SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2013

For
Cellular Phone with Bluetooth and WLAN Radios

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Revision History

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1. Attestation of Test Results

Applicant Name		APPLE, INC.			
FCC ID		BCG-E3085A			
Model Name		A1660, A1780			
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		1.10	1.17	1.19	0.69
Body-worn		1.14	1.03	1.20	0.34
Hotspot/Airplay		1.16	1.03	1.20	N/A
Simultaneous TX	Head	1.49	1.42	1.49	1.49
	Body-worn	1.56	1.54	1.56	1.56
	Hotspot/ Airplay	1.56	1.56	1.56	N/A
Date Tested		6/15/2016 to 7/19/2016; Additional LTE CA testing: 8/15/2016 to 8/17/2016 Additional Bluetooth testing: 8/23/2016 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.	Ray Su 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 u sed:

- 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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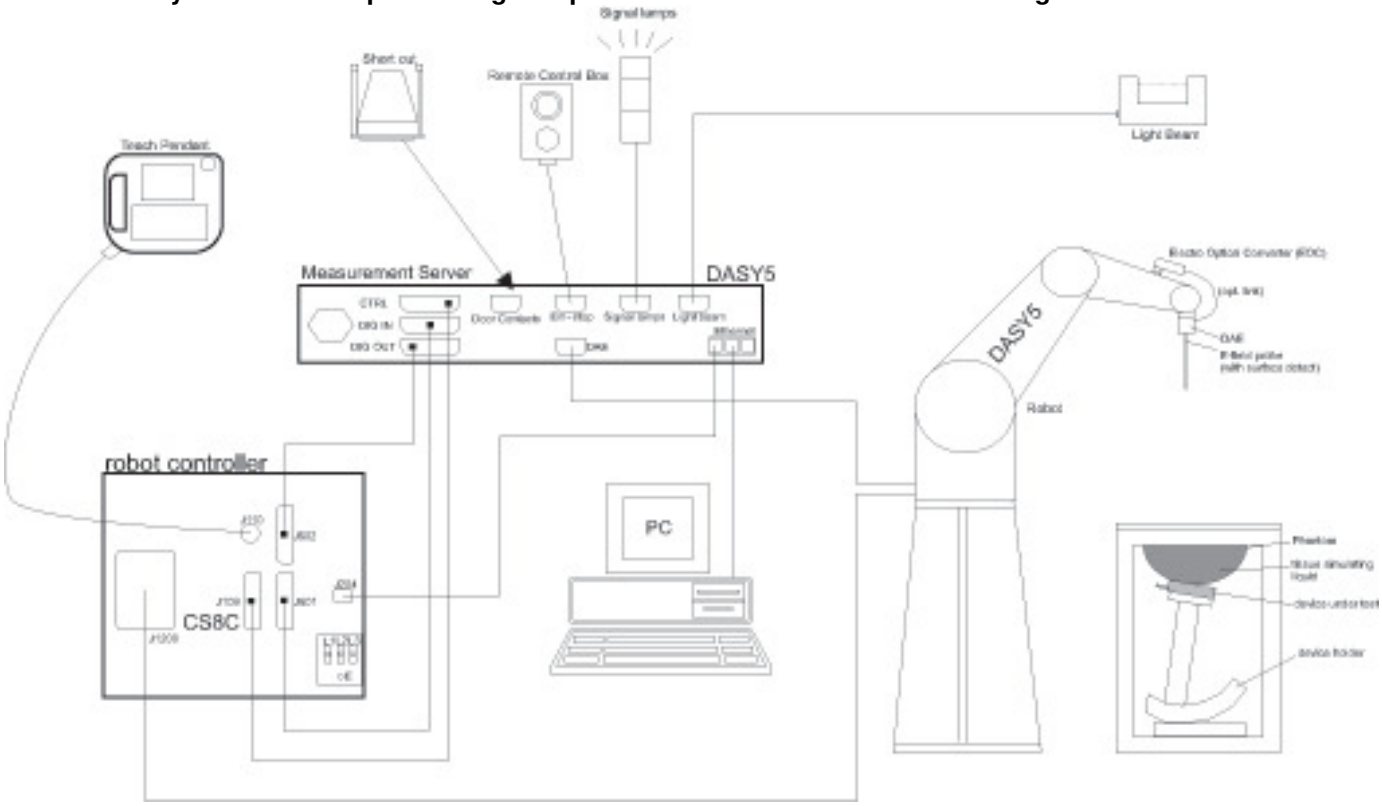
4. SAR Measurement System & Test Equipment

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	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

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

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

Step 4: Power drift measurement

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

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 A1660 & A1780 is a mobile phones 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. The worst case configurations for each operation mode and frequency band are repeated for Variant 2. It is confirmed that Variant 1 represents the worst case.

