13/2017
Base Station Simulator	R & S	CMW500	124593	7/14/2016
Base Station Simulator	R & S	CMW500	134853[1]	6/29/2016

Notes:

1. Equipment was not used after their calibration due date.

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Additional LTE CA testing 8/15/2016 to 8/17/2016:

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	8753ES	MY40000980	4/27/2017
Dielectric Probe kit	SPEAG	DAK-3.5	1082	9/15/2016
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	Traceable Calibration Control Co.	4242	140562250	8/24/2016

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Synthesized Signal Generator	Agilent	N5181A	MY50140610	5/9/2017
Power Meter	Agilent	N1912A	MY50001018	10/19/2016
Power Sensor	Agilent	E9323A	MY53070007	2/27/2017
Power Sensor	Agilent	E9323A	MY53070002	3/22/2017
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795093	N/A
Directional coupler	Werlatone	C8060-102	2149	N/A
DC Power Supply	AMETEK	XT 15-4	1319A02778	N/A
Signal Generator	Angilent	N5181A	MY50140630	5/9/2017
Power Meter	HP	437B	3125U09248	9/3/2016
Power Sensor	Agilent	8481A	3318A92374	9/16/2016
Power Sensor	HP	8481A	1926A27048	12/17/2016
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Bi-directional coupler	Werlatone, Inc.	C8060-102	2141	N/A
DC Power Supply	HP	6296A	2841A-05955	N/A

Lab Equipment

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
E-Field Probe (SAR Lab A)	SPEAG	EX3DV4	3751	11/18/2016
E-Field Probe (SAR Lab B)	SPEAG	EX3DV4	3991	5/12/2017
E-Field Probe (SAR Lab C)	SPEAG	EX3DV4	3902	5/17/2017
Data Acquisition Electronics (SAR Lab A)	SPEAG	DAE4	1377	9/14/2016
Data Acquisition Electronics (SAR Lab B)	SPEAG	DAE4	1259	1/21/2017
Data Acquisition Electronics (SAR Lab C)	SPEAG	DAE3	500	5/19/2017
Thermometer (SAR Lab A)	EXTECH	445703	CCS-249	9/16/2016
Thermometer (SAR Lab B)	EXTECH	445703	CCS-206	3/17/2017
Thermometer (SAR Lab C)	EXTECH	445703	CCS-202	3/17/2017

Dipoles

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
System Validation Dipole	SPEAG	D2600V2	1006	9/21/2016

Other

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	143093	8/10/2017
Base Station Simulator	R & S	CMW500	118023	8/11/2017
Base Station Simulator	R & S	CMW500	137873	7/8/2017

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

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6. Device Under Test (DUT) Information

6.1. DUT Description

Model A1779 is a mobile phone with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/CDMA2000 1x Advanced/EVDO Rev.A /WCDMA/HSPA+/DC-HSDPA/HSUPA, LTE FDD/TDD & Carrier Aggregation / TDSCDMA, VoLTE radio, IEEE 802.11a/b/g/n/ac radio 2x2 MIMO, Bluetooth radio and NFC. The rechargeable battery is not user accessible.

This device has two cellular antennas (UAT and LAT) as well as multiple Wi-Fi/Bluetooth antennas (Chain 0 and Chain 1).

The device is capable of switching between the LAT and UAT based on signal strength.

The antenna switching is implemented with a physical, “break-before-make” switch such that only one antenna can be used for cellular transmission at a time.

There are two vendors of the Wi-Fi/Bluetooth radio modules: Variant 1 and Variant 2 and they have the same mechanical outline, same on board antenna, matching circuit, antenna structure and same specification. Complete SAR evaluation is performed on Variant 1 that has the highest SAR, and then, the test is repeated for the other variant at the highest peak SAR value.

Device Dimension	Overall (Length x Width): 138.3 mm x 67.1 mm Overall Diagonal: 147 mm Display Diagonal: 120 mm
Back Cover	☒ The rechargeable battery is not user accessible.
Battery Options	☒ The rechargeable battery is not user accessible.
Accessory	Headset
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz) ☐ Mobile Hotspot (Wi-Fi 5 GHz)
AirPlay	AirPlay mode enabled devices transfer data directly between each other ☒ AirPlay (Wi-Fi 2.4 GHz) ☒ AirPlay (Wi-Fi 5 GHz)

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6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: ☐ Class 8 - 1 Up, 4 Down ☒ Class 10 - 2 Up, 4 Down ☐ Class 12 - 4 Up, 4 Down ☐ Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
CDMA (CDMA2000)	BC0 BC1 BC10	1xRTT (Voice & Data) 1xEV-DO Rel. 0 1xEV-DO Rev. A 1xAdvanced		100%
	Does this device support SV-DO (1xRTT-1xEVDO)? ☐ Yes ☒ No			
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Rel. 5) HSUPA (Rel. 6) DC-HSDPA (Rel. 8) HSPA+ (Rel. 7)		100%
LTE	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 7 FDD Band 12 FDD Band 13 FDD Band 17 FDD Band 25 FDD Band 26 FDD Band 27 FDD Band 30 TDD Band 41	QPSK 16QAM ☒ Rel. 11 Carrier Aggregation (2 Uplinks and 3 Downlinks), UE Category 10		100% (FDD) 63.3% (TDD) This device supports uplink-downlink configuration 0-6. The configuration with the highest duty cycle was used (config. 0 at 63.3%).
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20)		100%
	5 GHz	802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (VHT20) 802.11ac (VHT40) 802.11ac (VHT80)		100%
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No			
	Does this device support Band gap channel(s)? ☒ Yes ☐ No			
Bluetooth	2.4 GHz	Version 4.2 LE		77.5% (DH5)

Notes:

1. The Bluetooth protocol is considered source-based averaging. Bluetooth EDR, GFSK (DH5) was verified to have the highest duty cycle of 77.5% and is considered for SAR testing. Under LE mode, the duty cycle is at 50%.

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6.3. Maximum Output Power from Tune-up Procedure

KDB 447498 sec.4.1.(3) at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit. The following values include tolerance. The selection between UAT and LAT in application is based on RSSI based antenna selection. The selection between head and body power levels is based on body-detect mechanism as described in the KDB guidance for test cases approved through Manufacturer KDB inquiry – Detect Mode. Hotspot exposure condition is evaluated using body powers.

RF Air interface	Mode	Max. Avg. RF Output Power (dBm)							
		UAT				LAT			
		Head		Body		Head		Body	
		Burst	Frame	Burst	Frame	Burst	Frame	Burst	Frame
GSM850	Voice/GPRS (1 slot)	29.0	20.0	29.0	20.0	33.5	24.5	33.5	24.5
	GPRS 2 slots	28.0	22.0	28.0	22.0	32.5	26.5	32.5	26.5
	EGPRS 1 slot	23.2	14.2	23.2	14.2	29.0	20.0	29.0	20.0
	EGPRS 2 slots	22.2	16.2	22.2	16.2	28.0	22.0	28.0	22.0
GSM1900	Voice/GPRS (1 slot)	24.2	15.2	24.2	15.2	30.5	21.5	30.5	21.5
	GPRS 2 slots	23.0	17.0	23.2	17.2	29.5	23.5	28.3	22.3
	EGPRS 1 slot	21.5	12.5	21.5	12.5	28.0	19.0	28.0	19.0
	EGPRS 2 slots	20.5	14.5	20.5	14.5	27.0	21.0	27.0	21.0

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RF Air interface	Mode	Max. Avg. RF Output Power (dBm)			
		UAT		LAT	
		Head	Body	Head	Body
W-CDMA Band V	R99	22.0	22.0	25.0	25.0
	HSDPA	22.0	22.0	25.0	25.0
	HSUPA	22.0	22.0	25.0	25.0
	DC-HSDPA	22.0	22.0	25.0	25.0
	HSPA+	22.0	22.0	25.0	25.0
W-CDMA Band IV	R99	18.3	20.5	25.2	21.3
	HSDPA	18.3	20.5	25.2	21.3
	HSUPA	18.3	20.5	25.2	21.3
	DC-HSDPA	18.3	20.5	25.2	21.3
	HSPA+	18.3	20.5	25.2	21.3
W-CDMA Band II	R99	19.3	20.3	25.2	21.0
	HSDPA	19.3	20.3	25.2	21.0
	HSUPA	19.3	20.3	25.2	21.0
	DC-HSDPA	19.3	20.3	25.2	21.0
	HSPA+	19.3	20.3	25.2	21.0
CDMA BC0	1xRTT	22.0	22.0	25.0	25.0
	1xAdvanced	22.0	22.0	25.0	25.0
	1xEVDO Rel. 0	22.0	22.0	25.0	25.0
	1xEVDO Rev. A	22.0	22.0	25.0	25.0
CDMA BC1	1xRTT	19.3	20.3	25.2	21.0
	1xAdvanced	19.3	20.3	25.2	21.0
	1xEVDO Rel. 0	19.3	20.3	25.2	21.0
	1xEVDO Rev. A	19.3	20.3	25.2	21.0
CDMA BC10	1xRTT	22.0	22.0	25.0	25.0
	1xAdvanced	22.0	22.0	25.0	25.0
	1xEVDO Rel. 0	22.0	22.0	25.0	25.0
	1xEVDO Rev. A	22.0	22.0	25.0	25.0
LTE Band 2	QPSK	19.3	20.3	24.5	21.0
LTE Band 4	QPSK	18.3	20.5	24.5	21.3
LTE Band 5	QPSK	21.5	21.5	24.0	24.0
LTE Band 7	QPSK	15.0	17.3	24.0	17.7
LTE Band 12	QPSK	22.0	22.0	24.5	24.5
LTE Band 13	QPSK	22.0	22.0	24.5	24.5
LTE Band 17	QPSK	22.0	22.0	24.5	24.5
LTE Band 25	QPSK	19.3	20.3	24.5	21.0
LTE Band 26	QPSK	21.5	21.5	24.0	24.0
LTE Band 27	QPSK	21.0	21.0	24.0	24.0
LTE Band 30	QPSK	15.3	18.0	22.3	18.3
LTE Band 41	QPSK	16.7	19.7	22.5	20.5
LTE-2CA Band 7	QPSK	15.0	17.3	23.0	17.7
LTE-2CA Band 41	QPSK	16.7	18.0	22.5	20.5

RF Air interface	Mode	Max. Avg. RF Output Power (dBm)
Bluetooth P_{high}		12.0
Bluetooth P_{low}		10.0
Bluetooth $P_{standalone}$		16.5

Notes:

1. LTE QPSK configuration has the highest maximum average output power per 3GPP standard.
2. Bluetooth P_{high} is used when Wi-Fi antenna is active and Cellular antenna is inactive.
3. Bluetooth P_{low} is used with Wi-Fi and Cellular antennas are active or with Wi-Fi inactive and Cellular antenna is active.
4. Bluetooth $P_{standalone}$ is used with Wi-Fi and Cellular antennas are inactive.

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6.3.1. WLAN SISO (P_{Cell_ON})

P_{Cell_ON}: This will be used when both Cellular and Wi-Fi radios are ON from Manufacturer KDB inquiry – Cellular State Dependent Wi-Fi Power control.

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11b	1 Tx	1	2412	10.5	18.0	13.0	13.8	Yes
			6	2437	10.5	18.0	13.0	13.8	
			11	2462	10.5	18.0	13.0	13.8	
			12	2467	10.5	18.0	13.0	13.8	
			13	2472	10.5	17.0	13.0	13.8	
	802.11g	1 Tx	1	2412	10.5	16.0	13.0	13.8	No
			2	2417	10.5	18.0	13.0	13.8	
			3	2422	10.5	18.0	13.0	13.8	
			6	2437	10.5	18.0	13.0	13.8	
			9	2452	10.5	18.0	13.0	13.8	
			10	2457	10.5	18.0	13.0	13.8	
			11	2462	10.5	15.0	13.0	13.8	
			12	2467	10.5	14.0	13.0	13.8	
			13	2472	5.0	5.0	5.0	5.0	
	802.11n	1 Tx HT20	1	2412	10.5	16.0	13.0	13.8	No
			2	2417	10.5	18.0	13.0	13.8	
			3	2422	10.5	18.0	13.0	13.8	
			6	2437	10.5	18.0	13.0	13.8	
			9	2452	10.5	18.0	13.0	13.8	
			10	2457	10.5	18.0	13.0	13.8	
			11	2462	10.5	15.0	13.0	13.8	
			12	2467	10.5	14.0	13.0	13.8	
			13	2472	5.0	5.0	5.0	5.0	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	1 Tx	36	5180	6.0	17.5	15.0	10.0	No
			40	5200	6.0	19.0	15.0	10.0	
			44	5220	6.0	19.0	15.0	10.0	
			48	5240	6.0	19.0	15.0	10.0	
	802.11n	1 Tx HT20	36	5180	6.0	17.5	15.0	10.0	No
			40	5200	6.0	19.0	15.0	10.0	
			44	5220	6.0	19.0	15.0	10.0	
			48	5240	6.0	19.0	15.0	10.0	
		1 Tx HT40	38	5190	6.0	16.5	15.0	10.0	No
			46	5230	6.0	19.0	15.0	10.0	
	802.11ac	1 Tx VHT20	36	5180	6.0	17.5	15.0	10.0	No
			40	5200	6.0	19.0	15.0	10.0	
			44	5220	6.0	19.0	15.0	10.0	
			48	5240	6.0	19.0	15.0	10.0	
		1 Tx VHT40	38	5190	6.0	16.5	15.0	10.0	No
			46	5230	6.0	19.0	15.0	10.0	
		1 Tx VHT80	42	5210	6.0	15.5	15.0	10.0	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	1 Tx	52	5260	5.5	19.0	14.3	10.5	No
			56	5280	5.5	19.0	14.3	10.5	
			60	5300	5.5	19.0	14.3	10.5	
			64	5320	5.5	16.0	14.3	10.5	
	802.11n	1 Tx HT20	52	5260	5.5	19.0	14.3	10.5	No
			56	5280	5.5	19.0	14.3	10.5	
			60	5300	5.5	19.0	14.3	10.5	
			64	5320	5.5	16.0	14.3	10.5	
		1 Tx HT40	54	5270	5.5	19.0	14.3	10.5	Yes
			62	5310	5.5	15.0	14.3	10.5	
	802.11ac	1 Tx VHT20	52	5260	5.5	19.0	14.3	10.5	No
			56	5280	5.5	19.0	14.3	10.5	
			60	5300	5.5	19.0	14.3	10.5	
			64	5320	5.5	16.0	14.3	10.5	
		1 Tx VHT40	54	5270	5.5	19.0	14.3	10.5	No
			62	5310	5.5	15.0	14.3	10.5	
		1 Tx VHT80	58	5290	5.5	14.0	14.0	10.5	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	1 Tx	100	5500	4.0	16.0	10.8	10.0	No
			104	5520	4.0	19.0	10.8	10.0	
			108	5540	4.0	19.0	10.8	10.0	
			112	5560	4.0	19.0	10.8	10.0	
			116	5580	4.0	19.0	10.8	10.0	
			120	5600	4.0	19.0	10.8	10.0	
			124	5620	4.0	19.0	10.8	10.0	
			128	5640	4.0	19.0	10.8	10.0	
			132	5660	4.0	19.0	10.8	10.0	
			136	5680	4.0	19.0	10.8	10.0	
			140	5700	4.0	16.5	10.8	10.0	
			144	5720	4.0	19.0	10.8	10.0	
	802.11n	1 Tx HT20	100	5500	4.0	16.0	10.8	10.0	No
			104	5520	4.0	19.0	10.8	10.0	
			108	5540	4.0	19.0	10.8	10.0	
			112	5560	4.0	19.0	10.8	10.0	
			116	5580	4.0	19.0	10.8	10.0	
			120	5600	4.0	19.0	10.8	10.0	
			124	5620	4.0	19.0	10.8	10.0	
			128	5640	4.0	19.0	10.8	10.0	
			132	5660	4.0	19.0	10.8	10.0	
			136	5680	4.0	19.0	10.8	10.0	
			140	5700	4.0	16.5	10.8	10.0	
			144	5720	4.0	19.0	10.8	10.0	
		1 Tx HT40	102	5510	4.0	15.0	10.8	10.0	No
			110	5550	4.0	19.0	10.8	10.0	
			118	5590	4.0	19.0	10.8	10.0	
			126	5630	4.0	19.0	10.8	10.0	
			134	5670	4.0	17.5	10.8	10.0	
			142	5710	4.0	19.0	10.8	10.0	
	802.11ac	1 Tx VHT20	100	5500	4.0	16.0	10.8	10.0	No
			104	5520	4.0	19.0	10.8	10.0	
			108	5540	4.0	19.0	10.8	10.0	
			112	5560	4.0	19.0	10.8	10.0	
			116	5580	4.0	19.0	10.8	10.0	
			120	5600	4.0	19.0	10.8	10.0	
			124	5620	4.0	19.0	10.8	10.0	
			128	5640	4.0	19.0	10.8	10.0	
			132	5660	4.0	19.0	10.8	10.0	
			136	5680	4.0	19.0	10.8	10.0	
			140	5700	4.0	16.5	10.8	10.0	
			144	5720	4.0	19.0	10.8	10.0	
		1 Tx VHT40	102	5510	4.0	15.0	10.8	10.0	No
			110	5550	4.0	19.0	10.8	10.0	
			118	5590	4.0	19.0	10.8	10.0	
			126	5630	4.0	19.0	10.8	10.0	
			134	5670	4.0	17.5	10.8	10.0	
			142	5710	4.0	19.0	10.8	10.0	
		1 Tx VHT80	106	5530	4.0	15.0	10.8	10.0	Yes
			122	5610	4.0	19.0	10.8	10.0	
			138	5690	4.0	19.0	10.8	10.0	

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	1 Tx	149	5745	4.8	19.0	10.8	10.3	No
			153	5765	4.8	19.0	10.8	10.3	
			157	5785	4.8	19.0	10.8	10.3	
			161	5805	4.8	19.0	10.8	10.3	
			165	5825	4.8	19.0	10.8	10.3	
	802.11n	1 Tx HT20	149	5745	4.8	19.0	10.8	10.3	No
			153	5765	4.8	19.0	10.8	10.3	
			157	5785	4.8	19.0	10.8	10.3	
			161	5805	4.8	19.0	10.8	10.3	
			165	5825	4.8	19.0	10.8	10.3	
		1 Tx HT40	151	5755	4.8	19.0	10.8	10.3	No
			159	5795	4.8	19.0	10.8	10.3	
	802.11ac	1 Tx VHT20	149	5745	4.8	19.0	10.8	10.3	No
			153	5765	4.8	19.0	10.8	10.3	
			157	5785	4.8	19.0	10.8	10.3	
			161	5805	4.8	19.0	10.8	10.3	
			165	5825	4.8	19.0	10.8	10.3	
		1 Tx VHT40	151	5755	4.8	19.0	10.8	10.3	No
			159	5795	4.8	19.0	10.8	10.3	
		1 Tx VHT80	155	5775	4.8	19.0	10.8	10.3	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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6.3.2. WLAN MIMO (P_{Cell_ON})

P_{Cell_ON}: This will be used when both Cellular and Wi-Fi radios are ON from Manufacturer KDB inquiry – Cellular State Dependent Wi-Fi Power control.

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max.Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11g	2 Tx CDD	1	2412	10.5	15.5	13.0	13.8	Yes
			2	2417	10.5	18.0	13.0	13.8	
			3	2422	10.5	18.0	13.0	13.8	
			6	2437	10.5	18.0	13.0	13.8	
			9	2452	10.5	18.0	13.0	13.8	
			10	2457	10.5	17.5	13.0	13.8	
			11	2462	10.5	14.5	13.0	13.8	
			12	2467	10.5	13.0	13.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	1	2412	10.5	15.5	13.0	13.8	No
			2	2417	10.5	18.0	13.0	13.8	
			3	2422	10.5	18.0	13.0	13.8	
			6	2437	10.5	18.0	13.0	13.8	
			9	2452	10.5	18.0	13.0	13.8	
			10	2457	10.5	17.5	13.0	13.8	
			11	2462	10.5	14.5	13.0	13.8	
			12	2467	10.5	13.0	13.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	2 Tx CDD	36	5180	6.0	17.0	15.0	10.0	No
			40	5200	6.0	17.0	15.0	10.0	
			44	5220	6.0	17.0	15.0	10.0	
			48	5240	6.0	17.0	15.0	10.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	6.0	17.0	15.0	10.0	No
			40	5200	6.0	17.0	15.0	10.0	
			44	5220	6.0	17.0	15.0	10.0	
			48	5240	6.0	17.0	15.0	10.0	
		2 Tx HT40 CDD/STBC/SDM	38	5190	6.0	14.5	14.5	10.0	Yes
			46	5230	6.0	19.0	15.0	10.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	6.0	17.0	15.0	10.0	No
			40	5200	6.0	17.0	15.0	10.0	
			44	5220	6.0	17.0	15.0	10.0	
			48	5240	6.0	17.0	15.0	10.0	
		2 Tx VHT40 CDD/STBC/SDM	38	5190	6.0	14.5	14.5	10.0	No
			46	5230	6.0	19.0	15.0	10.0	
		2 Tx VHT80 CDD/STBC/SDM	42	5210	6.0	15.0	15.0	10.0	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	2 Tx CDD	52	5260	5.5	17.0	14.3	10.5	No
			56	5280	5.5	17.0	14.3	10.5	
			60	5300	5.5	17.0	14.3	10.5	
			64	5320	5.5	16.0	14.3	10.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	5.5	17.0	14.3	10.5	No
			56	5280	5.5	17.0	14.3	10.5	
			60	5300	5.5	17.0	14.3	10.5	
			64	5320	5.5	16.0	14.3	10.5	
		2 Tx HT40 CDD/STBC/SDM	54	5270	5.5	19.0	14.3	10.5	No
			62	5310	5.5	14.5	14.3	10.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	5.5	17.0	14.3	10.5	No
			56	5280	5.5	17.0	14.3	10.5	
			60	5300	5.5	17.0	14.3	10.5	
			64	5320	5.5	16.0	14.3	10.5	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	5.5	19.0	14.3	10.5	No
			62	5310	5.5	14.5	14.3	10.5	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	5.5	13.0	13.0	10.5	No

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	2 Tx CDD	100	5500	4.0	16.0	10.8	10.0	No
			104	5520	4.0	17.0	10.8	10.0	
			108	5540	4.0	17.0	10.8	10.0	
			112	5560	4.0	17.0	10.8	10.0	
			116	5580	4.0	17.0	10.8	10.0	
			120	5600	4.0	17.0	10.8	10.0	
			124	5620	4.0	17.0	10.8	10.0	
			128	5640	4.0	17.0	10.8	10.0	
			132	5660	4.0	17.0	10.8	10.0	
			136	5680	4.0	17.0	10.8	10.0	
			140	5700	4.0	16.5	10.8	10.0	
			144	5720	4.0	17.0	10.8	10.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	4.0	16.0	10.8	10.0	No
			104	5520	4.0	17.0	10.8	10.0	
			108	5540	4.0	17.0	10.8	10.0	
			112	5560	4.0	17.0	10.8	10.0	
			116	5580	4.0	17.0	10.8	10.0	
			120	5600	4.0	17.0	10.8	10.0	
			124	5620	4.0	17.0	10.8	10.0	
			128	5640	4.0	17.0	10.8	10.0	
			132	5660	4.0	17.0	10.8	10.0	
			136	5680	4.0	17.0	10.8	10.0	
			140	5700	4.0	16.5	10.8	10.0	
			144	5720	4.0	17.0	10.8	10.0	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	4.0	15.0	10.8	10.0	No
			110	5550	4.0	19.0	10.8	10.0	
			118	5590	4.0	19.0	10.8	10.0	
			126	5630	4.0	19.0	10.8	10.0	
			134	5670	4.0	17.5	10.8	10.0	
			142	5710	4.0	19.0	10.8	10.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	4.0	16.0	10.8	10.0	No
			104	5520	4.0	17.0	10.8	10.0	
			108	5540	4.0	17.0	10.8	10.0	
			112	5560	4.0	17.0	10.8	10.0	
			116	5580	4.0	17.0	10.8	10.0	
			120	5600	4.0	17.0	10.8	10.0	
			124	5620	4.0	17.0	10.8	10.0	
			128	5640	4.0	17.0	10.8	10.0	
			132	5660	4.0	17.0	10.8	10.0	
			136	5680	4.0	17.0	10.8	10.0	
			140	5700	4.0	16.5	10.8	10.0	
			144	5720	4.0	17.0	10.8	10.0	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	4.0	15.0	10.8	10.0	No
			110	5550	4.0	19.0	10.8	10.0	
			118	5590	4.0	19.0	10.8	10.0	
			126	5630	4.0	19.0	10.8	10.0	
			134	5670	4.0	17.5	10.8	10.0	
			142	5710	4.0	19.0	10.8	10.0	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	4.0	14.0	10.8	10.0	Yes
			122	5610	4.0	19.0	10.8	10.0	
			138	5690	4.0	19.0	10.8	10.0	

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	2 Tx CDD	149	5745	4.8	19.0	10.8	10.3	No
			153	5765	4.8	19.0	10.8	10.3	
			157	5785	4.8	19.0	10.8	10.3	
			161	5805	4.8	19.0	10.8	10.3	
			165	5825	4.8	19.0	10.8	10.3	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	4.8	19.0	10.8	10.3	No
			153	5765	4.8	19.0	10.8	10.3	
			157	5785	4.8	19.0	10.8	10.3	
			161	5805	4.8	19.0	10.8	10.3	
			165	5825	4.8	19.0	10.8	10.3	
		2 Tx HT40 CDD/STBC/SDM	151	5755	4.8	19.0	10.8	10.3	Yes
			159	5795	4.8	19.0	10.8	10.3	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	4.8	19.0	10.8	10.3	No
			153	5765	4.8	19.0	10.8	10.3	
			157	5785	4.8	19.0	10.8	10.3	
			161	5805	4.8	19.0	10.8	10.3	
			165	5825	4.8	19.0	10.8	10.3	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	4.8	19.0	10.8	10.3	No
			159	5795	4.8	19.0	10.8	10.3	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	4.8	18.5	10.8	10.3	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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6.3.3. WLAN SISO (P_{Cell_OFF})

P_{Cell_OFF}: This will be used when only Wi-Fi radios is ON from Manufacturer KDB inquiry – Cellular State Dependent Wi-Fi Power control.

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11b	1 Tx	1	2412	15.8	19.0	17.3	19.0	Yes
			6	2437	15.8	19.0	17.3	19.0	
			11	2462	15.8	19.0	17.3	19.0	
			12	2467	15.8	18.5	17.3	18.5	
			13	2472	15.8	17.0	17.0	17.0	
	802.11g	1 Tx	1	2412	15.8	16.0	16.0	16.0	No
			2	2417	15.8	18.0	17.3	18.0	
			3	2422	15.8	19.0	17.3	19.0	
			6	2437	15.8	19.0	17.3	19.0	
			9	2452	15.8	19.0	17.3	19.0	
			10	2457	15.8	19.0	17.3	19.0	
			11	2462	15.0	15.0	15.0	15.0	
			12	2467	14.0	14.0	14.0	14.0	
			13	2472	5.0	5.0	5.0	5.0	
	802.11n	1 Tx HT20	1	2412	15.8	16.0	16.0	16.0	No
			2	2417	15.8	18.0	17.3	18.0	
			3	2422	15.8	19.0	17.3	19.0	
			6	2437	15.8	19.0	17.3	19.0	
			9	2452	15.8	19.0	17.3	19.0	
			10	2457	15.8	19.0	17.3	19.0	
			11	2462	15.0	15.0	15.0	15.0	
			12	2467	14.0	14.0	14.0	14.0	
			13	2472	5.0	5.0	5.0	5.0	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	1 Tx	36	5180	13.8	17.5	17.5	16.7	No
			40	5200	13.8	19.0	19.5	16.7	
			44	5220	13.8	19.0	19.5	16.7	
			48	5240	13.8	19.0	19.5	16.7	
	802.11n	1 Tx HT20	36	5180	13.8	17.5	17.5	16.7	No
			40	5200	13.8	19.0	19.5	16.7	
			44	5220	13.8	19.0	19.5	16.7	
			48	5240	13.8	19.0	19.5	16.7	
		1 Tx HT40	38	5190	13.8	16.5	16.5	16.5	No
			46	5230	13.8	19.0	19.0	16.7	
	802.11ac	1 Tx VHT20	36	5180	13.8	17.5	17.5	16.7	No
			40	5200	13.8	19.0	19.5	16.7	
			44	5220	13.8	19.0	19.5	16.7	
			48	5240	13.8	19.0	19.5	16.7	
		1 Tx VHT40	38	5190	13.8	16.5	16.5	16.5	No
			46	5230	13.8	19.0	19.0	16.7	
		1 Tx VHT80	42	5210	13.8	15.5	15.5	15.5	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	1 Tx	52	5260	13.3	19.0	19.5	17.3	Yes
			56	5280	13.3	19.0	19.5	17.3	
			60	5300	13.3	19.0	19.5	17.3	
			64	5320	13.3	16.0	16.0	16.0	
	802.11n	1 Tx HT20	52	5260	13.3	19.0	19.5	17.3	No
			56	5280	13.3	19.0	19.5	17.3	
			60	5300	13.3	19.0	19.5	17.3	
			64	5320	13.3	16.0	16.0	16.0	
		1 Tx HT40	54	5270	13.3	19.0	19.0	17.3	Yes
			62	5310	13.3	15.0	15.0	15.0	
	802.11ac	1 Tx VHT20	52	5260	13.3	19.0	19.5	17.3	No
			56	5280	13.3	19.0	19.5	17.3	
			60	5300	13.3	19.0	19.5	17.3	
			64	5320	13.3	16.0	16.0	16.0	
		1 Tx VHT40	54	5270	13.3	19.0	19.0	17.3	No
			62	5310	13.3	15.0	15.0	15.0	
		1 Tx VHT80	58	5290	13.3	14.0	14.0	14.0	No

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	1 Tx	100	5500	11.8	16.0	16.0	16.0	No
			104	5520	11.8	19.0	16.0	16.8	
			108	5540	11.8	19.0	16.0	16.8	
			112	5560	11.8	19.0	16.0	16.8	
			116	5580	11.8	19.0	16.0	16.8	
			120	5600	11.8	19.0	16.0	16.8	
			124	5620	11.8	19.0	16.0	16.8	
			128	5640	11.8	19.0	16.0	16.8	
			132	5660	11.8	19.0	16.0	16.8	
			136	5680	11.8	19.0	16.0	16.8	
			140	5700	11.8	16.5	16.0	16.5	
			144	5720	11.8	19.0	16.0	16.8	
	802.11n	1 Tx HT20	100	5500	11.8	16.0	16.0	16.0	No
			104	5520	11.8	19.0	16.0	16.8	
			108	5540	11.8	19.0	16.0	16.8	
			112	5560	11.8	19.0	16.0	16.8	
			116	5580	11.8	19.0	16.0	16.8	
			120	5600	11.8	19.0	16.0	16.8	
			124	5620	11.8	19.0	16.0	16.8	
			128	5640	11.8	19.0	16.0	16.8	
			132	5660	11.8	19.0	16.0	16.8	
			136	5680	11.8	19.0	16.0	16.8	
			140	5700	11.8	16.5	16.0	16.5	
			144	5720	11.8	19.0	16.0	16.8	
		1 Tx HT40	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	16.8	
			118	5590	11.8	19.0	16.0	16.8	
			126	5630	11.8	19.0	16.0	16.8	
			134	5670	11.8	17.5	16.0	16.8	
			142	5710	11.8	19.0	16.0	16.8	
	802.11ac	1 Tx VHT20	100	5500	11.8	16.0	16.0	16.0	No
			104	5520	11.8	19.0	16.0	16.8	
			108	5540	11.8	19.0	16.0	16.8	
			112	5560	11.8	19.0	16.0	16.8	
			116	5580	11.8	19.0	16.0	16.8	
			120	5600	11.8	19.0	16.0	16.8	
			124	5620	11.8	19.0	16.0	16.8	
			128	5640	11.8	19.0	16.0	16.8	
			132	5660	11.8	19.0	16.0	16.8	
			136	5680	11.8	19.0	16.0	16.8	
			140	5700	11.8	16.5	16.0	16.5	
			144	5720	11.8	19.0	16.0	16.8	
		1 Tx VHT40	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	16.8	
			118	5590	11.8	19.0	16.0	16.8	
			126	5630	11.8	19.0	16.0	16.8	
			134	5670	11.8	17.5	16.0	16.8	
			142	5710	11.8	19.0	16.0	16.8	
		1 Tx VHT80	106	5530	11.8	15.0	15.0	15.0	Yes
			122	5610	11.8	19.0	16.0	16.8	
			138	5690	11.8	19.0	16.0	16.8	

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	1 Tx	149	5745	12.5	19.0	16.3	17.3	No
			153	5765	12.5	19.0	16.3	17.3	
			157	5785	12.5	19.0	16.3	17.3	
			161	5805	12.5	19.0	16.3	17.3	
			165	5825	12.5	19.0	16.3	17.3	
	802.11n	1 Tx HT20	149	5745	12.5	19.0	16.3	17.3	No
			153	5765	12.5	19.0	16.3	17.3	
			157	5785	12.5	19.0	16.3	17.3	
			161	5805	12.5	19.0	16.3	17.3	
			165	5825	12.5	19.0	16.3	17.3	
		1 Tx HT40	151	5755	12.5	19.0	16.3	17.3	No
			159	5795	12.5	19.0	16.3	17.3	
	802.11ac	1 Tx VHT20	149	5745	12.5	19.0	16.3	17.3	No
			153	5765	12.5	19.0	16.3	17.3	
			157	5785	12.5	19.0	16.3	17.3	
			161	5805	12.5	19.0	16.3	17.3	
			165	5825	12.5	19.0	16.3	17.3	
		1 Tx VHT40	151	5755	12.5	19.0	16.3	17.3	No
			159	5795	12.5	19.0	16.3	17.3	
		1 Tx VHT80	155	5775	12.5	19.0	16.3	17.3	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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6.3.4. WLAN MIMO (P_{Cell_OFF})

P_{Cell_OFF}: This will be used when only Wi-Fi radios is ON from Manufacturer KDB inquiry – Cellular State Dependent Wi-Fi Power control.

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11g	2 Tx CDD	1	2412	15.5	15.5	15.5	15.5	Yes
			2	2417	15.8	18.0	17.3	18.0	
			3	2422	15.8	19.0	17.3	19.0	
			6	2437	15.8	19.0	17.3	19.0	
			9	2452	15.8	19.0	17.3	19.0	
			10	2457	15.8	17.5	17.3	17.5	
			11	2462	14.5	14.5	14.5	14.5	
			12	2467	13.0	13.0	13.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	1	2412	15.5	15.5	15.5	15.5	No
			2	2417	15.8	18.0	17.3	18.0	
			3	2422	15.8	19.0	17.3	19.0	
			6	2437	15.8	19.0	17.3	19.0	
			9	2452	15.8	19.0	17.3	19.0	
			10	2457	15.8	17.5	17.3	17.5	
			11	2462	14.5	14.5	14.5	14.5	
			12	2467	13.0	13.0	13.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	2 Tx CDD	36	5180	13.8	17.0	17.0	16.7	No
			40	5200	13.8	17.0	17.0	16.7	
			44	5220	13.8	17.0	17.0	16.7	
			48	5240	13.8	17.0	17.0	16.7	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	13.8	17.0	17.0	16.7	No
			40	5200	13.8	17.0	17.0	16.7	
			44	5220	13.8	17.0	17.0	16.7	
			48	5240	13.8	17.0	17.0	16.7	
		2 Tx HT40 CDD/STBC/SDM	38	5190	13.8	14.5	14.5	14.5	Yes
			46	5230	13.8	19.0	19.0	16.7	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	13.8	17.0	17.0	16.7	No
			40	5200	13.8	17.0	17.0	16.7	
			44	5220	13.8	17.0	17.0	16.7	
			48	5240	13.8	17.0	17.0	16.7	
		2 Tx VHT40 CDD/STBC/SDM	38	5190	13.8	14.5	14.5	14.5	No
			46	5230	13.8	19.0	19.0	16.7	
		2 Tx VHT80 CDD/STBC/SDM	42	5210	13.8	15.0	15.0	15.0	No

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	2 Tx CDD	52	5260	13.3	17.0	17.0	17.0	No
			56	5280	13.3	17.0	17.0	17.0	
			60	5300	13.3	17.0	17.0	17.0	
			64	5320	13.3	16.0	16.0	16.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	13.3	17.0	17.0	17.0	No
			56	5280	13.3	17.0	17.0	17.0	
			60	5300	13.3	17.0	17.0	17.0	
			64	5320	13.3	16.0	16.0	16.0	
		2 Tx HT40 CDD/STBC/SDM	54	5270	13.3	19.0	19.0	17.3	Yes
			62	5310	13.3	14.5	14.5	14.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	13.3	17.0	17.0	17.0	No
			56	5280	13.3	17.0	17.0	17.0	
			60	5300	13.3	17.0	17.0	17.0	
			64	5320	13.3	16.0	16.0	16.0	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	13.3	19.0	19.0	17.3	No
			62	5310	13.3	14.5	14.5	14.5	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	13.0	13.0	13.0	13.0	No

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	2 Tx CDD	100	5500	11.8	16.0	16.0	16.0	No
			104	5520	11.8	17.0	16.0	16.8	
			108	5540	11.8	17.0	16.0	16.8	
			112	5560	11.8	17.0	16.0	16.8	
			116	5580	11.8	17.0	16.0	16.8	
			120	5600	11.8	17.0	16.0	16.8	
			124	5620	11.8	17.0	16.0	16.8	
			128	5640	11.8	17.0	16.0	16.8	
			132	5660	11.8	17.0	16.0	16.8	
			136	5680	11.8	17.0	16.0	16.8	
			140	5700	11.8	16.5	16.0	16.5	
			144	5720	11.8	17.0	16.0	16.8	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	11.8	16.0	16.0	16.0	No
			104	5520	11.8	17.0	16.0	16.8	
			108	5540	11.8	17.0	16.0	16.8	
			112	5560	11.8	17.0	16.0	16.8	
			116	5580	11.8	17.0	16.0	16.8	
			120	5600	11.8	17.0	16.0	16.8	
			124	5620	11.8	17.0	16.0	16.8	
			128	5640	11.8	17.0	16.0	16.8	
			132	5660	11.8	17.0	16.0	16.8	
			136	5680	11.8	17.0	16.0	16.8	
			140	5700	11.8	16.5	16.0	16.5	
			144	5720	11.8	17.0	16.0	16.8	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	16.8	
			118	5590	11.8	19.0	16.0	16.8	
			126	5630	11.8	19.0	16.0	16.8	
			134	5670	11.8	17.5	16.0	16.8	
			142	5710	11.8	19.0	16.0	16.8	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	11.8	16.0	16.0	16.0	No
			104	5520	11.8	17.0	16.0	16.8	
			108	5540	11.8	17.0	16.0	16.8	
			112	5560	11.8	17.0	16.0	16.8	
			116	5580	11.8	17.0	16.0	16.8	
			120	5600	11.8	17.0	16.0	16.8	
			124	5620	11.8	17.0	16.0	16.8	
			128	5640	11.8	17.0	16.0	16.8	
			132	5660	11.8	17.0	16.0	16.8	
			136	5680	11.8	17.0	16.0	16.8	
			140	5700	11.8	16.5	16.0	16.5	
			144	5720	11.8	17.0	16.0	16.8	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	16.8	
			118	5590	11.8	19.0	16.0	16.8	
			126	5630	11.8	19.0	16.0	16.8	
			134	5670	11.8	17.5	16.0	16.8	
			142	5710	11.8	19.0	16.0	16.8	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	11.8	14.0	14.0	14.0	Yes
			122	5610	11.8	19.0	16.0	16.8	
			138	5690	11.8	19.0	16.0	16.8	

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	2 Tx CDD	149	5745	12.5	19.0	16.3	17.3	No
			153	5765	12.5	19.0	16.3	17.3	
			157	5785	12.5	19.0	16.3	17.3	
			161	5805	12.5	19.0	16.3	17.3	
			165	5825	12.5	19.0	16.3	17.3	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	12.5	19.0	16.3	17.3	No
			153	5765	12.5	19.0	16.3	17.3	
			157	5785	12.5	19.0	16.3	17.3	
			161	5805	12.5	19.0	16.3	17.3	
			165	5825	12.5	19.0	16.3	17.3	
		2 Tx HT40 CDD/STBC/SDM	151	5755	12.5	19.0	16.3	17.3	Yes
			159	5795	12.5	19.0	16.3	17.3	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	12.5	19.0	16.3	17.3	No
			153	5765	12.5	19.0	16.3	17.3	
			157	5785	12.5	19.0	16.3	17.3	
			161	5805	12.5	19.0	16.3	17.3	
			165	5825	12.5	19.0	16.3	17.3	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	12.5	19.0	16.3	17.3	No
			159	5795	12.5	19.0	16.3	17.3	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	12.5	18.5	16.3	17.3	Yes

Notes:

1. "Yes" = considered for output power measurement and SAR testing. "No" = SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

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6.4. General LTE SAR Test and Reporting Considerations

Item	Description						
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	18700/ 1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5	18607/ 1850.7
	Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
	High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19185/ 1908.5	19193/ 1909.3
	Band 4	Frequency range: 1710 - 1755 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5	19957/ 1710.7
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
	High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5	20393/ 1754.3
	Band 5	Frequency range: 824 - 849 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			20450/ 829	20425/ 826.5	20415/ 825.5	20407/ 824.7
	Mid			20525/ 836.5	20525/ 836.5	20525/ 836.5	20525/ 836.5
	High			20600/ 844	20625/ 846.5	20635/ 847.5	20643/ 848.3
	Band 7	Frequency range: 2500 - 2570 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20850 2510	20825 2507.5	20800 2505	20775 2502.5		
	Mid	21100 2535	21100 2535	21100 2535	21100 2535		
	High	21350 2560	21375 2562.5	21400 2565	21425 2567.5		
	Band 12	Frequency range: 699 – 716 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			23060/ 704	23035/ 701.5	23025/ 700.5	23017/ 699.7
	Mid			23095/ 707.5	23095/ 707.5	23095/ 707.5	23095/ 707.5
	High			23130/ 711	23155/ 713.5	23165/ 714.5	23173/ 715.3
	Band 13	Frequency range: 777 - 787 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23205/ 779.5		
	Mid			23230/ 782	23230/ 782		
	High				23255/ 784.5		

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General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies

Band 17	Frequency range: 704 - 716 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low				23755/ 706.5		
Mid			23790/ 710	23790/ 710		
High				23825/ 713.5		

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

Band 26	Frequency range: 814 - 849 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low			26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7
Mid			26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5
High			26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3

Band 27	Frequency range: 814 - 824 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low				27135/ 816.5	27125/ 815.5	27117/ 814.7
Mid			27160/ 819	27160/ 819	27160/ 819	27160/ 819
High				27185/ 821.5	27195/ 822.5	27203/ 823.3

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

Band 41	Frequency range: 2496 - 2690 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	39750 / 2506.0					
Low-Mid	40185 / 2549.5					
Mid	40620 / 2593.0					
Mid-High	41055 / 2636.5					
High	41490 / 2680.0					

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General LTE SAR Test and Reporting Considerations (Continued)

LTE transmitter and antenna implementation	LTE can transmit from either UAT (Secondary Antenna) or LAT (Primary Antenna). The antenna switching is implemented with a physical, “break-before-make” switch such that only one antenna can be used for LTE transmission at a time.
Maximum power reduction (MPR)	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3** MPR Built-in by design. The manufacturer Target 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.
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.

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

Notes:

1. SAR testing for LTE was performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

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6.5. 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.

SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.

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

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

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Calculated Duty Cycle

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

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

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

Notes:

1. This device supports uplink-downlink configuration 0-6. The configuration with the highest duty cycle was used (config. 0 at 63.3%).

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7. RF Exposure Conditions (Test Configurations)

WWAN antennas are located near the upper and lower edge of the device. WLAN antennas are located near the upper left and lower right corners of the device.

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

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

Upper Antenna

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

Notes:

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

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Lower Antenna

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

Notes:

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

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8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.