Device Dimension	Overall (Length x Width): 138.1 mm x 67 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 was considered and used 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 Pow er (dBm)							
		UAT				LAT			
		Head		Body		Head		Body	
		Burst	Frame	Burst	Frame	Burst	Frame	Burst	Frame
GSM850	Voice/GPRS (1 slot)	30.5	21.5	30.5	21.5	33.5	24.5	33.5	24.5
	GPRS 2 slots	29.5	23.5	29.5	23.5	32.5	26.5	32.5	26.5
	EGPRS 1 slot	24.7	15.7	24.7	15.7	29.0	20.0	29.0	20.0
	EGPRS 2 slots	23.7	17.7	23.7	17.7	28.0	22.0	28.0	22.0
GSM1900	Voice/GPRS (1 slot)	25.2	16.2	25.2	16.2	30.5	21.5	28.5	19.5
	GPRS 2 slots	24.2	18.2	24.2	18.2	29.5	23.5	25.5	19.5
	EGPRS 1 slot	22.5	13.5	22.5	13.5	28.0	19.0	28.0	19.0
	EGPRS 2 slots	21.5	15.5	21.5	15.5	27.0	21.0	25.5	19.5

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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	23.0	23.0	25.0	25.0
	HSDPA	23.0	23.0	25.0	25.0
	HSUPA	23.0	23.0	25.0	25.0
	DC-HSDPA	23.0	23.0	25.0	25.0
	HSPA+	23.0	23.0	25.0	25.0
W-CDMA Band IV	R99	18.0	21.0	25.2	19.7
	HSDPA	18.0	21.0	25.2	19.7
	HSUPA	18.0	21.0	25.2	19.7
	DC-HSDPA	18.0	21.0	25.2	19.7
	HSPA+	18.0	21.0	25.2	19.7
W-CDMA Band II	R99	18.5	21.0	25.2	19.5
	HSDPA	18.5	21.0	25.2	19.5
	HSUPA	18.5	21.0	25.2	19.5
	DC-HSDPA	18.5	21.0	25.2	19.5
	HSPA+	18.5	21.0	25.2	19.5
CDMA BC0	1xRTT	23.5	23.5	25.0	25.0
	1xAdvanced	23.5	23.5	25.0	25.0
	1xEVDO Rel. 0	23.5	23.5	25.0	25.0
	1xEVDO Rev. A	23.5	23.5	25.0	25.0
CDMA BC1	1xRTT	18.5	21.0	25.2	19.5
	1xAdvanced	18.5	21.0	25.2	19.5
	1xEVDO Rel. 0	18.5	21.0	25.2	19.5
	1xEVDO Rev. A	18.5	21.0	25.2	19.5
CDMA BC10	1xRTT	23.5	23.5	25.0	25.0
	1xAdvanced	23.5	23.5	25.0	25.0
	1xEVDO Rel. 0	23.5	23.5	25.0	25.0
	1xEVDO Rev. A	23.5	23.5	25.0	25.0
LTE Band 2	QPSK	18.5	21.0	24.5	19.5
LTE Band 4	QPSK	18.0	21.0	24.5	19.7
LTE Band 5	QPSK	22.5	22.5	24.0	24.0
LTE Band 7	QPSK	15.3	18.7	23.5	17.7
LTE Band 12	QPSK	23.5	23.5	24.5	24.5
LTE Band 13	QPSK	23.5	23.5	24.5	24.5
LTE Band 17	QPSK	23.5	23.5	24.5	24.5
LTE Band 25	QPSK	18.5	21.0	24.5	19.5
LTE Band 26	QPSK	22.5	22.5	24.0	24.0
LTE Band 27	QPSK	22.5	22.5	24.0	24.0
LTE Band 30	QPSK	15.5	17.5	22.3	18.3
LTE Band 41	QPSK	17.5	20.5	22.5	19.5
LTE-2CA Band 7	QPSK	15.3	18.7	23.0	17.7
LTE-2CA Band 41	QPSK	17.5	18.0	22.5	19.5
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	10.3	18.0	13.3	13.0	Yes
			6	2437	10.3	18.0	13.3	13.0	
			11	2462	10.3	18.0	13.3	13.0	
			12	2467	10.3	18.0	13.3	13.0	
			13	2472	10.3	17.0	13.3	13.0	
	802.11g	1 Tx	1	2412	10.3	16.0	13.3	13.0	No
			2	2417	10.3	18.0	13.3	13.0	
			3	2422	10.3	18.0	13.3	13.0	
			6	2437	10.3	18.0	13.3	13.0	