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

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

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

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Dielectric Property Measurements Results:

SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
A	6/15/2016	1750	Head	1750	38.74	40.08	-3.35	1.34	1.37	-2.19
				1710	38.74	40.15	-3.50	1.30	1.35	-3.45
				1755	38.75	40.08	-3.31	1.34	1.37	-2.03
A	6/15/2016	1750	Body	1750	51.33	53.44	-3.95	1.48	1.49	-0.68
				1710	51.34	53.54	-4.12	1.43	1.46	-2.23
				1755	51.36	53.43	-3.87	1.48	1.49	-0.55
A	6/19/2016	1750	Head	1750	39.19	40.08	-2.23	1.34	1.37	-1.90
				1710	39.33	40.15	-2.03	1.31	1.35	-3.00
				1755	39.19	40.08	-2.21	1.35	1.37	-1.81
A	6/19/2016	1750	Body	1750	52.00	53.44	-2.70	1.48	1.49	-0.28
				1710	52.14	53.54	-2.62	1.44	1.46	-1.61
				1755	52.01	53.43	-2.65	1.49	1.49	-0.22
A	6/23/2016	1750	Head	1750	40.17	40.08	0.21	1.34	1.37	-2.34
				1710	40.33	40.15	0.46	1.30	1.35	-3.45
				1755	40.15	40.08	0.18	1.34	1.37	-2.24
A	6/23/2016	1750	Body	1750	53.38	53.44	-0.11	1.49	1.49	0.46
				1710	53.49	53.54	-0.10	1.45	1.46	-0.86
				1755	53.36	53.43	-0.13	1.50	1.49	0.52
A	6/26/2016	2300	Head	2300	39.23	39.47	-0.61	1.70	1.66	2.30
				2350	39.04	39.38	-0.88	1.76	1.71	2.83
				2400	38.84	39.30	-1.16	1.81	1.75	3.27
A	6/26/2016	2300	Body	2300	52.13	52.90	-1.46	1.85	1.80	2.74
				2350	51.99	52.84	-1.61	1.91	1.85	3.15
				2400	51.80	52.77	-1.84	1.97	1.90	3.63
A	6/30/2016	2300	Body	2300	52.18	52.90	-1.37	1.85	1.80	2.36
				2350	52.03	52.84	-1.53	1.90	1.85	2.71
				2400	51.83	52.77	-1.79	1.96	1.90	3.05
A	6/30/2016	2300	Head	2300	38.75	39.47	-1.83	1.69	1.66	1.76
				2350	38.57	39.38	-2.07	1.75	1.71	2.24
				2400	38.38	39.30	-2.33	1.80	1.75	2.70
B	6/15/2016	2600	Body	2600	50.74	52.51	-3.37	2.20	2.16	1.63
				2495	51.08	52.64	-2.97	2.07	2.01	3.02
				2690	50.32	52.40	-3.96	2.28	2.29	-0.14
B	6/19/2016	2600	Body	2600	52.85	52.51	0.65	2.21	2.16	2.05
				2495	53.11	52.64	0.89	2.07	2.01	2.97
				2690	52.57	52.40	0.33	2.32	2.29	1.30
B	6/23/2016	2600	Body	2600	52.50	52.51	-0.02	2.20	2.16	1.81
				2495	53.53	52.64	1.68	2.06	2.01	2.32
				2690	52.53	52.40	0.25	2.32	2.29	1.43
B	6/27/2016	2600	Body	2600	51.27	52.51	-2.36	2.20	2.16	1.58
				2495	51.56	52.64	-2.06	2.07	2.01	2.87
				2690	51.15	52.40	-2.38	2.31	2.29	0.99

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
C	6/23/2016	1900	Head	1900	39.09	40.00	-2.27	1.44	1.40	3.14
				1850	39.31	40.00	-1.72	1.40	1.40	0.00
				1920	39.03	40.00	-2.43	1.46	1.40	4.29
C	6/23/2016	1900	Body	1900	52.20	53.30	-2.06	1.55	1.52	1.84
				1850	52.38	53.30	-1.73	1.50	1.52	-1.18
				1920	52.14	53.30	-2.18	1.57	1.52	2.96
C	6/27/2016	1900	Head	1900	39.91	40.00	-0.23	1.39	1.40	-0.57
				1850	40.02	40.00	0.05	1.35	1.40	-3.29
				1920	39.84	40.00	-0.40	1.41	1.40	0.71
C	6/27/2016	1900	Body	1900	52.71	53.30	-1.11	1.56	1.52	2.89
				1850	52.76	53.30	-1.01	1.53	1.52	0.46
				1920	52.66	53.30	-1.20	1.58	1.52	4.14
C	7/1/2016	1900	Body	1900	52.41	53.30	-1.67	1.56	1.52	2.57
				1850	52.49	53.30	-1.52	1.52	1.52	0.13
				1920	52.35	53.30	-1.78	1.58	1.52	3.82
C	7/5/2016	1900	Head	1900	40.03	40.00	0.08	1.45	1.40	3.57
				1850	39.95	40.00	-0.12	1.43	1.40	2.07
				1920	39.98	40.00	-0.05	1.47	1.40	4.93
C	7/5/2016	1900	Body	1900	51.75	53.30	-2.91	1.55	1.52	2.17
				1850	51.36	53.30	-3.64	1.54	1.52	1.38
				1920	51.65	53.30	-3.10	1.57	1.52	3.55
D	6/15/2016	2600	Head	2600	38.61	39.01	-1.03	2.02	1.96	2.95
				2495	39.01	39.14	-0.34	1.91	1.85	3.10
				2690	38.22	38.90	-1.74	2.11	2.06	2.21
D	6/15/2016	2600	Body	2600	52.37	52.51	-0.27	2.14	2.16	-0.96
				2495	52.71	52.64	0.13	2.02	2.01	0.43
				2690	51.97	52.40	-0.82	2.23	2.29	-2.59
D	6/19/2016	2600	Head	2600	39.34	39.01	0.84	1.99	1.96	1.57
				2495	39.70	39.14	1.42	1.88	1.85	1.59
				2690	39.05	38.90	0.39	2.09	2.06	1.43
D	6/19/2016	2600	Body	2600	52.37	52.51	-0.27	2.16	2.16	-0.27
				2495	52.65	52.64	0.01	2.03	2.01	0.88
				2690	52.11	52.40	-0.55	2.26	2.29	-1.37
D	6/23/2016	2600	Head	2600	39.68	39.01	1.72	2.02	1.96	2.95
				2495	40.04	39.14	2.29	1.90	1.85	2.89
				2690	39.38	38.90	1.24	2.12	2.06	3.04

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
E	6/16/2016	5800	Body	5800	46.36	48.20	-3.82	6.05	6.00	0.77
				5700	46.49	48.34	-3.83	5.92	5.88	0.69
				5850	46.28	48.20	-3.98	6.13	6.00	2.08
E	6/16/2016	5800	Head	5800	36.23	35.30	2.41	5.22	5.27	0.15
				5700	36.35	35.42	2.63	5.11	5.16	-1.00
				5850	36.15	35.30	2.61	5.28	5.27	-0.97
E	6/20/2016	5800	Head	5800	35.97	35.30	1.90	5.07	5.27	-3.72
				5700	36.02	35.42	1.69	4.96	5.16	-4.02
				5850	35.91	35.30	1.73	5.15	5.27	-2.35
E	6/20/2016	5800	Body	5800	47.29	48.20	-1.89	6.09	6.00	1.50
				5700	47.37	48.34	-2.01	5.95	5.88	1.21
				5850	47.22	48.20	-2.03	6.19	6.00	3.08
E	6/24/2016	5800	Head	5800	34.63	35.30	-1.90	5.13	5.27	-2.62
				5700	34.75	35.42	-1.89	5.03	5.16	-2.53
				5850	34.58	35.30	-2.04	5.19	5.27	-1.46
E	6/24/2016	5800	Body	5800	46.20	48.20	-4.15	6.18	6.00	3.05
				5700	46.46	48.34	-3.89	6.04	5.88	2.78
				5850	46.21	48.20	-4.13	6.25	6.00	4.13
E	6/28/2016	5800	Head	5800	36.50	35.30	3.40	5.46	5.27	3.66
				5700	36.70	35.42	3.61	5.35	5.16	3.67
				5850	36.46	35.30	3.29	5.53	5.27	4.95
E	6/28/2016	5800	Body	5800	46.88	48.20	-2.74	5.99	6.00	-0.25
				5700	47.11	48.34	-2.55	5.87	5.88	-0.20
				5850	46.96	48.20	-2.57	6.05	6.00	0.88
E	7/2/2016	5800	Head	5800	35.98	35.30	1.93	5.21	5.27	-1.14
				5700	36.14	35.42	2.03	5.10	5.16	-1.15
				5850	35.91	35.30	1.73	5.28	5.27	0.11
E	7/2/2016	5800	Body	5800	47.64	48.20	-1.16	6.20	6.00	3.32
				5700	47.81	48.34	-1.10	6.06	5.88	3.02
				5850	47.55	48.20	-1.35	6.28	6.00	4.72
F	6/16/2016	2450	Head	2450	39.20	39.20	0.00	1.86	1.80	3.56
				2400	39.39	39.30	0.24	1.81	1.75	3.27
				2480	39.08	39.16	-0.21	1.90	1.83	3.41
F	6/16/2016	2450	Body	2450	50.83	52.70	-3.55	2.02	1.95	3.54
				2400	50.95	52.77	-3.45	1.97	1.90	3.69
				2480	50.72	52.66	-3.69	2.05	1.99	3.00
F	6/20/2016	2450	Head	2450	40.63	39.20	3.65	1.80	1.80	-0.22
				2400	40.81	39.30	3.85	1.74	1.75	-0.49
				2480	40.50	39.16	3.42	1.83	1.83	0.03
F	6/20/2016	2450	Body	2450	51.57	52.70	-2.14	1.92	1.95	-1.54
				2400	51.69	52.77	-2.05	1.87	1.90	-1.32
				2480	51.49	52.66	-2.23	1.96	1.99	-1.77

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
F	6/24/2016	2450	Body	2450	51.75	52.70	-1.80	1.96	1.95	0.56
				2400	51.86	52.77	-1.73	1.91	1.90	0.58
				2480	51.67	52.66	-1.88	2.00	1.99	0.14
F	6/28/2016	2450	Head	2450	39.02	39.20	-0.46	1.86	1.80	3.17
				2400	39.20	39.30	-0.25	1.80	1.75	2.87
				2480	38.90	39.16	-0.67	1.89	1.83	3.31
F	6/28/2016	2450	Body	2450	54.27	52.70	2.98	2.04	1.95	4.46
				2400	54.39	52.77	3.06	1.98	1.90	4.48
				2480	54.20	52.66	2.92	2.08	1.99	4.21
F	7/2/2016	2450	Body	2450	50.47	52.70	-4.23	2.02	1.95	3.54
				2400	50.61	52.77	-4.10	1.96	1.90	3.27
				2480	50.39	52.66	-4.31	2.05	1.99	3.10
F	7/2/2016	2450	Head	2450	38.89	39.20	-0.79	1.89	1.80	4.89
				2400	39.10	39.30	-0.50	1.83	1.75	4.30
				2480	38.76	39.16	-1.03	1.92	1.83	4.89
G	6/16/2016	5600	Head	5600	36.68	35.53	3.23	4.98	5.06	-1.51
				5500	36.85	35.65	3.37	4.88	4.96	-1.51
				5725	36.53	35.39	3.22	5.11	5.19	-1.47
G	6/16/2016	5600	Body	5600	47.42	48.48	-2.18	5.84	5.76	1.44
				5500	47.62	48.61	-2.04	5.72	5.64	1.27
				5725	47.24	48.31	-2.21	6.01	5.91	1.73
G	6/20/2016	5600	Head	5600	35.00	35.53	-1.50	4.97	5.06	-1.80
				5500	35.12	35.65	-1.48	4.85	4.96	-2.16
				5725	34.83	35.39	-1.59	5.11	5.19	-1.54
G	6/20/2016	5600	Body	5600	47.28	48.48	-2.47	5.92	5.76	2.83
				5500	47.44	48.61	-2.41	5.78	5.64	2.33
				5725	47.11	48.31	-2.48	6.09	5.91	3.09
G	6/24/2016	5600	Head	5600	34.99	35.53	-1.53	5.00	5.06	-1.13
				5500	34.99	35.65	-1.85	5.00	4.96	0.91
				5725	34.83	35.39	-1.59	5.14	5.19	-0.99
G	6/24/2016	5600	Body	5600	47.07	48.48	-2.90	5.78	5.76	0.33
				5500	47.24	48.61	-2.82	5.64	5.64	-0.10
				5725	46.92	48.31	-2.87	5.95	5.91	0.77
G	6/28/2016	5600	Head	5600	34.25	35.53	-3.61	4.93	5.06	-2.57
				5500	34.45	35.65	-3.36	4.83	4.96	-2.60
				5725	34.09	35.39	-3.68	5.06	5.19	-2.47
G	6/28/2016	5600	Body	5600	47.19	48.48	-2.66	5.83	5.76	1.27
				5500	47.37	48.61	-2.56	5.70	5.64	0.90
				5725	47.07	48.31	-2.56	6.00	5.91	1.56
G	7/2/2016	5600	Body	5600	46.17	48.48	-4.76	5.98	5.76	3.82
				5500	46.34	48.61	-4.68	5.85	5.64	3.61
				5725	45.93	48.31	-4.92	6.16	5.91	4.34

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
H	6/16/2016	5200	Head	5200	35.56	35.99	-1.20	4.54	4.65	-2.39
				5150	35.62	36.05	-1.19	4.49	4.60	-2.34
				5350	35.35	35.82	-1.31	4.69	4.80	-2.36
H	6/16/2016	5200	Body	5200	47.54	49.02	-3.02	5.45	5.29	2.88
				5150	47.61	49.09	-3.01	5.38	5.24	2.76
				5350	47.30	48.82	-3.11	5.65	5.47	3.34
H	6/20/2016	5200	Head	5200	35.36	35.99	-1.75	4.53	4.65	-2.56
				5150	35.42	36.05	-1.74	4.50	4.60	-2.19
				5350	35.10	35.82	-2.01	4.70	4.80	-2.26
H	6/20/2016	5200	Body	5200	47.91	49.02	-2.26	5.25	5.29	-0.94
				5150	47.99	49.09	-2.24	5.18	5.24	-1.06
				5350	47.67	48.82	-2.35	5.43	5.47	-0.71
H	6/24/2016	5200	Body	5200	47.72	49.02	-2.65	5.31	5.29	0.19
				5150	47.70	49.09	-2.83	5.23	5.24	-0.07
				5350	47.47	48.82	-2.76	5.46	5.47	-0.10
H	6/28/2016	5200	Head	5200	34.79	35.99	-3.33	4.57	4.65	-1.66
				5150	34.82	36.05	-3.40	4.52	4.60	-1.78
				5350	34.57	35.82	-3.49	4.71	4.80	-1.99
H	6/28/2016	5200	Body	5200	47.48	49.02	-3.14	5.50	5.29	3.86
				5150	47.51	49.09	-3.21	5.42	5.24	3.47
				5350	47.24	48.82	-3.23	5.68	5.47	3.76
H	7/2/2016	5200	Head	5200	35.04	35.99	-2.64	4.57	4.65	-1.78
				5150	37.08	36.05	2.87	4.52	4.60	-1.65
				5350	36.81	35.82	2.77	4.73	4.80	-1.57
H	7/2/2016	5200	Body	5200	47.56	49.02	-2.98	5.47	5.29	3.35
				5150	47.64	49.09	-2.95	5.41	5.24	3.39
				5350	47.30	48.82	-3.11	5.68	5.47	3.83
1	6/27/2016	835	Head	835	42.84	41.50	3.23	0.93	0.90	3.21
				805	43.33	41.68	3.96	0.90	0.90	0.33
				905	42.11	41.50	1.47	1.00	0.97	2.47
3	6/8/2016	750	Body	750	53.76	55.55	-3.22	0.97	0.96	1.07
				695	53.91	55.76	-3.31	0.91	0.96	-4.62
				790	53.24	55.39	-3.89	1.01	0.97	4.02
3	6/15/2016	750	Head	750	40.08	41.96	-4.48	0.90	0.89	0.47
				695	40.94	42.24	-3.09	0.85	0.89	-4.08
				790	39.70	41.76	-4.92	0.94	0.90	4.83
3	6/15/2016	750	Body	750	53.24	55.55	-4.15	0.96	0.96	-0.17
				695	53.96	55.76	-3.22	0.92	0.96	-4.34
				790	53.04	55.39	-4.25	1.01	0.97	4.54
3	6/26/2016	1900	Body	1900	51.88	53.30	-2.66	1.52	1.52	-0.13
				1850	51.98	53.30	-2.48	1.45	1.52	-4.34
				1920	51.79	53.30	-2.83	1.55	1.52	1.64

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
3	6/29/2016	1900	Head	1900	39.36	40.00	-1.60	1.40	1.40	0.21
				1850	39.55	40.00	-1.13	1.35	1.40	-3.57
				1920	39.26	40.00	-1.85	1.42	1.40	1.36
3	6/29/2016	1900	Body	1900	50.87	53.30	-4.56	1.55	1.52	2.24
				1850	51.03	53.30	-4.26	1.50	1.52	-1.64
				1920	50.80	53.30	-4.69	1.58	1.52	3.62
4	6/8/2016	835	Body	835	54.50	55.20	-1.27	1.00	0.97	3.09
				805	54.83	55.33	-0.91	0.98	0.97	1.68
				905	54.01	55.00	-1.80	1.08	1.05	2.99
4	6/8/2016	835	Head	835	43.11	41.50	3.88	0.93	0.90	3.74
				805	43.47	41.68	4.30	0.90	0.90	0.53
				905	42.32	41.50	1.98	1.00	0.97	2.57
4	6/12/2016	835	Head	835	40.43	41.50	-2.58	0.92	0.90	2.18
				805	40.80	41.68	-2.11	0.89	0.90	-0.59
				905	39.53	41.50	-4.75	0.98	0.97	0.97
4	6/12/2016	835	Body	835	53.18	55.20	-3.66	1.01	0.97	3.92
				805	53.62	55.33	-3.10	0.98	0.97	1.36
				905	52.74	55.00	-4.11	1.09	1.05	3.94
4	6/15/2016	835	Head	835	41.27	41.50	-0.55	0.90	0.90	0.31
				805	41.69	41.68	0.03	0.88	0.90	-1.42
				905	40.47	41.50	-2.48	0.97	0.97	-0.25
4	6/15/2016	835	Body	835	53.04	55.20	-3.91	1.01	0.97	4.33
				805	53.36	55.33	-3.57	0.99	0.97	2.15
				905	52.41	55.00	-4.71	1.08	1.05	2.61
4	6/19/2016	835	Head	835	40.33	41.50	-2.82	0.92	0.90	1.69
				805	40.57	41.68	-2.66	0.88	0.90	-2.04
				905	39.56	41.50	-4.67	0.98	0.97	1.07
4	6/19/2016	835	Body	835	53.41	55.20	-3.24	1.01	0.97	4.12
				805	53.65	55.33	-3.04	0.98	0.97	1.56
				905	52.80	55.00	-4.00	1.09	1.05	3.75
4	6/22/2016	2600	Head	2600	37.97	39.01	-2.67	2.01	1.96	2.54
				2495	38.35	39.14	-2.03	1.89	1.85	2.45
				2690	37.62	38.90	-3.28	2.11	2.06	2.45
4	6/25/2016	2300	Head	2300	37.73	39.47	-4.41	1.72	1.66	3.08
				2350	37.57	39.38	-4.61	1.77	1.71	3.59
				2400	37.35	39.30	-4.95	1.81	1.75	3.16
5	6/22/2016	1900	Head	1900	40.43	40.00	1.08	1.44	1.40	3.00
				1850	40.60	40.00	1.50	1.39	1.40	-0.57
				1920	40.44	40.00	1.10	1.47	1.40	4.79
5	6/28/2016	835	Head	835	42.86	41.50	3.28	0.92	0.90	2.58
				805	43.18	41.68	3.60	0.89	0.90	-0.40
				905	42.00	41.50	1.20	0.99	0.97	1.46
5	6/28/2016	835	Body	835	53.84	55.20	-2.46	0.96	0.97	-0.79
				805	54.18	55.33	-2.09	0.94	0.97	-2.85
				905	53.17	55.00	-3.33	1.04	1.05	-1.57

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Additional LTE CA testing 8/15/2016 to 8/17/2016:

SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
A	8/15/2016	2600	Head	2600	38.57	39.01	-1.13	2.03	1.96	3.46
				2495	38.96	39.14	-0.47	1.92	1.85	3.97
				2690	38.17	38.90	-1.87	2.13	2.06	3.28
A	8/15/2016	2600	Body	2600	52.46	52.51	-0.10	2.22	2.16	2.55
				2495	52.66	52.64	0.03	2.09	2.01	3.96
				2690	52.23	52.40	-0.32	2.33	2.29	1.91
B	8/15/2016	2600	Head	2600	38.29	39.01	-1.85	2.01	1.96	2.44
				2495	38.61	39.14	-1.36	1.90	1.85	2.72
				2690	37.99	38.90	-2.33	2.11	2.06	2.31
B	8/15/2016	2600	Body	2600	51.51	52.51	-1.91	2.16	2.16	0.10
				2495	51.74	52.64	-1.72	2.05	2.01	1.73
				2690	51.27	52.40	-2.15	2.27	2.29	-0.80
C	8/15/2016	2600	Head	2600	40.38	39.01	3.51	2.05	1.96	4.37
				2495	40.70	39.14	3.98	1.93	1.85	4.51
				2690	40.04	38.90	2.94	2.16	2.06	4.78
C	8/15/2016	2600	Body	2600	51.82	52.51	-1.32	2.23	2.16	3.29
				2495	52.15	52.64	-0.94	2.11	2.01	4.86
				2690	51.48	52.40	-1.75	2.35	2.29	2.65

Additional Bluetooth testing 8/24/2016 to 8/25/2016:

SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
H	8/23/2016	2450	Head	2450	39.03	39.20	-0.43	1.85	1.80	2.78
				2400	39.19	39.30	-0.27	1.80	1.75	2.76
				2480	38.94	39.16	-0.57	1.88	1.83	2.60
H	8/24/2016	2450	Body	2450	51.30	52.70	-2.66	1.89	1.95	-3.18
				2400	51.43	52.77	-2.54	1.82	1.90	-3.90
				2480	51.20	52.66	-2.78	1.93	1.99	-3.32

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8.2. System Check

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

System Performance Check Measurement Conditions:

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

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System Check Results

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

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	6/15/2016	Head	D1750V2 SN:1077	9/22/2016	3.650	36.50	36.90	-1.08	1.920	19.20	19.50	-1.54	
A	6/15/2016	Body	D1750V2 SN:1077	9/22/2016	3.750	37.50	35.80	4.75	1.980	19.80	19.00	4.21	
A	6/19/2016	Head	D1750V2 SN:1077	9/22/2016	3.730	37.30	36.90	1.08	1.970	19.70	19.50	1.03	
A	6/19/2016	Body	D1750V2 SN:1077	9/22/2016	3.730	37.30	35.80	4.19	1.950	19.50	19.00	2.63	
A	6/23/2016	Head	D1750V2 SN:1077	9/22/2016	3.680	36.80	36.90	-0.27	1.940	19.40	19.50	-0.51	
A	6/23/2016	Body	D1750V2 SN:1077	9/22/2016	3.890	38.90	35.80	8.66	2.040	20.40	19.00	7.37	1,2
A	6/26/2016	Head	D2300V2 SN:1002	3/18/2017	5.520	55.20	50.50	9.31	2.610	26.10	24.20	7.85	3,4
A	6/26/2016	Body	D2300V2 SN:1002	3/18/2017	5.110	51.10	47.50	7.58	2.410	24.10	23.10	4.33	
A	6/30/2016	Body	D2300V2 SN:1002	3/18/2017	5.150	51.50	47.50	8.42	2.400	24.00	23.10	3.90	
A	6/30/2016	Head	D2300V2 SN:1002	3/18/2017	5.170	51.70	50.50	2.38	2.430	24.30	24.20	0.41	
B	6/15/2016	Body	D2600V2 SN:1006	9/21/2016	5.620	56.20	55.30	1.63	2.440	24.40	24.80	-1.61	
B	6/19/2016	Body	D2600V2 SN:1006	9/21/2016	5.750	57.50	55.30	3.98	2.490	24.90	24.80	0.40	
B	6/23/2016	Body	D2600V2 SN:1006	9/21/2016	5.920	59.20	55.30	7.05	2.550	25.50	24.80	2.82	5,6
B	6/27/2016	Body	D2600V2 SN:1006	9/21/2016	5.910	59.10	55.30	6.87	2.550	25.50	24.80	2.82	
C	6/23/2016	Head	D1900V2 SN:5d140	4/12/2017	4.040	40.40	38.30	5.48	2.050	20.50	20.00	2.50	
C	6/23/2016	Body	D1900V2 SN:5d140	4/12/2017	3.840	38.40	39.30	-2.29	1.960	19.60	20.80	-5.77	
C	6/27/2016	Head	D1900V2 SN:5d140	4/12/2017	3.950	39.50	38.30	3.13	1.990	19.90	20.00	-0.50	
C	6/27/2016	Body	D1900V2 SN:5d140	4/12/2017	4.000	40.00	39.30	1.78	2.010	20.10	20.80	-3.37	
C	7/1/2016	Body	D1900V2 SN:5d140	4/12/2017	4.180	41.80	39.30	6.36	2.110	21.10	20.80	1.44	
C	7/5/2016	Head	D1900V2 SN:5d140	4/12/2017	4.160	41.60	38.30	8.62	2.100	21.00	20.00	5.00	7,8
C	7/5/2016	Body	D1900V2 SN:5d140	4/12/2017	4.030	40.30	39.30	2.54	2.060	20.60	20.80	-0.96	
C	7/5/2016	Head	D5GHzV2 SN:1003 (5.6 GHz)	2/25/2017	8.430	84.30	81.70	3.18	2.420	24.20	23.40	3.42	9,10
D	6/15/2016	Head	D2600V2 SN:1036	3/18/2017	5.660	56.60	55.40	2.17	2.470	24.70	24.60	0.41	
D	6/15/2016	Body	D2600V2 SN:1036	3/18/2017	5.170	51.70	53.40	-3.18	2.260	22.60	23.80	-5.04	
D	6/19/2016	Head	D2600V2 SN:1036	3/18/2017	5.730	57.30	55.40	3.43	2.510	25.10	24.60	2.03	
D	6/19/2016	Body	D2600V2 SN:1036	3/18/2017	5.500	55.00	53.40	3.00	2.420	24.20	23.80	1.68	
D	6/23/2016	Head	D2600V2 SN:1036	3/18/2017	5.790	57.90	55.40	4.51	2.540	25.40	24.60	3.25	11,12
D	6/23/2016	Body	D2600V2 SN:1036	3/18/2017	5.240	52.40	53.40	-1.87	2.290	22.90	23.80	-3.78	
D	7/1/2016	Body	D2600V2 SN:1036	3/18/2017	5.140	51.40	53.40	-3.75	2.290	22.90	23.80	-3.78	
D	7/2/2016	Body	D2450V2 SN:706	5/10/2017	5.180	51.80	49.50	4.65	2.390	23.90	23.30	2.58	13,14
E	6/16/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.440	74.40	75.50	-1.46	2.090	20.90	21.00	-0.48	
E	6/16/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.410	74.10	77.10	-3.89	2.100	21.00	21.90	-4.11	
E	6/20/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.030	70.30	77.10	-8.82	1.990	19.90	21.90	-9.13	15,16
E	6/20/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.350	73.50	75.50	-2.65	2.060	20.60	21.00	-1.90	
E	6/24/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.900	79.00	77.10	2.46	2.220	22.20	21.90	1.37	
E	6/24/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.930	79.30	75.50	5.03	2.230	22.30	21.00	6.19	
E	6/28/2016	Head	D5GHzV2 SN:1138 (5.8 GHz)	9/23/2016	7.360	73.60	81.60	-9.80	2.090	20.90	23.10	-9.52	17,18
E	6/28/2016	Body	D5GHzV2 SN:1138 (5.8 GHz)	9/23/2016	7.320	73.20	77.90	-6.03	2.060	20.60	21.60	-4.63	
E	7/2/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.190	71.90	77.10	-6.74	2.050	20.50	21.90	-6.39	
E	7/2/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.190	71.90	75.50	-4.77	2.020	20.20	21.00	-3.81	
E	7/6/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.560	75.60	77.10	-1.95	2.130	21.30	21.90	-2.74	

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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	6/16/2016	Head	D2450V2 SN:748	2/22/2017	5.370	53.70	50.90	5.50	2.410	24.10	23.70	1.69	
F	6/16/2016	Body	D2450V2 SN:748	2/22/2017	5.340	53.40	49.80	7.23	2.430	24.30	23.20	4.74	19,20
F	6/20/2016	Head	D2450V2 SN:748	2/22/2017	5.310	53.10	50.90	4.32	2.400	24.00	23.70	1.27	
F	6/20/2016	Body	D2450V2 SN:748	2/22/2017	4.890	48.90	49.80	-1.81	2.220	22.20	23.20	-4.31	
F	6/24/2016	Body	D2450V2 SN:748	2/22/2017	5.280	52.80	49.80	6.02	2.400	24.00	23.20	3.45	
F	6/28/2016	Head	D2450V2 SN:748	2/22/2017	5.190	51.90	50.90	1.96	2.400	24.00	23.70	1.27	
F	6/28/2016	Body	D2450V2 SN:748	2/22/2017	5.140	51.40	49.80	3.21	2.390	23.90	23.20	3.02	
F	7/2/2016	Body	D2450V2 SN:748	2/22/2017	5.290	52.90	49.80	6.22	2.430	24.30	23.20	4.74	
F	7/2/2016	Head	D2450V2 SN:748	2/22/2017	5.170	51.70	50.90	1.57	2.330	23.30	23.70	-1.69	
F	7/6/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.040	70.40	75.50	-6.75	1.970	19.70	21.00	-6.19	21,22
G	6/16/2016	Head	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	8.950	89.50	84.70	5.67	2.550	25.50	24.20	5.37	
G	6/16/2016	Body	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	7.640	76.40	81.60	-6.37	2.100	21.00	22.80	-7.89	
G	6/20/2016	Head	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	9.230	92.30	84.70	8.97	2.630	26.30	24.20	8.68	23,24
G	6/20/2016	Body	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	8.070	80.70	81.60	-1.10	2.250	22.50	22.80	-1.32	
G	6/24/2016	Head	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	9.140	91.40	84.70	7.91	2.610	26.10	24.20	7.85	
G	6/24/2016	Body	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	7.650	76.50	81.60	-6.25	2.130	21.30	22.80	-6.58	
G	6/28/2016	Head	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	7.890	78.90	84.70	-6.85	2.230	22.30	24.20	-7.85	
G	6/28/2016	Body	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	8.200	82.00	81.60	0.49	2.300	23.00	22.80	0.88	
G	7/2/2016	Body	D5GHzV2 SN:1003 (5.6 GHz)	2/25/2017	7.730	77.30	79.80	-3.13	2.140	21.40	22.40	-4.46	25,26
G	7/6/2016	Body	D5GHzV2 SN:1003 (5.6 GHz)	2/25/2017	8.100	81.00	79.80	1.50	2.240	22.40	22.40	0.00	
H	6/16/2016	Head	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.760	77.60	75.40	2.92	2.220	22.20	21.80	1.83	
H	6/16/2016	Body	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.830	78.30	73.30	6.82	2.210	22.10	20.60	7.28	
H	6/20/2016	Head	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.110	71.10	75.40	-5.70	2.030	20.30	21.80	-6.88	
H	6/20/2016	Body	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.240	72.40	73.30	-1.23	2.030	20.30	20.60	-1.46	
H	6/24/2016	Body	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.910	79.10	73.30	7.91	2.220	22.20	20.60	7.77	
H	6/28/2016	Head	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.050	70.50	75.40	-6.50	2.000	20.00	21.80	-8.26	
H	6/28/2016	Body	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.990	79.90	73.30	9.00	2.240	22.40	20.60	8.74	27,28
H	7/2/2016	Head	D5GHzV2 SN:1168 (5.2 GHz)	11/13/2016	7.510	75.10	78.40	-4.21	2.160	21.60	22.50	-4.00	29,30
H	7/2/2016	Body	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.940	79.40	73.30	8.32	2.220	22.20	20.60	7.77	

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SAR Lab	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
1	6/27/2016	Head	D835V2 SN:4d142	9/23/2016	0.919	9.19	9.27	-0.86	0.605	6.05	6.01	0.67	31,32
3	6/8/2016	Body	D750V3 SN:1071	11/12/2016	0.898	8.98	8.74	2.75	0.599	5.99	5.81	3.10	
3	6/15/2016	Head	D750V3 SN:1071	11/12/2016	0.776	7.76	8.21	-5.48	0.509	5.09	5.38	-5.39	33,34
3	6/15/2016	Body	D750V3 SN:1071	11/12/2016	0.871	8.71	8.74	-0.34	0.583	5.83	5.81	0.34	
3	6/26/2016	Body	D1900V2 SN:5d043	11/17/2016	3.780	37.80	40.20	-5.97	1.990	19.90	21.10	-5.69	35,36
3	6/29/2016	Head	D1900V2 SN:5d043	11/17/2016	4.080	40.80	40.00	2.00	2.110	21.10	20.90	0.96	
3	6/29/2016	Body	D1900V2 SN:5d043	11/17/2016	3.930	39.30	40.20	-2.24	2.070	20.70	21.10	-1.90	
4	6/8/2016	Head	D835V2 SN:4d142	9/23/2016	0.973	9.73	9.27	4.96	0.643	6.43	6.01	6.99	
4	6/8/2016	Body	D835V2 SN:4d142	9/23/2016	0.987	9.87	9.41	4.89	0.648	6.48	6.18	4.85	
4	6/12/2016	Head	D835V2 SN:4d142	9/23/2016	0.977	9.77	9.27	5.39	0.646	6.46	6.01	7.49	
4	6/12/2016	Body	D835V2 SN:4d142	9/23/2016	0.962	9.62	9.41	2.23	0.633	6.33	6.18	2.43	
4	6/15/2016	Head	D835V2 SN:4d142	9/23/2016	0.959	9.59	9.27	3.45	0.636	6.36	6.01	5.82	
4	6/15/2016	Body	D835V2 SN:4d142	9/23/2016	1.010	10.10	9.41	7.33	0.662	6.62	6.18	7.12	37,38
4	6/19/2016	Head	D835V2 SN:4d142	9/23/2016	0.984	9.84	9.27	6.15	0.654	6.54	6.01	8.82	
4	6/19/2016	Body	D835V2 SN:4d142	9/23/2016	0.994	9.94	9.41	5.63	0.651	6.51	6.18	5.34	
4	6/22/2016	Head	D2600V2 SN:1006	9/21/2016	5.660	56.60	56.90	-0.53	2.470	24.70	25.50	-3.14	39,40
4	6/25/2016	Head	D2300V2 SN:1002	3/18/2017	5.380	53.80	50.50	6.53	2.530	25.30	24.20	4.55	41,42
5	6/22/2016	Head	D1900V2 SN:5d043	11/17/2016	4.250	42.50	40.00	6.25	2.160	21.60	20.90	3.35	43,44
5	6/28/2016	Head	D835V2 SN:4d002	11/12/2016	0.984	9.84	9.06	8.61	0.648	6.48	5.90	9.83	45,46
5	6/28/2016	Body	D835V2 SN:4d002	11/12/2016	0.932	9.32	9.47	-1.58	0.618	6.18	6.21	-0.48	

Additional LTE CA testing 8/15/2016 to 8/17/2016:

SAR Room	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	8/15/2016	Head	D2600V2 SN:1006	9/21/2016	5.980	59.80	56.90	5.10	2.600	26.00	25.50	1.96	
A	8/15/2016	Body	D2600V2 SN:1006	9/21/2016	5.880	58.80	55.30	6.33	2.550	25.50	24.80	2.82	47,48
B	8/15/2016	Head	D2600V2 SN:1006	9/21/2016	5.790	57.90	56.90	1.76	2.530	25.30	25.50	-0.78	
B	8/15/2016	Body	D2600V2 SN:1006	9/21/2016	5.820	58.20	55.30	5.24	2.510	25.10	24.80	1.21	49,50
C	8/15/2016	Head	D2600V2 SN:1006	9/21/2016	6.120	61.20	56.90	7.56	2.650	26.50	25.50	3.92	51,52
C	8/15/2016	Body	D2600V2 SN:1006	9/21/2016	5.680	56.80	55.30	2.71	2.470	24.70	24.80	-0.40	

Additional Bluetooth testing 8/24/2016 to 8/25/2016:

SAR Room	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	8/23/2016	Head	D2450V2 SN:748	2/22/2017	5.050	50.50	50.90	-0.79	2.290	22.90	23.70	-3.38	
H	8/24/2016	Body	D2450V2 SN:748	2/22/2017	4.700	47.00	49.80	-5.62	2.150	21.50	23.20	-7.33	53,54

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9. Conducted Output Power Measurements

9.1. GSM

Per KDB 941225 D01 3G SAR Procedures:

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

GSM850 Measured Results

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850	128	824.2	29.0	**27.6**	29.0	**27.6**	33.5	**32.5**	33.5	**32.5**
	190	836.6	29.0	**27.6**	29.0	**27.6**	33.5	**32.5**	33.5	**32.5**
	251	848.8	29.0	**27.6**	29.0	**27.6**	33.5	**32.5**	33.5	**32.5**
Frame Power (dBm)										
850	128	824.2	20.0	21.6	20.0	21.6	24.5	26.5	24.5	26.5
	190	836.6	20.0	21.6	20.0	21.6	24.5	26.5	24.5	26.5
	251	848.8	20.0	21.6	20.0	21.6	24.5	26.5	24.5	26.5

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850.0	128.0	824.2	23.1	22.0	23.2	22.2	29.0	28.0	28.9	27.8
	190.0	836.6	23.2	22.1	23.0	22.1	28.8	27.8	29.0	27.9
	251.0	848.8	23.0	22.0	23.1	22.2	28.9	28.0	29.0	27.8
Frame Power (dBm)										
850.0	128.0	824.2	14.1	16.0	14.2	16.2	20.0	22.0	19.9	21.8
	190.0	836.6	14.2	16.1	14.0	16.1	19.8	21.8	20.0	21.9
	251.0	848.8	14.0	16.0	14.1	16.2	19.9	22.0	20.0	21.8

Notes:

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

- GMSK (GPRS) mode with 2 time slots based on the maximum output power from Tune-up Procedure.
- SAR is not required for EGPRS (8PSK) mode because its output power is less than that of GPRS Mode

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GSM1900 Measured Results

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	24.2	**22.9**	24.2	**22.9**	30.5	**29.5**	30.5	**28.2**
	661.0	1880.0	24.2	**22.9**	24.2	**22.9**	30.5	**29.5**	30.5	**28.2**
	810.0	1909.8	24.2	**22.9**	24.2	**22.9**	30.5	**29.5**	30.5	**28.2**
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	15.2	16.9	15.2	16.9	21.5	23.5	21.5	22.2
	661.0	1880.0	15.2	16.9	15.2	16.9	21.5	23.5	21.5	22.2
	810.0	1909.8	15.2	16.9	15.2	16.9	21.5	23.5	21.5	22.2

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	21.3	20.5	21.5	20.5	28.0	26.8	28.0	26.9
	661.0	1880.0	21.3	20.4	21.4	20.4	27.9	27.0	27.9	26.9
	810.0	1909.8	21.5	20.3	21.4	20.3	27.8	26.9	27.9	26.8
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	12.3	14.5	12.5	14.5	19.0	20.8	19.0	20.9
	661.0	1880.0	12.3	14.4	12.4	14.4	18.9	21.0	18.9	20.9
	810.0	1909.8	12.5	14.3	12.4	14.3	18.8	20.9	18.9	20.8

Notes:

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

- GMSK (GPRS) mode with 2 time slots based on the maximum output power from Tune-up Procedure.
- SAR is not required for EGPRS (8PSK) mode because its output power is less than that of GPRS Mode

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9.2. W-CDMA

Release 99 Setup Procedures used to establish the test signals

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

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

HSDPA Setup Procedures used to establish the test signals

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

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

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

The following 5 Sub-tests were completed according to Release 6 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	HSPA				
	Subtest	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2 kbps RMC				
	HSDPA FRC	H-Set 1				
	HSUPA Test	HSPA				
	Power Control Algorithm	Algorithm 2				Algorithm 1
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βec	209/225	12/15	30/15	2/15	5/15
	βc/βd	11/15	6/15	15/9	2/15	15/1
	βhs	22/15	12/15	30/15	4/15	5/15
	βed	1309/225	94/75	47/15	56/75	47/15
	CM (dB)	1	3	2	3	1
	MPR (dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				0
	DNAK	8				0
	DCQI	8				0
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = βhs/βc	30/15				
HSUPA Specific Settings	E-DPDCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E-TFCIs	5	5	2	5	1
	Reference E-TFCI	11	11	11	11	67
	Reference E-TFCI PO	4	4	4	4	18
	Reference E-TFCI	67	67	92	67	67
	Reference E-TFCI PO	18	18	18	18	18
	Reference E-TFCI	71	71	71	71	71
	Reference E-TFCI PO	23	23	23	23	23
	Reference E-TFCI	75	75	75	75	75
	Reference E-TFCI PO	26	26	26	26	26
	Reference E-TFCI	81	81	81	81	81
	Reference E-TFCI PO	27	27	27	27	27
	Maximum Channelization Codes	2xSF2				SF4

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DC-HSDPA Setup Procedures used to establish the test signals

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

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

Table E.5.0: Levels for HSDPA connection setup

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

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

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

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

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

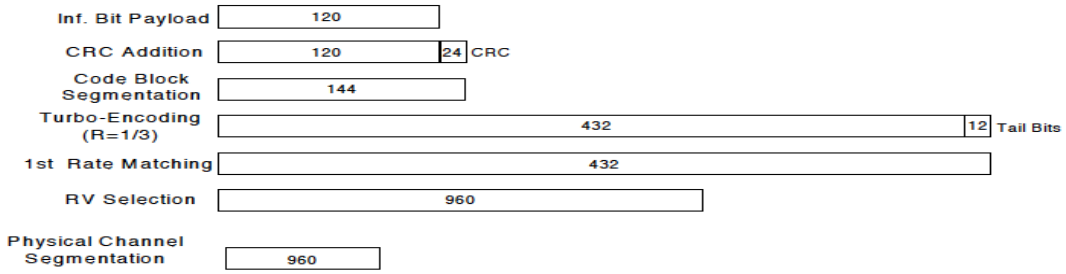

Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

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

HSPA+

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

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W-CDMA Band V Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band V	Rel 99	RMC, 12.2 kbps	4132	826.4	N/A	22.0	22.0	25.0	25.0
			4183	836.6	N/A	22.0	22.0	25.0	25.0
			4233	846.6	N/A	22.0	22.0	25.0	25.0
	HSDPA	Subtest 1	4132	826.4	0	22.0	21.9	24.9	24.8
			4183	836.6	0	21.9	21.9	25.0	24.9
			4233	846.6	0	22.0	21.9	24.8	24.9
		Subtest 2	4132	826.4	0	21.9	22.0	24.9	24.8
			4183	836.6	0	21.8	22.0	24.8	24.8
			4233	846.6	0	21.9	21.9	24.9	24.8
		Subtest 3	4132	826.4	0.5	21.3	21.5	24.3	24.5
			4183	836.6	0.5	21.4	21.4	24.4	24.3
			4233	846.6	0.5	21.5	21.5	24.4	24.3
		Subtest 4	4132	826.4	0.5	21.3	21.4	24.3	24.5
			4183	836.6	0.5	21.3	21.4	24.3	24.3
			4233	846.6	0.5	21.3	21.3	24.4	24.4
	HSUPA	Subtest 1	4132	826.4	0	21.8	21.9	25.0	24.8
			4183	836.6	0	21.9	21.9	24.9	24.9
			4233	846.6	0	21.8	22.0	24.9	25.0
		Subtest 2	4132	826.4	2	19.8	20.0	22.8	23.0
			4183	836.6	2	19.9	19.8	23.0	22.8
			4233	846.6	2	19.9	19.8	22.8	22.9
		Subtest 3	4132	826.4	1	20.9	21.0	23.9	24.0
			4183	836.6	1	20.9	20.8	24.0	23.9
			4233	846.6	1	21.0	20.9	23.8	24.0
		Subtest 4	4132	826.4	2	19.8	19.9	22.8	23.0
			4183	836.6	2	20.0	19.8	22.9	23.0
			4233	846.6	2	19.9	19.8	22.8	23.0
		Subtest 5	4132	826.4	0	22.0	21.8	25.0	24.8
			4183	836.6	0	21.9	21.8	24.8	24.8
			4233	846.6	0	22.0	22.0	24.9	25.0
	DC-HSDPA	Subtest 1	4132	826.4	0	21.9	21.9	25.0	24.9
			4183	836.6	0	21.8	21.8	24.8	24.8
			4233	846.6	0	21.9	22.0	25.0	24.9
		Subtest 2	4132	826.4	0	21.9	22.0	24.9	24.8
			4183	836.6	0	21.8	22.0	24.8	24.8
			4233	846.6	0	21.8	22.0	24.9	25.0
		Subtest 3	4132	826.4	0.5	21.5	21.4	24.3	24.3
			4183	836.6	0.5	21.3	21.4	24.3	24.3
			4233	846.6	0.5	21.4	21.4	24.5	24.4
		Subtest 4	4132	826.4	0.5	21.3	21.3	24.4	24.3
			4183	836.6	0.5	21.4	21.4	24.5	24.3
			4233	846.6	0.5	21.4	21.3	24.4	24.3

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W-CDMA Band IV Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band IV	Rel 99	RMC, 12.2 kbps	1312	1712.4	N/A	18.1	20.3	25.2	21.2
			1413	1732.6	N/A	18.1	20.3	25.2	21.2
			1513	1752.6	N/A	18.1	20.3	25.2	21.2
	HSDPA	Subtest 1	1312	1712.4	0	18.1	20.1	25.0	21.1
			1413	1732.6	0	18.0	20.2	25.1	21.2
			1513	1752.6	0	18.0	20.1	25.1	21.2
		Subtest 2	1312	1712.4	0	18.1	20.3	25.1	21.1
			1413	1732.6	0	18.1	20.1	25.0	21.0
			1513	1752.6	0	18.0	20.2	25.1	21.1
		Subtest 3	1312	1712.4	0.5	17.6	19.6	24.7	20.7
			1413	1732.6	0.5	17.4	19.7	24.7	20.7
			1513	1752.6	0.5	17.4	19.7	24.7	20.6
		Subtest 4	1312	1712.4	0.5	17.6	19.6	24.5	20.7
			1413	1732.6	0.5	17.4	19.6	24.6	20.6
			1513	1752.6	0.5	17.4	19.8	24.6	20.5
	HSUPA	Subtest 1	1312	1712.4	0	18.1	20.2	25.0	21.2
			1413	1732.6	0	17.9	20.1	25.2	21.0
			1513	1752.6	0	17.9	20.2	25.1	21.0
		Subtest 2	1312	1712.4	2	16.3	18.5	23.1	19.3
			1413	1732.6	2	16.3	18.5	23.1	19.3
			1513	1752.6	2	16.3	18.5	23.1	19.3
		Subtest 3	1312	1712.4	1	17.0	19.2	24.0	20.2
			1413	1732.6	1	17.0	19.2	24.0	20.1
			1513	1752.6	1	16.9	19.2	24.2	20.0
		Subtest 4	1312	1712.4	2	16.3	18.5	23.2	19.3
			1413	1732.6	2	16.3	18.5	23.1	19.3
			1513	1752.6	2	16.3	18.5	23.0	19.3
		Subtest 5	1312	1712.4	0	18.1	20.2	25.1	21.0
			1413	1732.6	0	18.0	20.1	25.0	21.0
			1513	1752.6	0	17.9	20.1	25.1	21.1
	DC-HSDPA	Subtest 1	1312	1712.4	0	18.0	20.1	25.0	21.1
			1413	1732.6	0	18.0	20.2	25.0	21.1
			1513	1752.6	0	18.0	20.2	25.0	21.1
		Subtest 2	1312	1712.4	0	18.0	20.1	25.0	21.0
			1413	1732.6	0	18.0	20.3	25.2	21.1
			1513	1752.6	0	18.0	20.2	25.2	21.2
		Subtest 3	1312	1712.4	0.5	17.5	19.7	24.5	20.6
			1413	1732.6	0.5	17.5	19.6	24.7	20.6
			1513	1752.6	0.5	17.4	19.7	24.7	20.7
		Subtest 4	1312	1712.4	0.5	17.4	19.7	24.7	20.6
			1413	1732.6	0.5	17.4	19.6	24.7	20.6
			1513	1752.6	0.5	17.5	19.7	24.6	20.6

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W-CDMA Band II Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band II	Rel 99	RMC, 12.2 kbps	9262	1852.4	N/A	19.2	20.3	25.1	21.0
			9400	1880.0	N/A	19.2	20.3	25.1	21.0
			9538	1907.6	N/A	19.3	20.3	25.1	21.0
	HSDPA	Subtest 1	9262	1852.4	0	19.1	20.2	25.0	20.9
			9400	1880.0	0	19.2	20.2	24.9	20.8
			9538	1907.6	0	19.2	20.2	25.0	20.8
		Subtest 2	9262	1852.4	0	19.0	20.2	24.9	20.8
			9400	1880.0	0	19.2	20.3	25.0	21.0
			9538	1907.6	0	19.2	20.2	24.9	20.8
		Subtest 3	9262	1852.4	0.5	18.7	19.6	24.5	20.4
			9400	1880.0	0.5	18.5	19.7	24.5	20.5
			9538	1907.6	0.5	18.7	19.8	24.4	20.4
		Subtest 4	9262	1852.4	0.5	18.7	19.7	24.6	20.3
			9400	1880.0	0.5	18.6	19.6	24.5	20.3
			9538	1907.6	0.5	18.7	19.8	24.4	20.3
	HSUPA	Subtest 1	9262	1852.4	0	19.0	20.1	25.0	20.8
			9400	1880.0	0	19.0	20.2	25.0	20.8
			9538	1907.6	0	19.1	20.2	24.9	20.8
		Subtest 2	9262	1852.4	2	17.3	18.1	22.9	19.0
			9400	1880.0	2	17.3	18.1	23.1	19.0
			9538	1907.6	2	17.3	18.1	22.9	19.0
		Subtest 3	9262	1852.4	1	18.1	19.3	23.9	19.9
			9400	1880.0	1	18.0	19.2	23.9	19.8
			9538	1907.6	1	18.1	19.1	24.0	20.0
		Subtest 4	9262	1852.4	2	17.3	18.1	23.1	19.0
			9400	1880.0	2	17.3	18.2	22.9	19.0
			9538	1907.6	2	17.3	18.2	22.9	19.0
		Subtest 5	9262	1852.4	0	19.1	20.1	25.0	20.9
			9400	1880.0	0	19.1	20.2	25.0	20.9
			9538	1907.6	0	19.1	20.3	24.9	21.0
	DC-HSDPA	Subtest 1	9262	1852.4	0	19.0	20.1	25.0	20.9
			9400	1880.0	0	19.1	20.1	24.9	20.9
			9538	1907.6	0	19.2	20.2	24.9	20.9
		Subtest 2	9262	1852.4	0	19.0	20.2	24.9	20.8
			9400	1880.0	0	19.2	20.2	25.1	20.8
			9538	1907.6	0	19.3	20.1	24.9	20.9
		Subtest 3	9262	1852.4	0.5	18.5	19.7	24.4	20.3
			9400	1880.0	0.5	18.6	19.6	24.4	20.4
			9538	1907.6	0.5	18.7	19.7	24.4	20.4
		Subtest 4	9262	1852.4	0.5	18.5	19.7	24.4	20.4
			9400	1880.0	0.5	18.5	19.7	24.6	20.4
			9538	1907.6	0.5	18.6	19.6	24.4	20.5

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9.3. CDMA

1x Advanced Setup Procedures used to establish the test signals

Call box setup procedure

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

CDMA BC0 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 0	1xRTT	RC1 SO55 (Loopback)	1013	824.70	22.0	21.9	24.8	24.9
			384	836.52	21.9	22.0	24.9	24.9
			777	848.31	21.9	22.0	24.9	24.8
		RC3 SO55 (Loopback)	1013	824.70	22.0	22.0	25.0	24.9
			384	836.52	22.0	21.9	25.0	24.9
			777	848.31	22.0	21.8	25.0	25.0
		RC3 SO32 (+F-SCH)	1013	824.70	21.9	22.0	24.8	25.0
			384	836.52	21.8	22.0	24.8	25.0
			777	848.31	21.8	22.0	24.9	25.0
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	1013	824.70	21.8	21.9	25.0	24.8
			384	836.52	22.0	21.8	24.8	25.0
			777	848.31	21.8	21.8	24.8	24.9
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	1013	824.70	21.9	21.9	24.1	25.0
			384	836.52	21.9	21.8	24.1	24.9
			777	848.31	21.9	21.9	24.1	25.0
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	1013	824.70	21.7	21.7	24.0	24.8
			384	836.52	21.7	21.8	24.1	24.8
			777	848.31	21.8	21.8	24.0	24.8

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CDMA BC1 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 1	1xRTT	RC1 SO55 (Loopback)	25	1851.25	19.1	19.7	24.0	20.8
			600	1880.00	19.1	19.7	24.5	20.9
			1175	1908.75	19.2	19.7	24.7	20.7
		RC3 SO55 (Loopback)	25	1851.25	19.2	19.8	24.2	20.9
			600	1880.00	19.3	19.8	24.7	20.8
			1175	1908.75	19.3	19.8	24.7	20.8
		RC3 SO32 (+F-SCH)	25	1851.25	19.1	19.9	24.0	20.9
			600	1880.00	19.3	19.9	24.6	20.9
			1175	1908.75	19.2	19.9	24.7	20.9
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	25	1851.25	19.1	19.8	24.0	20.8
			600	1880.00	19.3	19.7	24.6	20.8
			1175	1908.75	19.2	19.9	24.7	20.8
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	25	1851.25	19.2	19.8	24.2	20.9
			600	1880.00	19.1	19.8	24.2	20.9
			1175	1908.75	19.3	19.8	24.2	20.9
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	25	1851.25	19.1	19.7	24.2	20.8
			600	1880.00	18.9	19.7	24.0	20.7
			1175	1908.75	19.1	19.7	24.2	20.8

CDMA BC10 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 10	1xRTT	RC1 SO55 (Loopback)	476	817.90	21.7	21.7	24.8	24.7
			580	820.50	21.7	21.8	24.9	24.8
			684	823.10	21.6	21.7	24.8	24.9
		RC3 SO55 (Loopback)	476	817.90	21.8	21.7	25.0	24.7
			580	820.50	21.8	21.7	25.0	24.8
			684	823.10	21.8	21.8	25.0	24.7
		RC3 SO32 (+F-SCH)	476	817.90	21.6	21.8	24.9	24.9
			580	820.50	21.6	21.8	25.0	25.0
			684	823.10	21.6	21.8	24.8	24.9
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	476	817.90	21.8	21.6	25.0	24.9
			580	820.50	21.7	21.7	25.0	25.0
			684	823.10	21.6	21.7	24.8	24.7
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	476	817.90	22.0	21.9	24.9	24.9
			580	820.50	22.0	22.0	24.9	25.0
			684	823.10	22.0	22.0	25.0	24.9
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	476	817.90	21.9	21.8	24.9	24.8
			580	820.50	21.9	21.9	24.7	24.8
			684	823.10	21.8	21.8	24.9	24.8

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9.4. LTE

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

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

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

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

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

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

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
..					
NS_32	-	-	-	-	-
Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.					

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LTE Band 2 Average Power (dBm) Measured Results

SAR for LTE Band 2 (Frequency range: 1850 – 1910 MHz) is covered by LTE Band 25 (Frequency range: 1850 – 1915 MHz) due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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LTE Band 4 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz
LTE Band 4	20	QPSK	1	0	0	18.0	17.9	17.9	0	20.2	20.3	20.3	0	24.5	24.5	24.5	0	21.1	21.2	21.0
			1	49	0	18.2	18.1	18.0	0	20.4	20.4	20.4	0	24.5	24.5	24.5	0	21.2	21.3	21.2
			1	99	0	18.0	18.1	17.9	0	20.2	20.2	20.2	0	24.3	24.3	24.3	0	21.1	21.1	21.1
			50	0	0	16.9	17.1	17.0	1	19.4	19.2	19.4	1	23.2	23.3	23.2	0	20.2	20.2	20.0
			50	24	0	17.1	17.2	17.0	1	19.5	19.4	19.4	1	23.3	23.5	23.4	0	20.3	20.3	20.2
			50	49	0	16.9	17.1	17.0	1	19.4	19.4	19.3	1	23.1	23.4	23.2	0	20.2	20.2	20.1
			100	0	0	16.9	17.1	16.9	1	19.2	19.4	19.3	1	23.2	23.4	23.3	0	20.0	20.2	20.1
		16QAM	1	0	0	17.9	17.8	17.8	1	19.1	19.3	19.2	1	23.4	23.4	23.4	0	21.0	21.1	21.0
			1	49	0	18.2	18.0	18.0	1	19.3	19.3	19.3	1	23.5	23.4	23.4	0	21.1	21.2	21.2
			1	99	0	17.9	18.0	17.9	1	19.1	19.2	19.1	1	23.2	23.2	23.3	0	21.0	21.0	21.0
			50	0	0	16.8	17.1	16.9	2	18.4	18.1	18.3	2	22.1	22.2	22.1	0	20.1	20.2	19.9
			50	24	0	17.0	17.1	17.0	2	18.4	18.3	18.3	2	22.2	22.5	22.4	0	20.2	20.2	20.2
			50	49	0	16.8	17.0	16.9	2	18.3	18.3	18.2	2	22.0	22.4	22.1	0	20.1	20.1	20.0
			100	0	0	16.8	17.0	16.9	2	18.1	18.3	18.3	2	22.1	22.4	22.3	0	20.0	20.1	20.1
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz
LTE Band 4	15	QPSK	1	0	0	18.0	18.0	17.8	0	20.3	20.3	20.3	0	24.4	24.3	24.4	0	21.2	21.2	21.1
			1	36	0	18.2	18.0	17.8	0	20.4	20.2	20.2	0	24.4	24.3	24.4	0	21.1	21.2	21.0
			1	74	0	18.0	18.0	17.9	0	20.3	20.2	20.3	0	24.4	24.3	24.4	0	21.1	21.2	21.2
			36	0	0	16.9	17.1	16.8	1	19.4	19.2	19.2	1	23.1	23.4	23.3	0	20.2	20.2	20.2
			36	18	0	17.0	17.1	16.8	1	19.3	19.4	19.2	1	23.1	23.4	23.2	0	20.2	20.1	20.0
			36	37	0	17.0	17.2	16.9	1	19.4	19.2	19.2	1	23.1	23.4	23.3	0	20.2	20.1	20.1
			75	0	0	16.9	16.9	16.8	1	19.1	19.3	19.0	1	23.2	23.3	23.1	0	19.9	20.1	20.0
		16QAM	1	0	0	17.9	18.0	17.7	1	19.3	19.2	19.2	1	23.4	23.2	23.3	0	21.1	21.2	21.1
			1	36	0	18.1	18.0	17.7	1	19.3	19.2	19.1	1	23.3	23.2	23.4	0	21.1	21.1	21.0
			1	74	0	17.9	17.9	17.8	1	19.2	19.2	19.3	1	23.3	23.2	23.4	0	21.1	21.2	21.1
			36	0	0	16.8	17.0	16.7	2	18.3	18.1	18.1	2	22.1	22.3	22.3	0	20.1	20.2	20.2
			36	18	0	16.9	17.1	16.7	2	18.3	18.3	18.2	2	22.0	22.4	22.1	0	20.1	20.0	19.9
			36	37	0	16.9	17.2	16.9	2	18.4	18.1	18.1	2	22.0	22.4	22.2	0	20.2	20.0	20.0
			75	0	0	16.9	16.8	16.8	2	18.0	18.2	17.9	2	22.1	22.3	22.0	0	19.8	20.0	19.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz
LTE Band 4	10	QPSK	1	0	0	18.2	17.9	17.8	0	20.4	20.4	20.2	0	24.3	24.4	24.4	0	21.2	21.1	21.0
			1	24	0	18.1	17.9	17.8	0	20.3	20.3	20.3	0	24.5	24.5	24.4	0	21.0	21.3	21.2
			1	49	0	18.1	17.9	17.9	0	20.2	20.3	20.2	0	24.5	24.3	24.4	0	21.0	21.2	21.0
			25	0	0	17.0	17.1	16.9	1	19.4	19.3	19.4	1	23.2	23.3	23.3	0	20.3	20.1	20.1
			25	12	0	17.0	17.0	16.9	1	19.4	19.2	19.4	1	23.2	23.5	23.4	0	20.3	20.3	20.0
			25	24	0	16.9	17.1	17.0	1	19.4	19.2	19.4	1	23.3	23.3	23.3	0	20.2	20.3	20.0
			50	0	0	17.0	16.9	16.8	1	19.0	19.3	19.3	1	23.1	23.3	23.3	0	20.0	20.0	20.0
		16QAM	1	0	0	18.1	17.8	17.7	1	19.4	19.3	19.2	1	23.3	23.3	23.3	0	21.1	21.1	21.0
			1	24	0	18.0	17.8	17.7	1	19.2	19.2	19.3	1	23.4	23.4	23.3	0	20.9	21.2	21.1
			1	49	0	18.1	17.8	17.8	1	19.1	19.2	19.2	1	23.4	23.2	23.3	0	20.9	21.2	20.9
			25	0	0	16.9	17.0	16.8	2	18.3	18.2	18.3	2	22.1	22.2	22.2	0	20.2	20.1	20.0
			25	12	0	16.9	16.9	16.8	2	18.3	18.2	18.4	2	22.1	22.5	22.4	0	20.3	20.2	19.9
			25	24	0	16.9	17.1	16.9	2	18.4	18.1	18.3	2	22.2	22.3	22.3	0	20.1	20.2	19.9
			50	0	0	16.9	16.9	16.7	2	17.9	18.2	18.2	2	22.0	22.2	22.2	0	19.9	20.0	19.9

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

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz
LTE Band 4	5	QPSK	1	0	0	18.0	17.9	18.0	0	20.3	20.2	20.2	0	24.3	24.4	24.5	0	21.2	21.3	21.0
			1	12	0	18.0	18.1	17.9	0	20.2	20.2	20.4	0	24.4	24.5	24.3	0	21.2	21.1	21.0
			1	24	0	18.1	18.0	17.8	0	20.2	20.3	20.3	0	24.5	24.4	24.3	0	21.0	21.1	21.1
			12	0	0	16.9	17.0	16.9	1	19.4	19.3	19.3	1	23.3	23.3	23.4	0	20.1	20.1	20.2
			12	7	0	17.1	17.0	16.9	1	19.5	19.3	19.2	1	23.3	23.3	23.2	0	20.2	20.2	20.2
			12	13	0	16.9	17.1	16.9	1	19.4	19.2	19.3	1	23.2	23.4	23.4	0	20.3	20.1	20.0
			25	0	0	16.9	16.9	16.9	1	19.2	19.4	19.2	1	23.2	23.2	23.1	0	20.1	20.1	20.0
		16QAM	1	0	0	18.0	17.8	17.9	1	19.3	19.2	19.1	1	23.3	23.4	23.4	0	21.2	21.3	20.9
			1	12	0	17.9	18.1	17.8	1	19.2	19.1	19.4	1	23.3	23.4	23.3	0	21.2	21.0	21.0
			1	24	0	18.0	18.0	17.7	1	19.1	19.2	19.2	1	23.4	23.4	23.3	0	20.9	21.0	21.1
			12	0	0	16.8	17.0	16.8	1	18.3	18.2	18.2	2	22.2	22.3	22.3	0	20.1	20.0	20.2
			12	7	0	17.1	16.9	16.8	2	18.5	18.2	18.2	2	22.2	22.3	22.1	0	20.1	20.1	20.2
			12	13	0	16.8	17.1	16.9	2	18.3	18.2	18.2	2	22.2	22.3	22.4	0	20.3	20.0	19.9
			25	0	0	16.8	16.8	16.9	2	18.1	18.4	18.1	2	22.1	22.2	22.1	0	20.0	20.0	19.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz
LTE Band 4	3	QPSK	1	0	0	18.0	17.9	17.9	0	20.2	20.2	20.3	0	24.4	24.5	24.4	0	21.0	21.2	21.0
			1	8	0	18.0	17.9	17.8	0	20.4	20.4	20.2	0	24.5	24.5	24.3	0	21.1	21.2	21.0
			1	14	0	18.0	18.0	17.8	0	20.2	20.2	20.2	0	24.3	24.4	24.3	0	21.0	21.2	21.1
			8	0	0	16.9	17.2	16.9	1	19.3	19.3	19.3	1	23.1	23.3	23.3	0	20.3	20.1	20.1
			8	4	0	17.1	17.2	16.8	1	19.4	19.3	19.2	1	23.3	23.4	23.3	0	20.3	20.2	20.1
			8	7	0	17.0	17.1	17.0	1	19.4	19.2	19.4	1	23.2	23.3	23.2	0	20.3	20.1	20.1
			15	0	0	16.8	16.9	16.9	1	19.3	19.4	19.2	1	23.0	23.3	23.1	0	20.0	20.0	19.8
		16QAM	1	0	0	17.9	17.8	17.8	1	19.1	19.1	19.2	1	23.4	23.5	23.4	0	20.9	21.1	20.9
			1	8	0	17.9	17.8	17.7	1	19.3	19.3	19.2	1	23.4	23.4	23.2	0	21.1	21.1	21.0
			1	14	0	17.9	17.9	17.8	1	19.1	19.2	19.1	1	23.2	23.3	23.2	0	20.9	21.2	21.0
			8	0	0	16.8	17.1	16.9	2	18.3	18.2	18.3	2	22.0	22.2	22.2	0	20.3	20.0	20.0
			8	4	0	17.0	17.1	16.7	2	18.3	18.3	18.1	2	22.2	22.3	22.3	0	20.2	20.1	20.0
			8	7	0	16.9	17.0	16.9	2	18.3	18.2	18.4	2	22.2	22.3	22.2	0	20.2	20.0	20.0
			15	0	0	16.7	16.8	16.9	2	18.2	18.3	18.1	2	21.9	22.2	22.1	0	19.9	19.9	19.7

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz
LTE Band 4	1.4	QPSK	1	0	0	18.0	17.9	18.0	0	20.3	20.3	20.3	0	24.5	24.5	24.5	0	21.1	21.2	21.1
			1	3	0	18.0	18.0	17.9	0	20.3	20.3	20.3	0	24.3	24.4	24.5	0	21.0	21.2	21.0
			1	5	0	18.0	17.9	17.9	0	20.3	20.2	20.2	0	24.4	24.4	24.3	0	21.1	21.3	21.1
			3	0	0	16.9	17.1	16.8	0	20.4	20.3	20.3	0	24.2	24.4	24.3	0	20.3	20.2	20.0
			3	1	0	17.0	17.1	16.8	0	20.5	20.4	20.4	0	24.1	24.4	24.2	0	20.2	20.1	20.1
			3	3	0	17.1	17.0	16.8	0	20.3	20.2	20.2	0	24.2	24.5	24.3	0	20.2	20.2	20.0
			6	0	0	16.8	17.0	16.9	1	19.0	19.3	19.2	1	23.4	23.4	23.2	0	20.0	20.0	19.8
		16QAM	1	0	0	17.9	17.9	17.9	1	19.2	19.2	19.2	1	23.4	23.4	23.5	0	21.0	21.2	21.0
			1	3	0	17.9	17.9	17.8	1	19.2	19.2	19.2	1	23.2	23.4	23.5	0	21.0	21.2	20.9
			1	5	0	17.9	17.8	17.8	1	19.3	19.2	19.1	1	23.3	23.3	23.3	0	21.0	21.2	21.0
			3	0	0	16.9	17.0	16.8	1	19.3	19.2	19.2	1	23.1	23.3	23.3	0	20.2	20.1	19.9
			3	1	0	16.9	17.0	16.7	1	19.5	19.4	19.4	1	23.0	23.4	23.2	0	20.2	20.1	20.0
			3	3	0	17.1	16.9	16.8	1	19.2	19.2	19.1	1	23.2	23.5	23.3	0	20.2	20.1	19.9
			6	0	0	16.8	16.9	16.8	2	17.9	18.2	18.1	2	22.3	22.3	22.1	0	20.0	19.9	19.8

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LTE Band 5 Average Power (dBm) Measured Results

SAR for LTE Band 5 (Frequency range: 824 – 849 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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LTE Band 7 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						2510 MHz	2535 MHz	2560 MHz		2510 MHz	2535 MHz	2560 MHz		2510 MHz	2535 MHz	2560 MHz		2510 MHz	2535 MHz	2560 MHz
LTE Band 7	20	QPSK	1	0	0	15.0	14.9	14.9	0	16.8	16.8	16.9	0	24.0	23.9	23.9	0	17.6	17.7	17.6
			1	49	0	15.0	15.0	14.9	0	16.9	16.9	16.9	0	24.0	24.0	24.0	0	17.7	17.7	17.7
			1	99	0	14.9	15.0	14.9	0	16.9	16.8	16.8	0	23.9	23.9	23.9	0	17.6	17.6	17.6
			50	0	0	14.0	14.0	13.8	0	16.3	16.3	16.3	0	23.4	23.4	23.5	0	16.6	16.6	16.6
			50	24	0	14.0	14.0	14.0	0	16.3	16.3	16.3	0	23.4	23.5	23.4	0	16.6	16.6	16.7
			50	49	0	13.9	14.0	13.9	0	16.3	16.3	16.3	0	23.4	23.5	23.3	0	16.6	16.6	16.6
			100	0	0	14.0	14.0	13.9	0	16.3	16.3	16.3	0	23.5	23.4	23.4	0	16.6	16.6	16.7
		16QAM	1	0	0	13.9	13.9	13.9	0	16.3	16.3	16.2	0	23.5	23.5	23.4	0	16.6	16.6	16.6
			1	49	0	14.0	14.0	14.0	0	16.2	16.3	16.3	0	23.5	23.4	23.4	0	16.6	16.6	16.6
			1	99	0	14.0	13.9	14.0	0	16.2	16.3	16.3	0	23.5	23.5	23.5	0	16.6	16.6	16.5
			50	0	0	13.9	13.9	14.0	0	16.1	16.3	16.3	0	23.4	23.5	23.4	0	16.6	16.6	16.6
			50	24	0	13.9	13.9	13.9	0	16.3	16.2	16.3	0	23.4	23.4	23.5	0	16.6	16.7	16.6
			50	49	0	13.9	13.8	13.9	0	16.3	16.1	16.3	0	23.4	23.4	23.4	0	16.6	16.6	16.6
			100	0	0	13.8	14.0	13.9	0	16.1	16.3	16.3	0	23.4	23.4	23.4	0	16.7	16.6	16.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						2507.5 MHz	2535 MHz	2562.5 MHz		2507.5 MHz	2535 MHz	2562.5 MHz		2507.5 MHz	2535 MHz	2562.5 MHz		2507.5 MHz	2535 MHz	2562.5 MHz
LTE Band 7	15	QPSK	1	0	0	15.0	14.9	15.0	0	16.8	16.8	16.9	0	23.9	23.9	24.0	0	17.7	17.7	17.5
			1	36	0	15.0	14.9	15.0	0	16.9	16.9	16.9	0	23.9	23.9	24.0	0	17.6	17.7	17.7
			1	74	0	15.0	14.9	14.9	0	16.9	16.8	16.8	0	23.9	23.9	23.9	0	17.6	17.6	17.7
			36	0	0	14.9	14.9	14.9	0	16.3	16.3	16.3	0	23.9	23.9	24.0	0	17.6	17.6	17.6
			36	18	0	15.0	15.0	14.9	0	16.3	16.3	16.3	0	24.0	23.8	23.9	0	17.6	17.6	17.7
			36	37	0	15.0	14.8	15.0	0	16.3	16.3	16.3	0	24.0	24.0	24.0	0	17.5	17.7	17.7
			75	0	0	14.9	14.9	15.0	0	16.3	16.3	16.3	0	23.9	23.9	23.9	0	17.6	17.6	17.6
		16QAM	1	0	0	14.9	14.8	15.0	0	16.3	16.3	16.2	0	24.0	23.9	24.0	0	17.6	17.5	17.7
			1	36	0	14.9	14.9	14.9	0	16.2	16.3	16.3	0	23.9	23.9	24.0	0	17.6	17.6	17.7
			1	74	0	14.9	15.0	14.9	0	16.2	16.3	16.2	0	23.9	24.0	23.9	0	17.7	17.7	17.6
			36	0	0	14.9	15.0	15.0	0	16.1	16.3	16.3	0	23.9	24.0	23.9	0	17.6	17.6	17.6
			36	18	0	14.9	14.9	14.9	0	16.3	16.2	16.3	0	24.0	23.9	24.0	0	17.7	17.6	17.6
			36	37	0	14.9	14.9	15.0	0	16.3	16.2	16.3	0	23.9	24.0	24.0	0	17.6	17.7	17.6
			75	0	0	15.0	14.8	14.8	0	16.1	16.2	16.3	0	24.0	24.0	23.9	0	17.7	17.7	17.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						2505 MHz	2535 MHz	2565 MHz		2505 MHz	2535 MHz	2565 MHz		2505 MHz	2535 MHz	2565 MHz		2505 MHz	2535 MHz	2565 MHz
LTE Band 7	10	QPSK	1	0	0	14.9	15.0	14.9	0	16.8	16.8	16.9	0	23.9	24.0	23.9	0	17.6	17.7	17.7
			1	24	0	15.0	14.9	15.0	0	16.9	16.9	17.0	0	24.0	23.9	23.9	0	17.6	17.6	17.6
			1	49	0	14.9	14.9	14.9	0	16.9	16.8	16.8	0	23.9	23.9	23.9	0	17.7	17.6	17.6
			25	0	0	15.0	14.9	15.0	0	16.3	16.3	16.3	0	24.0	23.9	23.9	0	17.6	17.6	17.6
			25	12	0	14.9	14.9	15.0	0	16.3	16.3	16.3	0	23.9	23.9	23.9	0	17.7	17.5	17.5
			25	24	0	14.9	14.8	14.9	0	16.3	16.3	16.3	0	23.9	23.9	24.0	0	17.7	17.6	17.6
			50	0	0	14.9	14.8	14.9	0	16.3	16.3	16.3	0	23.9	24.0	23.9	0	17.6	17.6	17.5
		16QAM	1	0	0	14.9	14.9	14.9	0	16.3	16.3	16.2	0	23.9	23.9	24.0	0	17.7	17.6	17.6
			1	24	0	15.0	14.9	14.9	0	16.2	16.3	16.3	0	23.9	23.9	23.9	0	17.6	17.6	17.7
			1	49	0	15.0	14.9	15.0	0	16.2	16.3	16.3	0	23.9	24.0	24.0	0	17.7	17.6	17.6
			25	0	0	14.9	15.0	14.9	0	16.1	16.3	16.3	0	24.0	23.9	23.9	0	17.6	17.6	17.7
			25	12	0	14.9	14.9	15.0	0	16.3	16.2	16.3	0	24.0	23.9	23.9	0	17.7	17.7	17.6
			25	24	0	14.9	14.9	15.0	0	16.3	16.1	16.3	0	24.0	23.9	24.0	0	17.6	17.6	17.7
			50	0	0	14.9	14.9	15.0	0	16.1	16.3	16.3	0	23.8	24.0	23.9	0	17.6	17.7	17.6

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LTE Band 7 Average Power (dBm) Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						2502.5 MHz	2535 MHz	2567.5 MHz		2502.5 MHz	2535 MHz	2567.5 MHz		2502.5 MHz	2535 MHz	2567.5 MHz		2502.5 MHz	2535 MHz	2567.5 MHz
LTE Band 7	5	QPSK	1	0	0	14.9	15.0	14.9	0	16.8	16.8	16.9	0	23.9	23.9	24.0	0	17.7	17.7	17.7
			1	12	0	15.0	14.9	14.9	0	16.9	16.9	16.8	0	23.9	24.0	24.0	0	17.6	17.6	17.6
			1	24	0	14.9	14.9	14.9	0	16.9	16.8	16.8	0	24.0	23.9	23.9	0	17.7	17.7	17.7
			12	0	0	14.9	14.9	15.0	0	16.8	16.8	16.9	0	23.9	23.9	24.0	0	17.7	17.7	17.7
			12	7	0	14.9	15.0	15.0	0	16.9	16.9	16.9	0	23.8	23.9	24.0	0	17.6	17.6	17.6
			12	13	0	15.0	14.9	15.0	0	16.9	16.8	16.8	0	23.9	23.9	23.9	0	17.5	17.7	17.6
			25	0	0	15.0	14.9	14.9	0	16.3	16.3	16.3	0	23.9	24.0	23.9	0	17.7	17.6	17.7
		16QAM	1	0	0	14.9	15.0	15.0	0	16.3	16.3	16.2	0	23.9	24.0	23.9	0	17.7	17.6	17.6
			1	12	0	15.0	15.0	14.8	0	16.2	16.3	16.3	0	23.9	23.9	23.9	0	17.6	17.5	17.6
			1	24	0	14.9	14.9	15.0	0	16.2	16.3	16.3	0	23.9	24.0	23.9	0	17.6	17.6	17.6
			12	0	0	14.9	14.9	15.0	0	16.1	16.3	16.3	0	24.0	23.9	23.9	0	17.6	17.6	17.6
			12	7	0	15.0	14.9	14.9	0	16.3	16.2	16.3	0	23.9	23.8	23.9	0	17.7	17.6	17.7
			12	13	0	14.9	14.9	14.9	0	16.3	16.1	16.3	0	23.9	23.8	23.9	0	17.5	17.6	17.5
			25	0	0	14.9	15.0	15.0	0	16.1	16.3	16.3	0	23.9	23.9	24.0	0	17.7	17.6	17.6

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LTE Band 12 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						704 MHz	707.5 MHz	711 MHz		704 MHz	707.5 MHz	711 MHz		704 MHz	707.5 MHz	711 MHz		704 MHz	707.5 MHz	711 MHz
LTE Band 12	10	QPSK	1	0	0	21.9	21.9	21.9	0	21.8	22.0	22.0	0	24.4	24.5	24.5	0	24.4	24.4	24.5
			1	24	0	22.0	22.0	21.9	0	21.9	22.0	21.9	0	24.5	24.5	24.5	0	24.4	24.5	24.4
			1	49	0	21.9	21.9	21.9	0	21.9	21.9	21.9	0	24.5	24.4	24.4	0	24.4	24.4	24.4
			25	0	1	20.9	21.0	21.0	1	20.9	21.0	20.9	1	23.3	23.5	23.5	1	23.5	23.5	23.4
			25	12	1	20.9	21.0	21.0	1	20.9	20.9	20.9	1	23.5	23.5	23.4	1	23.4	23.5	23.4
			25	24	1	20.9	21.0	20.9	1	21.0	21.0	20.9	1	23.4	23.4	23.5	1	23.5	23.4	23.4
			50	0	1	20.9	20.9	21.0	1	20.9	20.9	21.0	1	23.4	23.3	23.4	1	23.4	23.4	23.4
		16QAM	1	0	1	20.9	21.0	20.9	1	20.9	20.8	20.9	1	23.4	23.5	23.4	1	23.4	23.5	23.5
			1	24	1	20.8	20.9	20.9	1	20.9	21.0	20.9	1	23.4	23.4	23.5	1	23.4	23.4	23.5
			1	49	1	20.9	20.9	21.0	1	20.9	21.0	20.9	1	23.5	23.4	23.5	1	23.4	23.4	23.5
			25	0	2	20.0	19.9	19.9	2	19.9	20.0	19.9	2	22.4	22.5	22.5	2	22.4	22.4	22.4
			25	12	2	19.9	20.0	20.0	2	19.9	19.9	19.9	2	22.4	22.3	22.4	2	22.4	22.4	22.5
			25	24	2	19.9	19.8	19.9	2	20.0	20.0	19.9	2	22.5	22.4	22.4	2	22.4	22.4	22.4
			50	0	2	19.9	19.9	19.9	2	20.0	19.9	19.8	2	22.4	22.4	22.5	2	22.5	22.4	22.5
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz
LTE Band 12	5	QPSK	1	0	0	22.0	21.9	21.9	0	22.0	21.8	22.0	0	24.4	24.4	24.5	0	24.5	24.4	24.4
			1	12	0	22.0	21.9	22.0	0	21.9	22.0	21.8	0	24.5	24.4	24.4	0	24.4	24.5	24.5
			1	24	0	21.9	22.0	22.0	0	21.9	22.0	22.0	0	24.5	24.5	24.4	0	24.4	24.4	24.5
			12	0	1	20.9	21.0	20.9	1	21.0	21.0	20.9	1	23.4	23.4	23.4	1	23.4	23.5	23.4
			12	7	1	20.9	21.0	20.8	1	21.0	20.9	21.0	1	23.4	23.4	23.4	1	23.5	23.4	23.4
			12	13	1	20.9	20.9	21.0	1	21.0	20.8	20.9	1	23.4	23.5	23.3	1	23.5	23.4	23.5
			25	0	1	20.9	21.0	20.9	1	20.9	21.0	20.9	1	23.4	23.4	23.4	1	23.4	23.4	23.4
		16QAM	1	0	1	20.8	20.9	21.0	1	20.9	20.9	20.9	1	23.5	23.5	23.5	1	23.4	23.4	23.4
			1	12	1	21.0	20.9	21.0	1	20.9	20.9	20.9	1	23.4	23.4	23.4	1	23.4	23.5	23.5
			1	24	1	21.0	20.9	20.9	1	20.9	21.0	21.0	1	23.5	23.4	23.5	1	23.4	23.5	23.4
			12	0	2	20.0	19.9	20.0	2	19.9	19.9	19.9	2	22.4	22.5	22.5	2	22.4	22.5	22.4
			12	7	2	19.9	20.0	20.0	2	20.0	19.9	19.9	2	22.5	22.4	22.4	2	22.4	22.3	22.5
			12	13	2	19.9	20.0	19.8	2	20.0	19.9	20.0	2	22.4	22.5	22.4	2	22.5	22.5	22.4
			25	0	2	20.0	20.0	20.0	2	19.9	19.8	19.9	2	22.5	22.3	22.4	2	22.5	22.4	22.4
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz
LTE Band 12	3	QPSK	1	0	0	21.9	21.9	21.9	0	22.0	22.0	21.9	0	24.4	24.4	24.5	0	24.4	24.4	24.5
			1	8	0	21.9	22.0	21.9	0	21.9	22.0	21.9	0	24.3	24.4	24.5	0	24.4	24.4	24.5
			1	14	0	22.0	21.9	21.9	0	21.9	22.0	21.9	0	24.3	24.4	24.3	0	24.3	24.4	24.4
			8	0	1	20.9	21.0	20.9	1	20.8	20.9	20.9	1	23.5	23.5	23.4	1	23.3	23.3	23.5
			8	4	1	21.0	20.9	20.9	1	20.9	20.8	20.9	1	23.5	23.4	23.4	1	23.4	23.4	23.4
			8	7	1	20.9	21.0	21.0	1	20.9	20.9	20.9	1	23.5	23.4	23.4	1	23.4	23.4	23.4
			15	0	1	21.0	20.8	20.9	1	21.0	21.0	20.9	1	23.5	23.4	23.4	1	23.3	23.5	23.5
		16QAM	1	0	1	21.0	21.0	20.9	1	21.0	20.9	20.9	1	23.4	23.4	23.5	1	23.4	23.4	23.4
			1	8	1	20.9	20.9	20.9	1	20.9	20.9	20.9	1	23.4	23.5	23.4	1	23.4	23.5	23.4
			1	14	1	20.9	20.9	21.0	1	21.0	20.9	20.9	1	23.5	23.4	23.4	1	23.4	23.4	23.5
			8	0	2	20.0	19.8	19.9	2	19.9	19.9	20.0	2	22.4	22.5	22.4	2	22.4	22.4	22.5
			8	4	2	20.0	20.0	19.8	2	19.9	19.9	20.0	2	22.5	22.5	22.4	2	22.5	22.4	22.4
			8	7	2	19.9	19.9	19.9	2	19.8	19.9	19.9	2	22.4	22.5	22.4	2	22.4	22.4	22.4
			15	0	2	19.9	19.9	19.9	2	19.8	20.0	20.0	2	22.4	22.5	22.4	2	22.3	22.4	22.4

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz
LTE Band 12	1.4	QPSK	1	0	0	21.9	21.9	21.9	0	21.9	21.9	21.9	0	24.5	24.5	24.3	0	24.5	24.4	24.3
			1	2	0	21.9	22.0	21.9	0	21.8	21.9	21.8	0	24.4	24.4	24.4	0	24.5	24.4	24.4
			1	5	0	22.0	21.9	22.0	0	21.9	22.0	21.9	0	24.4	24.5	24.5	0	24.5	24.4	24.5
			3	0	0	21.9	22.0	21.9	0	22.0	21.9	21.9	0	24.4	24.4	24.4	0	24.5	24.4	24.4
			3	1	0	22.0	22.0	21.9	0	21.9	21.9	22.0	0	24.5	24.4	24.4	0	24.5	24.4	24.4
			3	2	0	21.9	21.9	21.9	0	21.9	21.8	21.9	0	24.4	24.5	24.4	0	24.5	24.5	24.5
			6	0	1	20.9	20.9	21.0	1	20.8	20.9	21.0	1	23.5	23.4	23.4	1	23.4	23.4	23.5
		16QAM	1	0	1	20.9	21.0	20.9	1	20.8	20.9	21.0	1	23.5	23.4	23.3	1	23.4	23.5	23.5
			1	2	1	20.9	20.9	20.9	1	20.9	20.9	20.9	1	23.4	23.3	23.4	1	23.4	23.4	23.5
			1	5	1	21.0	20.9	21.0	1	20.9	20.9	20.9	1	23.4	23.4	23.4	1	23.4	23.4	23.5
			3	0	1	21.0	20.9	21.0	1	20.9	21.0	20.9	1	23.4	23.4	23.4	1	23.5	23.3	23.4
			3	1	1	20.9	20.9	21.0	1	20.9	20.9	20.9	1	23.4	23.4	23.5	1	23.5	23.4	23.4
			3	2	1	21.0	20.9	20.9	1	20.9	20.8	21.0	1	23.5	23.4	23.3	1	23.4	23.5	23.4
			6	0	2	20.0	19.9	19.9	2	19.9	20.0	20.0	2	22.4	22.5	22.4	2	22.4	22.4	22.5

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LTE Band 13 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
							782 MHz				782 MHz				782 MHz				782 MHz	
LTE Band 13	10	QPSK	1	0	0		21.0		0		21.0		0		24.5		0		24.4	
			1	24	0		21.0		0		21.0		0		24.5		0		24.5	
			1	49	0		21.0		0		21.0		0		24.4		0		24.5	
			25	0	1		20.9		1		20.9		1		23.4		1		23.4	
			25	12	1		20.8		1		20.8		1		23.5		1		23.5	
			25	24	1		20.9		1		20.9		1		23.4		1		23.4	
			50	0	1		20.9		1		20.9		1		23.5		1		23.5	
		16QAM	1	0	1		20.9		1		20.9		1		23.4		1		23.5	
			1	24	1		21.0		1		21.0		1		23.4		1		23.5	
			1	49	1		20.9		1		20.9		1		23.5		1		23.5	
			25	0	2		19.9		2		19.9		2		22.4		2		22.4	
			25	12	2		19.9		2		19.9		2		22.3		2		22.5	
			25	24	2		19.9		2		19.9		2		22.5		2		22.4	
			50	0	2		20.0		2		20.0		2		22.5		2		22.4	

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz
LTE Band 13	5	QPSK	1	0	0	22.0	21.9	22.0	0	22.0	21.9	21.9	0	24.5	24.5	24.4	0	24.5	24.4	24.4
			1	12	0	21.9	22.0	21.9	0	21.9	22.0	22.0	0	24.5	24.4	24.4	0	24.5	24.5	24.4
			1	24	0	21.9	21.9	22.0	0	21.9	21.9	21.9	0	24.4	24.5	24.4	0	24.4	24.5	24.4
			12	0	1	20.9	20.9	21.0	1	20.9	20.9	20.9	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			12	7	1	21.0	21.0	20.9	1	20.9	20.9	20.9	1	23.5	23.4	23.4	1	23.4	23.4	23.5
			12	13	1	21.0	20.9	20.9	1	21.0	21.0	21.0	1	23.4	23.3	23.4	1	23.3	23.5	23.3
			25	0	1	20.9	20.9	20.9	1	20.9	20.9	20.8	1	23.4	23.4	23.5	1	23.4	23.4	23.4
		16QAM	1	0	1	21.0	20.9	20.9	1	21.0	20.9	20.9	1	23.4	23.5	23.5	1	23.4	23.4	23.4
			1	12	1	20.9	20.9	20.9	1	20.9	20.9	20.9	1	23.5	23.4	23.4	1	23.5	23.5	23.5
			1	24	1	20.9	20.9	21.0	1	20.9	21.0	20.9	1	23.5	23.4	23.5	1	23.5	23.4	23.5
			12	0	2	19.9	20.0	19.9	2	20.0	19.9	19.9	2	22.4	22.3	22.5	2	22.5	22.4	22.4
			12	7	2	19.9	19.9	19.9	2	19.9	19.8	19.9	2	22.5	22.4	22.4	2	22.5	22.4	22.5
			12	13	2	19.9	19.9	20.0	2	20.0	19.9	19.9	2	22.4	22.4	22.4	2	22.4	22.4	22.5
			25	0	2	19.9	19.9	20.0	2	19.9	20.0	20.0	2	22.4	22.4	22.4	2	22.4	22.5	22.4

Note(s):

10 MHz Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices

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LTE Band 17 Average Power (dBm) Measured Results

SAR for LTE Band 17 (Frequency range: 704 – 716 MHz) is covered by LTE Band 12 (Frequency range: 699 – 716 MHz) due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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LTE Band 25 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1860 MHz	1882.5 MHz	1905 MHz		1860 MHz	1882.5 MHz	1905 MHz		1860 MHz	1882.5 MHz	1905 MHz		1860 MHz	1882.5 MHz	1905 MHz
LTE Band 25	20	QPSK	1	0	0	19.2	19.2	19.2	0	20.3	20.2	20.2	0	24.4	24.4	24.3	0	20.9	20.9	20.9
			1	49	0	19.3	19.3	19.3	0	20.1	20.3	20.2	0	24.5	24.5	24.4	0	21.0	21.0	21.0
			1	99	0	19.2	19.3	19.2	0	20.2	20.3	20.3	0	24.4	24.4	24.5	0	20.9	21.0	20.9
			50	0	0	18.8	18.8	18.9	0	19.3	19.3	19.3	1	23.4	23.4	23.4	0	21.0	20.9	20.9
			50	24	0	19.1	18.9	18.9	0	19.4	19.4	19.3	1	23.4	23.5	23.4	0	21.0	21.0	20.9
			50	49	0	18.7	18.8	18.8	0	19.3	19.4	19.3	1	23.4	23.5	23.4	0	20.9	20.8	20.9
			100	0	0	18.9	18.8	18.8	0	19.3	19.3	19.3	1	23.4	23.5	23.5	0	21.0	21.0	20.9
		16QAM	1	0	0	18.9	18.8	18.8	0	19.3	19.3	19.3	1	23.4	23.4	23.4	0	20.9	20.9	20.9
			1	49	0	18.7	18.8	18.8	0	19.4	19.4	19.3	1	23.5	23.5	23.3	0	21.0	20.9	20.9
			1	99	0	18.8	18.8	18.8	0	19.3	19.4	19.3	1	23.4	23.4	23.5	0	21.0	21.0	20.9
			50	0	0	18.8	18.8	18.9	0	19.3	19.3	19.3	2	22.5	22.4	22.5	0	20.9	21.0	20.8
			50	24	0	18.8	18.9	18.8	0	19.3	19.3	19.3	2	22.3	22.5	22.4	0	20.9	21.0	20.9
			50	49	0	18.8	18.9	18.8	0	19.3	19.3	19.3	2	22.5	22.4	22.4	0	21.0	20.9	20.9
			100	0	0	18.8	18.9	18.8	0	19.4	19.4	19.3	2	22.4	22.5	22.4	0	20.8	20.9	20.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz
LTE Band 25	15	QPSK	1	0	0	19.2	19.3	19.2	0	20.2	20.2	20.2	0	24.5	24.4	24.4	0	21.0	21.0	20.9
			1	36	0	19.2	19.2	19.2	0	20.2	20.3	20.2	0	24.4	24.5	24.4	0	21.0	21.0	20.9
			1	74	0	19.2	19.2	19.1	0	20.2	20.3	20.3	0	24.3	24.4	24.4	0	21.0	20.9	21.0
			36	0	0	19.3	19.3	19.2	0	19.3	19.3	19.3	1	23.4	23.4	23.4	0	20.9	21.0	21.0
			36	18	0	19.2	19.2	19.3	0	19.4	19.4	19.3	1	23.5	23.4	23.5	0	20.9	20.9	20.9
			36	37	0	19.1	19.1	19.2	0	19.3	19.4	19.3	1	23.4	23.4	23.4	0	20.9	20.8	20.9
			75	0	0	19.3	19.2	19.2	0	19.3	19.3	19.3	1	23.5	23.4	23.5	0	20.9	21.0	21.0
		16QAM	1	0	0	19.2	19.3	19.3	0	19.3	19.4	19.3	1	23.5	23.4	23.4	0	21.0	20.8	20.9
			1	36	0	19.2	19.2	19.2	0	19.4	19.4	19.3	1	23.5	23.4	23.4	0	20.9	21.0	20.9
			1	74	0	19.2	19.2	19.3	0	19.3	19.4	19.3	1	23.4	23.4	23.4	0	20.9	20.9	21.0
			36	0	0	19.2	19.2	19.3	0	19.3	19.3	19.3	2	22.4	22.5	22.5	0	21.0	20.8	20.9
			36	18	0	19.2	19.2	19.3	0	19.3	19.3	19.3	2	22.4	22.5	22.4	0	20.9	20.9	20.9
			36	37	0	19.2	19.2	19.2	0	19.3	19.3	19.3	2	22.4	22.4	22.4	0	20.9	21.0	20.9
			75	0	0	19.1	19.2	19.2	0	19.4	19.4	19.3	2	22.4	22.4	22.4	0	20.8	20.9	20.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz
LTE Band 25	10	QPSK	1	0	0	19.3	19.1	19.2	0	20.3	20.2	20.2	0	24.5	24.4	24.4	0	20.9	21.0	20.9
			1	24	0	19.2	19.2	19.2	0	20.1	20.3	20.2	0	24.4	24.4	24.4	0	21.0	21.0	21.0
			1	49	0	19.2	19.2	19.2	0	20.2	20.3	20.3	0	24.5	24.5	24.5	0	20.9	20.9	21.0
			25	0	0	19.2	19.3	19.3	0	19.3	19.3	19.3	1	23.5	23.3	23.4	0	20.9	21.0	20.8
			25	12	0	19.2	19.2	19.2	0	19.4	19.4	19.3	1	23.5	23.4	23.4	0	20.9	20.9	20.9
			25	24	0	19.2	19.2	19.3	0	19.3	19.4	19.3	1	23.5	23.3	23.4	0	21.0	20.9	20.9
			50	0	0	19.2	19.2	19.2	0	19.3	19.3	19.3	1	23.4	23.4	23.5	0	20.9	21.0	20.9
		16QAM	1	0	0	19.2	19.2	19.1	0	19.3	19.4	19.3	1	23.4	23.5	23.5	0	20.9	20.9	20.9
			1	24	0	19.3	19.2	19.3	0	19.4	19.4	19.3	1	23.4	23.4	23.4	0	20.9	20.9	21.0
			1	49	0	19.2	19.2	19.2	0	19.3	19.4	19.3	1	23.5	23.4	23.4	0	20.9	20.9	20.9
			25	0	0	19.2	19.2	19.3	0	19.3	19.3	19.3	2	22.4	22.4	22.4	0	20.9	21.0	20.8
			25	12	0	19.2	19.2	19.2	0	19.3	19.3	19.3	2	22.5	22.4	22.3	0	20.9	20.9	20.9
			25	24	0	19.1	19.2	19.2	0	19.3	19.3	19.3	2	22.4	22.4	22.4	0	21.0	20.9	21.0
			50	0	0	19.1	19.3	19.3	0	19.4	19.4	19.3	2	22.5	22.5	22.4	0	20.9	20.9	20.9

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

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1852.5 MHz	1882.5 MHz	1912.5 MHz		1852.5 MHz	1882.5 MHz	1912.5 MHz		1852.5 MHz	1882.5 MHz	1912.5 MHz		1852.5 MHz	1882.5 MHz	1912.5 MHz
LTE Band 25	5	QPSK	1	0	0	19.2	19.3	19.2	0	20.3	20.2	20.2	0	24.4	24.5	24.4	0	20.9	20.9	20.9
			1	12	0	19.3	19.2	19.2	0	20.1	20.3	20.2	0	24.4	24.4	24.3	0	20.9	20.9	20.9
			1	24	0	19.3	19.2	19.2	0	20.2	20.3	20.3	0	24.4	24.4	24.4	0	21.0	21.0	20.9
			12	0	0	19.3	19.1	19.2	0	19.3	19.3	19.3	1	23.4	23.5	23.4	0	20.9	21.0	21.0
			12	7	0	19.3	19.2	19.2	0	19.4	19.4	19.3	1	23.5	23.3	23.4	0	20.9	20.9	20.9
			12	13	0	19.3	19.3	19.3	0	19.3	19.4	19.3	1	23.4	23.5	23.4	0	21.0	20.9	21.0
			25	0	0	19.2	19.3	19.2	0	19.3	19.3	19.3	1	23.5	23.4	23.3	0	20.9	20.9	20.9
		16QAM	1	0	0	19.3	19.2	19.3	0	19.3	19.4	19.3	1	23.4	23.4	23.5	0	20.9	20.9	21.0
			1	12	0	19.3	19.3	19.2	0	19.4	19.4	19.3	1	23.4	23.5	23.4	0	21.0	21.0	20.9
			1	24	0	19.3	19.2	19.2	0	19.3	19.4	19.3	1	23.5	23.4	23.5	0	21.0	21.0	20.9
			12	0	0	19.2	19.2	19.2	0	19.3	19.3	19.3	2	22.4	22.4	22.4	0	20.9	20.8	21.0
			12	7	0	19.2	19.3	19.2	0	19.3	19.4	19.3	2	22.4	22.4	22.4	0	20.9	20.9	20.9
			12	13	0	19.1	19.2	19.2	0	19.3	19.2	19.3	2	22.4	22.4	22.4	0	20.8	20.9	20.9
			25	0	0	19.3	19.3	19.3	0	19.3	19.4	19.3	2	22.5	22.4	22.4	0	20.9	20.9	20.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz
LTE Band 25	3	QPSK	1	0	0	19.1	19.2	19.3	0	20.3	20.2	20.2	0	24.4	24.4	24.5	0	21.0	20.8	20.9
			1	8	0	19.3	19.2	19.2	0	20.1	20.3	20.2	0	24.4	24.5	24.4	0	20.9	20.9	20.9
			1	14	0	19.2	19.2	19.2	0	20.2	20.3	20.3	0	24.5	24.4	24.4	0	20.9	20.9	21.0
			8	0	0	19.3	19.2	19.3	0	19.3	19.3	19.3	1	23.4	23.4	23.5	0	20.9	20.9	20.9
			8	4	0	19.2	19.3	19.2	0	19.4	19.4	19.3	1	23.5	23.4	23.4	0	20.9	21.0	21.0
			8	7	0	19.3	19.2	19.3	0	19.3	19.4	19.3	1	23.4	23.5	23.4	0	20.9	20.9	21.0
			15	0	0	19.3	19.2	19.3	0	19.3	19.3	19.3	1	23.5	23.5	23.5	0	21.0	20.9	20.9
		16QAM	1	0	0	19.3	19.1	19.2	0	19.3	19.4	19.3	1	23.5	23.4	23.5	0	21.0	21.0	20.9
			1	8	0	19.3	19.3	19.2	0	19.3	19.4	19.3	1	23.4	23.5	23.5	0	20.9	20.9	20.9
			1	14	0	19.2	19.1	19.2	0	19.3	19.3	19.3	1	23.4	23.4	23.4	0	20.9	20.9	21.0
			8	0	0	19.1	19.3	19.2	0	19.3	19.4	19.3	2	22.5	22.4	22.3	0	21.0	20.8	20.9
			8	4	0	19.2	19.2	19.3	0	19.3	19.2	19.3	2	22.5	22.5	22.5	0	20.9	20.9	20.9
			8	7	0	19.2	19.2	19.2	0	19.3	19.3	19.3	2	22.4	22.5	22.5	0	20.9	20.9	20.9
			15	0	0	19.2	19.3	19.2	0	19.4	19.4	19.3	2	22.5	22.4	22.5	0	20.9	20.9	20.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz
LTE Band 25	1.4	QPSK	1	0	0	19.2	19.2	19.3	0	20.3	20.2	20.2	0	24.4	24.4	24.4	0	20.8	21.0	20.9
			1	3	0	19.2	19.3	19.3	0	20.1	20.3	20.2	0	24.4	24.4	24.5	0	21.0	21.0	20.9
			1	5	0	19.2	19.2	19.2	0	20.2	20.3	20.3	0	24.4	24.3	24.4	0	20.9	20.9	21.0
			3	0	0	19.2	19.2	19.3	0	19.3	19.3	19.3	0	24.4	24.5	24.4	0	21.0	20.9	21.0
			3	1	0	19.2	19.2	19.2	0	19.4	19.4	19.3	0	24.4	24.4	24.4	0	21.0	20.9	20.9
			3	3	0	19.2	19.3	19.2	0	19.3	19.4	19.3	0	24.4	24.5	24.4	0	20.9	20.8	20.9
			6	0	0	19.2	19.3	19.3	0	19.3	19.3	19.3	1	23.4	23.4	23.4	0	21.0	20.9	21.0
		16QAM	1	0	0	19.2	19.2	19.2	0	19.3	19.4	19.3	1	23.5	23.4	23.4	0	21.0	21.0	20.9
			1	3	0	19.2	19.2	19.2	0	19.3	19.2	19.3	1	23.4	23.4	23.4	0	20.9	20.9	20.9
			1	5	0	19.2	19.3	19.2	0	19.3	19.4	19.3	1	23.4	23.4	23.4	0	20.9	20.9	20.9
			3	0	0	19.2	19.2	19.2	0	19.3	19.3	19.3	1	23.5	23.4	23.4	0	20.9	20.9	21.0
			3	1	0	19.2	19.2	19.2	0	19.3	19.3	19.3	1	23.4	23.4	23.5	0	20.9	20.9	20.9
			3	3	0	19.2	19.2	19.2	0	19.3	19.3	19.3	1	23.4	23.4	23.3	0	21.0	21.0	20.9
			6	0	0	19.2	19.2	19.2	0	19.2	19.3	19.3	2	22.4	22.5	22.4	0	20.9	20.9	21.0

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LTE Band 26 (Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						819 MHz	831.5 MHz	844 MHz		819 MHz	831.5 MHz	844 MHz		819 MHz	831.5 MHz	844 MHz		819 MHz	831.5 MHz	844 MHz
LTE Band 26	10	QPSK	1	0	0	21.2	21.1	21.2	0	21.4	21.2	21.3	0	23.8	24.0	23.9	0	23.8	24.0	23.8
			1	24	0	21.4	21.3	21.4	0	21.5	21.3	21.4	0	24.0	24.0	24.0	0	23.9	24.0	23.9
			1	49	0	21.4	21.1	21.4	0	21.3	21.1	21.3	0	24.0	23.8	23.8	0	23.8	23.9	23.9
			25	0	1	20.3	20.3	20.3	1	20.4	20.3	20.2	1	22.7	23.0	22.8	1	23.0	23.0	22.8
			25	12	1	20.4	20.5	20.4	1	20.4	20.5	20.4	1	22.9	23.0	22.9	1	23.0	23.0	23.0
			25	24	1	20.3	20.3	20.4	1	20.3	20.4	20.2	1	22.9	22.9	22.7	1	23.0	22.9	22.8
			50	0	1	20.2	20.3	20.2	1	20.2	20.4	20.3	1	22.8	23.0	22.8	1	22.9	22.9	22.7
		16QAM	1	0	1	20.1	20.1	20.1	1	20.3	20.2	20.3	1	22.7	23.0	22.8	1	22.7	22.9	22.8
			1	24	1	20.3	20.2	20.3	1	20.5	20.3	20.4	1	22.9	22.9	22.9	1	22.9	23.0	22.9
			1	49	1	20.3	20.0	20.4	1	20.2	20.1	20.3	1	23.0	22.7	22.7	1	22.7	22.8	22.8
			25	0	2	19.2	19.2	19.3	2	19.4	19.2	19.1	2	21.6	22.0	21.8	2	21.9	22.0	21.8
			25	12	2	19.4	19.4	19.4	2	19.3	19.4	19.4	2	21.8	21.9	21.9	2	21.9	22.0	21.9
			25	24	2	19.2	19.2	19.3	2	19.2	19.3	19.2	2	21.8	21.8	21.7	2	21.9	21.8	21.7
			50	0	2	19.2	19.2	19.1	2	19.1	19.4	19.3	2	21.7	21.9	21.7	2	21.9	21.8	21.6
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						816.5 MHz	831.5 MHz	846.5 MHz		816.5 MHz	831.5 MHz	846.5 MHz		816.5 MHz	831.5 MHz	846.5 MHz		816.5 MHz	831.5 MHz	846.5 MHz
LTE Band 26	5	QPSK	1	0	0	21.2	21.2	21.4	0	21.3	21.2	21.2	0	23.9	23.9	23.9	0	23.7	23.8	23.8
			1	12	0	21.2	21.2	21.3	0	21.3	21.2	21.2	0	23.8	23.9	23.8	0	23.8	23.8	23.7
			1	24	0	21.2	21.1	21.4	0	21.4	21.2	21.2	0	23.9	23.8	23.8	0	23.7	23.9	23.8
			12	0	1	20.3	20.4	20.2	1	20.4	20.4	20.3	1	22.7	22.8	22.8	1	23.0	22.9	23.0
			12	7	1	20.4	20.5	20.3	1	20.4	20.5	20.3	1	22.8	22.9	22.7	1	22.8	22.8	22.8
			12	13	1	20.3	20.5	20.4	1	20.4	20.5	20.4	1	22.7	22.8	22.8	1	22.8	22.9	22.9
			25	0	1	20.0	20.1	20.2	1	20.1	20.3	20.3	1	22.6	22.8	22.7	1	22.7	22.7	22.5
		16QAM	1	0	1	20.2	20.1	20.3	1	20.2	20.2	20.1	1	22.9	22.8	22.8	1	22.6	22.7	22.7
			1	12	1	20.1	20.1	20.2	1	20.2	20.1	20.1	1	22.7	22.9	22.7	1	22.8	22.7	22.6
			1	24	1	20.1	20.0	20.4	1	20.3	20.1	20.2	1	22.8	22.8	22.8	1	22.6	22.9	22.7
			12	0	2	19.2	19.4	19.2	2	19.3	19.3	19.2	2	21.6	21.7	21.8	2	21.9	21.8	21.9
			12	7	2	19.3	19.5	19.2	2	19.3	19.5	19.2	2	21.8	21.8	21.6	2	21.7	21.8	21.7
			12	13	2	19.2	19.4	19.4	2	19.3	19.4	19.3	2	21.6	21.8	21.8	2	21.8	21.8	21.8
			25	0	2	19.0	19.0	19.1	2	19.0	19.2	19.2	2	21.5	21.7	21.6	2	21.6	21.6	21.4
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						815.5 MHz	831.5 MHz	847.5 MHz		815.5 MHz	831.5 MHz	847.5 MHz		815.5 MHz	831.5 MHz	847.5 MHz		815.5 MHz	831.5 MHz	847.5 MHz
LTE Band 26	3	QPSK	1	0	0	21.4	21.2	21.3	0	21.4	21.2	21.2	0	23.8	23.8	24.0	0	23.7	23.8	23.7
			1	8	0	21.3	21.1	21.3	0	21.4	21.1	21.3	0	24.0	23.8	24.0	0	23.9	24.0	23.9
			1	14	0	21.4	21.2	21.2	0	21.3	21.2	21.4	0	23.9	23.9	23.9	0	23.7	24.0	23.8
			8	0	1	20.2	20.4	20.4	1	20.4	20.4	20.2	1	22.8	22.8	22.8	1	22.8	23.0	22.9
			8	4	1	20.2	20.5	20.2	1	20.4	20.4	20.4	1	22.7	22.8	22.7	1	22.9	22.9	22.9
			8	7	1	20.2	20.4	20.2	1	20.4	20.3	20.3	1	22.8	22.8	22.8	1	22.8	22.9	22.8
			15	0	1	20.0	20.2	20.1	1	20.3	20.3	20.1	1	22.6	22.9	22.8	1	22.6	22.8	22.8
		16QAM	1	0	1	20.3	20.2	20.3	1	20.4	20.1	20.1	1	22.7	22.7	22.9	1	22.7	22.7	22.6
			1	8	1	20.2	20.0	20.2	1	20.4	20.1	20.2	1	22.9	22.7	23.0	1	22.8	22.9	22.9
			1	14	1	20.3	20.2	20.1	1	20.3	20.2	20.3	1	22.9	22.9	22.9	1	22.6	22.9	22.7
			8	0	2	19.1	19.4	19.4	2	19.3	19.4	19.1	2	21.7	21.7	21.8	2	21.8	21.9	21.8
			8	4	2	19.1	19.4	19.1	2	19.3	19.3	19.4	2	21.7	21.7	21.6	2	21.9	21.8	21.8
			8	7	2	19.1	19.4	19.1	2	19.3	19.2	19.2	2	21.7	21.7	21.7	2	21.7	21.8	21.7
			15	0	2	18.9	19.1	19.0	2	19.2	19.3	19.1	2	21.6	21.8	21.7	2	21.6	21.7	21.7

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LTE Band 26 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz
LTE Band 26	1.4	QPSK	1	0	0	21.4	21.3	21.5	0	21.5	21.4	21.5	0	23.9	24.0	23.9	0	23.9	23.9	23.9
			1	3	0	21.5	21.4	21.4	0	21.4	21.4	21.4	0	24.0	24.0	23.9	0	24.0	23.9	24.0
			1	5	0	21.4	21.5	21.5	0	21.4	21.4	21.5	0	24.0	24.0	24.0	0	23.9	23.9	23.9
			3	0	0	21.4	21.4	21.4	0	21.4	21.4	21.4	0	24.0	23.9	24.0	0	23.9	23.9	23.9
			3	1	0	21.4	21.4	21.5	0	21.4	21.4	21.4	0	24.0	24.0	23.9	0	23.9	24.0	23.8
			3	3	0	21.5	21.4	21.3	0	21.4	21.4	21.5	0	24.0	24.0	24.0	0	24.0	23.9	24.0
			6	0	1	20.4	20.4	20.4	1	20.4	20.5	20.4	1	22.9	23.0	22.9	1	23.0	22.9	22.9
		16QAM	1	0	1	20.5	20.5	20.5	1	20.4	20.5	20.4	1	22.9	23.0	22.9	1	23.0	22.9	22.9
			1	3	1	20.5	20.3	20.5	1	20.5	20.4	20.4	1	22.9	22.9	22.9	1	22.9	22.9	22.9
			1	5	1	20.5	20.4	20.4	1	20.4	20.4	20.4	1	22.9	22.9	22.9	1	23.0	22.8	23.0
			3	0	1	20.4	20.4	20.4	1	20.5	20.4	20.4	1	22.9	22.9	23.0	1	23.0	22.9	23.0
			3	1	1	20.5	20.4	20.3	1	20.4	20.4	20.4	1	22.9	22.9	22.9	1	22.8	22.9	22.9
			3	3	1	20.4	20.4	20.4	1	20.4	20.5	20.4	1	22.8	22.9	22.9	1	22.9	22.9	23.0
			6	0	2	19.4	19.4	19.4	2	19.5	19.5	19.4	2	21.9	22.0	21.8	2	21.9	21.9	21.9

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LTE Band 27 Average Power (dBm) Measured Results

SAR for LTE Band 27 (Frequency range: 814 – 824 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to similar frequency range, similar maximum tune-up limit and same channel bandwidth.

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LTE Band 30 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD	Target MPR	UAT / BODY	Target MPR	LAT / HEAD	Target MPR	LAT / BODY
						2310 MHz		2310 MHz		2310 MHz		2310 MHz
LTE Band 30	10	QPSK	1	0	0	15.3	0	17.8	0	22.2	0	18.1
			1	24	0	15.3	0	17.8	0	22.2	0	18.3
			1	49	0	15.2	0	17.8	0	22.2	0	18.2
			25	0	0	15.2	0	18.0	0	21.7	0	18.2
			25	12	0	15.3	0	18.0	0	21.7	0	18.3
			25	24	0	15.2	0	18.0	0	21.7	0	18.3
			50	0	0	15.3	0	17.9	0	21.7	0	18.3
		16QAM	1	0	0	15.3	0	17.9	0	21.6	0	18.2
			1	24	0	15.2	0	18.0	0	21.7	0	18.3
			1	49	0	15.3	0	18.0	0	21.7	0	18.2
			25	0	0	15.2	0	17.9	0	21.7	0	18.3
			25	12	0	15.3	0	18.0	0	21.6	0	18.2
			25	24	0	15.3	0	17.9	0	21.7	0	18.3
			50	0	0	15.2	0	18.0	0	21.6	0	18.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						2307.5 MHz	2310 MHz	2312.5 MHz		2307.5 MHz	2310 MHz	2312.5 MHz		2307.5 MHz	2310 MHz	2312.5 MHz		2307.5 MHz	2310 MHz	2312.5 MHz
LTE Band 30	5	QPSK	1	0	0	15.1	15.2	15.2	0	18.0	17.9	18.0	0	22.2	22.2	22.3	0	18.2	18.2	18.2
			1	12	0	15.3	15.2	15.3	0	17.9	17.9	18.0	0	22.2	22.3	22.2	0	18.3	18.3	18.2
			1	24	0	15.2	15.3	15.2	0	17.9	17.9	17.9	0	22.2	22.3	22.2	0	18.2	18.3	18.1
			12	0	0	15.2	15.1	15.3	0	17.9	18.0	17.9	0	22.2	22.3	22.2	0	18.3	18.3	18.3
			12	7	0	15.2	15.2	15.1	0	18.0	17.9	17.9	0	22.2	22.3	22.3	0	18.2	18.2	18.3
			12	13	0	15.2	15.1	15.2	0	18.0	18.0	17.9	0	22.2	22.3	22.2	0	18.3	18.3	18.2
			25	0	0	15.2	15.2	15.2	0	17.9	17.9	17.9	0	22.2	22.2	22.3	0	18.2	18.3	18.2
		16QAM	1	0	0	15.2	15.2	15.2	0	17.9	17.9	17.9	0	22.3	22.1	22.2	0	18.3	18.3	18.2
			1	12	0	15.2	15.3	15.2	0	18.0	17.9	17.9	0	22.3	22.3	22.3	0	18.2	18.3	18.2
			1	24	0	15.2	15.3	15.2	0	17.9	17.9	17.9	0	22.2	22.3	22.2	0	18.2	18.2	18.3
			12	0	0	15.2	15.3	15.3	0	17.9	17.9	18.0	0	22.2	22.2	22.1	0	18.2	18.3	18.3
			12	7	0	15.2	15.2	15.2	0	17.9	17.9	17.9	0	22.2	22.2	22.2	0	18.3	18.1	18.2
			12	13	0	15.2	15.1	15.3	0	18.0	17.9	18.0	0	22.2	22.2	22.2	0	18.2	18.2	18.2
			25	0	0	15.2	15.2	15.2	0	17.9	18.0	17.9	0	22.2	22.3	22.2	0	18.3	18.2	18.2

Note(s):

10 MHz Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices

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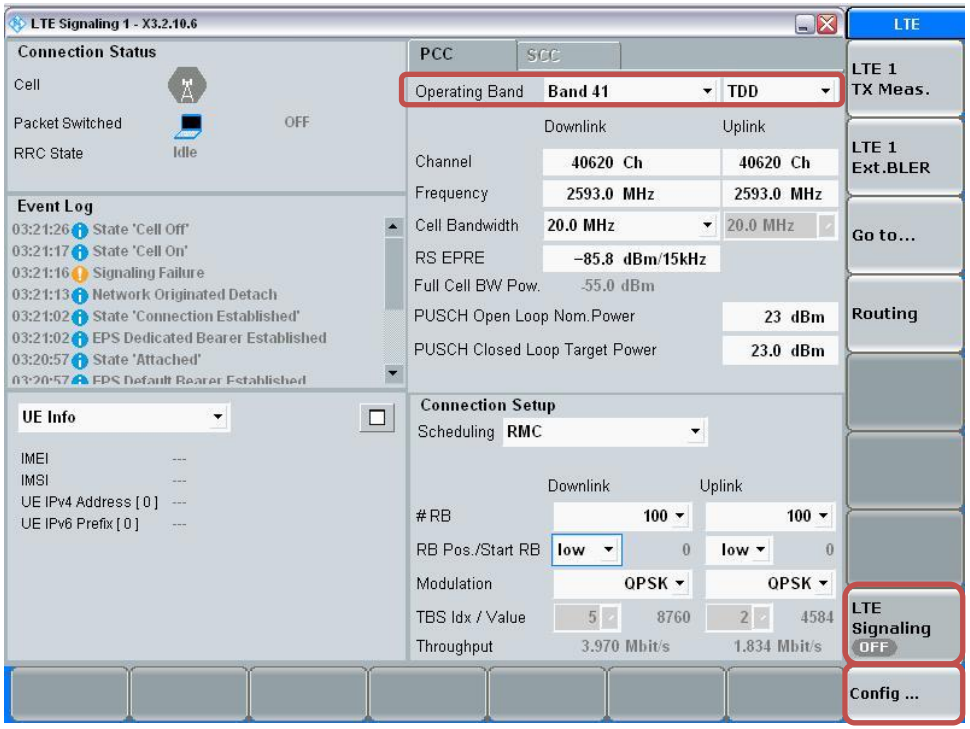
LTE TDD Band Measured Results

Procedure used to establish SAR test signal for LTE TDD Band 41

Set to CMW-500 with following parameters:

- Turn the LTE Signaling off using “ON | OFF” key
- Operating Band: Select Band 41 and TDD
- Go to “Config….”



- Go to “Physical Cell Setup”
- Select “TDD” and Set “Uplink Downlink Configuration” to “0”
- Turn the cell on using “ON | OFF” key

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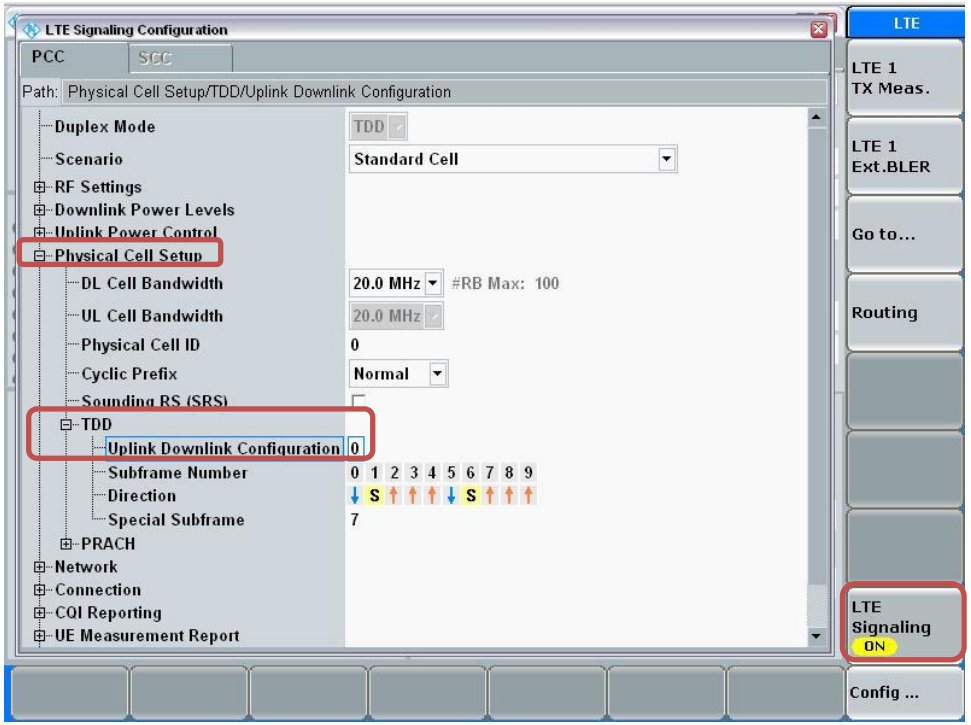

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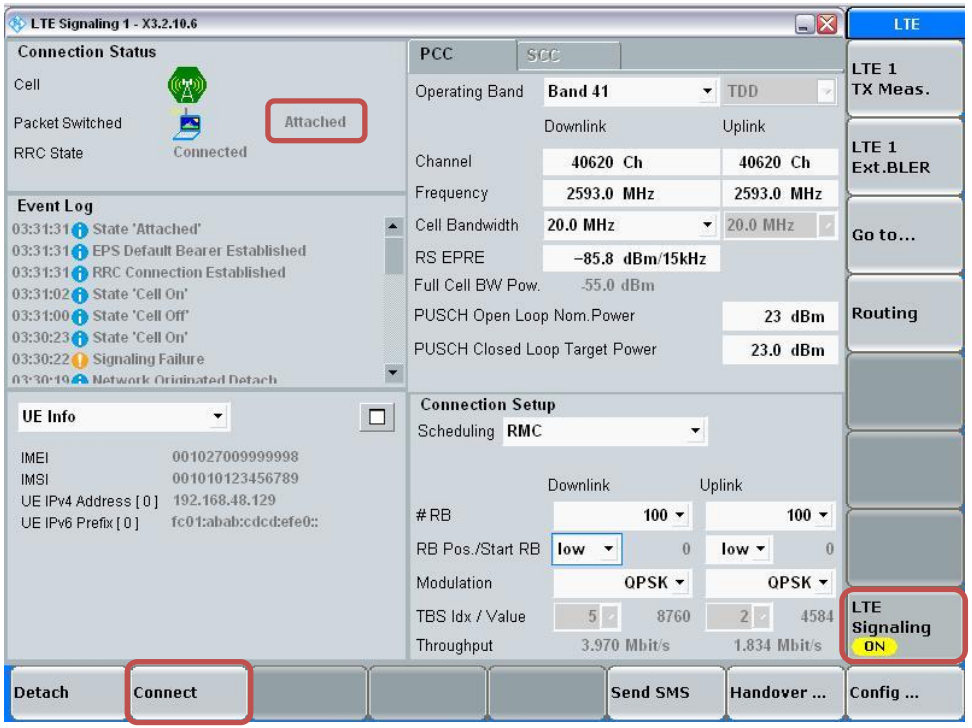
Connect to EUT

- Turn the cell on using “ON | OFF” key
- After EUT is Attached
- Select “Connect”



Max Power Setting

- Select “LTE 1 TX Meas.”
- Press “RESTART | STOP” Soft key

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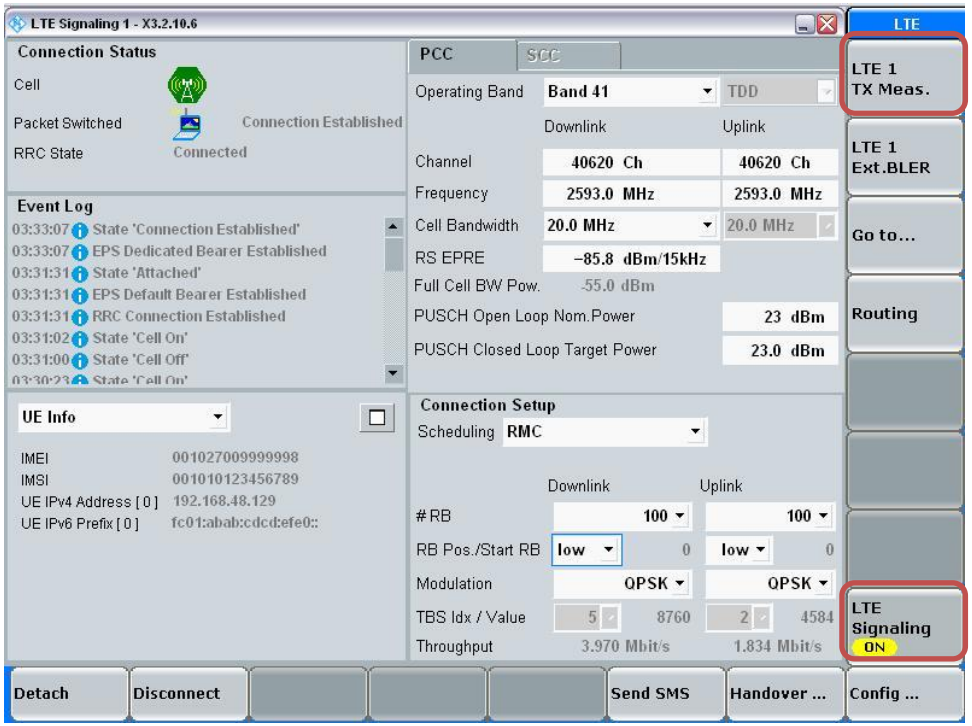

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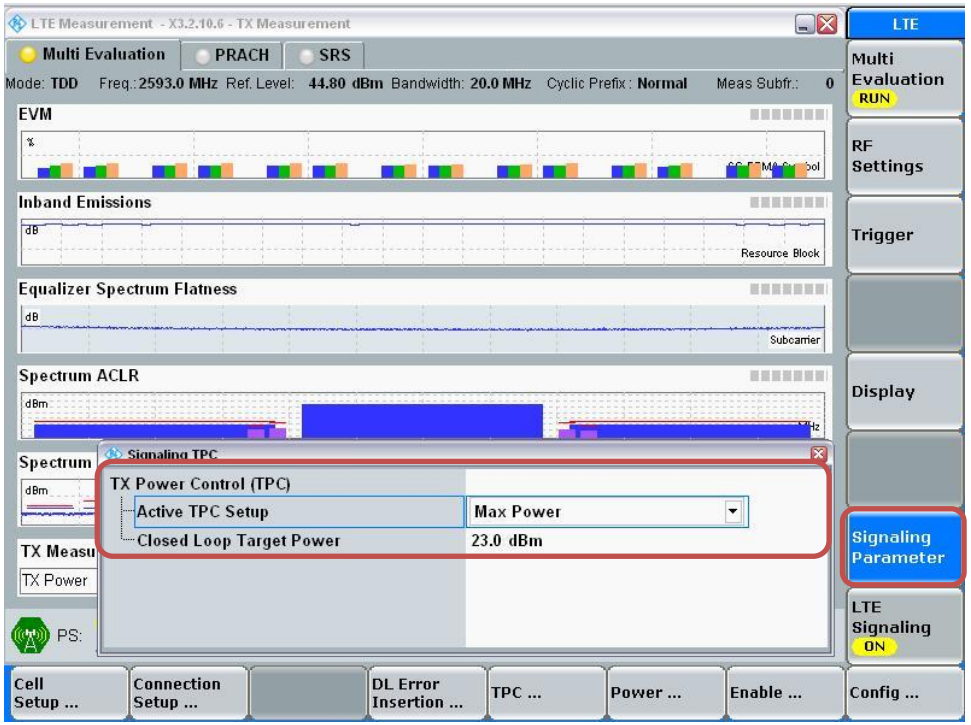
- Select “Signaling Parameter”
- Select “TX Power Control (TPC)” > Select “Active TPC Setup” to “Max Power” > Set “Closed Loop Target Power” to “23 dBm”



View TX Power

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

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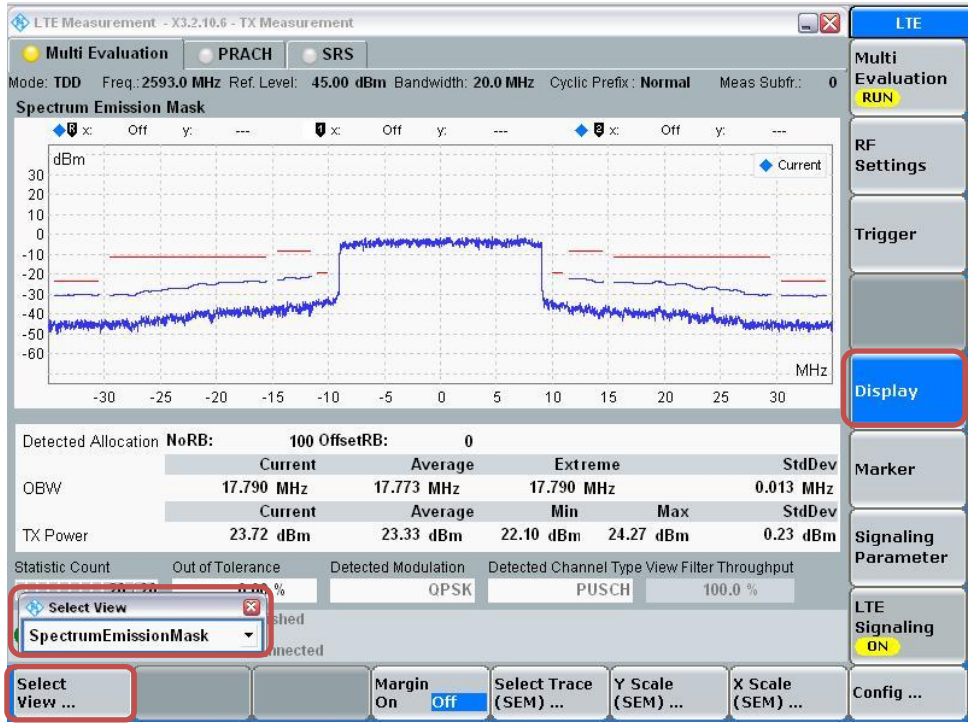

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LTE Band 41 Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
LTE Band 41	20	QPSK	1	0	0	16.5	16.5	16.4	16.5	16.6	0.0	19.2	19.1	19.0	19.1	19.2	0.0	22.4	22.2	22.5	22.4	22.2	0	20.4	20.2	20.2	20.2	20.2
			1	49	0	16.6	16.6	16.5	16.6	16.6	0.0	19.2	19.2	19.2	19.2	19.2	0.0	22.5	22.4	22.5	22.5	22.4	0	20.5	20.3	20.4	20.4	20.3
			1	99	0	16.4	16.6	16.5	16.5	16.5	0.0	19.0	19.1	19.0	19.1	19.1	0.0	22.3	22.3	22.4	22.4	22.2	0	20.4	20.3	20.3	20.3	20.3
			50	0	0	15.1	15.2	15.4	15.2	15.3	0.2	18.4	18.6	18.6	18.5	18.5	0.0	22.5	22.2	22.3	22.4	22.5	0	19.3	19.2	19.5	19.5	19.2
			50	24	0	15.3	15.4	15.5	15.4	15.4	0.2	18.6	18.7	18.7	18.7	18.7	0.0	22.5	22.4	22.5	22.4	22.5	0	19.5	19.4	19.5	19.6	19.4
			50	49	0	15.2	15.3	15.3	15.3	15.2	0.2	18.5	18.5	18.7	18.6	18.7	0.0	22.3	22.2	22.3	22.4	22.5	0	19.3	19.3	19.3	19.6	19.3
			100	0	0	15.4	15.4	15.4	15.4	15.4	0.2	18.5	18.7	18.7	18.7	18.6	0.0	22.2	22.4	22.4	22.5	22.2	0	19.4	19.3	19.6	19.4	19.6
		16QAM	1	0	0	16.4	16.4	16.3	16.5	16.6	0.2	18.9	18.8	18.8	18.8	19.0	0.0	22.3	22.2	22.4	22.3	22.1	0	20.4	20.1	20.1	20.2	20.1
			1	49	0	16.5	16.5	16.4	16.5	16.5	0.2	18.9	18.9	19.0	18.9	18.9	0.0	22.4	22.3	22.4	22.5	22.3	0	20.4	20.3	20.4	20.3	20.3
			1	99	0	16.3	16.5	16.5	16.4	16.4	0.2	18.7	18.8	18.7	18.9	18.8	0.0	22.3	22.3	22.3	22.3	22.1	0	20.4	20.3	20.3	20.3	20.3
			50	0	0	15.1	15.1	15.3	15.1	15.2	1.2	17.4	17.6	17.6	17.4	17.5	0.5	21.9	21.7	21.8	21.9	21.9	0	19.2	19.1	19.4	19.4	19.1
			50	24	0	15.2	15.3	15.5	15.3	15.3	1.2	17.6	17.7	17.6	17.7	17.6	0.5	21.9	21.9	22.0	21.9	22.0	0	19.4	19.3	19.5	19.5	19.4
			50	49	0	15.2	15.3	15.2	15.2	15.2	1.2	17.5	17.5	17.6	17.5	17.6	0.5	21.8	21.6	21.7	21.8	21.9	0	19.3	19.2	19.2	19.6	19.2
			100	0	0	15.3	15.3	15.3	15.3	15.3	1.2	17.5	17.6	17.6	17.7	17.5	0.5	21.6	21.8	21.8	21.9	21.6	0	19.3	19.3	19.6	19.3	19.5

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
LTE Band 41	15	QPSK	1	0	0	16.5	16.5	16.3	16.4	16.4	0.0	19.0	19.0	19.0	19.0	19.0	0.0	22.4	22.2	22.4	22.3	22.2	0	20.4	20.1	20.3	20.2	20.3
			1	36	0	16.4	16.6	16.3	16.5	16.5	0.0	19.0	19.1	19.0	19.0	19.0	0.0	22.3	22.2	22.5	22.4	22.2	0	20.4	20.3	20.2	20.2	20.1
			1	74	0	16.4	16.4	16.5	16.6	16.6	0.0	19.1	19.1	19.0	19.0	19.0	0.0	22.5	22.3	22.3	22.5	22.3	0	20.3	20.1	20.3	20.2	20.2
			36	0	0	15.1	15.3	15.5	15.3	15.2	0.2	18.4	18.6	18.5	18.5	18.5	0.0	22.3	22.2	22.5	22.3	22.3	0	19.3	19.3	19.4	19.4	19.3
			36	18	0	15.2	15.3	15.4	15.2	15.2	0.2	18.5	18.6	18.6	18.5	18.6	0.0	22.3	22.3	22.3	22.4	22.4	0	19.5	19.2	19.4	19.6	19.3
			36	37	0	15.1	15.4	15.4	15.4	15.2	0.2	18.5	18.7	18.7	18.5	18.5	0.0	22.4	22.4	22.3	22.2	22.4	0	19.4	19.2	19.4	19.5	19.2
			75	0	0	15.3	15.4	15.4	15.3	15.4	0.2	18.3	18.5	18.5	18.6	18.3	0.0	22.1	22.2	22.3	22.5	22.2	0	19.4	19.2	19.5	19.4	19.3
		16QAM	1	0	0	16.4	16.4	16.3	16.3	16.4	0.2	18.8	18.7	18.8	18.7	18.7	0.0	22.4	22.1	22.4	22.2	22.1	0	20.4	20.0	20.3	20.1	20.2
			1	36	0	16.4	16.5	16.2	16.4	16.4	0.2	18.7	18.9	18.8	18.7	18.8	0.0	22.3	22.1	22.4	22.4	22.1	0	20.3	20.2	20.1	20.1	20.1
			1	74	0	16.3	16.3	16.4	16.5	16.5	0.2	18.8	18.9	18.8	18.7	18.7	0.0	22.5	22.3	22.2	22.5	22.2	0	20.2	20.0	20.2	20.2	20.1
			36	0	0	15.0	15.2	15.4	15.3	15.1	1.2	17.3	17.6	17.5	17.5	17.5	0.5	21.8	21.6	21.9	21.7	21.8	0	19.2	19.2	19.3	19.3	19.3
			36	18	0	15.1	15.2	15.4	15.1	15.2	1.2	17.4	17.6	17.6	17.4	17.6	0.5	21.8	21.8	21.8	21.8	21.8	0	19.4	19.1	19.3	19.5	19.2
			36	37	0	15.0	15.3	15.3	15.4	15.1	1.2	17.4	17.6	17.6	17.4	17.5	0.5	21.8	21.8	21.7	21.6	21.8	0	19.3	19.1	19.3	19.4	19.1
			75	0	0	15.2	15.3	15.3	15.2	15.4	1.2	17.2	17.4	17.4	17.6	17.2	0.5	21.5	21.6	21.8	21.9	21.6	0	19.3	19.1	19.4	19.3	19.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
LTE Band 41	10	QPSK	1	0	0	16.6	16.4	16.3	16.6	16.5	0.0	19.0	19.1	19.1	19.1	19.1	0.0	22.3	22.2	22.4	22.3	22.4	0	20.3	20.2	20.3	20.2	20.2
			1	24	0	16.5	16.6	16.3	16.4	16.6	0.0	19.1	19.2	19.0	19.0	19.1	0.0	22.4	22.3	22.3	22.3	22.3	0	20.5	20.2	20.4	20.4	20.2
			1	49	0	16.4	16.6	16.4	16.6	16.5	0.0	19.0	19.2	19.0	19.0	19.0	0.0	22.3	22.4	22.3	22.3	22.2	0	20.4	20.2	20.4	20.2	20.1
			25	0	0	15.1	15.3	15.3	15.2	15.4	0.2	18.4	18.6	18.6	18.5	18.6	0.0	22.5	22.2	22.3	22.2	22.3	0	19.5	19.3	19.5	19.4	19.2
			25	12	0	15.2	15.3	15.4	15.3	15.2	0.2	18.4	18.5	18.5	18.6	18.7	0.0	22.3	22.4	22.5	22.3	22.3	0	19.4	19.3	19.4	19.5	19.2
			25	24	0	15.1	15.2	15.4	15.3	15.2	0.2	18.5	18.5	18.5	18.7	18.5	0.0	22.3	22.3	22.3	22.2	22.3	0	19.3	19.4	19.3	19.4	19.3
			50	0	0	15.0	15.2	15.3	15.4	15.0	0.2	18.3	18.6	18.6	18.5	18.4	0.0	22.0	22.2	22.2	22.4	22.3	0	19.4	19.2	19.4	19.2	19.4
		16QAM	1	0	0	16.5	16.3	16.2	16.5	16.5	0.2	18.7	18.8	18.9	18.8	18.8	0.0	22.2	22.1	22.3	22.2	22.3	0	20.2	20.1	20.3	20.1	20.1
			1	24	0	16.5	16.5	16.3	16.4	16.5	0.2	18.8	19.0	18.7	18.7	18.8	0.0	22.3	22.3	22.2	22.2	22.3	0	20.5	20.1	20.3	20.3	20.1
			1	49	0	16.3	16.6	16.4	16.6	16.4	0.2	18.7	18.9	18.8	18.7	18.8	0.0	22.3	22.4	22.2	22.2	22.1	0	20.3	20.1	20.3	20.2	20.0
			25	0	0	15.1	15.2	15.2	15.1	15.3	1.2	17.3	17.6	17.5	17.4	17.6	0.5	22.0	21.6	21.8	21.6	21.7	0	19.4	19.2	19.4	19.3	19.2
			25	12	0	15.2	15.3	15.3	15.2	15.2	1.2	17.3	17.5	17.4	17.6	17.6	0.5	21.8	21.8	22.0	21.7	21.8	0	19.4	19.3	19.3	19.5	19.1
			25	24	0	15.0	15.1	15.3	15.2	15.2	1.2	17.4	17.4	17.5	17.7	17.4	0.5	21.7	21.7	21.7	21.7	21.8	0	19.2	19.3	19.2	19.4	19.2
			50	0	0	14.9	15.1	15.3	15.3	15.0	1.2	17.2	17.6	17.5	17.5	17.3	0.5	21.4	21.6	21.7	21.9	21.8	0	19.3	19.1	19.3	19.1	19.3

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LTE Band 41 Measured Results (continued)

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
LTE Band 41	5	QPSK	1	0	0	16.5	16.5	16.4	16.6	16.4	0.0	19.1	19.2	19.0	19.1	19.1	0.0	22.4	22.4	22.4	22.4	22.3	0	20.3	20.3	20.3	20.2	20.1
			1	12	0	16.4	16.4	16.5	16.4	16.6	0.0	19.1	19.2	19.1	19.0	19.0	0.0	22.3	22.4	22.5	22.4	22.2	0	20.4	20.3	20.3	20.2	20.2
			1	24	0	16.5	16.5	16.5	16.6	16.4	0.0	19.0	19.0	19.2	19.1	19.1	0.0	22.4	22.2	22.4	22.4	22.2	0	20.4	20.1	20.2	20.2	20.1
			12	0	0	15.1	15.2	15.5	15.3	15.4	0.0	18.8	18.8	18.9	18.9	18.8	0.0	22.5	22.2	22.3	22.4	22.3	0	19.4	19.3	19.4	19.5	19.3
			12	7	0	15.3	15.2	15.3	15.4	15.2	0.0	18.8	18.8	18.7	18.7	18.9	0.0	22.5	22.2	22.3	22.3	22.4	0	19.4	19.2	19.4	19.4	19.2
			12	13	0	15.3	15.4	15.5	15.4	15.4	0.0	18.7	18.8	18.7	18.7	18.7	0.0	22.3	22.4	22.3	22.2	22.3	0	19.3	19.3	19.4	19.5	19.4
			25	0	0	15.1	15.2	15.4	15.2	15.0	0.2	18.6	18.5	18.5	18.7	18.3	0.0	22.3	22.3	22.4	22.4	22.2	0	19.5	19.1	19.4	19.4	19.3
		16QAM	1	0	0	16.4	16.4	16.4	16.5	16.4	0.2	18.8	18.9	18.7	18.8	18.8	0.0	22.3	22.4	22.3	22.3	22.3	0	20.2	20.2	20.2	20.2	20.1
			1	12	0	16.4	16.4	16.4	16.4	16.5	0.2	18.8	19.0	18.8	18.7	18.7	0.0	22.2	22.4	22.5	22.4	22.1	0	20.3	20.3	20.3	20.1	20.1
			1	24	0	16.4	16.4	16.5	16.5	16.4	0.2	18.7	18.7	18.9	18.8	18.9	0.0	22.4	22.1	22.4	22.3	22.1	0	20.3	20.0	20.1	20.1	20.1
			12	0	0	15.0	15.1	15.5	15.2	15.3	0.2	18.5	18.5	18.7	18.6	18.5	0.0	22.4	22.1	22.3	22.3	22.2	0	19.3	19.3	19.3	19.4	19.3
			12	7	0	15.3	15.1	15.2	15.3	15.1	0.2	18.5	18.5	18.5	18.4	18.7	0.0	22.5	22.2	22.2	22.2	22.4	0	19.3	19.2	19.3	19.3	19.1
			12	13	0	15.3	15.3	15.5	15.3	15.3	0.2	18.5	18.6	18.4	18.4	18.5	0.0	22.3	22.4	22.2	22.1	22.3	0	19.3	19.2	19.3	19.4	19.3
			25	0	0	15.1	15.1	15.3	15.1	14.9	1.2	17.5	17.5	17.5	17.6	17.3	0.5	21.8	21.8	21.8	21.9	21.6	0	19.5	19.0	19.3	19.4	19.3

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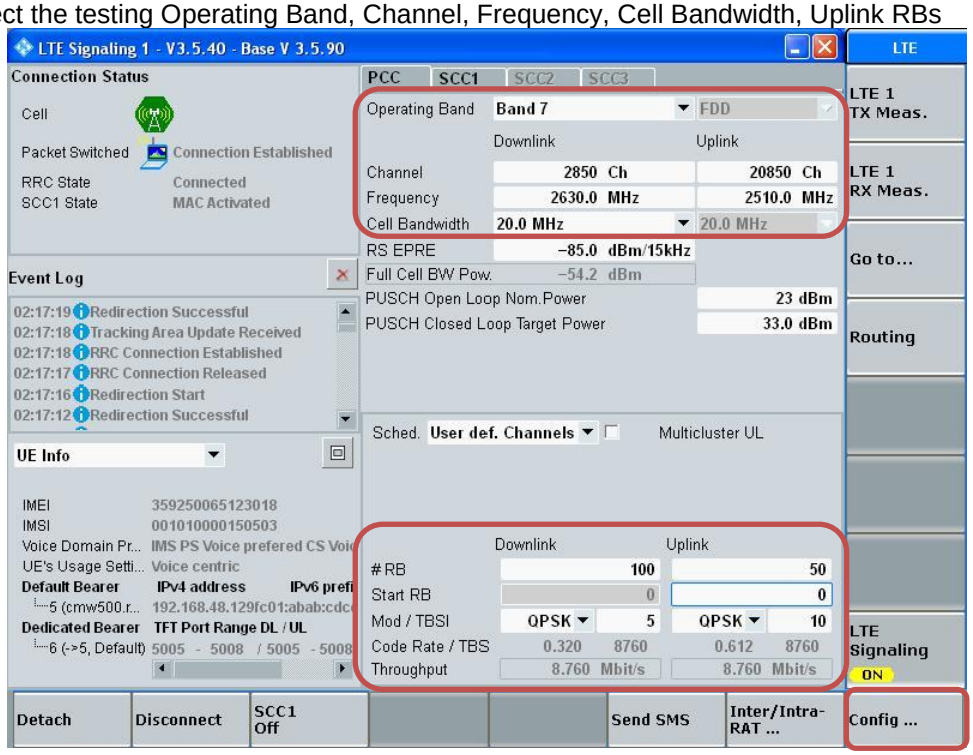
9.5. LTE Rel. 11 Carrier Aggregation

LTE Carrier Aggregation Test Signal Set-up Procedure

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

Set to CMW-500 with following parameters:

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

  -

- Go to “Config….”

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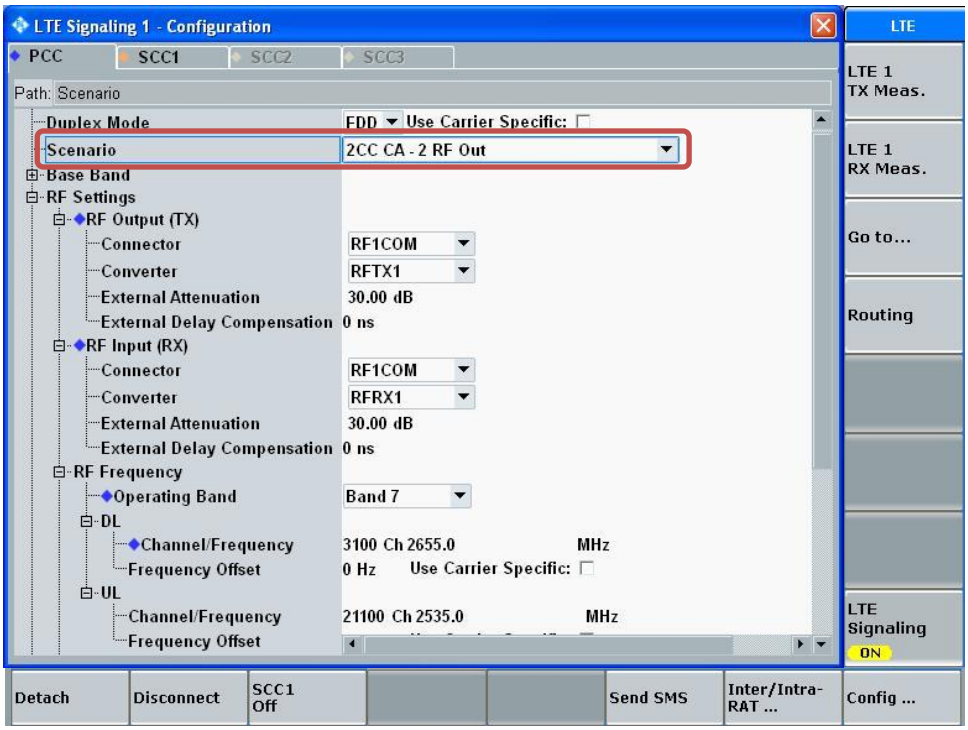
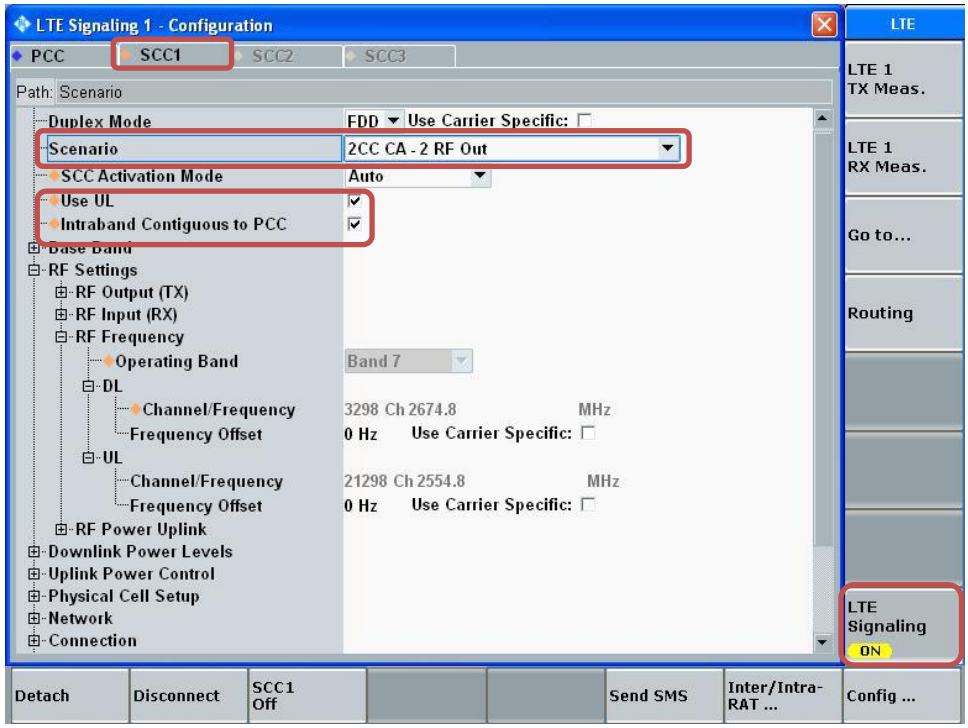
- Go to “Scenario”
- Set to “2CC CA – 2 RF Out”



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



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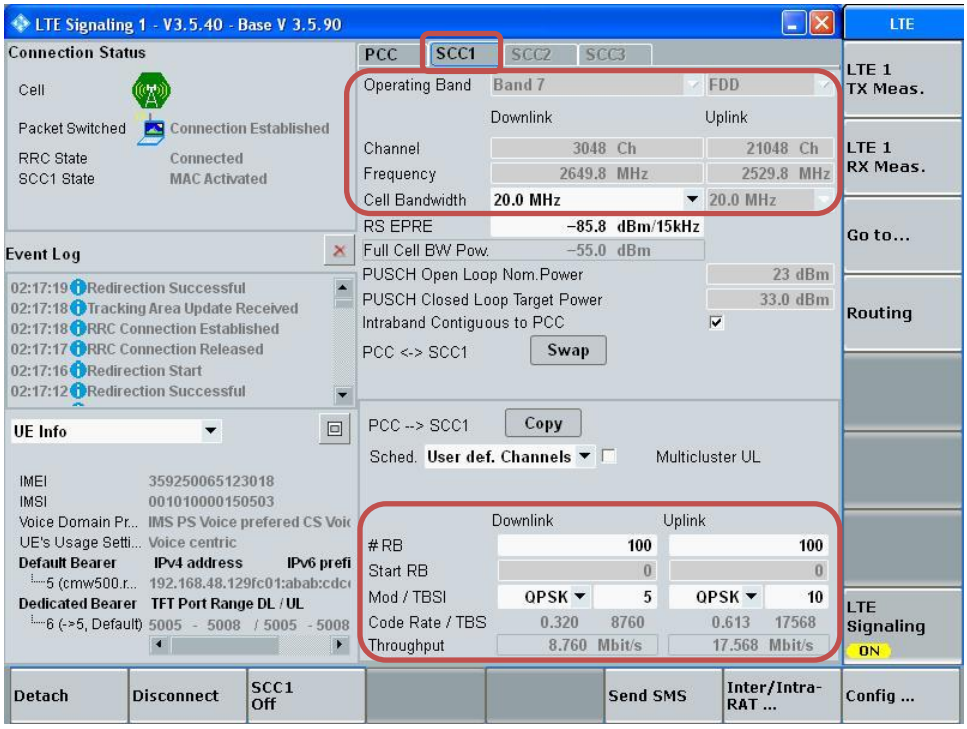
- Select “SCC1” tab
  - Select the testing Cell Bandwidth, Uplink RBs



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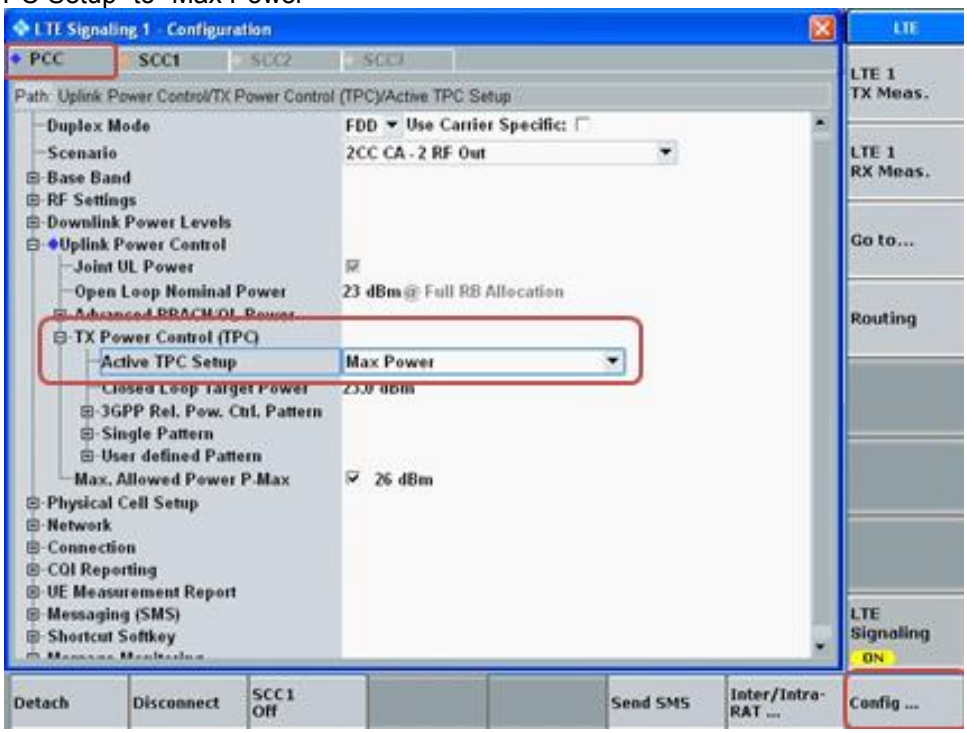
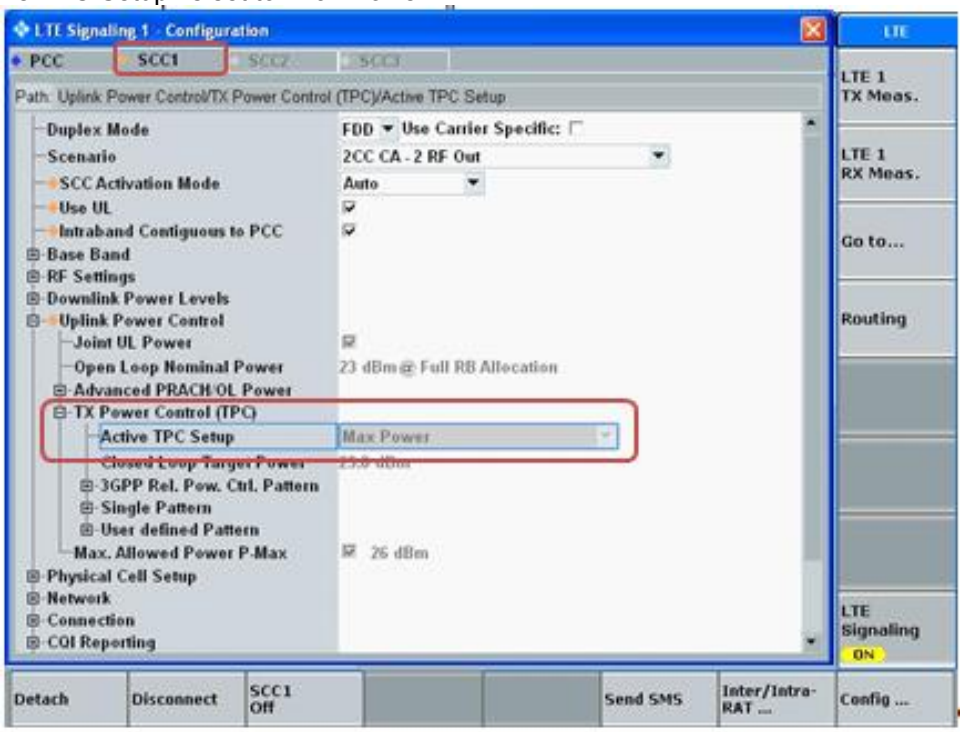
Max Power Setting

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



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



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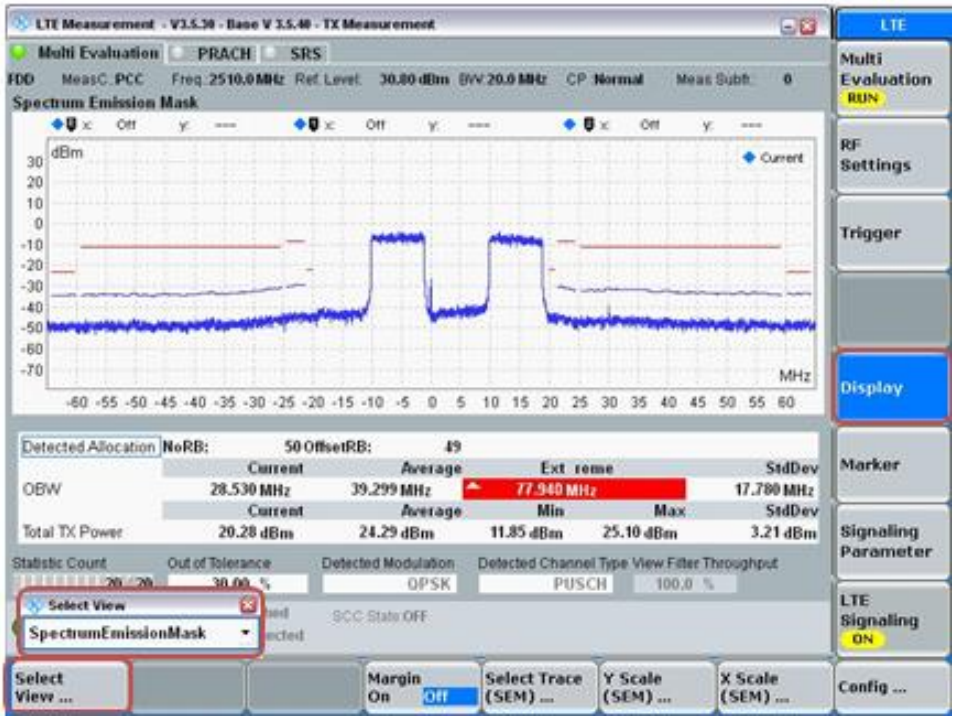
View TX Power

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



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The device supports LTE Advanced Rel-11, UE Category 10 Carrier Aggregation (CA) on downlink for Inter and Intra band. Uplink CA is supported for Intra band only. Supported bands and bandwidths are provided in Tables below.

Inter-Band

E-UTRA CA configuration (BCS)	E-UTRA Band	Bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
CA_2A_4A (0) (1) (2)	2	Yes	Yes	Yes	Yes	Yes	Yes
	4			Yes	Yes	Yes	Yes
	2			Yes	Yes		
	4			Yes	Yes		
	2			Yes	Yes	Yes	Yes
	4			Yes	Yes	Yes	Yes
CA_2A_5A (0)	2			Yes	Yes	Yes	Yes
	5			Yes	Yes		
CA_2A_12A (0) (1)	2			Yes	Yes	Yes	Yes
	12			Yes	Yes		
	2			Yes	Yes	Yes	Yes
	12		Yes	Yes	Yes		
CA_2A_12B (0)	2			Yes	Yes	Yes	Yes
	12	See CA_12B (0)					
CA_2A_2A_12A (0)	2	See CA_2A_2A (0)					
	12			Yes	Yes		
CA_2A_13A (0) (1)	2			Yes	Yes	Yes	Yes
	13				Yes		
	2			Yes	Yes		
	13				Yes		
CA_2A_2A_13A (0)	2	See CA_2A_2A (0)					
	13				Yes		
CA_2A_17A (0)	2			Yes	Yes		
	17			Yes	Yes		
CA_2A_29A (0) (1) (2)	2			Yes	Yes		
	29		Yes	Yes	Yes		
	2			Yes	Yes		
	29			Yes	Yes		
	2			Yes	Yes	Yes	Yes
	29			Yes	Yes		
CA_2A_30A (0)	2			Yes	Yes	Yes	Yes
	30			Yes	Yes		
CA_4A_5A (0) (1)	4			Yes	Yes		
	5			Yes	Yes		
	4			Yes	Yes	Yes	Yes
	5			Yes	Yes		
CA_4A_7A (0)	4			Yes	Yes		
	7			Yes	Yes	Yes	Yes
CA_4A_4A_7A (0)	4	See CA_4A_4A (0)					
	7			Yes	Yes		
CA_4A_12A (0) (1) (2) (3) (4)	4	Yes	Yes	Yes	Yes		
	12			Yes	Yes		
	4	Yes	Yes	Yes	Yes	Yes	Yes
	12			Yes	Yes		
	4			Yes	Yes	Yes	Yes
	12		Yes	Yes	Yes		
	4			Yes	Yes		

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	12			Yes	Yes		
	4			Yes	Yes	Yes	Yes
	12			Yes	Yes		
CA_4A_4A_12A (0)	4	See CA_4A_4A (0)					
	12			Yes	Yes		
CA_4A_12B (0)	4			Yes	Yes	Yes	Yes
	12	See CA_12B (0)					
CA_4A_13A (0) (1)	4			Yes	Yes	Yes	Yes
	13				Yes		
	4			Yes	Yes		
	13				Yes		
CA_4A_4A_13A (0)	4	See CA_4A_4A (0)					
	13				Yes		
CA_4A_17A (0)	4			Yes	Yes		
	17			Yes	Yes		
CA_4A_29A (0) (1) (2)	4			Yes	Yes		
	29		Yes	Yes	Yes		
	4			Yes	Yes		
	29			Yes	Yes		
	4			Yes	Yes	Yes	Yes
	29			Yes	Yes		
CA_4A_30A (0)	4			Yes	Yes	Yes	Yes
	30			Yes	Yes		
CA_5A_7A (0)	5	Yes	Yes	Yes	Yes		
	7				Yes	Yes	Yes
CA_5A_30A (0)	5			Yes	Yes		
	30			Yes	Yes		
CA_12A_30A (0)	12			Yes	Yes		
	30			Yes	Yes		
CA_25A_26A (0)	25		Yes	Yes	Yes	Yes	Yes
	26		Yes	Yes	Yes	Yes	
CA_29A_30A (0)	29			Yes	Yes		
	30			Yes	Yes		
CA_2A_4A_12A (0)	2			Yes	Yes	Yes	Yes
	4			Yes	Yes	Yes	Yes
	12			Yes	Yes		
CA_2A_4A_13A (0)	2			Yes	Yes	Yes	Yes
	4			Yes	Yes	Yes	Yes
	13				Yes		
CA_2A_5A_30A (0)	2			Yes	Yes	Yes	Yes
	5			Yes	Yes		
	30			Yes	Yes		
CA_2A_12A_30A (0)	2			Yes	Yes	Yes	Yes
	12			Yes	Yes		
	30			Yes	Yes		
CA_2A_29A_30A (0)	2			Yes	Yes	Yes	Yes
	29			Yes	Yes		
	30			Yes	Yes		
CA_4A_5A_30A (0)	4			Yes	Yes	Yes	Yes
	5			Yes	Yes		
	30			Yes	Yes		
CA_4A_12A_30A (0)	4			Yes	Yes	Yes	Yes
	12			Yes	Yes		
	30			Yes	Yes		
CA_4A_29A_30A (0)	4			Yes	Yes	Yes	Yes
	29			Yes	Yes		
	30			Yes	Yes		
CA_2C_12A (0)	2	See CA_2C (0)					
	12			Yes	Yes		
CA_2C_13A (0)	2	See CA_2C (0)					

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	13			Yes	Yes		
CA_4C_7A (0)	4	See CA_4C (0)					
	7			Yes	Yes		
CA_4C_12A (0)	4	See CA_4C (0)					
	12			Yes	Yes		
CA_4C_13A (0)	4	See CA_4C (0)					
	13				Yes		

Intra-Band Non-Contiguous

E-UTRA CA configuration (BCS)	Component carriers in order of increasing carrier frequency		
	Carrier 1	Carrier 2	Carrier 3
CA_2A_2A (0)	5, 10, 15, 20	5, 10, 15, 20	
CA_4A_4A (0)	5, 10, 15, 20	5, 10, 15, 20	
CA_7A_7A (0)	5	15	
	10	10, 15	
	15	15, 20	
	20	20	
CA_25A_25A (0) (1)	5, 10	5, 10	
	5, 10, 15, 20	5, 10, 15, 20	
CA_41A_41A (0) (1)	10, 15, 20	10, 15, 20	
	5, 10, 15, 20	5, 10, 15, 20	
CA_41A_41C (0)	5, 10, 15, 20	See CA_41C (1)	
CA_41C_41A (0)	See CA_41C (1)		5, 10, 15, 20

Intra-Band Contiguous

E-UTRA CA configuration (BCS)	Uplink CA Configurations	Component carriers in order of increasing carrier frequency		
		Allowed channel bandwidths [MHz]		
		Carrier 1	Carrier 2	Carrier 3
CA_2C (0)		5	20	
		10	15, 20	
		15	10, 15, 20	
		20	5, 10, 15, 20	
CA_7B (0)		15	5	
CA_7C (0) (1)	CA_7C	15	15	
		20	20	
		10	20	
		15	15, 20	
		20	10, 15, 20	
CA_12B (0)		5	5, 10	
CA_41C (0) (1)	CA_41C	10	20	
		15	15, 20	
		20	10, 15, 20	
		5, 10	20	
		15	15, 20	
		20	5, 10, 15, 20	
CA_41D (0)	CA_41C	10	20	15
		10	15, 20	20
		15	20	10, 15
		15	10, 15, 20	20
		20	15, 20	10
		20	10, 15, 20	15, 20

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Carrier Aggregation Power Measurements:

Inter-Band

DL									UL															
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC							
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
2	4		1.4	1960	20	2132.5			QPSK	1	3	1880	0	24.5	24.5	0							
2	4		3	1960	20	2132.5			QPSK	1	8	1880	0	24.4	24.4	0							
2	4		5	1960	20	2132.5			QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	4		10	1960	20	2132.5			QPSK	1	24	1880	0	24.4	24.4	0							
2	4		15	1960	20	2132.5			QPSK	1	36	1880	0	24.4	24.4	0							
2	4		20	1960	20	2132.5			QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	5		5	1960	10	881.5			QPSK	1	12	1880	0	24.4	24.4	0							
2	5		10	1960	10	881.5			QPSK	1	24	1880	0	24.4	24.4	0							
2	5		15	1960	10	881.5			QPSK	1	36	1880	0	24.4	24.3	-0.1							
2	5		20	1960	10	881.5			QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	12		5	1960	10	737.5			QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	12		10	1960	10	737.5			QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	12		15	1960	10	737.5			QPSK	1	36	1880	0	24.4	24.4	0							
2	12		20	1960	10	737.5			QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	13		5	1960	10	751			QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	13		10	1960	10	751			QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	13		15	1960	10	751			QPSK	1	36	1880	0	24.4	24.3	-0.1							
2	13		20	1960	10	751			QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	17		5	1960	10	740			QPSK	1	12	1880	0	24.4	24.4	0							
2	17		10	1960	10	740			QPSK	1	24	1880	0	24.4	24.4	0							
2	29		5	1960	10	722.5			QPSK	1	12	1880	0	24.4	24.4	0							
2	29		10	1960	10	722.5			QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	29		15	1960	10	722.5			QPSK	1	36	1880	0	24.4	24.3	-0.1							
2	29		20	1960	10	722.5			QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	30		5	1960	10	2355			QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	30		10	1960	10	2355			QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	30		15	1960	10	2355			QPSK	1	36	1880	0	24.4	24.3	-0.1							
2	30		20	1960	10	2355			QPSK	1	49	1880	0	24.5	24.4	-0.1							
4	2		5	2132.5	20	1960			QPSK	1	12	1732.5	0	24.4	24.4	0							
4	2		10	2132.5	20	1960			QPSK	1	24	1732.5	0	24.4	24.3	-0.1							
4	2		15	2132.5	20	1960			QPSK	1	36	1732.5	0	24.5	24.4	-0.1							
4	2		20	2132.5	20	1960			QPSK	1	49	1732.5	0	24.5	24.4	-0.1							
5	2		5	881.5	20	1960			QPSK	1	12	836.5	0	24.0	23.9	-0.1							
5	2		10	881.5	20	1960			QPSK	1	24	836.5	0	24.0	23.9	-0.1							
7	4		5	2655	10	2132.5			QPSK	1	12	2535	0	24.0	23.9	-0.1							
7	4		10	2655	10	2132.5			QPSK	1	24	2535	0	23.9	23.8	-0.1							
7	4		15	2655	10	2132.5			QPSK	1	36	2535	0	23.9	23.8	-0.1							
7	4		20	2655	10	2132.5			QPSK	1	49	2535	0	24.0	23.9	-0.1							
12	2		3	737.5	20	1960			QPSK	1	8	707.5	0	24.4	24.3	-0.1							
12	2		5	737.5	20	1960			QPSK	1	12	707.5	0	24.4	24.3	-0.1							
12	2		10	737.5	20	1960			QPSK	1	24	707.5	0	24.5	24.4	-0.1							
13	2		10	751	20	1960			QPSK	1	24	782	0	24.5	24.5	0							
17	2		5	740	20	1960			QPSK	1	12	710	0	24.5	24.5	0							
17	2		10	740	20	1960			QPSK	1	24	710	0	24.5	24.4	-0.1							

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DL									UL															
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC							
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
25	26		3	1962.5	15	876.5			QPSK	1	8	1882.5	0	24.5	24.4	-0.1							
25	26		5	1962.5	15	876.5			QPSK	1	12	1882.5	0	24.4	24.3	-0.1							
25	26		10	1962.5	15	876.5			QPSK	1	24	1882.5	0	24.4	24.3	-0.1							
25	26		15	1962.5	15	876.5			QPSK	1	36	1882.5	0	24.5	24.5	0							
25	26		20	1962.5	15	876.5			QPSK	1	49	1882.5	0	24.5	24.4	-0.1							
26	25		3	876.5	20	1962.5			QPSK	1	8	831.5	0	23.9	23.9	0							
26	25		5	876.5	20	1962.5			QPSK	1	12	831.5	0	24.0	24.0	0							
26	25		10	876.5	20	1962.5			QPSK	1	24	831.5	0	24.0	24.0	0							
26	25		15	876.5	20	1962.5			QPSK	1	36	831.5	0	24.0	24.0	0							
30	2		5	2355	20	1960			QPSK	1	12	2310	0	22.3	22.3	0							
30	2		10	2355	20	1960			QPSK	1	24	2310	0	22.3	22.2	-0.1							
2	4	12	5	1960	20	2132.5	10	737.5	QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	4	12	10	1960	20	2132.5	10	737.5	QPSK	1	24	1880	0	24.4	24.4	0							
2	4	12	15	1960	20	2132.5	10	737.5	QPSK	1	36	1880	0	24.4	24.3	-0.1							
2	4	12	20	1960	20	2132.5	10	737.5	QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	4	13	5	1960	20	2132.5	10	751	QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	4	13	10	1960	20	2132.5	10	751	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	4	13	15	1960	20	2132.5	10	751	QPSK	1	36	1880	0	24.4	24.3	-0.1							
2	4	13	20	1960	20	2132.5	10	751	QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	5	30	5	1960	10	881.5	10	2355	QPSK	1	12	1880	0	24.4	24.4	0							
2	5	30	10	1960	10	881.5	10	2355	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	5	30	15	1960	10	881.5	10	2355	QPSK	1	36	1880	0	24.4	24.4	0							
2	5	30	20	1960	10	881.5	10	2355	QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	12	30	5	1960	10	737.5	10	2355	QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	12	30	10	1960	10	737.5	10	2355	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	12	30	15	1960	10	737.5	10	2355	QPSK	1	36	1880	0	24.4	24.3	-0.1							
2	12	30	20	1960	10	737.5	10	2355	QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	29	30	5	1960	10	722.5	10	2355	QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	29	30	10	1960	10	722.5	10	2355	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	29	30	15	1960	10	722.5	10	2355	QPSK	1	36	1880	0	24.4	24.4	0							
2	29	30	20	1960	10	722.5	10	2355	QPSK	1	49	1880	0	24.5	24.4	-0.1							
4	2	12	5	2132.5	20	1960	10	737.5	QPSK	1	12	1732.5	0	24.4	24.3	-0.1							
4	2	12	10	2132.5	20	1960	10	737.5	QPSK	1	24	1732.5	0	24.4	24.3	-0.1							
4	2	12	15	2132.5	20	1960	10	737.5	QPSK	1	36	1732.5	0	24.5	24.5	0							
4	2	12	20	2132.5	20	1960	10	737.5	QPSK	1	49	1732.5	0	24.5	24.4	-0.1							
5	2	30	5	881.5	20	1960	10	2355	QPSK	1	12	836.5	0	24.0	23.9	-0.1							
5	2	30	10	881.5	20	1960	10	2355	QPSK	1	24	836.5	0	24.0	23.9	-0.1							
12	2	4	5	737.5	20	1960	20	2132.5	QPSK	1	12	707.5	0	24.5	24.5	0							
12	2	4	10	737.5	20	1960	20	2132.5	QPSK	1	24	707.5	0	24.5	24.4	-0.1							
13	2	4	10	751	20	1960	20	2132.5	QPSK	1	24	782	0	24.5	24.5	0							
30	2	5	5	2355	20	1960	10	881.5	QPSK	1	12	2310	0	22.3	22.2	-0.1							
30	2	5	10	2355	20	1960	10	881.5	QPSK	1	24	2310	0	22.3	22.2	-0.1							

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DL									UL															
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC							
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
12A	2A	2A	5	737.5	20	1960	20	1960	QPSK	1	12	707.5	0	24.5	24.5	0							
12A	2A	2A	10	737.5	20	1960	20	1960	QPSK	1	24	707.5	0	24.5	24.5	0							
12B	2A	12B	5	737.5	20	1960	10	737.5	QPSK	1	12	707.5	0	24.5	24.4	-0.1							
12B	2A	12B	10	737.5	20	1960	5	737.5	QPSK	1	24	707.5	0	24.5	24.4	-0.1							
13A	2A	2A	10	751	20	1960	20	1960	QPSK	1	24	782	0	24.5	24.4	-0.1							
2A	12B	12B	5	1960	5	737.5	10	737.5	QPSK	1	12	1880	0	24.4	24.3	-0.1							
2A	12B	12B	10	1960	5	737.5	10	737.5	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2A	12B	12B	15	1960	5	737.5	10	737.5	QPSK	1	36	1880	0	24.4	24.3	-0.1							
2A	12B	12B	20	1960	5	737.5	10	737.5	QPSK	1	49	1880	0	24.5	24.4	-0.1							
2C	2C	12A	5	1960	20	1960	10	737.5	QPSK	1	12	1880	0	24.4	24.4	0							
2C	2C	12A	10	1960	20	1960	10	737.5	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2C	2C	12A	15	1960	20	1960	10	737.5	QPSK	1	36	1880	0	24.4	24.3	-0.1							
2C	2C	12A	20	1960	20	1960	10	737.5	QPSK	1	49	1880	0	24.5	24.5	0							
4A	12B	12B	5	2132.5	5	737.5	10	737.5	QPSK	1	12	1732.5	0	24.4	24.3	-0.1							
4A	12B	12B	10	2132.5	5	737.5	10	737.5	QPSK	1	24	1732.5	0	24.4	24.4	0							
4A	12B	12B	15	2132.5	5	737.5	10	737.5	QPSK	1	36	1732.5	0	24.5	24.4	-0.1							
4A	12B	12B	20	2132.5	5	737.5	10	737.5	QPSK	1	49	1732.5	0	24.5	24.4	-0.1							
4C	4C	12A	5	2132.5	20	2132.5	10	737.5	QPSK	1	12	1732.5	0	24.4	24.4	0							
4C	4C	12A	10	2132.5	20	2132.5	10	737.5	QPSK	1	24	1732.5	0	24.4	24.4	0							
4C	4C	12A	15	2132.5	20	2132.5	10	737.5	QPSK	1	36	1732.5	0	24.5	24.4	-0.1							
4C	4C	12A	20	2132.5	20	2132.5	10	737.5	QPSK	1	49	1732.5	0	24.5	24.5	0							
7A	4A	4A	5	2655	20	2132.5	20	2132.5	QPSK	1	12	2535	0	24.0	23.9	-0.1							
7A	4A	4A	10	2655	20	2132.5	20	2132.5	QPSK	1	24	2535	0	23.9	23.9	0							

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Power measurements were performed on the highest maximum output power from Tune-up Procedure on LAT antenna, Head power table on QPSK modulation following the Manufacturer KDB inquiry - Carrier Aggregation. Uplink output power for UL CA is the total power measured across the PCC and SCC.

The standalone power measurement is the power for the primary or secondary carriers in the non-CA mode (i.e. single carrier power) measured with an average power meter. The values are slightly different between PCC and SCC. The UL CA mode power measurements are made using the same wideband average power meter and represent the total power across both carriers. Some of the measured values are the same for PCC and SCC. In all cases the CA total power is less than the single carrier (non-CA mode) case.

Intra-Band Non-Contiguous

DL									UL															
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC							
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
2	2		5	1932.5	20	1980			QPSK	1	12	1852.5	0	24.4	24.3	-0.1							
2	2		10	1935	20	1980			QPSK	1	24	1855	0	24.5	24.4	-0.1							
2	2		15	1937.5	20	1980			QPSK	1	36	1857.5	0	24.5	24.4	-0.1							
2	2		20	1940	20	1980			QPSK	1	49	1860	0	24.5	24.4	-0.1							
4	4		5	2112.5	20	2145			QPSK	1	12	1712.5	0	24.5	24.4	-0.1							
4	4		10	2115	20	2145			QPSK	1	24	1715	0	24.3	24.2	-0.1							
4	4		15	2117.5	20	2145			QPSK	1	36	1717.5	0	24.4	24.4	0							
4	4		20	2120	20	2145			QPSK	1	49	1720	0	24.5	24.4	-0.1							
7	7		5	2622.5	15	2682.5			QPSK	1	12	2502.5	0	23.9	23.8	-0.1							
7	7		10	2625	10	2685			QPSK	1	24	2505	0	24.0	23.9	-0.1							
7	7		10	2625	15	2682.5			QPSK	1	24	2505	0	24.0	23.9	-0.1							
7	7		15	2627.5	15	2682.5			QPSK	1	36	2507.5	0	23.9	23.9	0							
7	7		15	2627.5	20	2680			QPSK	1	36	2507.5	0	23.9	23.8	-0.1							
7	7		20	2630	20	2680			QPSK	1	49	2510	0	24.0	23.9	-0.1							
25	25		5	1932.5	20	1985			QPSK	1	12	1852.5	0	24.4	24.3	-0.1							
25	25		10	1935	20	1985			QPSK	1	24	1855	0	24.4	24.3	-0.1							
25	25		15	1937.5	20	1985			QPSK	1	36	1857.5	0	24.4	24.3	-0.1							
25	25		20	1940	20	1985			QPSK	1	49	1860	0	24.5	24.4	-0.1							
41	41		5	2498.5	20	2680			QPSK	1	12	2498.5	0	22.4	22.3	-0.1							
41	41		10	2501	20	2680			QPSK	1	24	2501	0	22.4	22.3	-0.1							
41	41		15	2503.5	20	2680			QPSK	1	36	2503.5	0	22.4	22.4	0							
41	41		20	2506	20	2680			QPSK	1	49	2506	0	22.5	22.4	-0.1							
41A	41C	41C	5	2498.5	20	2593	20	2680	QPSK	1	12	2498.5	0	22.4	22.3	-0.1							
41A	41C	41C	10	2501	20	2593	20	2680	QPSK	1	24	2501	0	22.4	22.4	0							
41A	41C	41C	15	2503.5	20	2593	20	2680	QPSK	1	36	2503.5	0	22.4	22.3	-0.1							
41A	41C	41C	20	2506	20	2593	20	2680	QPSK	1	49	2506	0	22.5	22.4	-0.1							
41C	41C	41A	5	2498.5	20	2593	20	2680	QPSK	1	12	2498.5	0	22.4	22.3	-0.1							
41C	41C	41A	10	2501	20	2593	20	2680	QPSK	1	24	2501	0	22.4	22.3	-0.1							
41C	41C	41A	15	2503.5	20	2593	20	2680	QPSK	1	36	2503.5	0	22.4	22.4	0							
41C	41C	41A	20	2506	20	2593	20	2680	QPSK	1	49	2506	0	22.5	22.5	0							

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Intra-Band Contiguous

DL									UL														
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC						
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
2C	2C		5	1960	20	1972.5			QPSK	1	12	1880	0	24.4	24.3	-0.1							
2C	2C		10	1960	20	1975			QPSK	1	24	1880	0	24.4	24.3	-0.1							
2C	2C		15	1960	20	1977.5			QPSK	1	36	1880	0	24.4	24.3	-0.1							
2C	2C		20	1960	20	1980			QPSK	1	49	1880	0	24.5	24.4	-0.1							
7B	7B		5	2655	15	2665			QPSK	1	12	2535	0	24.0	23.9	-0.1							
7B	7B		15	2655	5	2665			QPSK	1	36	2535	0	23.9	23.8	-0.1							
7C	7C		10	2655	20	2670			QPSK	1	24	2535	0	23.9	23.9	0							
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	23.9	23.9	0							
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	24.0	23.9	-0.1							
12B	12B		5	737.5	5	742.5			QPSK	1	12	707.5	0	24.4	24.4	0							
12B	12B		5	737.5	10	745			QPSK	1	12	707.5	0	24.4	24.3	-0.1							
12B	12B		10	737.5	5	745			QPSK	1	24	707.5	0	24.5	24.4	-0.1							
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	22.5	22.5	0							
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	22.5	22.4	-0.1							
41C	41C		15	2593	20	2610.5			QPSK	1	36	2593	0	22.5	22.5	0							
41C	41C		20	2593	20	2613			QPSK	1	49	2593	0	22.5	22.4	-0.1							
7C	7C		10	2655	20	2670			QPSK	1	24	2535	0	23.9	22.9	-1	1	49	2550	0	23.9	22.9	-1
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	23.9	23.0	-0.9	1	49	2552.5	0	23.9	23.0	-0.9
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	24.0	23.0	-1	1	49	2555	0	24.0	23.0	-1
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	22.5	22.4	-0.1	1	49	2605.5	0	22.5	22.4	-0.1
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	22.5	22.5	0	1	49	2608	0	22.5	22.4	-0.1
41C	41C		15	2593	20	2610.5			QPSK	1	36	2593	0	22.5	22.5	0	1	49	2610.5	0	22.5	22.5	0
41C	41C		20	2593	20	2613			QPSK	1	49	2593	0	22.5	22.4	-0.1	1	49	2613	0	22.5	22.4	-0.1
41D	41D	41D	10	2593	20	2608	20	2628	QPSK	1	24	2593	0	22.5	22.4	-0.1							
41D	41D	41D	15	2593	20	2610.5	20	2630.5	QPSK	1	36	2593	0	22.5	22.4	-0.1							
41D	41D	41D	20	2593	20	2613	20	2633	QPSK	1	49	2593	0	22.5	22.4	-0.1							

UL CA test cases selected based on FCC PAG Guidance and Manufacturer KDB inquiry - Carrier Aggregation: PCC was determined and selected closest to the worst case SAR configuration from standalone reported SAR result. SCC was determined and selected closest to the next highest worst case SAR configuration from standalone SAR result. Channels utilized allows both selections to have contiguous CA were measured for output power. Uplink output power for UL CA is the total power measured across the PCC and SCC.:

LTE-2CA Band 7

Antenna	RF Exposure Conditions	Mode	PCC					SCC					Power (dBm)	
			Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.
UAT	Head	QPSK	20	20850	2510.0	50	24	20	21048	2529.8	50	24	15.0	15.0
LAT	Body & Hotspot	QPSK	20	20850	2510.0	1	49	20	21048	2529.8	1	49	17.7	17.7

LTE-2CA Band 41

Antenna	RF Exposure Conditions	Mode	PCC					SCC					Power (dBm)	
			Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.
UAT	Body & Hotspot	QPSK	20	40185	2549.5	1	49	20	40383	2569.3	1	49	18.0	18.0
LAT	Body & Hotspot	QPSK	20	41055	2636.5	50	24	20	40857	2616.7	1	49	20.5	20.5

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9.6. WLAN SISO (P_{Cell_ON})

For 2.4 & 5GHz band, there are two use cases:

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

Measured Results

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	10.4	17.0	13.0	13.8
			6	2437	10.4	17.0	13.0	13.8
			11	2462	10.4	17.0	13.0	13.8
			12	2467	10.4	17.0	13.0	13.8
			13	2472	10.4	17.0	13.0	13.8
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11ac	1 Tx VHT80	42	5210	5.5	Not required	15.0	Not required
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11n	1 Tx HT40	54	5270	Not required	18.8	Not required	Not required
			62	5310		15.0		
	802.11ac	1 Tx VHT80	58	5290	Not required	Not required	Not required	10.5
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	1 Tx VHT80	106	5530	4.0	15.0	10.3	9.5
			122	5610	4.0	19.0	10.3	9.5
			138	5690	4.0	19.0	10.3	9.5
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11ac	1 Tx VHT80	155	5775	4.8	18.5	10.7	10.3

Note(s):

1. 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 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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9.7. WLAN MIMO (P_{Cell_ON})

For 2.4 & 5GHz band, there are two use cases:

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11g	2 Tx CDD	1	2412	10.5	15.5	13.0	13.7
			2	2417	10.5	18.0	13.0	13.7
			3	2422	10.5	18.0	13.0	13.7
			6	2437	10.5	18.0	13.0	13.7
			9	2452	10.5	18.0	13.0	13.7
			10	2457	10.5	17.5	13.0	13.7
			11	2462	10.5	14.5	13.0	13.7
			12	2467	10.5	13.0	13.0	13.0
			13	2472	5.0	5.0	5.0	5.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11n	2 Tx HT40 CDD/STBC/SDM	38	5190	6.0	14.5	Not required	
			46	5230	6.0	18.2		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	42	5210	Not required		15.0	10.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	2 Tx VHT80 CDD/STBC/SDM	106	5530	4.0	14.0	10.8	10.0
			122	5610	4.0	19.0	10.8	10.0
			138	5690	4.0	19.0	10.8	10.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11n	2 Tx HT40 CDD/STBC/SDM	151	5755	4.8	19.0	Not required	
			159	5795	4.8	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	155	5775	Not required		10.8	10.3

Note(s):

1. 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 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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9.8. WLAN SISO (P_{Cell_OFF})

For 2.4 & 5GHz band, there are two use cases:

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	15.7	18.0	17.3	18.5
			6	2437	15.7	18.0	17.3	18.5
			11	2462	15.8	18.0	17.1	18.5
			12	2467	15.7	17.9	17.0	18.4
			13	2472	15.7	17.0	17.0	17.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11ac	1 Tx VHT80	42	5210	13.8	Not required	Not required	Not required

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11a	1 Tx	52	5260	Not required	Not required	19.5	Not required
			56	5280			19.5	
			60	5300			19.5	
			64	5320			16.0	
	802.11n	1 Tx HT40	54	5270	Not required	18.8	Not required	17.2
			62	5310		15.0		14.5

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	1 Tx VHT80	106	5530	11.7	15.0	15.0	15.0
			122	5610	11.7	19.0	15.5	16.7
			138	5690	11.8	19.0	15.5	16.8

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11ac	1 Tx VHT80	155	5775	12.5	18.5	16.3	17.3

Note(s):

1. 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 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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9.9. WLAN MIMO (P_{Cell_OFF})

For 2.4 & 5GHz band, there are two use cases:

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11g	2 Tx CDD	1	2412	15.5	15.5	15.5	15.5
			2	2417	15.8	18.0	17.3	18.0
			3	2422	15.8	18.8	17.3	19.0
			6	2437	15.8	18.8	17.3	19.0
			9	2452	15.8	18.8	17.3	19.0
			10	2457	15.8	17.5	17.3	17.5
			11	2462	14.5	14.5	14.5	14.5
			12	2467	13.0	13.0	13.0	13.0
			13	2472	5.0	5.0	5.0	5.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11n	2 Tx HT40 CDD/STBC/SDM	38	5190	13.8	14.5	Not required	
			46	5230	13.8	19.0		

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11n	2 Tx HT40 CDD/STBC/SDM	54	5270	Not required		19.0	17.3
			62	5310			14.5	14.5

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	2 Tx VHT80 CDD/STBC/SDM	106	5530	11.8	14.0	14.0	14.0
			122	5610	11.8	18.3	16.0	16.8
			138	5690	11.8	18.3	16.0	16.8

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11n	2 Tx HT40 CDD/STBC/SDM	151	5755	12.5	19.0	Not required	
			159	5795	12.5	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	155	5775	Not required		15.8	16.7

Note(s):

1. 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 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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9.10. Bluetooth

P_{High}

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	V3.0 + EDR, GFSK	0	2402	11.9
		39	2441	11.9
		78	2480	11.9

P_{Low}

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	V3.0 + EDR, GFSK	0	2402	10.0
		39	2441	10.0
		78	2480	10.0

$P_{Standalone}$

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	V3.0 + EDR, GFSK	0	2402	16.5
		39	2441	16.5
		78	2480	16.5

Notes:

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

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10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

KDB 447498 D01 General RF Exposure Guidance:
Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- ≤ 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.

This device is not considered a phablet as the display diagonal dimension is < 15.0 cm and the overall diagonal dimension is < 16.0 cm as applicable, therefore phablet procedures have not been applied.

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.

KDB 248227 D01 SAR meas for 802.11:
SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; these are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

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

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

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

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

Additional Guidance: Manufacturer KDB inquiry mentioned in Sec. 2 was used to apply published KDB guidance to proprietary power control implemented in this device.

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10.1. GSM850

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head (VoIP)	GPRS 2 Slots	0	Left Touch	190	836.6	28.0	27.6	0.355	0.389	0.236	0.259	
			Left Tilt	190	836.6	28.0	27.6	0.324	0.355	0.179	0.196	
			Right Touch	190	836.6	28.0	27.6	0.423	0.464	0.251	0.275	
			Right Tilt	190	836.6	28.0	27.6	0.300	0.329	0.161	0.177	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	190	836.6	28.0	27.6	0.218	0.239	0.129	0.141	
			Front	190	836.6	28.0	27.6	0.206	0.226	0.141	0.155	
Hotspot			Edge 1	190	836.6	28.0	27.6	0.098	0.107	0.045	0.049	
			Edge 2	190	836.6	28.0	27.6	0.340	0.373	0.224	0.246	
			Edge 4	190	836.6	28.0	27.6	0.209	0.229	0.136	0.149	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head (VoIP)	GPRS 2 Slots	0	Left Touch	190	836.6	32.5	32.5	0.489	0.489	0.368	0.368	1
			Left Tilt	190	836.6	32.5	32.5	0.266	0.266	0.207	0.207	
			Right Touch	190	836.6	32.5	32.5	0.407	0.407	0.310	0.310	
			Right Tilt	190	836.6	32.5	32.5	0.282	0.282	0.220	0.220	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	190	836.6	32.5	32.5	0.613	0.613	0.349	0.349	
			Front	190	836.6	32.5	32.5	0.700	0.700	0.387	0.387	2
Hotspot			Edge 2	190	836.6	32.5	32.5	0.418	0.418	0.273	0.273	
			Edge 3	190	836.6	32.5	32.5	0.548	0.548	0.252	0.252	
			Edge 4	128	824.2	32.5	32.5	0.846	0.846	0.555	0.555	
				190	836.6	32.5	32.5	0.909	0.909	0.594	0.594	3
				251	848.8	32.5	32.5	0.839	0.839	0.545	0.545	

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10.2. GSM1900

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head VoIP	GPRS 2 Slots	0	Left Touch	661	1880.0	23.0	22.9	0.177	0.181	0.107	0.109	
			Left Tilt	661	1880.0	23.0	22.9	0.148	0.151	0.086	0.088	
			Right Touch	512	1850.2	23.0	22.9	0.885	0.906	0.459	0.470	
				661	1880.0	23.0	22.9	0.942	0.964	0.483	0.494	
				810	1909.8	23.0	23.0	1.050	1.050	0.536	0.536	4
			Right Tilt	661	1880.0	23.0	22.9	0.657	0.672	0.332	0.340	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	661	1880.0	23.2	22.9	0.171	0.183	0.092	0.099	
			Front	661	1880.0	23.2	22.9	0.243	0.260	0.116	0.124	
Hotspot			Edge 1	661	1880.0	23.2	22.9	0.204	0.219	0.094	0.101	
			Edge 2	661	1880.0	23.2	22.9	0.045	0.048	0.023	0.025	
			Edge 4	661	1880.0	23.2	22.9	0.031	0.033	0.017	0.018	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head VoIP	GPRS 2 Slots	0	Left Touch	661	1880.0	29.5	29.5	0.194	0.194	0.126	0.126	
			Left Tilt	661	1880.0	29.5	29.5	0.087	0.087	0.056	0.056	
			Right Touch	661	1880.0	29.5	29.5	0.416	0.416	0.251	0.251	
			Right Tilt	661	1880.0	29.5	29.5	0.139	0.139	0.085	0.085	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	661	1880.0	28.3	28.2	0.755	0.773	0.391	0.400	
			Front	512	1850.2	28.3	28.2	1.020	1.044	0.506	0.518	
				661	1880.0	28.3	28.2	1.040	1.064	0.512	0.524	
				810	1909.8	28.3	28.2	1.070	1.095	0.532	0.544	5
Hotspot			Edge 2	661	1880.0	28.3	28.2	0.720	0.737	0.388	0.397	
			Edge 3	512	1850.2	28.3	28.2	1.070	1.095	0.487	0.498	
				661	1880.0	28.3	28.2	1.060	1.085	0.479	0.490	
				810	1909.8	28.3	28.2	1.070	1.095	0.474	0.485	
			Edge 4	661	1880.0	28.3	28.2	0.082	0.084	0.043	0.044	

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10.3. W-CDMA Band V

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	4183	836.6	22.0	22.0	0.629	0.629	0.466	0.466	
			Left Tilt	4183	836.6	22.0	22.0	0.466	0.466	0.274	0.274	
			Right Touch	4183	836.6	22.0	22.0	0.671	0.671	0.435	0.435	6
			Right Tilt	4183	836.6	22.0	22.0	0.451	0.451	0.255	0.255	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	22.0	22.0	0.263	0.263	0.174	0.174	
			Front	4183	836.6	22.0	22.0	0.252	0.252	0.182	0.182	
Hotspot	Rel 99 RMC	5	Edge 1	4183	836.6	22.0	22.0	0.085	0.085	0.040	0.040	
			Edge 2	4183	836.6	22.0	22.0	0.350	0.350	0.229	0.229	
			Edge 4	4183	836.6	22.0	22.0	0.206	0.206	0.135	0.135	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	4183	836.6	25.0	25.0	0.425	0.425	0.324	0.324	
			Left Tilt	4183	836.6	25.0	25.0	0.245	0.245	0.192	0.192	
			Right Touch	4183	836.6	25.0	25.0	0.356	0.356	0.271	0.271	
			Right Tilt	4183	836.6	25.0	25.0	0.229	0.229	0.180	0.180	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	25.0	25.0	0.578	0.578	0.331	0.331	
			Front	4183	836.6	25.0	25.0	0.617	0.617	0.348	0.348	7
Hotspot	Rel 99 RMC	5	Edge 2	4183	836.6	25.0	25.0	0.431	0.431	0.279	0.279	
			Edge 3	4183	836.6	25.0	25.0	0.434	0.434	0.199	0.199	
			Edge 4	4132	826.4	25.0	25.0	0.735	0.735	0.483	0.483	
				4183	836.6	25.0	25.0	0.825	0.825	0.539	0.539	8
				4233	846.6	25.0	25.0	0.774	0.774	0.504	0.504	

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10.4. W-CDMA Band IV

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	1413	1732.6	18.3	18.1	0.298	0.312	0.189	0.198	
			Left Tilt	1413	1732.6	18.3	18.1	0.359	0.376	0.221	0.231	
			Right Touch	1312	1712.4	18.3	18.1	0.917	0.960	0.505	0.529	
				1413	1732.6	18.3	18.1	0.903	0.946	0.496	0.519	
				1513	1752.6	18.3	18.1	0.975	1.021	0.530	0.555	9
			Right Tilt	1413	1732.6	18.3	18.1	0.568	0.595	0.292	0.306	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	20.5	20.3	0.589	0.617	0.315	0.330	
			Front	1312	1712.4	20.5	20.3	0.732	0.766	0.370	0.387	
				1413	1732.6	20.5	20.3	0.849	0.889	0.424	0.444	
				1513	1752.6	20.5	20.3	0.761	0.797	0.376	0.394	
Hotspot	Rel 99 RMC	5	Edge 1	1312	1712.4	20.5	20.3	0.805	0.843	0.381	0.399	
				1413	1732.6	20.5	20.3	0.929	0.973	0.442	0.463	
				1513	1752.6	20.5	20.3	0.897	0.939	0.417	0.437	
			Edge 2	1413	1732.6	20.5	20.3	0.030	0.031	0.016	0.017	
			Edge 4	1413	1732.6	20.5	20.3	0.747	0.782	0.403	0.422	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	1413	1732.6	25.2	25.2	0.296	0.296	0.206	0.206	
			Left Tilt	1413	1732.6	25.2	25.2	0.210	0.210	0.134	0.134	
			Right Touch	1413	1732.6	25.2	25.2	0.600	0.600	0.386	0.386	
			Right Tilt	1413	1732.6	25.2	25.2	0.167	0.167	0.115	0.115	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	21.3	21.2	0.651	0.666	0.362	0.370	
			Front	1312	1712.4	21.3	21.2	0.925	0.947	0.486	0.497	10
				1413	1732.6	21.3	21.2	0.895	0.916	0.459	0.470	
				1513	1752.6	21.3	21.2	0.872	0.892	0.447	0.457	
Hotspot	Rel 99 RMC	5	Edge 2	1413	1732.6	21.3	21.2	0.730	0.747	0.396	0.405	
			Edge 3	1312	1712.4	21.3	21.2	0.975	0.998	0.464	0.475	
				1413	1732.6	21.3	21.2	0.958	0.980	0.458	0.469	
				1513	1752.6	21.3	21.2	1.030	1.054	0.486	0.497	11
			Edge 4	1413	1732.6	21.3	21.2	0.057	0.058	0.032	0.033	

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10.5. W-CDMA Band II

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	9400	1880.0	19.3	19.2	0.290	0.297	0.165	0.169	
			Left Tilt	9400	1880.0	19.3	19.2	0.474	0.485	0.269	0.275	
			Right Touch	9262	1852.4	19.3	19.2	1.050	1.074	0.527	0.539	
				9400	1880.0	19.3	19.2	1.060	1.085	0.548	0.561	12
				9538	1907.6	19.3	19.3	1.060	1.060	0.524	0.524	
			Right Tilt	9262	1852.4	19.3	19.2	0.895	0.916	0.443	0.453	
				9400	1880.0	19.3	19.2	0.937	0.959	0.459	0.470	
				9538	1907.6	19.3	19.3	1.070	1.070	0.520	0.520	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9262	1852.4	20.3	20.0	0.784	0.840	0.400	0.429	
				9400	1880.0	20.3	20.0	0.880	0.943	0.439	0.470	
				9538	1907.6	20.3	20.0	0.872	0.934	0.442	0.474	
			Front	9400	1880.0	20.3	20.0	0.741	0.794	0.356	0.381	
Hotspot	Rel 99 RMC	5	Edge 1	9400	1880.0	20.3	20.0	0.654	0.701	0.290	0.311	
			Edge 2	9400	1880.0	20.3	20.0	0.045	0.048	0.023	0.025	
			Edge 4	9400	1880.0	20.3	20.0	0.509	0.545	0.272	0.291	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	9400	1880.0	25.2	25.1	0.447	0.457	0.288	0.295	
			Left Tilt	9400	1880.0	25.2	25.1	0.257	0.263	0.158	0.162	
			Right Touch	9400	1880.0	25.2	25.1	0.762	0.780	0.472	0.483	
			Right Tilt	9400	1880.0	25.2	25.1	0.251	0.257	0.158	0.162	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9262	1852.4	21.0	21.0	0.955	0.955	0.503	0.503	
				9400	1880.0	21.0	21.0	1.050	1.050	0.550	0.550	
				9538	1907.6	21.0	21.0	1.130	1.130	0.583	0.583	13
			Front	9262	1852.4	21.0	21.0	0.938	0.938	0.477	0.477	
				9400	1880.0	21.0	21.0	1.020	1.020	0.515	0.515	
				9538	1907.6	21.0	21.0	1.060	1.060	0.525	0.525	
Hotspot	Rel 99 RMC	5	Edge 2	9400	1880.0	21.0	21.0	0.672	0.672	0.372	0.372	
			Edge 3	9262	1852.4	21.0	21.0	0.888	0.888	0.410	0.410	
				9400	1880.0	21.0	21.0	1.010	1.010	0.462	0.462	
				9538	1907.6	21.0	21.0	1.070	1.070	0.486	0.486	
			Edge 4	9400	1880.0	21.0	21.0	0.093	0.093	0.051	0.051	

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10.6. CDMA BC0

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	22.0	22.0	0.792	0.792	0.585	0.585	14
			Left Tilt	384	836.5	22.0	22.0	0.490	0.490	0.298	0.298	
			Right Touch	384	836.5	22.0	22.0	0.756	0.756	0.465	0.465	
			Right Tilt	384	836.5	22.0	22.0	0.566	0.566	0.306	0.306	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	22.0	22.0	0.170	0.170	0.091	0.091	
			Left Tilt	384	836.5	22.0	22.0	0.159	0.159	0.079	0.079	
			Right Touch	384	836.5	22.0	22.0	0.219	0.219	0.110	0.110	
			Right Tilt	384	836.5	22.0	22.0	0.182	0.182	0.087	0.087	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	384	836.5	22.0	22.0	0.333	0.333	0.211	0.211	
			Front	384	836.5	22.0	22.0	0.337	0.337	0.209	0.209	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	384	836.5	22.0	22.0	0.118	0.118	0.055	0.055	
			Edge 2	384	836.5	22.0	22.0	0.668	0.668	0.437	0.437	
			Edge 4	384	836.5	22.0	22.0	0.447	0.447	0.292	0.292	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	25.0	25.0	0.382	0.382	0.292	0.292	
			Left Tilt	384	836.5	25.0	25.0	0.235	0.235	0.183	0.183	
			Right Touch	384	836.5	25.0	25.0	0.316	0.316	0.241	0.241	
			Right Tilt	384	836.5	25.0	25.0	0.249	0.249	0.194	0.194	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	25.0	24.1	0.294	0.362	0.221	0.272	
			Left Tilt	384	836.5	25.0	24.1	0.163	0.201	0.128	0.157	
			Right Touch	384	836.5	25.0	24.1	0.243	0.299	0.184	0.226	
			Right Tilt	384	836.5	25.0	24.1	0.157	0.193	0.123	0.151	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	384	836.5	25.0	25.0	0.506	0.506	0.292	0.292	
			Front	384	836.5	25.0	25.0	0.550	0.550	0.303	0.303	15
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	384	836.5	25.0	25.0	0.364	0.364	0.239	0.239	
			Edge 3	384	836.5	25.0	25.0	0.360	0.360	0.167	0.167	
			Edge 4	1013	824.7	25.0	25.0	0.782	0.782	0.516	0.516	
				384	836.5	25.0	25.0	0.784	0.784	0.516	0.516	16
				777	848.3	25.0	25.0	0.716	0.716	0.470	0.470	

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10.7. CDMA BC1

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	19.3	19.3	0.464	0.464	0.263	0.263	
			Left Tilt	600	1880.0	19.3	19.3	0.330	0.330	0.191	0.191	
			Right Touch	25	1851.3	19.3	19.2	1.020	1.044	0.521	0.533	
				600	1880.0	19.3	19.3	1.040	1.040	0.529	0.529	
				1175	1908.8	19.3	19.3	1.070	1.070	0.549	0.549	
			Right Tilt	25	1851.3	19.3	19.2	0.820	0.839	0.397	0.406	
				600	1880.0	19.3	19.3	0.851	0.851	0.410	0.410	
				1175	1908.8	19.3	19.3	0.946	0.946	0.451	0.451	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	19.3	19.1	0.379	0.397	0.224	0.235	
			Left Tilt	600	1880.0	19.3	19.1	0.302	0.316	0.179	0.187	
			Right Touch	25	1851.3	19.3	19.2	1.020	1.044	0.520	0.532	
				600	1880.0	19.3	19.1	1.000	1.047	0.512	0.536	
				1175	1908.8	19.3	19.3	1.090	1.090	0.551	0.551	17
			Right Tilt	600	1880.0	19.3	19.1	0.656	0.687	0.323	0.338	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	600	1880.0	20.3	19.9	0.541	0.593	0.282	0.309	
			Front	600	1880.0	20.3	19.9	0.510	0.559	0.245	0.269	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	25	1851.3	20.3	19.9	0.861	0.944	0.368	0.404	
				600	1880.0	20.3	19.9	0.833	0.913	0.355	0.389	
				1175	1908.8	20.3	19.9	0.852	0.934	0.360	0.395	
			Edge 2	600	1880.0	20.3	19.9	0.059	0.065	0.031	0.034	
			Edge 4	600	1880.0	20.3	19.9	0.457	0.501	0.249	0.273	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	25.2	24.8	0.362	0.397	0.233	0.255	
			Left Tilt	600	1880.0	25.2	24.8	0.255	0.280	0.159	0.174	
			Right Touch	25	1851.3	25.2	24.2	0.688	0.866	0.429	0.540	
				600	1880.0	25.2	24.8	0.765	0.839	0.480	0.526	
				1175	1908.8	25.2	24.9	0.875	0.938	0.537	0.575	
			Right Tilt	600	1880.0	25.2	24.8	0.309	0.339	0.189	0.207	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	25.2	24.2	0.217	0.273	0.148	0.186	
			Left Tilt	600	1880.0	25.2	24.2	0.175	0.220	0.109	0.137	
			Right Touch	25	1851.3	25.2	24.2	0.650	0.818	0.398	0.501	
				600	1880.0	25.2	24.2	0.724	0.911	0.444	0.559	
				1175	1908.8	25.2	24.2	0.698	0.879	0.429	0.540	
			Right Tilt	600	1880.0	25.2	24.2	0.237	0.298	0.150	0.189	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	600	1880.0	21.0	20.9	0.659	0.674	0.360	0.368	18
			Front	600	1880.0	21.0	20.9	0.655	0.670	0.337	0.345	
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	600	1880.0	21.0	20.9	0.570	0.583	0.314	0.321	
			Edge 3	25	1851.3	21.0	20.9	0.789	0.807	0.375	0.384	
				600	1880.0	21.0	20.9	0.914	0.935	0.427	0.437	
				1175	1908.8	21.0	20.9	0.997	1.020	0.462	0.473	19
			Edge 4	600	1880.0	21.0	20.9	0.076	0.078	0.041	0.042	

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10.8. CDMA BC10

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	22.0	21.8	0.752	0.787	0.567	0.594	
			Left Tilt	580	820.5	22.0	21.8	0.569	0.596	0.351	0.368	
			Right Touch	476	817.9	22.0	21.8	0.703	0.736	0.437	0.458	
				580	820.5	22.0	21.8	0.833	0.872	0.548	0.574	20
				684	823.1	22.0	21.8	0.509	0.533	0.326	0.341	
			Right Tilt	580	820.5	22.0	21.8	0.575	0.602	0.343	0.359	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	22.0	22.0	0.189	0.189	0.104	0.104	
			Left Tilt	580	820.5	22.0	22.0	0.185	0.185	0.091	0.091	
			Right Touch	580	820.5	22.0	22.0	0.238	0.238	0.121	0.121	
			Right Tilt	580	820.5	22.0	22.0	0.199	0.199	0.096	0.096	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	580	820.5	22.0	21.8	0.277	0.290	0.199	0.208	
			Front	580	820.5	22.0	21.8	0.289	0.303	0.229	0.240	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	580	820.5	22.0	21.8	0.074	0.077	0.036	0.038	
			Edge 2	580	820.5	22.0	21.8	0.427	0.447	0.281	0.294	
			Edge 4	580	820.5	22.0	21.8	0.288	0.302	0.190	0.199	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	25.0	25.0	0.267	0.267	0.205	0.205	
			Left Tilt	580	820.5	25.0	25.0	0.220	0.220	0.170	0.170	
			Right Touch	580	820.5	25.0	25.0	0.251	0.251	0.189	0.189	
			Right Tilt	580	820.5	25.0	25.0	0.201	0.201	0.156	0.156	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	25.0	25.0	0.226	0.226	0.169	0.169	
			Left Tilt	580	820.5	25.0	25.0	0.132	0.132	0.104	0.104	
			Right Touch	580	820.5	25.0	25.0	0.190	0.190	0.145	0.145	
			Right Tilt	580	820.5	25.0	25.0	0.130	0.130	0.102	0.102	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	580	820.5	25.0	25.0	0.345	0.345	0.236	0.236	
			Front	580	820.5	25.0	25.0	0.365	0.365	0.286	0.286	21
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	580	820.5	25.0	25.0	0.297	0.297	0.196	0.196	
			Edge 3	580	820.5	25.0	25.0	0.213	0.213	0.101	0.101	
			Edge 4	580	820.5	25.0	25.0	0.627	0.627	0.412	0.412	22

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10.9. LTE Band 2 (20MHz Bandwidth)

SAR for LTE Band 2 (Frequency range: 1850 – 1910 MHz) is covered by LTE Band 25 (Frequency range: 1850 – 1915 MHz) due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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10.10. LTE Band 4 (20MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	18.3	18.1	0.394	0.413	0.247	0.259	
						50	24	18.3	17.2	0.300	0.386	0.187	0.241	
			Left Tilt	20175	1732.5	1	49	18.3	18.1	0.352	0.369	0.218	0.228	
						50	24	18.3	17.2	0.279	0.359	0.176	0.227	
			Right Touch	20050	1720.0	1	49	18.3	18.2	0.978	1.001	0.541	0.554	
				20175	1732.5	1	49	18.3	18.1	0.979	1.025	0.535	0.560	
						50	24	18.3	17.2	0.780	1.005	0.422	0.544	
				20300	1745.0	1	49	18.3	18.0	0.976	1.046	0.536	0.574	23
			Right Tilt	20175	1732.5	1	49	18.3	18.1	0.673	0.705	0.373	0.391	
						50	24	18.3	17.2	0.551	0.710	0.302	0.389	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	20.5	20.4	0.678	0.694	0.359	0.367	
						50	24	19.5	19.4	0.556	0.569	0.295	0.302	
			Front	20175	1732.5	1	49	20.5	20.4	0.689	0.705	0.352	0.360	
						50	24	19.5	19.4	0.558	0.571	0.284	0.291	
Hotspot	QPSK	5	Edge 1	20050	1720.0	1	49	20.5	20.4	0.889	0.910	0.428	0.438	
				20175	1732.5	1	49	20.5	20.4	0.953	0.975	0.455	0.466	
						50	24	19.5	19.4	0.757	0.775	0.362	0.370	
				20300	1745.0	1	49	20.5	20.4	0.961	0.983	0.459	0.470	
			Edge 2	20175	1732.5	1	49	20.5	20.4	0.024	0.025	0.013	0.013	
						50	24	19.5	19.4	0.019	0.019	0.010	0.010	
			Edge 4	20175	1732.5	1	49	20.5	20.4	0.675	0.691	0.366	0.375	
						50	24	19.5	19.4	0.540	0.553	0.292	0.299	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	24.5	24.5	0.232	0.232	0.161	0.161	
						50	24	23.5	23.5	0.212	0.212	0.147	0.147	
			Left Tilt	20175	1732.5	1	49	24.5	24.5	0.168	0.168	0.107	0.107	
						50	24	23.5	23.5	0.145	0.145	0.093	0.093	
			Right Touch	20175	1732.5	1	49	24.5	24.5	0.476	0.476	0.305	0.305	
						50	24	23.5	23.5	0.395	0.395	0.258	0.258	
			Right Tilt	20175	1732.5	1	49	24.5	24.5	0.157	0.157	0.104	0.104	
						50	24	23.5	23.5	0.143	0.143	0.094	0.094	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	21.3	21.3	0.663	0.663	0.370	0.370	
						50	24	21.3	20.3	0.764	0.962	0.397	0.500	
			Front	20050	1720.0	1	49	21.3	21.2	0.993	1.016	0.518	0.530	
						50	24	21.3	21.2	0.764	0.782	0.397	0.406	
				20175	1732.5	1	49	21.3	21.3	1.080	1.080	0.554	0.554	
						50	24	21.3	20.3	0.724	0.911	0.376	0.473	
						100	0	21.3	20.3	0.801	1.008	0.410	0.516	
				20300	1745.0	1	49	21.3	21.2	1.090	1.115	0.560	0.573	24
						50	24	21.3	20.3	0.736	0.927	0.482	0.607	
Hotspot	QPSK	5	Edge 2	20175	1732.5	1	49	21.3	21.3	0.695	0.695	0.378	0.378	
						50	24	21.3	20.3	0.472	0.594	0.259	0.326	
			Edge 3	20050	1720.0	1	49	21.3	21.2	1.070	1.095	0.509	0.521	
						50	24	21.3	20.3	0.839	1.056	0.396	0.499	
				20175	1732.5	1	49	21.3	21.3	0.991	0.991	0.470	0.470	
						50	24	21.3	20.3	0.838	1.055	0.394	0.496	
						100	0	21.3	20.2	0.860	1.108	0.407	0.524	
				20300	1745.0	1	49	21.3	21.2	1.050	1.074	0.499	0.511	
						50	24	21.3	20.2	0.860	1.108	0.404	0.520	
			Edge 4	20175	1732.5	1	49	21.3	21.3	0.036	0.036	0.020	0.020	
						50	24	21.3	20.3	0.029	0.037	0.016	0.020	

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10.11. LTE Band 5 (10MHz Bandwidth)

SAR for LTE Band 5 (Frequency range: 824 – 849 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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10.12. LTE Band 7 (20MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20850	2510.0	1	49	15.0	15.0	0.986	0.986	0.387	0.387	
						50	24	15.0	14.0	0.804	1.012	0.311	0.392	25
				21100	2535.0	1	49	15.0	15.0	0.959	0.959	0.385	0.385	
						50	24	15.0	14.0	0.802	1.010	0.318	0.400	
						100	0	15.0	14.0	0.769	0.968	0.306	0.385	
				21350	2560.0	1	49	15.0	14.9	0.807	0.826	0.331	0.339	
						50	24	15.0	14.0	0.687	0.865	0.275	0.346	
			Left Tilt	20850	2510.0	1	49	15.0	15.0	0.949	0.949	0.343	0.343	
						50	24	15.0	14.0	0.690	0.869	0.248	0.312	
				21100	2535.0	1	49	15.0	15.0	0.909	0.909	0.338	0.338	
						50	24	15.0	14.0	0.742	0.934	0.271	0.341	
						100	0	15.0	14.0	0.677	0.852	0.248	0.312	
				21350	2560.0	1	49	15.0	14.9	0.766	0.784	0.286	0.293	
						50	24	15.0	14.0	0.570	0.718	0.211	0.266	
			Right Touch	21100	2535.0	1	49	15.0	15.0	0.418	0.418	0.157	0.157	
						50	24	15.0	14.0	0.332	0.418	0.123	0.155	
			Right Tilt	21100	2535.0	1	49	15.0	15.0	0.462	0.462	0.177	0.177	
						50	24	15.0	14.0	0.370	0.466	0.138	0.174	
Body-worn & Hotspot	QPSK	5	Rear	20850	2510.0	1	49	17.3	16.9	0.784	0.860	0.349	0.383	
						50	24	17.3	16.3	0.532	0.670	0.245	0.308	
				21100	2535.0	1	49	17.3	16.9	0.845	0.927	0.383	0.420	
						50	24	17.3	16.3	0.675	0.850	0.306	0.385	
						100	0	17.3	16.3	0.589	0.742	0.268	0.337	
				21350	2560.0	1	49	17.3	16.9	0.828	0.908	0.382	0.419	
						50	24	17.3	16.3	0.558	0.702	0.251	0.316	
			Front	21100	2535.0	1	49	17.3	16.9	0.593	0.650	0.265	0.291	
						50	24	17.3	16.3	0.467	0.588	0.208	0.262	
Hotspot	QPSK	5	Edge 1	21100	2535.0	1	49	17.3	16.9	0.455	0.499	0.131	0.144	
						50	24	17.3	16.3	0.354	0.446	0.100	0.126	
			Edge 2	21100	2535.0	1	49	17.3	16.9	0.489	0.536	0.231	0.253	
						50	24	17.3	16.3	0.399	0.502	0.187	0.235	
			Edge 4	21100	2535.0	1	49	17.3	16.9	0.106	0.116	0.046	0.050	
						50	24	17.3	16.3	0.080	0.101	0.034	0.043	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20850	2510.0	1	49	24.0	24.0	0.875	0.875	0.467	0.467	
				21100	2535.0	1	49	24.0	24.0	0.796	0.796	0.426	0.426	
						50	24	23.5	23.5	0.714	0.714	0.376	0.376	
				21350	2560.0	1	49	24.0	24.0	1.050	1.050	0.555	0.555	
			Left Tilt	21100	2535.0	1	49	24.0	24.0	0.201	0.201	0.102	0.102	
						50	24	23.5	23.5	0.145	0.145	0.067	0.067	
			Right Touch	21100	2535.0	1	49	24.0	24.0	0.484	0.484	0.267	0.267	
						50	24	23.5	23.5	0.419	0.419	0.228	0.228	
			Right Tilt	21100	2535.0	1	49	24.0	24.0	0.279	0.279	0.137	0.137	
						50	24	23.5	23.5	0.228	0.228	0.111	0.111	
Body-worn & Hotspot	QPSK	5	Rear	20850	2510.0	50	24	17.7	16.6	0.417	0.537	0.173	0.223	
				21100	2535.0	1	49	17.7	17.7	0.723	0.723	0.299	0.299	
						50	24	17.7	16.6	0.657	0.846	0.321	0.414	
				21350	2560.0	50	24	17.7	16.7	0.483	0.608	0.216	0.272	
			Front	20850	2510.0	1	49	17.7	17.7	1.030	1.030	0.384	0.384	26
						50	24	17.7	16.6	0.671	0.864	0.256	0.330	
				21100	2535.0	1	49	17.7	17.7	1.020	1.020	0.384	0.384	
						50	24	17.7	16.6	0.670	0.863	0.255	0.329	
						100	0	17.7	16.6	0.640	0.824	0.219	0.282	
				21350	2560.0	1	49	17.7	17.7	0.885	0.885	0.342	0.342	
						50	24	17.7	16.7	0.733	0.923	0.282	0.355	
Hotspot	QPSK	5	Edge 2	21100	2535.0	1	49	17.7	17.7	0.052	0.052	0.025	0.025	
						50	24	17.7	16.6	0.036	0.046	0.015	0.019	
			Edge 3	21100	2535.0	1	49	17.7	17.7	0.748	0.748	0.260	0.260	
						50	24	17.7	16.6	0.582	0.750	0.203	0.262	
			Edge 4	21100	2535.0	1	49	17.7	17.7	0.662	0.662	0.291	0.291	
						50	24	17.7	16.6	0.594	0.765	0.256	0.330	

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10.13. LTE Band 12 (10MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24	22.0	22.0	0.344	0.344	0.240	0.240	
						25	12	21.0	21.0	0.291	0.291	0.203	0.203	
			Left Tilt	23095	707.5	1	24	22.0	22.0	0.326	0.326	0.196	0.196	
						25	12	21.0	21.0	0.274	0.274	0.164	0.164	
			Right Touch	23095	707.5	1	24	22.0	22.0	0.446	0.446	0.266	0.266	27
						25	12	21.0	21.0	0.379	0.379	0.225	0.225	
			Right Tilt	23095	707.5	1	24	22.0	22.0	0.353	0.353	0.202	0.202	
						25	12	21.0	21.0	0.297	0.297	0.169	0.169	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	22.0	22.0	0.256	0.256	0.153	0.153	
						25	12	21.0	21.0	0.213	0.213	0.128	0.128	
			Front	23095	707.5	1	24	22.0	22.0	0.246	0.246	0.166	0.166	
						25	12	21.0	21.0	0.208	0.208	0.140	0.140	
Hotspot	QPSK	5	Edge 1	23095	707.5	1	24	22.0	22.0	0.145	0.145	0.068	0.068	
						25	12	21.0	21.0	0.121	0.121	0.056	0.056	
			Edge 2	23095	707.5	1	24	22.0	22.0	0.363	0.363	0.243	0.243	
						25	12	21.0	21.0	0.299	0.299	0.201	0.201	
			Edge 4	23095	707.5	1	24	22.0	22.0	0.207	0.207	0.139	0.139	
						25	12	21.0	21.0	0.174	0.174	0.117	0.117	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24.0	24.5	24.5	0.208	0.208	0.164	0.164	
						25	12.0	23.5	23.5	0.185	0.185	0.145	0.145	
			Left Tilt	23095	707.5	1	24.0	24.5	24.5	0.109	0.109	0.087	0.087	
						25	12.0	23.5	23.5	0.099	0.099	0.080	0.080	
			Right Touch	23095	707.5	1	24.0	24.5	24.5	0.208	0.208	0.155	0.155	
						25	12.0	23.5	23.5	0.186	0.186	0.138	0.138	
			Right Tilt	23095	707.5	1	24.0	24.5	24.5	0.114	0.114	0.091	0.091	
						25	12.0	23.5	23.5	0.103	0.103	0.082	0.082	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24.0	24.5	24.5	0.414	0.414	0.250	0.250	
						25	12.0	23.5	23.5	0.371	0.371	0.223	0.223	
			Front	23095	707.5	1	24.0	24.5	24.5	0.514	0.514	0.294	0.294	28
						25	12.0	23.5	23.5	0.454	0.454	0.259	0.259	
Hotspot	QPSK	5	Edge 2	23095	707.5	1	24.0	24.5	24.5	0.307	0.307	0.204	0.204	
						25	12.0	23.5	23.5	0.270	0.270	0.180	0.180	
			Edge 3	23095	707.5	1	24.0	24.5	24.5	0.329	0.329	0.157	0.157	
						25	12.0	23.5	23.5	0.290	0.290	0.138	0.138	
			Edge 4	23095	707.5	1	24.0	24.5	24.5	0.530	0.530	0.357	0.357	29
						25	12.0	23.5	23.5	0.450	0.450	0.304	0.304	

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10.14. LTE Band 13 (10MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	22.0	21.0	0.214	0.269	0.155	0.195	
						25	12	21.0	20.8	0.177	0.185	0.128	0.134	
			Left Tilt	23230	782.0	1	24	22.0	21.0	0.180	0.227	0.110	0.138	
						25	12	21.0	20.8	0.148	0.155	0.091	0.096	
			Right Touch	23230	782.0	1	24	22.0	21.0	0.260	0.327	0.146	0.184	30
						25	12	21.0	20.8	0.217	0.227	0.122	0.128	
			Right Tilt	23230	782.0	1	24	22.0	21.0	0.205	0.258	0.111	0.140	
						25	12	21.0	20.8	0.169	0.177	0.091	0.095	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	22.0	21.0	0.176	0.222	0.099	0.125	
						25	12	21.0	20.8	0.147	0.154	0.082	0.086	
			Front	23230	782.0	1	24	22.0	21.0	0.144	0.181	0.093	0.117	
						25	12	21.0	20.8	0.119	0.125	0.077	0.080	
Hotspot	QPSK	5	Edge 1	23230	782.0	1	24	22.0	21.0	0.098	0.123	0.043	0.054	
						25	12	21.0	20.8	0.081	0.085	0.037	0.038	
			Edge 2	23230	782.0	1	24	22.0	21.0	0.182	0.229	0.121	0.152	
						25	12	21.0	20.8	0.147	0.154	0.098	0.102	
			Edge 4	23230	782.0	1	24	22.0	21.0	0.094	0.118	0.062	0.078	
						25	12	21.0	20.8	0.073	0.077	0.048	0.050	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	24.5	24.5	0.310	0.310	0.238	0.238	
						25	12	23.5	23.5	0.276	0.276	0.212	0.212	
			Left Tilt	23230	782.0	1	24	24.5	24.5	0.196	0.196	0.153	0.153	
						25	12	23.5	23.5	0.174	0.174	0.137	0.137	
			Right Touch	23230	782.0	1	24	24.5	24.5	0.285	0.285	0.214	0.214	
						25	12	23.5	23.5	0.251	0.251	0.190	0.190	
			Right Tilt	23230	782.0	1	24	24.5	24.5	0.203	0.203	0.158	0.158	
						25	12	23.5	23.5	0.175	0.175	0.136	0.136	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	24.5	24.5	0.588	0.588	0.326	0.326	
						25	12	23.5	23.5	0.523	0.523	0.291	0.291	
			Front	23230	782.0	1	24	24.5	24.5	0.625	0.625	0.346	0.346	31
						25	12	23.5	23.5	0.476	0.476	0.268	0.268	
Hotspot	QPSK	5	Edge 2	23230	782.0	1	24	24.5	24.5	0.393	0.393	0.259	0.259	
						25	12	23.5	23.5	0.357	0.357	0.235	0.235	
			Edge 3	23230	782.0	1	24	24.5	24.5	0.469	0.469	0.215	0.215	
						25	12	23.5	23.5	0.380	0.380	0.176	0.176	
			Edge 4	23230	782.0	1	24	24.5	24.5	0.712	0.712	0.472	0.472	32
						25	12	23.5	23.5	0.632	0.632	0.419	0.419	

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10.15. LTE Band 17 (10MHz Bandwidth)

SAR for LTE Band 17 (Frequency range: 704 – 716 MHz) is covered by LTE Band 12 (Frequency range: 699 – 716 MHz) due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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10.16. LTE Band 25 (20MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26365	1882.5	1	49	19.3	19.3	0.322	0.322	0.183	0.183	
						50	24	19.3	18.9	0.376	0.412	0.213	0.234	
			Left Tilt	26365	1882.5	1	49	19.3	19.3	0.307	0.307	0.158	0.158	
						50	24	19.3	18.9	0.265	0.291	0.151	0.166	
			Right Touch	26140	1860.0	1	49	19.3	19.3	1.030	1.030	0.535	0.535	
						50	24	19.3	19.1	0.989	1.036	0.499	0.523	
				26365	1882.5	1	49	19.3	19.3	1.070	1.070	0.539	0.539	33
						50	24	19.3	18.9	0.892	0.978	0.450	0.493	
						100	0	19.3	18.9	0.770	0.844	0.405	0.444	
				26590	1905.0	1	49	19.3	19.3	1.050	1.050	0.527	0.527	
						50	24	19.3	18.9	0.915	1.003	0.468	0.513	
			Right Tilt	26140	1860.0	1	49	19.3	19.3	0.716	0.716	0.359	0.359	
						50	24	19.3	19.1	0.724	0.758	0.341	0.357	
				26365	1882.5	1	49	19.3	19.3	0.810	0.810	0.404	0.404	
						50	24	19.3	18.9	0.736	0.807	0.355	0.389	
						100	0	19.3	18.9	0.779	0.854	0.365	0.400	
				26590	1905.0	1	49	19.3	19.3	1.030	1.030	0.482	0.482	
						50	24	19.3	18.9	0.861	0.944	0.399	0.437	
Body-worn & Hotspot	QPSK	5	Rear	26140	1882.5	1	49	20.3	20.3	0.523	0.523	0.277	0.277	
						50	24	19.5	19.4	0.427	0.437	0.226	0.231	
			Front	26140	1882.5	1	49	20.3	20.3	0.716	0.716	0.346	0.346	
						50	24	19.5	19.4	0.426	0.436	0.207	0.212	
Hotspot	QPSK	5	Edge 1	26365	1882.5	1	49	20.3	20.3	0.701	0.701	0.311	0.311	
						50	24	19.5	19.4	0.589	0.603	0.258	0.264	
			Edge 2	26365	1882.5	1	49	20.3	20.3	0.054	0.054	0.029	0.029	
						50	24	19.5	19.4	0.044	0.045	0.023	0.024	
			Edge 4	26365	1882.5	1	49	20.3	20.3	0.568	0.568	0.305	0.305	
						50	24	19.5	19.4	0.455	0.466	0.244	0.250	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26365	1882.5	1	49	24.5	24.5	0.441	0.441	0.287	0.287	
						50	24	23.5	23.5	0.391	0.391	0.252	0.252	
			Left Tilt	26365	1882.5	1	49	24.5	24.5	0.240	0.240	0.154	0.154	
						50	24	23.5	23.5	0.192	0.192	0.119	0.119	
			Right Touch	26140	1860.0	1	49	24.5	24.5	0.699	0.699	0.434	0.434	
				26365	1882.5	1	49	24.5	24.5	0.836	0.836	0.510	0.510	
						50	24	23.5	23.5	0.716	0.716	0.430	0.430	
				26590	1905.0	1	49	24.5	24.5	0.750	0.750	0.459	0.459	
			Right Tilt	26365	1882.5	1	49	24.5	24.5	0.268	0.268	0.167	0.167	
						50	24	23.5	23.5	0.212	0.212	0.132	0.132	
Body-worn & Hotspot	QPSK	5	Rear	26140	1860.0	1	49	21.0	21.0	0.696	0.696	0.375	0.375	
						50	24	21.0	21.0	0.702	0.702	0.377	0.377	
				26365	1882.5	1	49	21.0	21.0	0.804	0.804	0.427	0.427	
						50	24	21.0	21.0	0.822	0.822	0.435	0.435	
						100	0	21.0	21.0	0.794	0.794	0.423	0.423	
				26590	1905.0	1	49	21.0	21.0	0.779	0.779	0.412	0.412	
						50	24	21.0	20.9	0.856	0.876	0.453	0.464	
			Front	26140	1860.0	1	49	21.0	21.0	0.768	0.768	0.390	0.390	
						50	24	21.0	21.0	0.809	0.809	0.410	0.410	
				26365	1882.5	1	49	21.0	21.0	0.831	0.831	0.421	0.421	
						50	24	21.0	21.0	0.873	0.873	0.440	0.440	
						100	0	21.0	21.0	0.987	0.987	0.496	0.496	34
				26590	1905.0	1	49	21.0	21.0	0.912	0.912	0.459	0.459	
						50	24	21.0	20.9	0.951	0.973	0.478	0.489	
Hotspot	QPSK	5	Edge 2	26365	1882.5	1	49	21.0	21.0	0.702	0.702	0.386	0.386	
						50	24	21.0	21.0	0.687	0.687	0.380	0.380	
			Edge 3	26140	1860.0	1	49	21.0	21.0	0.833	0.833	0.386	0.386	
						50	24	21.0	21.0	0.836	0.836	0.384	0.384	
				26365	1882.5	1	49	21.0	21.0	0.968	0.968	0.441	0.441	
						50	24	21.0	21.0	0.961	0.961	0.438	0.438	
						100	0	21.0	21.0	0.910	0.910	0.414	0.414	
				26590	1905.0	1	49	21.0	21.0	0.938	0.938	0.424	0.424	
						50	24	21.0	20.9	0.988	1.011	0.446	0.456	35
			Edge 4	26365	1882.5	1	49	21.0	21.0	0.072	0.072	0.040	0.040	
						50	24	21.0	21.0	0.070	0.070	0.039	0.039	

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10.17. LTE Band 26 (10MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	21.5	21.3	0.359	0.376	0.268	0.281	
						25	12	20.5	20.5	0.294	0.294	0.219	0.219	
			Left Tilt	26865	831.5	1	24	21.5	21.3	0.302	0.316	0.177	0.185	
						25	12	20.5	20.5	0.247	0.247	0.148	0.148	
			Right Touch	26865	831.5	1	24	21.5	21.3	0.401	0.420	0.252	0.264	36
						25	12	20.5	20.5	0.321	0.321	0.202	0.202	
			Right Tilt	26865	831.5	1	24	21.5	21.3	0.286	0.299	0.167	0.175	
						25	12	20.5	20.5	0.235	0.235	0.136	0.136	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	21.5	21.3	0.212	0.222	0.129	0.135	
						25	12	20.5	20.5	0.161	0.161	0.099	0.099	
			Front	26865	831.5	1	24	21.5	21.3	0.217	0.227	0.133	0.139	
						25	12	20.5	20.5	0.178	0.178	0.107	0.107	
Hotspot	QPSK	5	Edge 1	26865	831.5	1	24	21.5	21.3	0.106	0.111	0.048	0.050	
						25	12	20.5	20.5	0.087	0.087	0.040	0.040	
			Edge 2	26865	831.5	1	24	21.5	21.3	0.326	0.341	0.215	0.225	
						25	12	20.5	20.5	0.263	0.263	0.173	0.173	
			Edge 4	26865	831.5	1	24	21.5	21.3	0.177	0.185	0.116	0.121	
						25	12	20.5	20.5	0.149	0.149	0.097	0.097	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	24.0	24.0	0.314	0.314	0.239	0.239	
						25	12	23.0	23.0	0.250	0.250	0.191	0.191	
			Left Tilt	26865	831.5	1	24	24.0	24.0	0.205	0.205	0.161	0.161	
						25	12	23.0	23.0	0.165	0.165	0.129	0.129	
			Right Touch	26865	831.5	1	24	24.0	24.0	0.234	0.234	0.178	0.178	
						25	12	23.0	23.0	0.188	0.188	0.143	0.143	
			Right Tilt	26865	831.5	1	24	24.0	24.0	0.200	0.200	0.155	0.155	
						25	12	23.0	23.0	0.160	0.160	0.124	0.124	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	24.0	24.0	0.619	0.619	0.346	0.346	37
						25	12	23.0	23.0	0.496	0.496	0.276	0.276	
			Front	26865	831.5	1	24	24.0	24.0	0.544	0.544	0.294	0.294	
						25	12	23.0	23.0	0.440	0.440	0.238	0.238	
Hotspot	QPSK	5	Edge 2	26865	831.5	1	24	24.0	24.0	0.248	0.248	0.162	0.162	
						25	12	23.0	23.0	0.197	0.197	0.129	0.129	
			Edge 3	26865	831.5	1	24	24.0	24.0	0.335	0.335	0.155	0.155	
						25	12	23.0	23.0	0.275	0.275	0.128	0.128	
			Edge 4	26865	831.5	1	24	24.0	24.0	0.669	0.669	0.440	0.440	38
						25	12	23.0	23.0	0.539	0.539	0.354	0.354	

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10.18. LTE Band 27 (10MHz Bandwidth)

SAR for LTE Band 27 (Frequency range: 814 – 824 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to similar frequency range, similar maximum tune-up limit and same channel bandwidth.

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10.19. LTE Band 30 (10MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	27710	2310.0	1	24	15.3	15.3	0.436	0.436	0.178	0.178	
						25	12	15.3	15.3	0.387	0.387	0.159	0.159	
			Left Tilt	27710	2310.0	1	24	15.3	15.3	0.537	0.537	0.203	0.203	
						25	12	15.3	15.3	0.469	0.469	0.176	0.176	
			Right Touch	27710	2310.0	1	24	15.3	15.3	1.020	1.020	0.434	0.434	
						25	12	15.3	15.3	1.090	1.090	0.460	0.460	39
						50	0	15.3	15.3	0.957	0.957	0.419	0.419	
			Right Tilt	27710	2310.0	1	24	15.3	15.3	1.080	1.080	0.416	0.416	
						25	12	15.3	15.3	1.060	1.060	0.396	0.396	
						50	0	15.3	15.3	1.090	1.090	0.426	0.426	
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	18.0	17.8	0.929	0.973	0.400	0.419	
						25	12	18.0	18.0	0.831	0.831	0.367	0.367	
						50	0	18.0	18.0	0.835	0.835	0.369	0.369	
			Front	27710	2310.0	1	24	18.0	17.8	0.808	0.846	0.344	0.360	
						25	12	18.0	18.0	0.990	0.990	0.429	0.429	40
						50	0	18.0	18.0	0.985	0.985	0.427	0.427	
Hotspot	QPSK	5	Edge 1	27710	2310.0	1	24	18.0	17.8	0.594	0.622	0.198	0.207	
						25	12	18.0	18.0	0.605	0.605	0.202	0.202	
			Edge 2	27710	2310.0	1	24	18.0	17.8	0.219	0.229	0.104	0.109	
						25	12	18.0	18.0	0.174	0.174	0.082	0.082	
			Edge 4	27710	2310.0	1	24	18.0	17.8	0.775	0.812	0.380	0.398	
						25	12	18.0	18.0	0.643	0.643	0.316	0.316	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	27710	2310.0	1	24	22.3	22.2	0.454	0.465	0.254	0.260	
						25	12	22.3	21.7	0.380	0.436	0.213	0.245	
			Left Tilt	27710	2310.0	1	24	22.3	22.2	0.300	0.307	0.172	0.176	
						25	12	22.3	21.7	0.247	0.284	0.142	0.163	
			Right Touch	27710	2310.0	1	24	22.3	22.2	0.816	0.835	0.469	0.480	
						25	12	22.3	21.7	0.691	0.793	0.394	0.452	
			Right Tilt	27710	2310.0	1	24	22.3	22.2	0.368	0.377	0.197	0.202	
						25	12	22.3	21.7	0.300	0.344	0.162	0.186	
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	18.3	18.3	0.395	0.395	0.173	0.173	
						25	12	18.3	18.3	0.348	0.348	0.149	0.149	
			Front	27710	2310.0	1	24	18.3	18.3	0.777	0.777	0.316	0.316	
						25	12	18.3	18.3	0.742	0.742	0.293	0.293	
Hotspot	QPSK	5	Edge 2	27710	2310.0	1	24	18.3	18.3	0.396	0.396	0.187	0.187	
						25	12	18.3	18.3	0.303	0.303	0.145	0.145	
			Edge 3	27710	2310.0	1	24	18.3	18.3	1.010	1.010	0.343	0.343	41
						25	12	18.3	18.3	0.995	0.995	0.340	0.340	
						50	0	18.3	18.3	0.998	0.998	0.342	0.342	
			Edge 4	27710	2310.0	1	24	18.3	18.3	0.194	0.194	0.095	0.095	
						25	12	18.3	18.3	0.199	0.199	0.098	0.098	

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10.20. LTE Band 41 (20MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	40620	2593.0	1	49	16.7	16.5	0.653	0.684	0.257	0.269	
						50	24	16.7	15.5	0.561	0.740	0.220	0.290	42
			Left Tilt	40620	2593.0	1	49	16.7	16.5	0.638	0.668	0.230	0.241	
						50	24	16.7	15.5	0.534	0.704	0.191	0.252	
			Right Touch	40620	2593.0	1	49	16.7	16.5	0.328	0.343	0.121	0.127	
						50	24	16.7	15.5	0.270	0.356	0.099	0.131	
			Right Tilt	40620	2593.0	1	49	16.7	16.5	0.342	0.358	0.126	0.132	
						50	24	16.7	15.5	0.289	0.381	0.106	0.140	
Body-worn & Hotspot	QPSK	5	Rear	39750	2506.0	1	49	19.7	19.2	0.625	0.701	0.239	0.268	
				40185	2549.5	1	49	19.7	19.2	0.826	0.927	0.369	0.414	
				40620	2593.0	1	49	19.7	19.2	0.810	0.909	0.361	0.405	
						50	24	19.7	18.7	0.575	0.724	0.255	0.321	
				41055	2636.5	1	49	19.7	19.2	0.692	0.776	0.303	0.340	
				41490	2680.0	1	49	19.7	19.2	0.509	0.571	0.210	0.236	
			Front	40620	2593.0	1	49	19.7	19.2	0.531	0.596	0.235	0.264	
						50	24	19.7	18.7	0.455	0.573	0.201	0.253	
Hotspot	QPSK	5	Edge 1	40620	2593.0	1	49	19.7	19.2	0.418	0.469	0.118	0.132	
						50	24	19.7	18.7	0.426	0.537	0.091	0.115	
			Edge 2	40620	2593.0	1	49	19.7	19.2	0.442	0.496	0.205	0.230	
						50	24	19.7	18.7	0.473	0.595	0.168	0.211	
			Edge 4	40620	2593.0	1	49	19.7	19.2	0.143	0.160	0.063	0.071	
						50	24	19.7	18.7	0.128	0.161	0.043	0.054	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	40620	2593.0	1	49	22.5	22.5	0.431	0.431	0.225	0.225	
						50	24	22.5	22.5	0.390	0.390	0.203	0.203	
			Left Tilt	40620	2593.0	1	49	22.5	22.5	0.076	0.076	0.033	0.033	
						50	24	22.5	22.5	0.079	0.079	0.032	0.032	
			Right Touch	40620	2593.0	1	49	22.5	22.5	0.263	0.263	0.140	0.140	
						50	24	22.5	22.5	0.269	0.269	0.143	0.143	
			Right Tilt	40620	2593.0	1	49	22.5	22.5	0.118	0.118	0.054	0.054	
						50	24	22.5	22.5	0.120	0.120	0.055	0.055	
Body-worn & Hotspot	QPSK	5	Rear	39750	2506.0	1	49	20.5	20.5	0.501	0.501	0.209	0.209	
						50	24	20.5	19.5	0.429	0.540	0.179	0.225	
				40185	2549.5	1	49	20.5	20.4	0.639	0.654	0.271	0.277	
						50	24	20.5	19.4	0.500	0.644	0.214	0.276	
				40620	2593.0	1	49	20.5	20.4	0.780	0.798	0.352	0.360	
						50	24	20.5	19.5	0.737	0.928	0.329	0.414	
						100	0	20.5	19.6	0.582	0.716	0.267	0.328	
				41055	2636.5	1	49	20.5	20.4	0.854	0.874	0.411	0.421	
						50	24	20.5	19.6	0.692	0.851	0.335	0.412	
				41490	2680.0	1	49	20.5	20.3	1.080	1.131	0.496	0.519	
						50	24	20.5	19.4	0.803	1.034	0.368	0.474	
			Front	39750	2506.0	1	49	20.5	20.5	1.060	1.060	0.402	0.402	
						50	24	20.5	19.5	0.820	1.032	0.313	0.394	
				40185	2549.5	1	49	20.5	20.4	1.110	1.136	0.423	0.433	
						50	24	20.5	19.4	0.876	1.129	0.335	0.432	
				40620	2593.0	1	49	20.5	20.5	1.130	1.130	0.436	0.436	
						50	24	20.5	19.5	0.823	1.036	0.325	0.409	
						100	0	20.5	19.6	0.916	1.127	0.355	0.437	
				41055	2636.5	1	49	20.5	20.4	1.020	1.044	0.413	0.423	
						50	24	20.5	19.6	0.928	1.142	0.368	0.453	43
				41490	2680.0	1	49	20.5	20.3	0.909	0.952	0.383	0.401	
						50	24	20.5	19.4	0.758	0.976	0.316	0.407	
Hotspot	QPSK	5	Edge 1	40620	2593.0	1	49	20.5	20.4	0.022	0.023	0.009	0.009	
						50	24	20.5	19.5	0.021	0.026	0.008	0.010	
			Edge 3	40620	2593.0	1	49	20.5	20.4	0.569	0.582	0.195	0.200	
						50	24	20.5	19.5	0.531	0.668	0.162	0.204	
			Edge 4	40620	2593.0	1	49	20.5	20.4	0.659	0.674	0.282	0.289	
						50	24	20.5	19.5	0.473	0.595	0.204	0.257	

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

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC				SCC				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
				Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20850	2510.0	50	24	21048	2529.8	50	24	15.0	15.0	0.920	0.920	0.372	0.372	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC				SCC				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
				Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Body & Hotspot	QPSK	5	Front	20850	2510.0	1	49	21048	2529.8	1	49	17.7	17.7	0.921	0.921	0.344	0.344	44

Notes:

From FCC PAG Guidance and Manufacturer KDB inquiry - Carrier Aggregation: PCC was determined and selected closest to the worst case SAR configuration from standalone reported SAR result. SCC was determined and selected closest to the next highest worst case SAR configuration from standalone SAR result. Channels utilized allows both selections to have contiguous CA. Output power was measured and verified for these test cases.

10.22. LTE-2CA Band 41 (20MHz + 20MHz BW)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC				SCC				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
				Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Body & Hotspot	QPSK	5	Rear	40185	2549.5	1	49	40383	2569.3	1	49	18.0	18.0	0.854	0.854	0.363	0.363	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC				SCC				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
				Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Body & Hotspot	QPSK	5	Front	41055	2636.5	50	24	40857	2616.7	1	49	20.5	20.5	1.070	1.070	0.449	0.449	45

Notes:

From FCC PAG Guidance and Manufacturer KDB inquiry - Carrier Aggregation: PCC was determined and selected closest to the worst case SAR configuration from standalone reported SAR result. SCC was determined and selected closest to the next highest worst case SAR configuration from standalone SAR result. Channels utilized allows both selections to have contiguous CA. Output power was measured and verified for these test cases.

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10.23. Wi-Fi (DTS Band)

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
2.4 GHz	Head	802.11b 20MHz	0	1 Tx	Left Touch	6	2437	10.5	10.4			0.450	0.323	0.123	0.331	0.126					
					Left Tilt	6	2437	10.5	10.4			0.430									
					Right Touch	6	2437	10.5	10.4			0.264									
					Right Tilt	6	2437	10.5	10.4			0.282									
					Left Touch	6	2437			18.0	17.0	0.097									
					Left Tilt	6	2437			18.0	17.0	0.092									
					Right Touch	6	2437			18.0	17.0	0.235					0.181	0.097	0.228	0.122	
					Right Tilt	6	2437			18.0	17.0	0.048									
		802.11g 20MHz	0	2 Tx	Left Touch	6	2437	10.5	10.5	18.0	18.0	0.419									
					Left Tilt	6	2437	10.5	10.5	18.0	18.0	0.480	0.342	0.134	0.342	0.134	-	-	-	-	
					Right Touch	6	2437	10.5	10.5	18.0	18.0	0.275									
					Right Tilt	6	2437	10.5	10.5	18.0	18.0	0.253									
	Body-worn & Hotspot & Airplay	802.11b 20MHz	5	1 Tx	Rear	6	2437	13.0	13.0			0.280									
					Front	6	2437	13.0	13.0			0.442	0.389	0.151	0.389	0.151					
					Edge 1	6	2437	13.0	13.0			0.313									
					Edge 2	6	2437	13.0	13.0			0.150									
					Edge 4	6	2437	13.0	13.0			0.077									
					Rear	6	2437			13.8	13.8	0.091									
					Front	6	2437			13.8	13.8	0.290					0.198	0.088	0.198	0.088	
					Edge 2	6	2437			13.8	13.8	0.104									
					Edge 3	6	2437			13.8	13.8	0.076									
					Edge 4	6	2437			13.8	13.8	0.004									
		802.11g 20MHz	5	2 Tx	Rear	6	2437	13.0	13.0	13.8	13.7	0.348									
					Front	6	2437	13.0	13.0	13.8	13.7	0.534	0.384	0.148	0.384	0.148	0.229	0.103	0.234	0.105	
					Edge 1	6	2437	13.0	13.0	13.8	13.7	0.259									
					Edge 2	6	2437	13.0	13.0	13.8	13.7	0.205									
					Edge 3	6	2437	13.0	13.0	13.8	13.7	0.086									
					Edge 4	6	2437	13.0	13.0	13.8	13.7	0.081									

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
2.4 GHz	Head	802.11b 20MHz	0	1 Tx	Left Touch	6	2437	15.8	15.7			1.600	1.050	0.404	1.074	0.413					
						11	2462	15.8	15.8				1.100	0.423	1.100	0.423					
					Left Tilt	6	2437	15.8	15.7			1.630	1.150	0.412	1.177	0.422					
						11	2462	15.8	15.8				1.190	0.426	1.190	0.426					46
					Right Touch	6	2437	15.8	15.7			1.010	0.818	0.323	0.837	0.331					
						11	2462	15.8	15.8				0.806	0.316	0.806	0.316					
					Right Tilt	6	2437	15.8	15.7			0.986	0.874	0.334	0.894	0.342					
						11	2462	15.8	15.8				0.885	0.337	0.885	0.337					
					Left Touch	6	2437			19.0	18.0	0.128									
					Left Tilt	6	2437			19.0	18.0	0.080									
					Right Touch	6	2437			19.0	18.0	0.240					0.194	0.106	0.244	0.133	
					Right Tilt	6	2437			19.0	18.0	0.057									
		802.11g 20MHz	0	2 Tx	Left Touch	6	2437	15.8	15.8	19.0	18.8	1.310	0.838	0.328	0.838	0.328	-	-	-	-	
						9	2452	15.8	15.8	19.0	18.8		0.946	0.370	0.946	0.370	-	-	-	-	
					Left Tilt	6	2437	15.8	15.8	19.0	18.8	1.490	0.933	0.341	0.933	0.341	-	-	-	-	
						9	2452	15.8	15.8	19.0	18.8		1.020	0.375	1.020	0.375	-	-	-	-	
					Right Touch	6	2437	15.8	15.8	19.0	18.8	0.742	0.778	0.305	0.149	0.083	-	-	-	-	
					Right Tilt	6	2437	15.8	15.8	19.0	18.8	0.717	0.763	0.294	0.763	0.294	-	-	-	-	
						9	2452	15.8	15.8	19.0	18.8		0.843	0.328	0.843	0.328	-	-	-	-	
	Body-worn & Airplay	802.11b 20MHz	5	1 Tx	Rear	6	2437	17.3	17.3			1.210	0.621	0.240	0.621	0.240					
					Front	6	2437	17.3	17.3			1.280	1.050	0.410	1.050	0.410					
						11	2462	17.3	17.1				1.020	0.398	1.068	0.417					
					Edge 1	6	2437	17.3	17.3			1.080									
					Edge 2	6	2437	17.3	17.3			0.376									
					Edge 4	6	2437	17.3	17.3			0.179									
					Rear	6	2437			19.0	18.5	0.331					0.254	0.128	0.285	0.144	
					Front	6	2437			19.0	18.5	1.180					0.924	0.396	1.037	0.444	
						11	2462			19.0	18.5						0.727	0.320	0.816	0.359	
					Edge 2	6	2437			19.0	18.5	0.309									
					Edge 3	6	2437			19.0	18.5	0.235									
					Edge 4	6	2437			19.0	18.5	0.011									
		802.11g 20MHz	5	2 Tx	Rear	6	2437	17.3	17.3	19.0	19.0	0.975	0.687	0.265	0.687	0.265	0.257	0.135	0.257	0.135	
					Front	6	2437	17.3	17.3	19.0	19.0	1.400	1.120	0.434	1.120	0.434	0.750	0.340	0.750	0.340	
						9	2452	17.3	17.3	19.0	19.0		1.180	0.442	1.180	0.442	0.943	0.425	0.943	0.425	47
					Edge 1	6	2437	17.3	17.3	19.0	19.0	0.714									
					Edge 2	6	2437	17.3	17.3	19.0	19.0	0.555									
					Edge 3	6	2437	17.3	17.3	19.0	19.0	0.289									
					Edge 4	6	2437	17.3	17.3	19.0	19.0	0.236									

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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10.24. Wi-Fi (U-NII-1 and U-NII-2A Band)

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.2 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	42	5210	6.0	5.5			0.134									
					Left Tilt	42	5210	6.0	5.5			0.134									
					Right Touch	42	5210	6.0	5.5			0.233	0.153	0.044	0.172	0.049					
					Right Tilt	42	5210	6.0	5.5			0.244									
5.3 GHz		802.11n HT40	0	1 Tx	Left Touch	54	5270			19.0	18.8	0.190									
					Left Tilt	54	5270			19.0	18.8	0.051									
					Right Touch	54	5270			19.0	18.8	0.238					0.125	0.052	0.131	0.054	
					Right Tilt	54	5270			19.0	18.8	0.108									
5.2 GHz		802.11n HT40	0	2 Tx	Left Touch	46	5230	6.0	6.0	19.0	18.2	0.127									
					Left Tilt	46	5230	6.0	6.0	19.0	18.2	0.135									
					Right Touch	46	5230	6.0	6.0	19.0	18.2	0.293	0.159	0.048	0.159	0.048	0.139	0.059	0.167	0.071	
					Right Tilt	46	5230	6.0	6.0	19.0	18.2	0.258									
5.2 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	42	5210	15.0	15.0			0.123									
					Front	42	5210	15.0	15.0			0.549	0.338	0.112	0.338	0.112					
					Edge 1	42	5210	15.0	15.0			0.261									
					Edge 2	42	5210	15.0	15.0			0.058									
					Edge 4	42	5210	15.0	15.0			0.312									
5.3 GHz		802.11ac VHT80	5	1 Tx	Rear	58	5290			10.5	10.5	0.052									
					Front	58	5290			10.5	10.5	0.500					0.216	0.056	0.216	0.056	
					Edge 2	58	5290			10.5	10.5	0.091									
					Edge 3	58	5290			10.5	10.5	0.085									
					Edge 4	58	5290			10.5	10.5	0.005									
5.3 GHz		802.11ac VHT80	5	2 Tx	Rear	42	5210	15.0	15.0	10.0	10.0	0.108									
					Front	42	5210	15.0	15.0	10.0	10.0	0.454	0.307	0.095	0.307	0.095	0.212	0.049	0.212	0.049	
					Edge 1	42	5210	15.0	15.0	10.0	10.0	0.205									
					Edge 2	42	5210	15.0	15.0	10.0	10.0	0.058									
					Edge 3	42	5210	15.0	15.0	10.0	10.0	0.083									
					Edge 4	42	5210	15.0	15.0	10.0	10.0	0.331									

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.2 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	42	5210	13.8	13.8			0.681									
					Left Tilt	42	5210	13.8	13.8			0.686									
					Right Touch	42	5210	13.8	13.8			1.590	0.996	0.255	0.996	0.255					
					Right Tilt	42	5210	13.8	13.8			1.390	0.794	0.255	0.794	0.255					
5.3 GHz		802.11n HT40	0	1 Tx	Left Touch	54	5270			19.0	18.8	0.190									
					Left Tilt	54	5270			19.0	18.8	0.051									
					Right Touch	54	5270			19.0	18.8	0.238					0.125	0.052	0.131	0.054	
					Right Tilt	54	5270			19.0	18.8	0.108									
5.2 GHz		802.11n HT40	0	2 Tx	Left Touch	46	5230	13.8	13.8	19.0	18.0	0.848									
					Left Tilt	46	5230	13.8	13.8	19.0	18.0	0.426	0.553	0.202	0.553	0.202	-	-	-	-	
					Right Touch	38	5190	13.8	13.7	14.5	14.4		1.170	0.360	1.197	0.368	-	-	-	-	48
						46	5230	13.8	13.8	19.0	18.0	2.940	1.160	0.347	1.160	0.347	-	-	-	-	
					Right Tilt	38	5190	13.8	13.7	14.5	14.4	3.040	1.060	0.320	1.085	0.327	-	-	-	-	
						46	5230	13.8	13.8	19.0	18.0	2.760	0.948	0.278	0.948	0.278	-	-	-	-	
5.3 GHz	Body-worn & Airplay	802.11a	5	1 Tx	Rear	60	5300	19.5	19.5			0.461									
					Front	56	5280	19.5	19.5				1.100	0.354	1.100	0.354					
						60	5300	19.5	19.5			1.450	0.865	0.295	0.865	0.295					
					Edge 1	60	5300	19.5	19.5			0.737									
					Edge 2	60	5300	19.5	19.5			0.219									
					Edge 4	60	5300	19.5	19.5			1.020	0.552	0.189	0.552	0.189					
5.3 GHz		802.11n HT40	5	1 Tx	Rear	54	5270			17.3	17.2	0.139									
					Front	54	5270			17.3	17.2	2.240					1.160	0.303	1.187	0.310	49
						62	5310			15.0	14.5						0.492	0.127	0.552	0.142	
					Edge 2	54	5270			17.3	17.2	0.259									
					Edge 3	54	5270			17.3	17.2	0.424					0.231	0.075	0.236	0.077	
					Edge 4	54	5270			17.3	17.2	0.020									
5.3 GHz		802.11n HT40	5	2 Tx	Rear	54	5270	19.0	19.0	17.3	17.3	0.377									
						62	5310	14.5	14.5	14.5	14.5										
					Front	54	5270	19.0	19.0	17.3	17.3	2.020	1.160	0.384	1.160	0.384	0.954	0.237	0.954	0.237	
						62	5270	14.5	14.5	14.5	14.5	0.995	0.270	0.092	0.270	0.092	0.576	0.148	0.576	0.148	
					Edge 1	54	5270	19.0	19.0	17.3	17.3	0.559									
					Edge 2	54	5270	19.0	19.0	17.3	17.3	0.343									
					Edge 3	54	5270	19.0	19.0	17.3	17.3	0.409									
					Edge 4	54	5270	19.0	19.0	17.3	17.3	0.915	0.476	0.162	0.476	0.162					

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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10.25. Wi-Fi (U-NII-2C Band)

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	138	5690	4.0	4.0			0.134									
					Left Tilt	138	5690	4.0	4.0			0.119									
					Right Touch	138	5690	4.0	4.0			0.375	0.172	0.042	0.172	0.042					
					Right Tilt	138	5690	4.0	4.0			0.272									
		802.11ac VHT80	0	1 Tx	Left Touch	138	5690			19.0	19.0	0.334									
					Left Tilt	138	5690			19.0	19.0	0.189									
					Right Touch	138	5690			19.0	19.0	0.422					0.241	0.098	0.241	0.098	
					Right Tilt	138	5690			19.0	19.0	0.176									
		802.11ac VHT80	0	2 Tx	Left Touch	138	5690	4.0	4.0	19.0	19.0	0.440									
					Left Tilt	138	5690	4.0	4.0	19.0	19.0	0.277									
					Right Touch	138	5690	4.0	4.0	19.0	19.0	0.522	0.149	0.039	0.149	0.039	0.222	0.087	0.222	0.087	
					Right Tilt	138	5690	4.0	4.0	19.0	19.0	0.287									
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	138	5690	10.8	10.3			0.041									
					Front	138	5690	10.8	10.3			0.467	0.265	0.080	0.297	0.090					
					Edge 1	138	5690	10.8	10.3			0.077									
					Edge 2	138	5690	10.8	10.3			0.008									
					Edge 4	138	5690	10.8	10.3			0.083									
		802.11ac VHT80	5	1 Tx	Rear	138	5690			10.0	9.5	0.042									
					Front	138	5690			10.0	9.5	0.422					0.201	0.048	0.226	0.054	
					Edge 2	138	5690			10.0	9.5	0.074									
					Edge 3	138	5690			10.0	9.5	0.080									
					Edge 4	138	5690			10.0	9.5	0.003									
		802.11ac VHT80	5	2 Tx	Rear	138	5690	10.8	10.8	10.0	10.0	0.064									
					Front	138	5690	10.8	10.8	10.0	10.0	0.557	0.332	0.100	0.332	0.100	0.201	0.052	0.201	0.052	
					Edge 1	138	5690	10.8	10.8	10.0	10.0	0.172									
					Edge 2	138	5690	10.8	10.8	10.0	10.0	0.067									
					Edge 3	138	5690	10.8	10.8	10.0	10.0	0.113									
					Edge 4	138	5690	10.8	10.8	10.0	10.0	0.128									

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	122	5610	11.8	11.7				0.777	0.259	0.795	0.265					
						138	5690	11.8	11.8			1.460	0.839	0.276	0.839	0.276					
					Left Tilt	138	5690	11.8	11.8			1.440	0.765	0.250	0.765	0.250					
					Right Touch	122	5610	11.8	11.7				1.140	0.331	1.167	0.339					
						138	5690	11.8	11.8			1.840	1.130	0.313	1.130	0.313					
					Right Tilt	122	5610	11.8	11.7				1.160	0.314	1.187	0.321					50
						138	5690	11.8	11.8			2.460	1.090	0.295	1.090	0.295					
		802.11ac VHT80	0	1 Tx	Left Touch	138	5690			19.0	19.0	0.334									
					Left Tilt	138	5690			19.0	19.0	0.189									
					Right Touch	138	5690			19.0	19.0	0.422					0.241	0.098	0.241	0.098	
					Right Tilt	138	5690			19.0	19.0	0.176									
		802.11ac VHT80	0	2 Tx	Left Touch	138	5690	11.8	11.8	19.0	18.3	0.299									
					Left Tilt	138	5690	11.8	11.8	19.0	18.3	0.864									
					Right Touch	122	5610	11.8	11.8	19.0	18.3	1.950	1.010	0.295	1.010	0.295	-	-	-	-	
						138	5690	11.8	11.8	19.0	18.3	1.520	1.090	0.307	1.090	0.307	-	-	-	-	
					Right Tilt	122	5610	11.8	11.8	19.0	18.3	0.853	0.916	0.263	0.916	0.263	-	-	-	-	
						138	5690	11.8	11.8	19.0	18.3	2.040	0.882	0.255	0.882	0.255	-	-	-	-	
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	138	5690	16.0	15.5			0.336									
					Front	122	5610	16.0	15.5				0.806	0.253	0.904	0.284					
						138	5690	16.0	15.5			2.080	0.990	0.303	1.111	0.340					
					Edge 1	138	5690	16.0	15.5			0.581	0.339	0.106	0.380	0.119					
					Edge 2	138	5690	16.0	15.5			0.075									
					Edge 4	138	5690	16.0	15.5			0.564									
		802.11ac VHT80	5	1 Tx	Rear	138	5690			16.8	16.8	0.146									
					Front	122	5610			16.8	16.7						1.130	0.301	1.156	0.308	
						138	5690			16.8	16.8	2.450					1.150	0.310	1.150	0.310	
					Edge 2	138	5690			16.8	16.8	0.242									
					Edge 3	138	5690			16.8	16.8	0.487					0.269	0.091	0.269	0.091	
					Edge 4	138	5690			16.8	16.8	0.025									
		802.11ac VHT80	5	2 Tx	Rear	138	5690	16.0	16.0	16.8	16.8	0.288									
					Front	122	5610	16.0	16.0	16.8	16.8		0.773	0.251	0.773	0.251	0.957	0.265	0.957	0.265	
						138	5690	16.0	16.0	16.8	16.8	2.260	1.160	0.341	1.160	0.341	1.190	0.321	1.190	0.321	51
					Edge 1	138	5690	16.0	16.0	16.8	16.8	0.578	0.326	0.096	0.326	0.096	-	-	-	-	
					Edge 2	138	5690	16.0	16.0	16.8	16.8	0.299									
					Edge 3	138	5690	16.0	16.0	16.8	16.8	0.509									
					Edge 4	138	5690	16.0	16.0	16.8	16.8	0.427									

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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10.26. Wi-Fi (U-NII-3 Band)

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.8 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	155	5775	4.8	4.8			0.219									
					Left Tilt	155	5775	4.8	4.8			0.185									
					Right Touch	155	5775	4.8	4.8			0.343	0.184	0.053	0.184	0.053					
					Right Tilt	155	5775	4.8	4.8			0.258									
		802.11ac VHT80	0	1 Tx	Left Touch	155	5775			19.0	18.5	0.181									
					Left Tilt	155	5775			19.0	18.5	0.079									
					Right Touch	155	5775			19.0	18.5	0.229					0.145	0.066	0.163	0.074	
					Right Tilt	155	5775			19.0	18.5	0.102									
		802.11n HT40	0	2 Tx	Left Touch	159	5795	4.8	4.8	19.0	19.0	0.289									
					Left Tilt	159	5795	4.8	4.8	19.0	19.0	0.258									
					Right Touch	159	5795	4.8	4.8	19.0	19.0	0.339	0.191	0.057	0.191	0.057	0.236	0.102	0.236	0.102	
					Right Tilt	159	5795	4.8	4.8	19.0	19.0	0.324									
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	10.8	10.7			0.069									
					Front	155	5775	10.8	10.7			0.511	0.323	0.113	0.331	0.116					
					Edge 1	155	5775	10.8	10.7			0.198									
					Edge 2	155	5775	10.8	10.7			0.012									
					Edge 4	155	5775	10.8	10.7			0.159									
		802.11ac VHT80	5	1 Tx	Rear	155	5775			10.3	10.3	0.031									
					Front	155	5775			10.3	10.3	0.331					0.238	0.077	0.238	0.077	
					Edge 2	155	5775			10.3	10.3	0.024									
					Edge 3	155	5775			10.3	10.3	0.089									
					Edge 4	155	5775			10.3	10.3	0.016									
		802.11ac VHT80	5	2 Tx	Rear	155	5775	10.8	10.8	10.3	10.3	0.091									
					Front	155	5775	10.8	10.8	10.3	10.3	0.547	0.321	0.105	0.321	0.105	0.249	0.079	0.249	0.079	
					Edge 1	155	5775	10.8	10.8	10.3	10.3	0.205									
					Edge 2	155	5775	10.8	10.8	10.3	10.3	0.067									
					Edge 3	155	5775	10.8	10.8	10.3	10.3	0.103									
					Edge 4	155	5775	10.8	10.8	10.3	10.3	0.172									

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.8 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	155	5775	12.5	12.5			1.240									
					Left Tilt	155	5775	12.5	12.5			1.280	0.697	0.230	0.697	0.230					
					Right Touch	155	5775	12.5	12.5			1.660	0.977	0.294	0.977	0.294					
					Right Tilt	155	5775	12.5	12.5			1.940	1.000	0.284	1.000	0.284					
		802.11ac VHT80	0	1 Tx	Left Touch	155	5775			19.0	18.5	0.181									
					Left Tilt	155	5775			19.0	18.5	0.079									
					Right Touch	155	5775			19.0	18.5	0.229					0.145	0.066	0.163	0.074	
					Right Tilt	155	5775			19.0	18.5	0.102									
		802.11n HT40	0	2 Tx	Left Touch	159	5795	12.5	12.5	19.0	19.0	1.350									
					Left Tilt	159	5795	12.5	12.5	19.0	19.0	1.450	0.678	0.242	0.678	0.242	-	-	-	-	
					Right Touch	151	5755	12.5	12.5	19.0	19.0		1.070	0.317	1.070	0.317	0.239	0.102	0.239	0.102	
						159	5795	12.5	12.5	19.0	19.0	1.920	1.090	0.325	1.090	0.325	0.241	0.106	0.241	0.106	52
					Right Tilt	151	5755	12.5	12.5	19.0	19.0		1.010	0.258	1.010	0.258	0.109	0.051	0.109	0.051	
						159	5795	12.5	12.5	19.0	19.0	1.950	1.070	0.313	1.070	0.313	0.118	0.055	0.118	0.055	
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	16.3	16.3			0.257									
					Front	155	5775	16.3	16.3			2.340	1.150	0.386	1.150	0.386					
					Edge 1	155	5775	16.3	16.3			0.793	0.486	0.163	0.486	0.163					
					Edge 2	155	5775	16.3	16.3			0.050									
					Edge 4	155	5775	16.3	16.3			0.533									
		802.11ac VHT80	5	1 Tx	Rear	155	5775			17.3	17.3	0.158									
					Front	155	5775			17.3	17.3	1.710					1.190	0.385	1.190	0.385	53
					Edge 2	155	5775			17.3	17.3	0.194									
					Edge 3	155	5775			17.3	17.3	0.528					0.311	0.117	0.311	0.117	
					Edge 4	155	5775			17.3	17.3	0.054									
		802.11ac VHT80	5	2 Tx	Rear	155	5775	16.3	15.8	17.3	16.7	0.363									
					Front	155	5775	16.3	15.8	17.3	16.7	1.840	0.900	0.299	1.010	0.335	1.030	0.324	1.183	0.372	
					Edge 1	155	5775	16.3	15.8	17.3	16.7	0.895	0.463	0.162	0.519	0.182	-	-	-	-	
					Edge 2	155	5775	16.3	15.8	17.3	16.7	0.258									
					Edge 3	155	5775	16.3	15.8	17.3	16.7	0.544									
					Edge 4	155	5775	16.3	15.8	17.3	16.7	0.635									

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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10.27. Wi-Fi Variant 2 Spot Check

Wi-Fi (DTS Band)

Vendor	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	2.4 GHz	Head	802.11b	0	1 Tx	Left Tilt	11	2462	15.8	15.8			1.190	0.426	1.190	0.426				
		Body-worn & Airplay	802.11b	5	2 Tx	Front	9	2452	17.3	17.3	19.0	19.0	1.180	0.442	1.180	0.442	0.943	0.425	0.943	0.425
Variant 2 Spot Check	2.4 GHz	Head	802.11b	0	1 Tx	Left Tilt	11	2462	15.8	15.8			1.100	0.399	1.100	0.399				
		Body-worn & Airplay	802.11b	5	2 Tx	Front	9	2452	17.3	17.3	19.0	19.0	1.020	0.400	1.020	0.400	0.700	0.322	0.700	0.322

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

Wi-Fi (U-NII-1 and U-NII-2A Band)

Vendor	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	5.2 & 5.3 GHz	Head	802.11n HT40 CDD	0	2 Tx	Right Touch	38	5190	13.8	13.7	14.5	14.4	1.170	0.360	1.197	0.368	-	-	-	-
		Body-worn & Airplay	802.11n HT40 CDD	5	1 Tx	Rear	54	5270			17.3	17.2					1.160	0.303	1.187	0.310
Variant 2 Spot Check	5.2 & 5.3 GHz	Head	802.11n HT40 CDD	0	2 Tx	Right Touch	38	5190	13.8	13.7	14.5	14.4	1.160	0.357	1.187	0.365	-	-	-	-
		Body-worn & Airplay	802.11n HT40 CDD	5	1 Tx	Rear	54	5270			17.3	16.8					0.953	0.237	1.069	0.266

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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Wi-Fi (U-NII-2C Band)

Vendor	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Right Tilt	122	5610	11.8	11.7			1.160	0.314	1.187	0.321				
		Body-worn & Airplay	802.11ac VHT80 CDD	5	2 Tx	Front	138	5690	16.0	16.0	16.8	16.8	1.160	0.341	1.160	0.341	1.190	0.321	1.190	0.321
Variant 2 Spot Check	5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Right Tilt	122	5610	11.8	11.7			1.080	0.291	1.105	0.298				
		Body-worn & Airplay	802.11ac VHT80 CDD	5	2 Tx	Front	138	5690	16.0	16.0	16.8	16.8	0.937	0.302	0.937	0.302	1.150	0.298	1.150	0.298

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

Wi-Fi (U-NII-3 Band)

Vendor	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	5.8 GHz	Head	802.11n HT40	0	2 Tx	Right Touch	159	5795	12.5	12.5	19.0	19.0	1.090	0.325	1.090	0.325	0.241	0.106	0.241	0.106
		Body-worn & Airplay	802.11ac VHT80 CDD	5	1 Tx	Front	155	5775			17.3	17.3					1.190	0.385	1.190	0.385
Variant 2 Spot Check	5.8 GHz	Head	802.11n HT40	0	2 Tx	Right Touch	159	5795	12.5	12.5	19.0	19.0	1.030	0.290	1.030	0.290	-	-	-	-
		Body-worn & Airplay	802.11ac VHT80 CDD	5	1 Tx	Front	155	5775			17.3	17.3					1.000	0.287	1.000	0.287

Notes:

For SAR results with "-", there is no additional zoom scans due to secondary peak not being within 2dB of maximum peak.

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10.28. Bluetooth

P_{high}

Frequency Band	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4 GHz	Head	GFSK	0	Left Touch	39	2441.0	12.0	11.9	0.208	0.213	0.082	0.084	
				Left Tilt	39	2441.0	12.0	11.9	0.190	0.194	0.068	0.070	
				Right Touch	39	2441.0	12.0	11.9	0.226	0.231	0.090	0.092	54
				Right Tilt	39	2441.0	12.0	11.9	0.183	0.187	0.072	0.074	
	Body-worn	GFSK	5	Rear	39	2441.0	12.0	11.9	0.208	0.213	0.076	0.078	
				Front	39	2441.0	12.0	11.9	0.243	0.249	0.091	0.093	55

P_{low}

Frequency Band	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4 GHz	Head	GFSK	0	Left Touch	39	2441.0	10.0	10.0	0.116	0.116	0.043	0.043	
				Left Tilt	39	2441.0	10.0	10.0	0.102	0.102	0.040	0.040	
				Right Touch	39	2441.0	10.0	10.0	0.129	0.129	0.050	0.050	
				Right Tilt	39	2441.0	10.0	10.0	0.117	0.117	0.047	0.047	
	Body-worn	GFSK	5	Rear	39	2441.0	10.0	10.0	0.063	0.063	0.019	0.019	
				Front	39	2441.0	10.0	10.0	0.078	0.078	0.027	0.027	

$P_{standalone}$

Frequency Band	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4 GHz	Head	GFSK	0	Left Touch	39	2441.0	16.5	16.5	0.695	0.695	0.255	0.255	
				Left Tilt	39	2441.0	16.5	16.5	0.696	0.696	0.230	0.230	56
				Right Touch	39	2441.0	16.5	16.5	0.610	0.610	0.247	0.247	
				Right Tilt	39	2441.0	16.5	16.5	0.603	0.603	0.233	0.233	
	Body-worn	GFSK	5	Rear	39	2441.0	16.5	16.5	0.238	0.238	0.089	0.089	
				Front	39	2441.0	16.5	16.5	0.331	0.331	0.121	0.121	57

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11. SAR Measurement Variability

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

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

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	First Repeated		Second Repeated		Third Repeated
						Measured SAR (W/kg)	Largest to Smallest SAR Ratio	Measured SAR (W/kg)	Largest to Smallest SAR Ratio	Measured SAR (W/kg)
700	LTE Band 12	Hotspot	Edge 4	No	0.530	N/A	N/A	N/A	N/A	N/A
	LTE Band 13	Hotspot	Edge 4	No	0.712	N/A	N/A	N/A	N/A	N/A
	LTE Band 17	Head	Right Touch	No	0.465	N/A	N/A	N/A	N/A	N/A
850	GSM 850	Hotspot	Edge 4	Yes	0.909	0.886	1.03	N/A	N/A	
	CDMA BC0	Head	Left Touch	No	0.792	N/A	N/A	N/A	N/A	N/A
	CDMA BC10	Head	Right Touch	No	0.833	N/A	N/A			
	WCDMA Band V	Hotspot	Edge 4	No	0.825	N/A	N/A			
	LTE Band 26	Hotspot	Edge 4	No	0.669	N/A	N/A	N/A	N/A	N/A
1900	GSM 1900	Hotspot	Edge 3	No	1.070	N/A	N/A			
	CDMA BC1	Head	Right Touch	No	1.090	N/A	N/A			
	WCDMA Band II	Body & Hotspot	Rear	Yes	1.130	1.040	1.09	N/A	N/A	
	LTE Band 25	Head	Right Touch	No	1.050	N/A	N/A			
1700	LTE Band 4	Body & Hotspot	Front	Yes	1.090	1.010	1.08	N/A	N/A	
	WCDMA Band IV	Hotspot	Edge 3	No	1.030	N/A	N/A			
2300	LTE Band 30	Head	Right Touch	Yes	1.090	1.060	1.03	N/A	N/A	
2400	Wi-Fi 802.11b/g/n	Head	Left Tilt	Yes	1.190	1.150	1.03	N/A	N/A	
	BT	Head	Left Tilt	No	0.696	N/A	N/A	N/A	N/A	N/A
2600	LTE Band 7	Head	Left Touch	No	1.050	N/A	N/A			
	LTE Band 41	Body & Hotspot	Front	Yes	1.130	1.120	1.01	N/A	N/A	
5200	Wi-Fi 802.11a/n/ac	Head	Right Touch	Yes	1.170	1.100	1.06	N/A	N/A	
5500	Wi-Fi 802.11a/n/ac	Body & Hotspot	Front	Yes	1.19	1.17	1.02	N/A	N/A	
5800	Wi-Fi 802.11a/n/ac	Body & Hotspot	Front	Yes	1.190	1.15	1.03	N/A	N/A	

Note(s):

Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20 or 3 (1-g or 10-g respectively).

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12. Simultaneous Transmission SAR Analysis

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

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

Where:

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

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

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

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

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

Simultaneous Transmission Condition

RF Exposure Condition	Item	Capable Transmit Configurations			
Head Body Worn Accessory Hotspots Airplay	1	WWAN OFF	+ (Chain 1) Wi-Fi 2.4 GHz SISO	+	Bluetooth (P_{high})
	2		+ (Chain 0) Wi-Fi 5 GHz SISO	+	Bluetooth (P_{high})
	3		+ (Chain 1) Wi-Fi 5 GHz SISO	+	Bluetooth (P_{high})
	4		+ Wi-Fi 5 GHz MIMO	+	Bluetooth (P_{high})
	5	WWAN ON	+ (Chain 0) Wi-Fi 2.4 GHz SISO		
	6		+ (Chain 1) Wi-Fi 2.4 GHz SISO		
	7		+ Wi-Fi 2.4 GHz MIMO		
	8			+	Bluetooth (P_{low})
	9		+ (Chain 1) Wi-Fi 2.4 GHz SISO	+	Bluetooth (P_{low})
	10		+ (Chain 0) Wi-Fi 5 GHz SISO		
	11		+ (Chain 1) Wi-Fi 5 GHz SISO		
	12		+ Wi-Fi 5 GHz MIMO		
	13		+ (Chain 0) Wi-Fi 5 GHz SISO	+	Bluetooth (P_{low})
	14		+ (Chain 1) Wi-Fi 5 GHz SISO	+	Bluetooth (P_{low})
	15		+ Wi-Fi 5 GHz MIMO	+	Bluetooth (P_{low})

Notes:

1. (Chain 0) Wi-Fi 2.4GHz Radio cannot transmit simultaneously with Bluetooth Radio.

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12.1. Sum of the SAR for Wi-Fi (Cell Off) & BT(P_{high})

RF Exposure Conditions	Test Position	① Wi-Fi 2.4GHz (Chain 1)	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{high})	① + ⑤		② + ⑤		③ + ⑤		④ + ⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/No)
Head	Left Touch	0.244	1.000	0.241	1.197	0.213	0.457	No	1.213	No	0.454	No	1.410	No
	Left Tilt	0.244	0.765	0.241	1.197	0.194	0.438	No	0.959	No	0.435	No	1.391	No
	Right Touch	0.244	1.167	0.241	1.197	0.231	0.475	No	1.398	No	0.472	No	1.428	No
	Right Tilt	0.244	1.187	0.241	1.197	0.187	0.431	No	1.374	No	0.428	No	1.384	No
Body-worn Accessory & Hotspot	Rear	1.037	1.150	1.190	1.183	0.213	1.250	No	1.363	No	1.403	No	1.396	No
	Front	1.037	1.150	1.190	1.183	0.249	1.286	No	1.399	No	1.439	No	1.432	No

Conclusion:

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

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12.2. Sum of the SAR for GSM850 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.389	0.331	0.228	0.342	0.116	0.720	No	0.617	No	0.731	No	0.505	No	0.733	No
	Left Tilt	0.355	0.331	0.228	0.342	0.102	0.686	No	0.583	No	0.697	No	0.457	No	0.685	No
	Right Touch	0.464	0.331	0.228	0.342	0.129	0.795	No	0.692	No	0.806	No	0.593	No	0.821	No
	Right Tilt	0.329	0.331	0.228	0.342	0.117	0.660	No	0.557	No	0.671	No	0.446	No	0.674	No
Body-worn & Hotspot & Airplay	Rear	0.239	0.389	0.198	0.384	0.063	0.628	No	0.437	No	0.623	No	0.302	No	0.500	No
	Front	0.226	0.389	0.198	0.384	0.078	0.615	No	0.424	No	0.610	No	0.304	No	0.502	No
Hotspot & Airplay	Edge 1	0.107	0.389	0.198	0.384		0.496	No	0.305	No	0.491	No				
	Edge 2	0.373	0.389	0.198	0.384		0.762	No	0.571	No	0.757	No				
	Edge 4	0.229	0.389	0.198	0.384		0.618	No	0.427	No	0.613	No				

12.3. Sum of the SAR for GSM850 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.489	0.331	0.228	0.342	0.116	0.820	No	0.717	No	0.831	No	0.605	No	0.833	No
	Left Tilt	0.266	0.331	0.228	0.342	0.102	0.597	No	0.494	No	0.608	No	0.368	No	0.596	No
	Right Touch	0.407	0.331	0.228	0.342	0.129	0.738	No	0.635	No	0.749	No	0.536	No	0.764	No
	Right Tilt	0.282	0.331	0.228	0.342	0.117	0.613	No	0.510	No	0.624	No	0.399	No	0.627	No
Body-worn & Hotspot & Airplay	Rear	0.613	0.389	0.198	0.384	0.063	1.002	No	0.811	No	0.997	No	0.676	No	0.874	No
	Front	0.700	0.389	0.198	0.384	0.078	1.089	No	0.898	No	1.084	No	0.778	No	0.976	No
Hotspot & Airplay	Edge 2	0.418	0.389	0.198	0.384		0.807	No	0.616	No	0.802	No				
	Edge 3	0.548	0.389	0.198	0.384		0.937	No	0.746	No	0.932	No				
	Edge 4	0.909	0.389	0.198	0.384		1.298	No	1.107	No	1.293	No				

Conclusion:

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

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12.4. Sum of the SAR for GSM1900 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.181	0.331	0.228	0.342	0.116	0.512	No	0.409	No	0.523	No	0.297	No	0.525	No
	Left Tilt	0.151	0.331	0.228	0.342	0.102	0.482	No	0.379	No	0.493	No	0.253	No	0.481	No
	Right Touch	1.050	0.331	0.228	0.342	0.129	1.381	No	1.278	No	1.392	No	1.179	No	1.407	No
	Right Tilt	0.672	0.331	0.228	0.342	0.117	1.003	No	0.900	No	1.014	No	0.789	No	1.017	No
Body-worn & Hotspot & Airplay	Rear	0.183	0.389	0.198	0.384	0.063	0.572	No	0.381	No	0.567	No	0.246	No	0.444	No
	Front	0.260	0.389	0.198	0.384	0.078	0.649	No	0.458	No	0.644	No	0.338	No	0.536	No
Hotspot & Airplay	Edge 1	0.219	0.389	0.198	0.384		0.608	No	0.417	No	0.603	No				
	Edge 2	0.048	0.389	0.198	0.384		0.437	No	0.246	No	0.432	No				
	Edge 4	0.033	0.389	0.198	0.384		0.422	No	0.231	No	0.417	No				

12.5. Sum of the SAR for GSM1900 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.194	0.331	0.228	0.342	0.116	0.525	No	0.422	No	0.536	No	0.310	No	0.538	No
	Left Tilt	0.087	0.331	0.228	0.342	0.102	0.418	No	0.315	No	0.429	No	0.189	No	0.417	No
	Right Touch	0.416	0.331	0.228	0.342	0.129	0.747	No	0.644	No	0.758	No	0.545	No	0.773	No
	Right Tilt	0.139	0.331	0.228	0.342	0.117	0.470	No	0.367	No	0.481	No	0.256	No	0.484	No
Body-worn & Hotspot & Airplay	Rear	0.773	0.389	0.198	0.384	0.063	1.162	No	0.971	No	1.157	No	0.836	No	1.034	No
	Front	1.095	0.389	0.198	0.384	0.078	1.484	No	1.293	No	1.479	No	1.173	No	1.371	No
Hotspot & Airplay	Edge 2	0.737	0.389	0.198	0.384		1.126	No	0.935	No	1.121	No				
	Edge 3	1.095	0.389	0.198	0.384		1.484	No	1.293	No	1.479	No				
	Edge 4	0.084	0.389	0.198	0.384		0.473	No	0.282	No	0.468	No				

Conclusion:

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

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12.6. Sum of the SAR for W-CDMA V (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.629	0.331	0.228	0.342	0.116	0.960	No	0.857	No	0.971	No	0.745	No	0.973	No
	Left Tilt	0.466	0.331	0.228	0.342	0.102	0.797	No	0.694	No	0.808	No	0.568	No	0.796	No
	Right Touch	0.671	0.331	0.228	0.342	0.129	1.002	No	0.899	No	1.013	No	0.800	No	1.028	No
	Right Tilt	0.451	0.331	0.228	0.342	0.117	0.782	No	0.679	No	0.793	No	0.568	No	0.796	No
Body-worn & Hotspot & Airplay	Rear	0.263	0.389	0.198	0.384	0.063	0.652	No	0.461	No	0.647	No	0.326	No	0.524	No
	Front	0.252	0.389	0.198	0.384	0.078	0.641	No	0.450	No	0.636	No	0.330	No	0.528	No
Hotspot & Airplay	Edge 1	0.085	0.389	0.198	0.384		0.474	No	0.283	No	0.469	No				
	Edge 2	0.350	0.389	0.198	0.384		0.739	No	0.548	No	0.734	No				
	Edge 4	0.206	0.389	0.198	0.384		0.595	No	0.404	No	0.590	No				

12.7. Sum of the SAR for W-CDMA V (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.425	0.331	0.228	0.342	0.116	0.756	No	0.653	No	0.767	No	0.541	No	0.769	No
	Left Tilt	0.245	0.331	0.228	0.342	0.102	0.576	No	0.473	No	0.587	No	0.347	No	0.575	No
	Right Touch	0.356	0.331	0.228	0.342	0.129	0.687	No	0.584	No	0.698	No	0.485	No	0.713	No
	Right Tilt	0.229	0.331	0.228	0.342	0.117	0.560	No	0.457	No	0.571	No	0.346	No	0.574	No
Body-worn & Hotspot & Airplay	Rear	0.578	0.389	0.198	0.384	0.063	0.967	No	0.776	No	0.962	No	0.641	No	0.839	No
	Front	0.617	0.389	0.198	0.384	0.078	1.006	No	0.815	No	1.001	No	0.695	No	0.893	No
Hotspot & Airplay	Edge 2	0.431	0.389	0.198	0.384		0.820	No	0.629	No	0.815	No				
	Edge 3	0.434	0.389	0.198	0.384		0.823	No	0.632	No	0.818	No				
	Edge 4	0.825	0.389	0.198	0.384		1.214	No	1.023	No	1.209	No				

Conclusion:

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

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12.8. Sum of the SAR for W-CDMA IV (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.312	0.331	0.228	0.342	0.116	0.643	No	0.540	No	0.654	No	0.428	No	0.656	No
	Left Tilt	0.376	0.331	0.228	0.342	0.102	0.707	No	0.604	No	0.718	No	0.478	No	0.706	No
	Right Touch	1.021	0.331	0.228	0.342	0.129	1.352	No	1.249	No	1.363	No	1.150	No	1.378	No
	Right Tilt	0.595	0.331	0.228	0.342	0.117	0.926	No	0.823	No	0.937	No	0.712	No	0.940	No
Body-worn & Hotspot & Airplay	Rear	0.617	0.389	0.198	0.384	0.063	1.006	No	0.815	No	1.001	No	0.680	No	0.878	No
	Front	0.889	0.389	0.198	0.384	0.078	1.278	No	1.087	No	1.273	No	0.967	No	1.165	No
Hotspot & Airplay	Edge 1	0.973	0.389	0.198	0.384		1.362	No	1.171	No	1.357	No				
	Edge 2	0.031	0.389	0.198	0.384		0.420	No	0.229	No	0.415	No				
	Edge 4	0.782	0.389	0.198	0.384		1.171	No	0.980	No	1.166	No				

12.9. Sum of the SAR for W-CDMA IV (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.296	0.331	0.228	0.342	0.116	0.627	No	0.524	No	0.638	No	0.412	No	0.640	No
	Left Tilt	0.210	0.331	0.228	0.342	0.102	0.541	No	0.438	No	0.552	No	0.312	No	0.540	No
	Right Touch	0.600	0.331	0.228	0.342	0.129	0.931	No	0.828	No	0.942	No	0.729	No	0.957	No
	Right Tilt	0.167	0.331	0.228	0.342	0.117	0.498	No	0.395	No	0.509	No	0.284	No	0.512	No
Body-worn & Hotspot & Airplay	Rear	0.666	0.389	0.198	0.384	0.063	1.055	No	0.864	No	1.050	No	0.729	No	0.927	No
	Front	0.947	0.389	0.198	0.384	0.078	1.336	No	1.145	No	1.331	No	1.025	No	1.223	No
Hotspot & Airplay	Edge 2	0.747	0.389	0.198	0.384		1.136	No	0.945	No	1.131	No				
	Edge 3	1.054	0.389	0.198	0.384		1.443	No	1.252	No	1.438	No				
	Edge 4	0.058	0.389	0.198	0.384		0.447	No	0.256	No	0.442	No				

Conclusion:

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

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12.10. Sum of the SAR for W-CDMA II (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.297	0.331	0.228	0.342	0.116	0.628	No	0.525	No	0.639	No	0.413	No	0.641	No
	Left Tilt	0.485	0.331	0.228	0.342	0.102	0.816	No	0.713	No	0.827	No	0.587	No	0.815	No
	Right Touch	1.085	0.331	0.228	0.342	0.129	1.416	No	1.313	No	1.427	No	1.214	No	1.442	No
	Right Tilt	1.070	0.331	0.228	0.342	0.117	1.401	No	1.298	No	1.412	No	1.187	No	1.415	No
Body-worn & Hotspot & Airplay	Rear	0.943	0.389	0.198	0.384	0.063	1.332	No	1.141	No	1.327	No	1.006	No	1.204	No
	Front	0.794	0.389	0.198	0.384	0.078	1.183	No	0.992	No	1.178	No	0.872	No	1.070	No
Hotspot & Airplay	Edge 1	0.701	0.389	0.198	0.384		1.090	No	0.899	No	1.085	No				
	Edge 2	0.048	0.389	0.198	0.384		0.437	No	0.246	No	0.432	No				
	Edge 4	0.545	0.389	0.198	0.384		0.934	No	0.743	No	0.929	No				

12.11. Sum of the SAR for W-CDMA II (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.457	0.331	0.228	0.342	0.116	0.788	No	0.685	No	0.799	No	0.573	No	0.801	No
	Left Tilt	0.263	0.331	0.228	0.342	0.102	0.594	No	0.491	No	0.605	No	0.365	No	0.593	No
	Right Touch	0.780	0.331	0.228	0.342	0.129	1.111	No	1.008	No	1.122	No	0.909	No	1.137	No
	Right Tilt	0.257	0.331	0.228	0.342	0.117	0.588	No	0.485	No	0.599	No	0.374	No	0.602	No
Body-worn & Hotspot & Airplay	Rear	1.130	0.389	0.198	0.384	0.063	1.519	No	1.328	No	1.514	No	1.193	No	1.391	No
	Front	1.060	0.389	0.198	0.384	0.078	1.449	No	1.258	No	1.444	No	1.138	No	1.336	No
Hotspot & Airplay	Edge 2	0.672	0.389	0.198	0.384		1.061	No	0.870	No	1.056	No				
	Edge 3	1.070	0.389	0.198	0.384		1.459	No	1.268	No	1.454	No				
	Edge 4	0.093	0.389	0.198	0.384		0.482	No	0.291	No	0.477	No				

Conclusion:

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

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12.12. Sum of the SAR for CDMA BC0 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.792	0.331	0.228	0.342	0.116	1.123	No	1.020	No	1.134	No	0.908	No	1.136	No
	Left Tilt	0.490	0.331	0.228	0.342	0.102	0.821	No	0.718	No	0.832	No	0.592	No	0.820	No
	Right Touch	0.756	0.331	0.228	0.342	0.129	1.087	No	0.984	No	1.098	No	0.885	No	1.113	No
	Right Tilt	0.566	0.331	0.228	0.342	0.117	0.897	No	0.794	No	0.908	No	0.683	No	0.911	No
Body-worn & Hotspot & Airplay	Rear	0.333	0.389	0.198	0.384	0.063	0.722	No	0.531	No	0.717	No	0.396	No	0.594	No
	Front	0.337	0.389	0.198	0.384	0.078	0.726	No	0.535	No	0.721	No	0.415	No	0.613	No
Hotspot & Airplay	Edge 1	0.118	0.389	0.198	0.384		0.507	No	0.316	No	0.502	No				
	Edge 2	0.668	0.389	0.198	0.384		1.057	No	0.866	No	1.052	No				
	Edge 4	0.447	0.389	0.198	0.384		0.836	No	0.645	No	0.831	No				

12.13. Sum of the SAR for CDMA BC0 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.382	0.331	0.228	0.342	0.116	0.713	No	0.610	No	0.724	No	0.498	No	0.726	No
	Left Tilt	0.235	0.331	0.228	0.342	0.102	0.566	No	0.463	No	0.577	No	0.337	No	0.565	No
	Right Touch	0.316	0.331	0.228	0.342	0.129	0.647	No	0.544	No	0.658	No	0.445	No	0.673	No
	Right Tilt	0.249	0.331	0.228	0.342	0.117	0.580	No	0.477	No	0.591	No	0.366	No	0.594	No
Body-worn & Hotspot & Airplay	Rear	0.506	0.389	0.198	0.384	0.063	0.895	No	0.704	No	0.890	No	0.569	No	0.767	No
	Front	0.550	0.389	0.198	0.384	0.078	0.939	No	0.748	No	0.934	No	0.628	No	0.826	No
Hotspot & Airplay	Edge 2	0.364	0.389	0.198	0.384		0.753	No	0.562	No	0.748	No				
	Edge 3	0.360	0.389	0.198	0.384		0.749	No	0.558	No	0.744	No				
	Edge 4	0.784	0.389	0.198	0.384		1.173	No	0.982	No	1.168	No				

Conclusion:

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

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12.14. Sum of the SAR for CDMA BC1 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.464	0.331	0.228	0.342	0.116	0.795	No	0.692	No	0.806	No	0.580	No	0.808	No
	Left Tilt	0.330	0.331	0.228	0.342	0.102	0.661	No	0.558	No	0.672	No	0.432	No	0.660	No
	Right Touch	1.090	0.331	0.228	0.342	0.129	1.421	No	1.318	No	1.432	No	1.219	No	1.447	No
	Right Tilt	0.946	0.331	0.228	0.342	0.117	1.277	No	1.174	No	1.288	No	1.063	No	1.291	No
Body-worn & Hotspot & Airplay	Rear	0.593	0.389	0.198	0.384	0.063	0.982	No	0.791	No	0.977	No	0.656	No	0.854	No
	Front	0.559	0.389	0.198	0.384	0.078	0.948	No	0.757	No	0.943	No	0.637	No	0.835	No
Hotspot & Airplay	Edge 1	0.944	0.389	0.198	0.384		1.333	No	1.142	No	1.328	No				
	Edge 2	0.065	0.389	0.198	0.384		0.454	No	0.263	No	0.449	No				
	Edge 4	0.501	0.389	0.198	0.384		0.890	No	0.699	No	0.885	No				

12.15. Sum of the SAR for CDMA BC1 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.397	0.331	0.228	0.342	0.116	0.728	No	0.625	No	0.739	No	0.513	No	0.741	No
	Left Tilt	0.280	0.331	0.228	0.342	0.102	0.611	No	0.508	No	0.622	No	0.382	No	0.610	No
	Right Touch	0.938	0.331	0.228	0.342	0.129	1.269	No	1.166	No	1.280	No	1.067	No	1.295	No
	Right Tilt	0.339	0.331	0.228	0.342	0.117	0.670	No	0.567	No	0.681	No	0.456	No	0.684	No
Body-worn & Hotspot & Airplay	Rear	0.674	0.389	0.198	0.384	0.063	1.063	No	0.872	No	1.058	No	0.737	No	0.935	No
	Front	0.670	0.389	0.198	0.384	0.078	1.059	No	0.868	No	1.054	No	0.748	No	0.946	No
Hotspot & Airplay	Edge 2	0.583	0.389	0.198	0.384		0.972	No	0.781	No	0.967	No				
	Edge 3	1.020	0.389	0.198	0.384		1.409	No	1.218	No	1.404	No				
	Edge 4	0.078	0.389	0.198	0.384		0.467	No	0.276	No	0.462	No				

Conclusion:

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

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12.16. Sum of the SAR for CDMA BC10 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.787	0.331	0.228	0.342	0.116	1.118	No	1.015	No	1.129	No	0.903	No	1.131	No
	Left Tilt	0.596	0.331	0.228	0.342	0.102	0.927	No	0.824	No	0.938	No	0.698	No	0.926	No
	Right Touch	0.872	0.331	0.228	0.342	0.129	1.203	No	1.100	No	1.214	No	1.001	No	1.229	No
	Right Tilt	0.602	0.331	0.228	0.342	0.117	0.933	No	0.830	No	0.944	No	0.719	No	0.947	No
Body-worn & Hotspot & Airplay	Rear	0.290	0.389	0.198	0.384	0.063	0.679	No	0.488	No	0.674	No	0.353	No	0.551	No
	Front	0.303	0.389	0.198	0.384	0.078	0.692	No	0.501	No	0.687	No	0.381	No	0.579	No
Hotspot & Airplay	Edge 1	0.077	0.389	0.198	0.384		0.466	No	0.275	No	0.461	No				
	Edge 2	0.447	0.389	0.198	0.384		0.836	No	0.645	No	0.831	No				
	Edge 4	0.302	0.389	0.198	0.384		0.691	No	0.500	No	0.686	No				

12.17. Sum of the SAR for CDMA BC10 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.267	0.331	0.228	0.342	0.116	0.598	No	0.495	No	0.609	No	0.383	No	0.611	No
	Left Tilt	0.220	0.331	0.228	0.342	0.102	0.551	No	0.448	No	0.562	No	0.322	No	0.550	No
	Right Touch	0.251	0.331	0.228	0.342	0.129	0.582	No	0.479	No	0.593	No	0.380	No	0.608	No
	Right Tilt	0.201	0.331	0.228	0.342	0.117	0.532	No	0.429	No	0.543	No	0.318	No	0.546	No
Body-worn & Hotspot & Airplay	Rear	0.345	0.389	0.198	0.384	0.063	0.734	No	0.543	No	0.729	No	0.408	No	0.606	No
	Front	0.365	0.389	0.198	0.384	0.078	0.754	No	0.563	No	0.749	No	0.443	No	0.641	No
Hotspot & Airplay	Edge 2	0.297	0.389	0.198	0.384		0.686	No	0.495	No	0.681	No				
	Edge 3	0.213	0.389	0.198	0.384		0.602	No	0.411	No	0.597	No				
	Edge 4	0.627	0.389	0.198	0.384		1.016	No	0.825	No	1.011	No				

Conclusion:

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

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12.18. Sum of the SAR for LTE Band 2 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 25 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

12.19. Sum of the SAR for LTE Band 2 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 25 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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12.20. Sum of the SAR for LTE Band 4 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.413	0.331	0.228	0.342	0.116	0.744	No	0.641	No	0.755	No	0.529	No	0.757	No
	Left Tilt	0.369	0.331	0.228	0.342	0.102	0.700	No	0.597	No	0.711	No	0.471	No	0.699	No
	Right Touch	1.046	0.331	0.228	0.342	0.129	1.377	No	1.274	No	1.388	No	1.175	No	1.403	No
	Right Tilt	0.710	0.331	0.228	0.342	0.117	1.041	No	0.938	No	1.052	No	0.827	No	1.055	No
Body-worn & Hotspot & Airplay	Rear	0.694	0.389	0.198	0.384	0.063	1.083	No	0.892	No	1.078	No	0.757	No	0.955	No
	Front	0.705	0.389	0.198	0.384	0.078	1.094	No	0.903	No	1.089	No	0.783	No	0.981	No
Hotspot & Airplay	Edge 1	0.983	0.389	0.198	0.384		1.372	No	1.181	No	1.367	No				
	Edge 2	0.025	0.389	0.198	0.384		0.414	No	0.223	No	0.409	No				
	Edge 4	0.691	0.389	0.198	0.384		1.080	No	0.889	No	1.075	No				

12.21. Sum of the SAR for LTE Band 4 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.232	0.331	0.228	0.342	0.116	0.563	No	0.460	No	0.574	No	0.348	No	0.576	No
	Left Tilt	0.168	0.331	0.228	0.342	0.102	0.499	No	0.396	No	0.510	No	0.270	No	0.498	No
	Right Touch	0.476	0.331	0.228	0.342	0.129	0.807	No	0.704	No	0.818	No	0.605	No	0.833	No
	Right Tilt	0.157	0.331	0.228	0.342	0.117	0.488	No	0.385	No	0.499	No	0.274	No	0.502	No
Body-worn & Hotspot & Airplay	Rear	0.962	0.389	0.198	0.384	0.063	1.351	No	1.160	No	1.346	No	1.025	No	1.223	No
	Front	1.115	0.389	0.198	0.384	0.078	1.504	No	1.313	No	1.499	No	1.193	No	1.391	No
Hotspot & Airplay	Edge 2	0.695	0.389	0.198	0.384		1.084	No	0.893	No	1.079	No				
	Edge 3	1.108	0.389	0.198	0.384		1.497	No	1.306	No	1.492	No				
	Edge 4	0.037	0.389	0.198	0.384		0.426	No	0.235	No	0.421	No				

Conclusion:

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

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12.22. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

12.23. Sum of the SAR for LTE Band 5 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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12.24. Sum of the SAR for LTE Band 7 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	1.012	0.331	0.228	0.342	0.116	1.343	No	1.240	No	1.354	No	1.128	No	1.356	No
	Left Tilt	0.949	0.331	0.228	0.342	0.102	1.280	No	1.177	No	1.291	No	1.051	No	1.279	No
	Right Touch	0.418	0.331	0.228	0.342	0.129	0.749	No	0.646	No	0.760	No	0.547	No	0.775	No
	Right Tilt	0.466	0.331	0.228	0.342	0.117	0.797	No	0.694	No	0.808	No	0.583	No	0.811	No
Body-worn & Hotspot & Airplay	Rear	0.927	0.389	0.198	0.384	0.063	1.316	No	1.125	No	1.311	No	0.990	No	1.188	No
	Front	0.650	0.389	0.198	0.384	0.078	1.039	No	0.848	No	1.034	No	0.728	No	0.926	No
Hotspot & Airplay	Edge 1	0.499	0.389	0.198	0.384		0.888	No	0.697	No	0.883	No				
	Edge 2	0.536	0.389	0.198	0.384		0.925	No	0.734	No	0.920	No				
	Edge 4	0.116	0.389	0.198	0.384		0.505	No	0.314	No	0.500	No				

12.25. Sum of the SAR for LTE Band 7 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	1.050	0.331	0.228	0.342	0.116	1.381	No	1.278	No	1.392	No	1.166	No	1.394	No
	Left Tilt	0.201	0.331	0.228	0.342	0.102	0.532	No	0.429	No	0.543	No	0.303	No	0.531	No
	Right Touch	0.484	0.331	0.228	0.342	0.129	0.815	No	0.712	No	0.826	No	0.613	No	0.841	No
	Right Tilt	0.279	0.331	0.228	0.342	0.117	0.610	No	0.507	No	0.621	No	0.396	No	0.624	No
Body-worn & Hotspot & Airplay	Rear	0.846	0.389	0.198	0.384	0.063	1.235	No	1.044	No	1.230	No	0.909	No	1.107	No
	Front	1.030	0.389	0.198	0.384	0.078	1.419	No	1.228	No	1.414	No	1.108	No	1.306	No
Hotspot & Airplay	Edge 2	0.052	0.389	0.198	0.384		0.441	No	0.250	No	0.436	No				
	Edge 3	0.750	0.389	0.198	0.384		1.139	No	0.948	No	1.134	No				
	Edge 4	0.765	0.389	0.198	0.384		1.154	No	0.963	No	1.149	No				

Conclusion:

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

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12.26. Sum of the SAR for LTE Band 12 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.344	0.331	0.228	0.342	0.116	0.675	No	0.572	No	0.686	No	0.460	No	0.688	No
	Left Tilt	0.326	0.331	0.228	0.342	0.102	0.657	No	0.554	No	0.668	No	0.428	No	0.656	No
	Right Touch	0.446	0.331	0.228	0.342	0.129	0.777	No	0.674	No	0.788	No	0.575	No	0.803	No
	Right Tilt	0.353	0.331	0.228	0.342	0.117	0.684	No	0.581	No	0.695	No	0.470	No	0.698	No
Body-worn & Hotspot & Airplay	Rear	0.256	0.389	0.198	0.384	0.063	0.645	No	0.454	No	0.640	No	0.319	No	0.517	No
	Front	0.246	0.389	0.198	0.384	0.078	0.635	No	0.444	No	0.630	No	0.324	No	0.522	No
Hotspot & Airplay	Edge 1	0.145	0.389	0.198	0.384		0.534	No	0.343	No	0.529	No				
	Edge 2	0.363	0.389	0.198	0.384		0.752	No	0.561	No	0.747	No				
	Edge 4	0.207	0.389	0.198	0.384		0.596	No	0.405	No	0.591	No				

12.27. Sum of the SAR for LTE Band 12 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.208	0.331	0.228	0.342	0.116	0.539	No	0.436	No	0.550	No	0.324	No	0.552	No
	Left Tilt	0.109	0.331	0.228	0.342	0.102	0.440	No	0.337	No	0.451	No	0.211	No	0.439	No
	Right Touch	0.208	0.331	0.228	0.342	0.129	0.539	No	0.436	No	0.550	No	0.337	No	0.565	No
	Right Tilt	0.114	0.331	0.228	0.342	0.117	0.445	No	0.342	No	0.456	No	0.231	No	0.459	No
Body-worn & Hotspot & Airplay	Rear	0.414	0.389	0.198	0.384	0.063	0.803	No	0.612	No	0.798	No	0.477	No	0.675	No
	Front	0.514	0.389	0.198	0.384	0.078	0.903	No	0.712	No	0.898	No	0.592	No	0.790	No
Hotspot & Airplay	Edge 2	0.307	0.389	0.198	0.384		0.696	No	0.505	No	0.691	No				
	Edge 3	0.329	0.389	0.198	0.384		0.718	No	0.527	No	0.713	No				
	Edge 4	0.530	0.389	0.198	0.384		0.919	No	0.728	No	0.914	No				

Conclusion:

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

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12.28. Sum of the SAR for LTE Band 13 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.269	0.331	0.228	0.342	0.116	0.600	No	0.497	No	0.611	No	0.385	No	0.613	No
	Left Tilt	0.227	0.331	0.228	0.342	0.102	0.558	No	0.455	No	0.569	No	0.329	No	0.557	No
	Right Touch	0.327	0.331	0.228	0.342	0.129	0.658	No	0.555	No	0.669	No	0.456	No	0.684	No
	Right Tilt	0.258	0.331	0.228	0.342	0.117	0.589	No	0.486	No	0.600	No	0.375	No	0.603	No
Body-worn & Hotspot & Airplay	Rear	0.222	0.389	0.198	0.384	0.063	0.611	No	0.420	No	0.606	No	0.285	No	0.483	No
	Front	0.181	0.389	0.198	0.384	0.078	0.570	No	0.379	No	0.565	No	0.259	No	0.457	No
Hotspot & Airplay	Edge 1	0.123	0.389	0.198	0.384		0.512	No	0.321	No	0.507	No				
	Edge 2	0.229	0.389	0.198	0.384		0.618	No	0.427	No	0.613	No				
	Edge 4	0.118	0.389	0.198	0.384		0.507	No	0.316	No	0.502	No				

12.29. Sum of the SAR for LTE Band 13 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.310	0.331	0.228	0.342	0.116	0.641	No	0.538	No	0.652	No	0.426	No	0.654	No
	Left Tilt	0.196	0.331	0.228	0.342	0.102	0.527	No	0.424	No	0.538	No	0.298	No	0.526	No
	Right Touch	0.285	0.331	0.228	0.342	0.129	0.616	No	0.513	No	0.627	No	0.414	No	0.642	No
	Right Tilt	0.203	0.331	0.228	0.342	0.117	0.534	No	0.431	No	0.545	No	0.320	No	0.548	No
Body-worn & Hotspot & Airplay	Rear	0.588	0.389	0.198	0.384	0.063	0.977	No	0.786	No	0.972	No	0.651	No	0.849	No
	Front	0.625	0.389	0.198	0.384	0.078	1.014	No	0.823	No	1.009	No	0.703	No	0.901	No
Hotspot & Airplay	Edge 2	0.393	0.389	0.198	0.384		0.782	No	0.591	No	0.777	No				
	Edge 3	0.469	0.389	0.198	0.384		0.858	No	0.667	No	0.853	No				
	Edge 4	0.712	0.389	0.198	0.384		1.101	No	0.910	No	1.096	No				

Conclusion:

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

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12.30. Sum of the SAR for LTE Band 17 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 12 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

12.31. Sum of the SAR for LTE Band 17 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 12 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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12.32. Sum of the SAR for LTE Band 25 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.412	0.331	0.228	0.342	0.116	0.743	No	0.640	No	0.754	No	0.528	No	0.756	No
	Left Tilt	0.307	0.331	0.228	0.342	0.102	0.638	No	0.535	No	0.649	No	0.409	No	0.637	No
	Right Touch	1.070	0.331	0.228	0.342	0.129	1.401	No	1.298	No	1.412	No	1.199	No	1.427	No
	Right Tilt	1.030	0.331	0.228	0.342	0.117	1.361	No	1.258	No	1.372	No	1.147	No	1.375	No
Body-worn & Hotspot & Airplay	Rear	0.523	0.389	0.198	0.384	0.063	0.912	No	0.721	No	0.907	No	0.586	No	0.784	No
	Front	0.716	0.389	0.198	0.384	0.078	1.105	No	0.914	No	1.100	No	0.794	No	0.992	No
Hotspot & Airplay	Edge 1	0.701	0.389	0.198	0.384		1.090	No	0.899	No	1.085	No				
	Edge 2	0.054	0.389	0.198	0.384		0.443	No	0.252	No	0.438	No				
	Edge 4	0.568	0.389	0.198	0.384		0.957	No	0.766	No	0.952	No				

12.33. Sum of the SAR for LTE Band 25 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.441	0.331	0.228	0.342	0.116	0.772	No	0.669	No	0.783	No	0.557	No	0.785	No
	Left Tilt	0.240	0.331	0.228	0.342	0.102	0.571	No	0.468	No	0.582	No	0.342	No	0.570	No
	Right Touch	0.836	0.331	0.228	0.342	0.129	1.167	No	1.064	No	1.178	No	0.965	No	1.193	No
	Right Tilt	0.268	0.331	0.228	0.342	0.117	0.599	No	0.496	No	0.610	No	0.385	No	0.613	No
Body-worn & Hotspot & Airplay	Rear	0.876	0.389	0.198	0.384	0.063	1.265	No	1.074	No	1.260	No	0.939	No	1.137	No
	Front	0.987	0.389	0.198	0.384	0.078	1.376	No	1.185	No	1.371	No	1.065	No	1.263	No
Hotspot & Airplay	Edge 2	0.702	0.389	0.198	0.384		1.091	No	0.900	No	1.086	No				
	Edge 3	1.011	0.389	0.198	0.384		1.400	No	1.209	No	1.395	No				
	Edge 4	0.072	0.389	0.198	0.384		0.461	No	0.270	No	0.456	No				

Conclusion:

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

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12.34. Sum of the SAR for LTE Band 26 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.376	0.331	0.228	0.342	0.116	0.707	No	0.604	No	0.718	No	0.492	No	0.720	No
	Left Tilt	0.316	0.331	0.228	0.342	0.102	0.647	No	0.544	No	0.658	No	0.418	No	0.646	No
	Right Touch	0.420	0.331	0.228	0.342	0.129	0.751	No	0.648	No	0.762	No	0.549	No	0.777	No
	Right Tilt	0.299	0.331	0.228	0.342	0.117	0.630	No	0.527	No	0.641	No	0.416	No	0.644	No
Body-worn & Hotspot & Airplay	Rear	0.222	0.389	0.198	0.384	0.063	0.611	No	0.420	No	0.606	No	0.285	No	0.483	No
	Front	0.227	0.389	0.198	0.384	0.078	0.616	No	0.425	No	0.611	No	0.305	No	0.503	No
Hotspot & Airplay	Edge 1	0.111	0.389	0.198	0.384		0.500	No	0.309	No	0.495	No				
	Edge 2	0.341	0.389	0.198	0.384		0.730	No	0.539	No	0.725	No				
	Edge 4	0.185	0.389	0.198	0.384		0.574	No	0.383	No	0.569	No				

12.35. Sum of the SAR for LTE Band 26 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.314	0.331	0.228	0.342	0.116	0.645	No	0.542	No	0.656	No	0.430	No	0.658	No
	Left Tilt	0.205	0.331	0.228	0.342	0.102	0.536	No	0.433	No	0.547	No	0.307	No	0.535	No
	Right Touch	0.234	0.331	0.228	0.342	0.129	0.565	No	0.462	No	0.576	No	0.363	No	0.591	No
	Right Tilt	0.200	0.331	0.228	0.342	0.117	0.531	No	0.428	No	0.542	No	0.317	No	0.545	No
Body-worn & Hotspot & Airplay	Rear	0.619	0.389	0.198	0.384	0.063	1.008	No	0.817	No	1.003	No	0.682	No	0.880	No
	Front	0.544	0.389	0.198	0.384	0.078	0.933	No	0.742	No	0.928	No	0.622	No	0.820	No
Hotspot & Airplay	Edge 2	0.248	0.389	0.198	0.384		0.637	No	0.446	No	0.632	No				
	Edge 3	0.335	0.389	0.198	0.384		0.724	No	0.533	No	0.719	No				
	Edge 4	0.669	0.389	0.198	0.384		1.058	No	0.867	No	1.053	No				

Conclusion:

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

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12.36. Sum of the SAR for LTE Band 27 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, similar maximum tune-up limit and same channel bandwidth.

12.37. Sum of the SAR for LTE Band 27 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, similar maximum tune-up limit and same channel bandwidth.

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12.38. Sum of the SAR for LTE Band 30 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.436	0.331	0.228	0.342	0.116	0.767	No	0.664	No	0.778	No	0.552	No	0.780	No
	Left Tilt	0.537	0.331	0.228	0.342	0.102	0.868	No	0.765	No	0.879	No	0.639	No	0.867	No
	Right Touch	1.090	0.331	0.228	0.342	0.129	1.421	No	1.318	No	1.432	No	1.219	No	1.447	No
	Right Tilt	1.090	0.331	0.228	0.342	0.117	1.421	No	1.318	No	1.432	No	1.207	No	1.435	No
Body-worn & Hotspot & Airplay	Rear	0.973	0.389	0.198	0.384	0.063	1.362	No	1.171	No	1.357	No	1.036	No	1.234	No
	Front	0.990	0.389	0.198	0.384	0.078	1.379	No	1.188	No	1.374	No	1.068	No	1.266	No
Hotspot & Airplay	Edge 1	0.622	0.389	0.198	0.384		1.011	No	0.820	No	1.006	No				
	Edge 2	0.229	0.389	0.198	0.384		0.618	No	0.427	No	0.613	No				
	Edge 4	0.812	0.389	0.198	0.384		1.201	No	1.010	No	1.196	No				

12.39. Sum of the SAR for LTE Band 30 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.465	0.331	0.228	0.342	0.116	0.796	No	0.693	No	0.807	No	0.581	No	0.809	No
	Left Tilt	0.307	0.331	0.228	0.342	0.102	0.638	No	0.535	No	0.649	No	0.409	No	0.637	No
	Right Touch	0.835	0.331	0.228	0.342	0.129	1.166	No	1.063	No	1.177	No	0.964	No	1.192	No
	Right Tilt	0.377	0.331	0.228	0.342	0.117	0.708	No	0.605	No	0.719	No	0.494	No	0.722	No
Body-worn & Hotspot & Airplay	Rear	0.395	0.389	0.198	0.384	0.063	0.784	No	0.593	No	0.779	No	0.458	No	0.656	No
	Front	0.777	0.389	0.198	0.384	0.078	1.166	No	0.975	No	1.161	No	0.855	No	1.053	No
Hotspot & Airplay	Edge 2	0.396	0.389	0.198	0.384		0.785	No	0.594	No	0.780	No				
	Edge 3	1.010	0.389	0.198	0.384		1.399	No	1.208	No	1.394	No				
	Edge 4	0.199	0.389	0.198	0.384		0.588	No	0.397	No	0.583	No				

Conclusion:

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

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12.40. Sum of the SAR for LTE Band 41 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.740	0.331	0.228	0.342	0.116	1.071	No	0.968	No	1.082	No	0.856	No	1.084	No
	Left Tilt	0.704	0.331	0.228	0.342	0.102	1.035	No	0.932	No	1.046	No	0.806	No	1.034	No
	Right Touch	0.356	0.331	0.228	0.342	0.129	0.687	No	0.584	No	0.698	No	0.485	No	0.713	No
	Right Tilt	0.381	0.331	0.228	0.342	0.117	0.712	No	0.609	No	0.723	No	0.498	No	0.726	No
Body-worn & Hotspot & Airplay	Rear	0.927	0.389	0.198	0.384	0.063	1.316	No	1.125	No	1.311	No	0.990	No	1.188	No
	Front	0.596	0.389	0.198	0.384	0.078	0.985	No	0.794	No	0.980	No	0.674	No	0.872	No
Hotspot & Airplay	Edge 1	0.537	0.389	0.198	0.384		0.926	No	0.735	No	0.921	No				
	Edge 2	0.595	0.389	0.198	0.384		0.984	No	0.793	No	0.979	No				
	Edge 4	0.161	0.389	0.198	0.384		0.550	No	0.359	No	0.545	No				

12.41. Sum of the SAR for LTE Band 41 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.431	0.331	0.228	0.342	0.116	0.762	No	0.659	No	0.773	No	0.547	No	0.775	No
	Left Tilt	0.079	0.331	0.228	0.342	0.102	0.410	No	0.307	No	0.421	No	0.181	No	0.409	No
	Right Touch	0.269	0.331	0.228	0.342	0.129	0.600	No	0.497	No	0.611	No	0.398	No	0.626	No
	Right Tilt	0.120	0.331	0.228	0.342	0.117	0.451	No	0.348	No	0.462	No	0.237	No	0.465	No
Body-worn & Hotspot & Airplay	Rear	1.131	0.389	0.198	0.384	0.063	1.520	No	1.329	No	1.515	No	1.194	No	1.392	No
	Front	1.142	0.389	0.198	0.384	0.078	1.531	No	1.340	No	1.526	No	1.220	No	1.418	No
Hotspot & Airplay	Edge 2	0.026	0.389	0.198	0.384		0.415	No	0.224	No	0.410	No				
	Edge 3	0.668	0.389	0.198	0.384		1.057	No	0.866	No	1.052	No				
	Edge 4	0.674	0.389	0.198	0.384		1.063	No	0.872	No	1.058	No				

Conclusion:

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

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12.42. Sum of the SAR for LTE-2CA Band 7 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.920	0.331	0.228	0.342	0.116	1.036	No	0.447	No	0.344	No	0.458	No	1.264	No

12.43. Sum of the SAR for LTE-2CA Band 7 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	0.921	0.389	0.198	0.384	0.078	0.999	No	0.467	No	0.276	No	0.462	No	1.197	No

Conclusion:

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

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12.44. Sum of the SAR for LTE-2CA Band 41 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Rear	0.854	0.389	0.198	0.384	0.063	0.917	No	0.452	No	0.261	No	0.447	No	1.115	No

12.45. Sum of the SAR for LTE-2CA Band 41 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	1.070	0.389	0.198	0.384	0.078	1.148	No	0.467	No	0.276	No	0.462	No	1.346	No

Conclusion:

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

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12.46. Sum of the SAR for GSM850 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.389	0.184	0.241	0.236	0.116	0.573	No	0.630	No	0.625	No	0.689	No	0.746	No	0.741	No
	Left Tilt	0.355	0.184	0.241	0.236	0.102	0.539	No	0.596	No	0.591	No	0.641	No	0.698	No	0.693	No
	Right Touch	0.464	0.184	0.241	0.236	0.129	0.648	No	0.705	No	0.700	No	0.777	No	0.834	No	0.829	No
	Right Tilt	0.329	0.184	0.241	0.236	0.117	0.513	No	0.570	No	0.565	No	0.630	No	0.687	No	0.682	No
Body-worn Accessory & Airplay	Rear	0.239	0.338	0.238	0.332	0.063	0.577	No	0.477	No	0.571	No	0.640	No	0.540	No	0.634	No
	Front	0.226	0.338	0.238	0.332	0.078	0.564	No	0.464	No	0.558	No	0.642	No	0.542	No	0.636	No
Airplay	Edge 1	0.107	0.338	0.238	0.332		0.445	No	0.345	No	0.439	No						
	Edge 2	0.373	0.338	0.238	0.332		0.711	No	0.611	No	0.705	No						
	Edge 4	0.229	0.338	0.238	0.332		0.567	No	0.467	No	0.561	No						

12.47. Sum of the SAR for GSM850 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.489	0.184	0.241	0.236	0.116	0.673	No	0.730	No	0.725	No	0.789	No	0.846	No	0.841	No
	Left Tilt	0.266	0.184	0.241	0.236	0.102	0.450	No	0.507	No	0.502	No	0.552	No	0.609	No	0.604	No
	Right Touch	0.407	0.184	0.241	0.236	0.129	0.591	No	0.648	No	0.643	No	0.720	No	0.777	No	0.772	No
	Right Tilt	0.282	0.184	0.241	0.236	0.117	0.466	No	0.523	No	0.518	No	0.583	No	0.640	No	0.635	No
Body-worn Accessory & Airplay	Rear	0.613	0.338	0.238	0.332	0.063	0.951	No	0.851	No	0.945	No	1.014	No	0.914	No	1.008	No
	Front	0.700	0.338	0.238	0.332	0.078	1.038	No	0.938	No	1.032	No	1.116	No	1.016	No	1.110	No
Airplay	Edge 2	0.418	0.338	0.238	0.332		0.756	No	0.656	No	0.750	No						
	Edge 3	0.548	0.338	0.238	0.332		0.886	No	0.786	No	0.880	No						
	Edge 4	0.909	0.338	0.238	0.332		1.247	No	1.147	No	1.241	No						

Conclusion:

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

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12.48. Sum of the SAR for GSM1900 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.181	0.184	0.241	0.236	0.116	0.365	No	0.422	No	0.417	No	0.481	No	0.538	No	0.533	No
	Left Tilt	0.151	0.184	0.241	0.236	0.102	0.335	No	0.392	No	0.387	No	0.437	No	0.494	No	0.489	No
	Right Touch	1.050	0.184	0.241	0.236	0.129	1.234	No	1.291	No	1.286	No	1.363	No	1.420	No	1.415	No
	Right Tilt	0.672	0.184	0.241	0.236	0.117	0.856	No	0.913	No	0.908	No	0.973	No	1.030	No	1.025	No
Body-worn Accessory & Airplay	Rear	0.183	0.338	0.238	0.332	0.063	0.521	No	0.421	No	0.515	No	0.584	No	0.484	No	0.578	No
	Front	0.260	0.338	0.238	0.332	0.078	0.598	No	0.498	No	0.592	No	0.676	No	0.576	No	0.670	No
Airplay	Edge 1	0.219	0.338	0.238	0.332		0.557	No	0.457	No	0.551	No						
	Edge 2	0.048	0.338	0.238	0.332		0.386	No	0.286	No	0.380	No						
	Edge 4	0.033	0.338	0.238	0.332		0.371	No	0.271	No	0.365	No						

12.49. Sum of the SAR for GSM1900 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.194	0.184	0.241	0.236	0.116	0.378	No	0.435	No	0.430	No	0.494	No	0.551	No	0.546	No
	Left Tilt	0.087	0.184	0.241	0.236	0.102	0.271	No	0.328	No	0.323	No	0.373	No	0.430	No	0.425	No
	Right Touch	0.416	0.184	0.241	0.236	0.129	0.600	No	0.657	No	0.652	No	0.729	No	0.786	No	0.781	No
	Right Tilt	0.139	0.184	0.241	0.236	0.117	0.323	No	0.380	No	0.375	No	0.440	No	0.497	No	0.492	No
Body-worn Accessory & Airplay	Rear	0.773	0.338	0.238	0.332	0.063	1.111	No	1.011	No	1.105	No	1.174	No	1.074	No	1.168	No
	Front	1.095	0.338	0.238	0.332	0.078	1.433	No	1.333	No	1.427	No	1.511	No	1.411	No	1.505	No
Airplay	Edge 2	0.737	0.338	0.238	0.332		1.075	No	0.975	No	1.069	No						
	Edge 3	1.095	0.338	0.238	0.332		1.433	No	1.333	No	1.427	No						
	Edge 4	0.084	0.338	0.238	0.332		0.422	No	0.322	No	0.416	No						

Conclusion:

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

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12.50. Sum of the SAR for W-CDMA V (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.629	0.184	0.241	0.236	0.116	0.813	No	0.870	No	0.865	No	0.929	No	0.986	No	0.981	No
	Left Tilt	0.466	0.184	0.241	0.236	0.102	0.650	No	0.707	No	0.702	No	0.752	No	0.809	No	0.804	No
	Right Touch	0.671	0.184	0.241	0.236	0.129	0.855	No	0.912	No	0.907	No	0.984	No	1041	No	1036	No
	Right Tilt	0.451	0.184	0.241	0.236	0.117	0.635	No	0.692	No	0.687	No	0.752	No	0.809	No	0.804	No
Body-worn Accessory & Airplay	Rear	0.263	0.338	0.238	0.332	0.063	0.601	No	0.501	No	0.595	No	0.664	No	0.564	No	0.658	No
	Front	0.252	0.338	0.238	0.332	0.078	0.590	No	0.490	No	0.584	No	0.668	No	0.568	No	0.662	No
Airplay	Edge 1	0.085	0.338	0.238	0.332		0.423	No	0.323	No	0.417	No						
	Edge 2	0.350	0.338	0.238	0.332		0.688	No	0.588	No	0.682	No						
	Edge 4	0.206	0.338	0.238	0.332		0.544	No	0.444	No	0.538	No						

12.51. Sum of the SAR for W-CDMA V (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.425	0.184	0.241	0.236	0.116	0.609	No	0.666	No	0.661	No	0.725	No	0.782	No	0.777	No
	Left Tilt	0.245	0.184	0.241	0.236	0.102	0.429	No	0.486	No	0.481	No	0.531	No	0.588	No	0.583	No
	Right Touch	0.356	0.184	0.241	0.236	0.129	0.540	No	0.597	No	0.592	No	0.669	No	0.726	No	0.721	No
	Right Tilt	0.229	0.184	0.241	0.236	0.117	0.413	No	0.470	No	0.465	No	0.530	No	0.587	No	0.582	No
Body-worn Accessory & Airplay	Rear	0.578	0.338	0.238	0.332	0.063	0.916	No	0.816	No	0.910	No	0.979	No	0.879	No	0.973	No
	Front	0.617	0.338	0.238	0.332	0.078	0.955	No	0.855	No	0.949	No	1033	No	0.933	No	1027	No
Airplay	Edge 2	0.431	0.338	0.238	0.332		0.769	No	0.669	No	0.763	No						
	Edge 3	0.434	0.338	0.238	0.332		0.772	No	0.672	No	0.766	No						
	Edge 4	0.825	0.338	0.238	0.332		1.163	No	1063	No	1.157	No						

Conclusion:

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

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12.52. Sum of the SAR for W-CDMA IV (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.312	0.184	0.241	0.236	0.116	0.496	No	0.553	No	0.548	No	0.612	No	0.669	No	0.664	No
	Left Tilt	0.376	0.184	0.241	0.236	0.102	0.560	No	0.617	No	0.612	No	0.662	No	0.719	No	0.714	No
	Right Touch	1.021	0.184	0.241	0.236	0.129	1.205	No	1.262	No	1.257	No	1.334	No	1.391	No	1.386	No
	Right Tilt	0.595	0.184	0.241	0.236	0.117	0.779	No	0.836	No	0.831	No	0.896	No	0.953	No	0.948	No
Body-worn Accessory & Airplay	Rear	0.617	0.338	0.238	0.332	0.063	0.955	No	0.855	No	0.949	No	1.018	No	0.918	No	1.012	No
	Front	0.889	0.338	0.238	0.332	0.078	1.227	No	1.127	No	1.221	No	1.305	No	1.205	No	1.299	No
Airplay	Edge 1	0.973	0.338	0.238	0.332		1.311	No	1.211	No	1.305	No						
	Edge 2	0.031	0.338	0.238	0.332		0.369	No	0.269	No	0.363	No						
	Edge 4	0.782	0.338	0.238	0.332		1.120	No	1.020	No	1.114	No						

12.53. Sum of the SAR for W-CDMA IV (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.296	0.184	0.241	0.236	0.116	0.480	No	0.537	No	0.532	No	0.596	No	0.653	No	0.648	No
	Left Tilt	0.210	0.184	0.241	0.236	0.102	0.394	No	0.451	No	0.446	No	0.496	No	0.553	No	0.548	No
	Right Touch	0.600	0.184	0.241	0.236	0.129	0.784	No	0.841	No	0.836	No	0.913	No	0.970	No	0.965	No
	Right Tilt	0.167	0.184	0.241	0.236	0.117	0.351	No	0.408	No	0.403	No	0.468	No	0.525	No	0.520	No
Body-worn Accessory & Airplay	Rear	0.666	0.338	0.238	0.332	0.063	1.004	No	0.904	No	0.998	No	1.067	No	0.967	No	1.061	No
	Front	0.947	0.338	0.238	0.332	0.078	1.285	No	1.185	No	1.279	No	1.363	No	1.263	No	1.357	No
Airplay	Edge 2	0.747	0.338	0.238	0.332		1.085	No	0.985	No	1.079	No						
	Edge 3	1.054	0.338	0.238	0.332		1.392	No	1.292	No	1.386	No						
	Edge 4	0.058	0.338	0.238	0.332		0.396	No	0.296	No	0.390	No						

Conclusion:

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

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12.54. Sum of the SAR for W-CDMA II (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.297	0.184	0.241	0.236	0.116	0.481	No	0.538	No	0.533	No	0.597	No	0.654	No	0.649	No
	Left Tilt	0.485	0.184	0.241	0.236	0.102	0.669	No	0.726	No	0.721	No	0.771	No	0.828	No	0.823	No
	Right Touch	1085	0.184	0.241	0.236	0.129	1269	No	1326	No	1321	No	1398	No	1455	No	1450	No
	Right Tilt	1070	0.184	0.241	0.236	0.117	1254	No	1311	No	1306	No	1371	No	1428	No	1423	No
Body-worn Accessory & Airplay	Rear	0.943	0.338	0.238	0.332	0.063	1281	No	1181	No	1275	No	1344	No	1244	No	1338	No
	Front	0.794	0.338	0.238	0.332	0.078	1132	No	1032	No	1126	No	1210	No	1110	No	1204	No
Airplay	Edge 1	0.701	0.338	0.238	0.332		1039	No	0.939	No	1033	No						
	Edge 2	0.048	0.338	0.238	0.332		0.386	No	0.286	No	0.380	No						
	Edge 4	0.545	0.338	0.238	0.332		0.883	No	0.783	No	0.877	No						

12.55. Sum of the SAR for W-CDMA II (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.457	0.184	0.241	0.236	0.116	0.641	No	0.698	No	0.693	No	0.757	No	0.814	No	0.809	No
	Left Tilt	0.263	0.184	0.241	0.236	0.102	0.447	No	0.504	No	0.499	No	0.549	No	0.606	No	0.601	No
	Right Touch	0.780	0.184	0.241	0.236	0.129	0.964	No	1021	No	1016	No	1093	No	1150	No	1145	No
	Right Tilt	0.257	0.184	0.241	0.236	0.117	0.441	No	0.498	No	0.493	No	0.558	No	0.615	No	0.610	No
Body-worn Accessory & Airplay	Rear	1130	0.338	0.238	0.332	0.063	1468	No	1368	No	1462	No	1531	No	1431	No	1525	No
	Front	1060	0.338	0.238	0.332	0.078	1398	No	1298	No	1392	No	1476	No	1376	No	1470	No
Airplay	Edge 2	0.672	0.338	0.238	0.332		1010	No	0.910	No	1004	No						
	Edge 3	1070	0.338	0.238	0.332		1408	No	1308	No	1402	No						
	Edge 4	0.093	0.338	0.238	0.332		0.431	No	0.331	No	0.425	No						

Conclusion:

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

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12.56. Sum of the SAR for CDMA BC0 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.792	0.184	0.241	0.236	0.116	0.976	No	1.033	No	1.028	No	1.092	No	1.149	No	1.144	No
	Left Tilt	0.490	0.184	0.241	0.236	0.102	0.674	No	0.731	No	0.726	No	0.776	No	0.833	No	0.828	No
	Right Touch	0.756	0.184	0.241	0.236	0.129	0.940	No	0.997	No	0.992	No	1.069	No	1.126	No	1.121	No
	Right Tilt	0.566	0.184	0.241	0.236	0.117	0.750	No	0.807	No	0.802	No	0.867	No	0.924	No	0.919	No
Body-worn Accessory & Airplay	Rear	0.333	0.338	0.238	0.332	0.063	0.671	No	0.571	No	0.665	No	0.734	No	0.634	No	0.728	No
	Front	0.337	0.338	0.238	0.332	0.078	0.675	No	0.575	No	0.669	No	0.753	No	0.653	No	0.747	No
Airplay	Edge 1	0.118	0.338	0.238	0.332		0.456	No	0.356	No	0.450	No						
	Edge 2	0.668	0.338	0.238	0.332		1.006	No	0.906	No	1.000	No						
	Edge 4	0.447	0.338	0.238	0.332		0.785	No	0.685	No	0.779	No						

12.57. Sum of the SAR for CDMA BC0 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.382	0.184	0.241	0.236	0.116	0.566	No	0.623	No	0.618	No	0.682	No	0.739	No	0.734	No
	Left Tilt	0.235	0.184	0.241	0.236	0.102	0.419	No	0.476	No	0.471	No	0.521	No	0.578	No	0.573	No
	Right Touch	0.316	0.184	0.241	0.236	0.129	0.500	No	0.557	No	0.552	No	0.629	No	0.686	No	0.681	No
	Right Tilt	0.249	0.184	0.241	0.236	0.117	0.433	No	0.490	No	0.485	No	0.550	No	0.607	No	0.602	No
Body-worn Accessory & Airplay	Rear	0.506	0.338	0.238	0.332	0.063	0.844	No	0.744	No	0.838	No	0.907	No	0.807	No	0.901	No
	Front	0.550	0.338	0.238	0.332	0.078	0.888	No	0.788	No	0.882	No	0.966	No	0.866	No	0.960	No
Airplay	Edge 2	0.364	0.338	0.238	0.332		0.702	No	0.602	No	0.696	No						
	Edge 3	0.360	0.338	0.238	0.332		0.698	No	0.598	No	0.692	No						
	Edge 4	0.784	0.338	0.238	0.332		1.122	No	1.022	No	1.116	No						

Conclusion:

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

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12.58. Sum of the SAR for CDMA BC1 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.464	0.184	0.241	0.236	0.116	0.648	No	0.705	No	0.700	No	0.764	No	0.821	No	0.816	No
	Left Tilt	0.330	0.184	0.241	0.236	0.102	0.514	No	0.571	No	0.566	No	0.616	No	0.673	No	0.668	No
	Right Touch	1.090	0.184	0.241	0.236	0.129	1.274	No	1.331	No	1.326	No	1.403	No	1.460	No	1.455	No
	Right Tilt	0.946	0.184	0.241	0.236	0.117	1.130	No	1.187	No	1.182	No	1.247	No	1.304	No	1.299	No
Body-worn Accessory & Airplay	Rear	0.593	0.338	0.238	0.332	0.063	0.931	No	0.831	No	0.925	No	0.994	No	0.894	No	0.988	No
	Front	0.559	0.338	0.238	0.332	0.078	0.897	No	0.797	No	0.891	No	0.975	No	0.875	No	0.969	No
Airplay	Edge 1	0.944	0.338	0.238	0.332		1.282	No	1.182	No	1.276	No						
	Edge 2	0.065	0.338	0.238	0.332		0.403	No	0.303	No	0.397	No						
	Edge 4	0.501	0.338	0.238	0.332		0.839	No	0.739	No	0.833	No						

12.59. Sum of the SAR for CDMA BC1 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.397	0.184	0.241	0.236	0.116	0.581	No	0.638	No	0.633	No	0.697	No	0.754	No	0.749	No
	Left Tilt	0.280	0.184	0.241	0.236	0.102	0.464	No	0.521	No	0.516	No	0.566	No	0.623	No	0.618	No
	Right Touch	0.938	0.184	0.241	0.236	0.129	1.122	No	1.179	No	1.174	No	1.251	No	1.308	No	1.303	No
	Right Tilt	0.339	0.184	0.241	0.236	0.117	0.523	No	0.580	No	0.575	No	0.640	No	0.697	No	0.692	No
Body-worn Accessory & Airplay	Rear	0.674	0.338	0.238	0.332	0.063	1.012	No	0.912	No	1.006	No	1.075	No	0.975	No	1.069	No
	Front	0.670	0.338	0.238	0.332	0.078	1.008	No	0.908	No	1.002	No	1.086	No	0.986	No	1.080	No
Airplay	Edge 2	0.583	0.338	0.238	0.332		0.921	No	0.821	No	0.915	No						
	Edge 3	1.020	0.338	0.238	0.332		1.358	No	1.258	No	1.352	No						
	Edge 4	0.078	0.338	0.238	0.332		0.416	No	0.316	No	0.410	No						

Conclusion:

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

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12.60. Sum of the SAR for CDMA BC10 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.787	0.184	0.241	0.236	0.116	0.971	No	1.028	No	1.023	No	1.087	No	1.144	No	1.139	No
	Left Tilt	0.596	0.184	0.241	0.236	0.102	0.780	No	0.837	No	0.832	No	0.882	No	0.939	No	0.934	No
	Right Touch	0.872	0.184	0.241	0.236	0.129	1.056	No	1.113	No	1.108	No	1.185	No	1.242	No	1.237	No
	Right Tilt	0.602	0.184	0.241	0.236	0.117	0.786	No	0.843	No	0.838	No	0.903	No	0.960	No	0.955	No
Body-worn Accessory & Airplay	Rear	0.290	0.338	0.238	0.332	0.063	0.628	No	0.528	No	0.622	No	0.691	No	0.591	No	0.685	No
	Front	0.303	0.338	0.238	0.332	0.078	0.641	No	0.541	No	0.635	No	0.719	No	0.619	No	0.713	No
Airplay	Edge 1	0.077	0.338	0.238	0.332		0.415	No	0.315	No	0.409	No						
	Edge 2	0.447	0.338	0.238	0.332		0.785	No	0.685	No	0.779	No						
	Edge 4	0.302	0.338	0.238	0.332		0.640	No	0.540	No	0.634	No						

12.61. Sum of the SAR for CDMA BC10 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.267	0.184	0.241	0.236	0.116	0.451	No	0.508	No	0.503	No	0.567	No	0.624	No	0.619	No
	Left Tilt	0.220	0.184	0.241	0.236	0.102	0.404	No	0.461	No	0.456	No	0.506	No	0.563	No	0.558	No
	Right Touch	0.251	0.184	0.241	0.236	0.129	0.435	No	0.492	No	0.487	No	0.564	No	0.621	No	0.616	No
	Right Tilt	0.201	0.184	0.241	0.236	0.117	0.385	No	0.442	No	0.437	No	0.502	No	0.559	No	0.554	No
Body-worn Accessory & Airplay	Rear	0.345	0.338	0.238	0.332	0.063	0.683	No	0.583	No	0.677	No	0.746	No	0.646	No	0.740	No
	Front	0.365	0.338	0.238	0.332	0.078	0.703	No	0.603	No	0.697	No	0.781	No	0.681	No	0.775	No
Airplay	Edge 2	0.297	0.338	0.238	0.332		0.635	No	0.535	No	0.629	No						
	Edge 3	0.213	0.338	0.238	0.332		0.551	No	0.451	No	0.545	No						
	Edge 4	0.627	0.338	0.238	0.332		0.965	No	0.865	No	0.959	No						

Conclusion:

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

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12.62. Sum of the SAR for LTE Band 2 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 25 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

12.63. Sum of the SAR for LTE Band 2 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 25 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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12.64. Sum of the SAR for LTE Band 4 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.413	0.184	0.241	0.236	0.116	0.597	No	0.654	No	0.649	No	0.713	No	0.770	No	0.765	No
	Left Tilt	0.369	0.184	0.241	0.236	0.102	0.553	No	0.610	No	0.605	No	0.655	No	0.712	No	0.707	No
	Right Touch	1.046	0.184	0.241	0.236	0.129	1.230	No	1.287	No	1.282	No	1.359	No	1.416	No	1.411	No
	Right Tilt	0.710	0.184	0.241	0.236	0.117	0.894	No	0.951	No	0.946	No	1.011	No	1.068	No	1.063	No
Body-worn Accessory & Airplay	Rear	0.694	0.338	0.238	0.332	0.063	1.032	No	0.932	No	1.026	No	1.095	No	0.995	No	1.089	No
	Front	0.705	0.338	0.238	0.332	0.078	1.043	No	0.943	No	1.037	No	1.121	No	1.021	No	1.115	No
Airplay	Edge 1	0.983	0.338	0.238	0.332		1.321	No	1.221	No	1.315	No						
	Edge 2	0.025	0.338	0.238	0.332		0.363	No	0.263	No	0.357	No						
	Edge 4	0.691	0.338	0.238	0.332		1.029	No	0.929	No	1.023	No						

12.65. Sum of the SAR for LTE Band 4 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.232	0.184	0.241	0.236	0.116	0.416	No	0.473	No	0.468	No	0.532	No	0.589	No	0.584	No
	Left Tilt	0.168	0.184	0.241	0.236	0.102	0.352	No	0.409	No	0.404	No	0.454	No	0.511	No	0.506	No
	Right Touch	0.476	0.184	0.241	0.236	0.129	0.660	No	0.717	No	0.712	No	0.789	No	0.846	No	0.841	No
	Right Tilt	0.157	0.184	0.241	0.236	0.117	0.341	No	0.398	No	0.393	No	0.458	No	0.515	No	0.510	No
Body-worn Accessory & Airplay	Rear	0.962	0.338	0.238	0.332	0.063	1.300	No	1.200	No	1.294	No	1.363	No	1.263	No	1.357	No
	Front	1.115	0.338	0.238	0.332	0.078	1.453	No	1.353	No	1.447	No	1.531	No	1.431	No	1.525	No
Airplay	Edge 2	0.695	0.338	0.238	0.332		1.033	No	0.933	No	1.027	No						
	Edge 3	1.108	0.338	0.238	0.332		1.446	No	1.346	No	1.440	No						
	Edge 4	0.037	0.338	0.238	0.332		0.375	No	0.275	No	0.369	No						

Conclusion:

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

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12.66. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

12.67. Sum of the SAR for LTE Band 5 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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12.68. Sum of the SAR for LTE Band 7 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	1.012	0.184	0.241	0.236	0.116	1.196	No	1.253	No	1.248	No	1.312	No	1.369	No	1.364	No
	Left Tilt	0.949	0.184	0.241	0.236	0.102	1.133	No	1.190	No	1.185	No	1.235	No	1.292	No	1.287	No
	Right Touch	0.418	0.184	0.241	0.236	0.129	0.602	No	0.659	No	0.654	No	0.731	No	0.788	No	0.783	No
	Right Tilt	0.466	0.184	0.241	0.236	0.117	0.650	No	0.707	No	0.702	No	0.767	No	0.824	No	0.819	No
Body-worn Accessory & Airplay	Rear	0.927	0.338	0.238	0.332	0.063	1.265	No	1.165	No	1.259	No	1.328	No	1.228	No	1.322	No
	Front	0.650	0.338	0.238	0.332	0.078	0.988	No	0.888	No	0.982	No	1.066	No	0.966	No	1.060	No
Airplay	Edge 1	0.499	0.338	0.238	0.332		0.837	No	0.737	No	0.831	No						
	Edge 2	0.536	0.338	0.238	0.332		0.874	No	0.774	No	0.868	No						
	Edge 4	0.116	0.338	0.238	0.332		0.454	No	0.354	No	0.448	No						

12.69. Sum of the SAR for LTE Band 7 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	1.050	0.184	0.241	0.236	0.116	1.234	No	1.291	No	1.286	No	1.350	No	1.407	No	1.402	No
	Left Tilt	0.201	0.184	0.241	0.236	0.102	0.385	No	0.442	No	0.437	No	0.487	No	0.544	No	0.539	No
	Right Touch	0.484	0.184	0.241	0.236	0.129	0.668	No	0.725	No	0.720	No	0.797	No	0.854	No	0.849	No
	Right Tilt	0.279	0.184	0.241	0.236	0.117	0.463	No	0.520	No	0.515	No	0.580	No	0.637	No	0.632	No
Body-worn Accessory & Airplay	Rear	0.846	0.338	0.238	0.332	0.063	1.184	No	1.084	No	1.178	No	1.247	No	1.147	No	1.241	No
	Front	1.030	0.338	0.238	0.332	0.078	1.368	No	1.268	No	1.362	No	1.446	No	1.346	No	1.440	No
Airplay	Edge 2	0.052	0.338	0.238	0.332		0.390	No	0.290	No	0.384	No						
	Edge 3	0.750	0.338	0.238	0.332		1.088	No	0.988	No	1.082	No						
	Edge 4	0.765	0.338	0.238	0.332		1.103	No	1.003	No	1.097	No						

Conclusion:

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

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12.70. Sum of the SAR for LTE Band 12 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.344	0.184	0.241	0.236	0.116	0.528	No	0.585	No	0.580	No	0.644	No	0.701	No	0.696	No
	Left Tilt	0.326	0.184	0.241	0.236	0.102	0.510	No	0.567	No	0.562	No	0.612	No	0.669	No	0.664	No
	Right Touch	0.446	0.184	0.241	0.236	0.129	0.630	No	0.687	No	0.682	No	0.759	No	0.816	No	0.811	No
	Right Tilt	0.353	0.184	0.241	0.236	0.117	0.537	No	0.594	No	0.589	No	0.654	No	0.711	No	0.706	No
Body-worn Accessory & Airplay	Rear	0.256	0.338	0.238	0.332	0.063	0.594	No	0.494	No	0.588	No	0.657	No	0.557	No	0.651	No
	Front	0.246	0.338	0.238	0.332	0.078	0.584	No	0.484	No	0.578	No	0.662	No	0.562	No	0.656	No
Airplay	Edge 1	0.145	0.338	0.238	0.332		0.483	No	0.383	No	0.477	No						
	Edge 2	0.363	0.338	0.238	0.332		0.701	No	0.601	No	0.695	No						
	Edge 4	0.207	0.338	0.238	0.332		0.545	No	0.445	No	0.539	No						

12.71. Sum of the SAR for LTE Band 12 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.208	0.184	0.241	0.236	0.116	0.392	No	0.449	No	0.444	No	0.508	No	0.565	No	0.560	No
	Left Tilt	0.109	0.184	0.241	0.236	0.102	0.293	No	0.350	No	0.345	No	0.395	No	0.452	No	0.447	No
	Right Touch	0.208	0.184	0.241	0.236	0.129	0.392	No	0.449	No	0.444	No	0.521	No	0.578	No	0.573	No
	Right Tilt	0.114	0.184	0.241	0.236	0.117	0.298	No	0.355	No	0.350	No	0.415	No	0.472	No	0.467	No
Body-worn Accessory & Airplay	Rear	0.414	0.338	0.238	0.332	0.063	0.752	No	0.652	No	0.746	No	0.815	No	0.715	No	0.809	No
	Front	0.514	0.338	0.238	0.332	0.078	0.852	No	0.752	No	0.846	No	0.930	No	0.830	No	0.924	No
Airplay	Edge 2	0.307	0.338	0.238	0.332		0.645	No	0.545	No	0.639	No						
	Edge 3	0.329	0.338	0.238	0.332		0.667	No	0.567	No	0.661	No						
	Edge 4	0.530	0.338	0.238	0.332		0.868	No	0.768	No	0.862	No						

Conclusion:

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

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12.72. Sum of the SAR for LTE Band 13 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.269	0.184	0.241	0.236	0.116	0.453	No	0.510	No	0.505	No	0.569	No	0.626	No	0.621	No
	Left Tilt	0.227	0.184	0.241	0.236	0.102	0.411	No	0.468	No	0.463	No	0.513	No	0.570	No	0.565	No
	Right Touch	0.327	0.184	0.241	0.236	0.129	0.511	No	0.568	No	0.563	No	0.640	No	0.697	No	0.692	No
	Right Tilt	0.258	0.184	0.241	0.236	0.117	0.442	No	0.499	No	0.494	No	0.559	No	0.616	No	0.611	No
Body-worn Accessory & Airplay	Rear	0.222	0.338	0.238	0.332	0.063	0.560	No	0.460	No	0.554	No	0.623	No	0.523	No	0.617	No
	Front	0.181	0.338	0.238	0.332	0.078	0.519	No	0.419	No	0.513	No	0.597	No	0.497	No	0.591	No
Airplay	Edge 1	0.123	0.338	0.238	0.332		0.461	No	0.361	No	0.455	No						
	Edge 2	0.229	0.338	0.238	0.332		0.567	No	0.467	No	0.561	No						
	Edge 4	0.118	0.338	0.238	0.332		0.456	No	0.356	No	0.450	No						

12.73. Sum of the SAR for LTE Band 13 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.310	0.184	0.241	0.236	0.116	0.494	No	0.551	No	0.546	No	0.610	No	0.667	No	0.662	No
	Left Tilt	0.196	0.184	0.241	0.236	0.102	0.380	No	0.437	No	0.432	No	0.482	No	0.539	No	0.534	No
	Right Touch	0.285	0.184	0.241	0.236	0.129	0.469	No	0.526	No	0.521	No	0.598	No	0.655	No	0.650	No
	Right Tilt	0.203	0.184	0.241	0.236	0.117	0.387	No	0.444	No	0.439	No	0.504	No	0.561	No	0.556	No
Body-worn Accessory & Airplay	Rear	0.588	0.338	0.238	0.332	0.063	0.926	No	0.826	No	0.920	No	0.989	No	0.889	No	0.983	No
	Front	0.625	0.338	0.238	0.332	0.078	0.963	No	0.863	No	0.957	No	1.041	No	0.941	No	1.035	No
Airplay	Edge 2	0.393	0.338	0.238	0.332		0.731	No	0.631	No	0.725	No						
	Edge 3	0.469	0.338	0.238	0.332		0.807	No	0.707	No	0.801	No						
	Edge 4	0.712	0.338	0.238	0.332		1.050	No	0.950	No	1.044	No						

Conclusion:

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

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12.74. Sum of the SAR for LTE Band 17 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 12 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

12.75. Sum of the SAR for LTE Band 17 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 12 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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12.76. Sum of the SAR for LTE Band 25 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.412	0.184	0.241	0.236	0.116	0.596	No	0.653	No	0.648	No	0.712	No	0.769	No	0.764	No
	Left Tilt	0.307	0.184	0.241	0.236	0.102	0.491	No	0.548	No	0.543	No	0.593	No	0.650	No	0.645	No
	Right Touch	1.070	0.184	0.241	0.236	0.129	1.254	No	1.311	No	1.306	No	1.383	No	1.440	No	1.435	No
	Right Tilt	1.030	0.184	0.241	0.236	0.117	1.214	No	1.271	No	1.266	No	1.331	No	1.388	No	1.383	No
Body-worn Accessory & Airplay	Rear	0.523	0.338	0.238	0.332	0.063	0.861	No	0.761	No	0.855	No	0.924	No	0.824	No	0.918	No
	Front	0.716	0.338	0.238	0.332	0.078	1.054	No	0.954	No	1.048	No	1.132	No	1.032	No	1.126	No
Airplay	Edge 1	0.701	0.338	0.238	0.332		1.039	No	0.939	No	1.033	No						
	Edge 2	0.054	0.338	0.238	0.332		0.392	No	0.292	No	0.386	No						
	Edge 4	0.568	0.338	0.238	0.332		0.906	No	0.806	No	0.900	No						

12.77. Sum of the SAR for LTE Band 25 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.441	0.184	0.241	0.236	0.116	0.625	No	0.682	No	0.677	No	0.741	No	0.798	No	0.793	No
	Left Tilt	0.240	0.184	0.241	0.236	0.102	0.424	No	0.481	No	0.476	No	0.526	No	0.583	No	0.578	No
	Right Touch	0.836	0.184	0.241	0.236	0.129	1.020	No	1.077	No	1.072	No	1.149	No	1.206	No	1.201	No
	Right Tilt	0.268	0.184	0.241	0.236	0.117	0.452	No	0.509	No	0.504	No	0.569	No	0.626	No	0.621	No
Body-worn Accessory & Airplay	Rear	0.876	0.338	0.238	0.332	0.063	1.214	No	1.114	No	1.208	No	1.277	No	1.177	No	1.271	No
	Front	0.987	0.338	0.238	0.332	0.078	1.325	No	1.225	No	1.319	No	1.403	No	1.303	No	1.397	No
Airplay	Edge 2	0.702	0.338	0.238	0.332		1.040	No	0.940	No	1.034	No						
	Edge 3	1.011	0.338	0.238	0.332		1.349	No	1.249	No	1.343	No						
	Edge 4	0.072	0.338	0.238	0.332		0.410	No	0.310	No	0.404	No						

Conclusion:

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

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12.78. Sum of the SAR for LTE Band 26 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.376	0.184	0.241	0.236	0.116	0.560	No	0.617	No	0.612	No	0.676	No	0.733	No	0.728	No
	Left Tilt	0.316	0.184	0.241	0.236	0.102	0.500	No	0.557	No	0.552	No	0.602	No	0.659	No	0.654	No
	Right Touch	0.420	0.184	0.241	0.236	0.129	0.604	No	0.661	No	0.656	No	0.733	No	0.790	No	0.785	No
	Right Tilt	0.299	0.184	0.241	0.236	0.117	0.483	No	0.540	No	0.535	No	0.600	No	0.657	No	0.652	No
Body-worn Accessory & Airplay	Rear	0.222	0.338	0.238	0.332	0.063	0.560	No	0.460	No	0.554	No	0.623	No	0.523	No	0.617	No
	Front	0.227	0.338	0.238	0.332	0.078	0.565	No	0.465	No	0.559	No	0.643	No	0.543	No	0.637	No
Airplay	Edge 1	0.111	0.338	0.238	0.332		0.449	No	0.349	No	0.443	No						
	Edge 2	0.341	0.338	0.238	0.332		0.679	No	0.579	No	0.673	No						
	Edge 4	0.185	0.338	0.238	0.332		0.523	No	0.423	No	0.517	No						

12.79. Sum of the SAR for LTE Band 26 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.314	0.184	0.241	0.236	0.116	0.498	No	0.555	No	0.550	No	0.614	No	0.671	No	0.666	No
	Left Tilt	0.205	0.184	0.241	0.236	0.102	0.389	No	0.446	No	0.441	No	0.491	No	0.548	No	0.543	No
	Right Touch	0.234	0.184	0.241	0.236	0.129	0.418	No	0.475	No	0.470	No	0.547	No	0.604	No	0.599	No
	Right Tilt	0.200	0.184	0.241	0.236	0.117	0.384	No	0.441	No	0.436	No	0.501	No	0.558	No	0.553	No
Body-worn Accessory & Airplay	Rear	0.619	0.338	0.238	0.332	0.063	0.957	No	0.857	No	0.951	No	1.020	No	0.920	No	1.014	No
	Front	0.544	0.338	0.238	0.332	0.078	0.882	No	0.782	No	0.876	No	0.960	No	0.860	No	0.954	No
Airplay	Edge 2	0.248	0.338	0.238	0.332		0.586	No	0.486	No	0.580	No						
	Edge 3	0.335	0.338	0.238	0.332		0.673	No	0.573	No	0.667	No						
	Edge 4	0.669	0.338	0.238	0.332		1.007	No	0.907	No	1.001	No						

Conclusion:

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

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12.80. Sum of the SAR for LTE Band 27 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, similar maximum tune-up limit and same channel bandwidth.

12.81. Sum of the SAR for LTE Band 27 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

Covered by LTE Band 26 due to similar frequency range, similar maximum tune-up limit and same channel bandwidth.

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12.82. Sum of the SAR for LTE Band 30 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.436	0.184	0.241	0.236	0.116	0.620	No	0.677	No	0.672	No	0.736	No	0.793	No	0.788	No
	Left Tilt	0.537	0.184	0.241	0.236	0.102	0.721	No	0.778	No	0.773	No	0.823	No	0.880	No	0.875	No
	Right Touch	1.090	0.184	0.241	0.236	0.129	1.274	No	1.331	No	1.326	No	1.403	No	1.460	No	1.455	No
	Right Tilt	1.090	0.184	0.241	0.236	0.117	1.274	No	1.331	No	1.326	No	1.391	No	1.448	No	1.443	No
Body-worn Accessory & Airplay	Rear	0.973	0.338	0.238	0.332	0.063	1.311	No	1.211	No	1.305	No	1.374	No	1.274	No	1.368	No
	Front	0.990	0.338	0.238	0.332	0.078	1.328	No	1.228	No	1.322	No	1.406	No	1.306	No	1.400	No
Airplay	Edge 1	0.622	0.338	0.238	0.332		0.960	No	0.860	No	0.954	No						
	Edge 2	0.229	0.338	0.238	0.332		0.567	No	0.467	No	0.561	No						
	Edge 4	0.812	0.338	0.238	0.332		1.150	No	1.050	No	1.144	No						

12.83. Sum of the SAR for LTE Band 30 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.465	0.184	0.241	0.236	0.116	0.649	No	0.706	No	0.701	No	0.765	No	0.822	No	0.817	No
	Left Tilt	0.307	0.184	0.241	0.236	0.102	0.491	No	0.548	No	0.543	No	0.593	No	0.650	No	0.645	No
	Right Touch	0.835	0.184	0.241	0.236	0.129	1.019	No	1.076	No	1.071	No	1.148	No	1.205	No	1.200	No
	Right Tilt	0.377	0.184	0.241	0.236	0.117	0.561	No	0.618	No	0.613	No	0.678	No	0.735	No	0.730	No
Body-worn Accessory & Airplay	Rear	0.395	0.338	0.238	0.332	0.063	0.733	No	0.633	No	0.727	No	0.796	No	0.696	No	0.790	No
	Front	0.777	0.338	0.238	0.332	0.078	1.115	No	1.015	No	1.109	No	1.193	No	1.093	No	1.187	No
Airplay	Edge 2	0.396	0.338	0.238	0.332		0.734	No	0.634	No	0.728	No						
	Edge 3	1.010	0.338	0.238	0.332		1.348	No	1.248	No	1.342	No						
	Edge 4	0.199	0.338	0.238	0.332		0.537	No	0.437	No	0.531	No						

Conclusion:

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

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12.84. Sum of the SAR for LTE Band 41 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.740	0.184	0.241	0.236	0.116	0.924	No	0.981	No	0.976	No	1.040	No	1.097	No	1.092	No
	Left Tilt	0.704	0.184	0.241	0.236	0.102	0.888	No	0.945	No	0.940	No	0.990	No	1.047	No	1.042	No
	Right Touch	0.356	0.184	0.241	0.236	0.129	0.540	No	0.597	No	0.592	No	0.669	No	0.726	No	0.721	No
	Right Tilt	0.381	0.184	0.241	0.236	0.117	0.565	No	0.622	No	0.617	No	0.682	No	0.739	No	0.734	No
Body-worn Accessory & Airplay	Rear	0.927	0.338	0.238	0.332	0.063	1.265	No	1.165	No	1.259	No	1.328	No	1.228	No	1.322	No
	Front	0.596	0.338	0.238	0.332	0.078	0.934	No	0.834	No	0.928	No	1.012	No	0.912	No	1.006	No
Airplay	Edge 1	0.537	0.338	0.238	0.332		0.875	No	0.775	No	0.869	No						
	Edge 2	0.595	0.338	0.238	0.332		0.933	No	0.833	No	0.927	No						
	Edge 4	0.161	0.338	0.238	0.332		0.499	No	0.399	No	0.493	No						

12.85. Sum of the SAR for LTE Band 41 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.431	0.184	0.241	0.236	0.116	0.615	No	0.672	No	0.667	No	0.731	No	0.788	No	0.783	No
	Left Tilt	0.079	0.184	0.241	0.236	0.102	0.263	No	0.320	No	0.315	No	0.365	No	0.422	No	0.417	No
	Right Touch	0.269	0.184	0.241	0.236	0.129	0.453	No	0.510	No	0.505	No	0.582	No	0.639	No	0.634	No
	Right Tilt	0.120	0.184	0.241	0.236	0.117	0.304	No	0.361	No	0.356	No	0.421	No	0.478	No	0.473	No
Body-worn Accessory & Airplay	Rear	1.131	0.338	0.238	0.332	0.063	1.469	No	1.369	No	1.463	No	1.532	No	1.432	No	1.526	No
	Front	1.142	0.338	0.238	0.332	0.078	1.480	No	1.380	No	1.474	No	1.558	No	1.458	No	1.552	No
Airplay	Edge 2	0.026	0.338	0.238	0.332		0.364	No	0.264	No	0.358	No						
	Edge 3	0.668	0.338	0.238	0.332		1.006	No	0.906	No	1.000	No						
	Edge 4	0.674	0.338	0.238	0.332		1.012	No	0.912	No	1.006	No						

Conclusion:

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

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12.86. Sum of the SAR for LTE-2CA Band 7 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.920	0.184	0.241	0.236	0.116	1036	No	0.300	No	0.357	No	0.352	No	1277	No	1272	No

12.87. Sum of the SAR for LTE-2CA Band 7 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	0.921	0.338	0.238	0.332	0.078	0.999	No	0.416	No	0.316	No	0.410	No	1237	No	1331	No

Conclusion:

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

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12.88. Sum of the SAR for LTE-2CA Band 41 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Rear	0.854	0.338	0.238	0.332	0.063	0.917	No	0.401	No	0.301	No	0.395	No	1.155	No	1.249	No

12.89. Sum of the SAR for LTE-2CA Band 41 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	1.070	0.338	0.238	0.332	0.078	1.148	No	0.416	No	0.316	No	0.410	No	1.386	No	1.480	No

Conclusion:

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

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Appendixes

Refer to separated files for the following appendixes.

16U23310-S1V2 SAR_App A Setup Photos (STC_180days)

16U23310-S1V3 SAR_App B System Check Plots

16U23310-S1V4 SAR_App C Highest Test Plots

16U23310-S1V1 SAR_App D Tissue Ingredients

16U23310-S1V1 SAR_App E Probe Cal. Certificates

16U23310-S1V1 SAR_App F Dipole Cal. Certificates

END OF REPORT

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