			9	2452	10.3	18.0	13.3	13.0	
			10	2457	10.3	18.0	13.3	13.0	
			11	2462	10.3	15.0	13.3	13.0	
			12	2467	10.3	14.0	13.3	13.0	
			13	2472	5.0	5.0	5.0	5.0	
	802.11n	1 Tx HT20	1	2412	10.3	16.0	13.3	13.0	No
			2	2417	10.3	18.0	13.3	13.0	
			3	2422	10.3	18.0	13.3	13.0	
			6	2437	10.3	18.0	13.3	13.0	
			9	2452	10.3	18.0	13.3	13.0	
			10	2457	10.3	18.0	13.3	13.0	
			11	2462	10.3	15.0	13.3	13.0	
			12	2467	10.3	14.0	13.3	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	1 Tx	36	5180	6.0	17.5	13.8	11.0	No
			40	5200	6.0	19.0	13.8	11.0	
			44	5220	6.0	19.0	13.8	11.0	
			48	5240	6.0	19.0	13.8	11.0	
	802.11n	1 Tx HT20	36	5180	6.0	17.5	13.8	11.0	No
			40	5200	6.0	19.0	13.8	11.0	
			44	5220	6.0	19.0	13.8	11.0	
			48	5240	6.0	19.0	13.8	11.0	
		1 Tx HT40	38	5190	6.0	16.5	13.8	11.0	No
			46	5230	6.0	19.0	13.8	11.0	
	802.11ac	1 Tx VHT20	36	5180	6.0	17.5	13.8	11.0	No
			40	5200	6.0	19.0	13.8	11.0	
			44	5220	6.0	19.0	13.8	11.0	
			48	5240	6.0	19.0	13.8	11.0	
		1 Tx VHT40	38	5190	6.0	16.5	13.8	11.0	No
			46	5230	6.0	19.0	13.8	11.0	
		1 Tx VHT80	42	5210	6.0	15.5	13.8	11.0	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	5.0	19.0	13.3	10.5	No
			56	5280	5.0	19.0	13.3	10.5	
			60	5300	5.0	19.0	13.3	10.5	
			64	5320	5.0	16.0	13.3	10.5	
	802.11n	1 Tx HT20	52	5260	5.0	19.0	13.3	10.5	No
			56	5280	5.0	19.0	13.3	10.5	
			60	5300	5.0	19.0	13.3	10.5	
			64	5320	5.0	16.0	13.3	10.5	
		1 Tx HT40	54	5270	5.0	19.0	13.3	10.5	Yes
			62	5310	5.0	15.0	13.3	10.5	
	802.11ac	1 Tx VHT20	52	5260	5.0	19.0	13.3	10.5	No
			56	5280	5.0	19.0	13.3	10.5	
			60	5300	5.0	19.0	13.3	10.5	
			64	5320	5.0	16.0	13.3	10.5	
		1 Tx VHT40	54	5270	5.0	19.0	13.3	10.5	No
			62	5310	5.0	15.0	13.3	10.5	
		1 Tx VHT80	58	5290	5.0	14.0	13.3	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 Pow er (dBm)				SAR Test (Yes/No)
					Head		Body		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	1 Tx	100	5500	3.3	16.0	10.3	9.0	No
			104	5520	3.3	19.0	10.3	9.0	
			108	5540	3.3	19.0	10.3	9.0	
			112	5560	3.3	19.0	10.3	9.0	
			116	5580	3.3	19.0	10.3	9.0	
			120	5600	3.3	19.0	10.3	9.0	
			124	5620	3.3	19.0	10.3	9.0	
			128	5640	3.3	19.0	10.3	9.0	
			132	5660	3.3	19.0	10.3	9.0	
			136	5680	3.3	19.0	10.3	9.0	
			140	5700	3.3	16.5	10.3	9.0	
			144	5720	3.3	19.0	10.3	9.0	
	802.11n	1 Tx HT20	100	5500	3.3	16.0	10.3	9.0	No
			104	5520	3.3	19.0	10.3	9.0	
			108	5540	3.3	19.0	10.3	9.0	
			112	5560	3.3	19.0	10.3	9.0	
			116	5580	3.3	19.0	10.3	9.0	
			120	5600	3.3	19.0	10.3	9.0	
			124	5620	3.3	19.0	10.3	9.0	
			128	5640	3.3	19.0	10.3	9.0	
			132	5660	3.3	19.0	10.3	9.0	
			136	5680	3.3	19.0	10.3	9.0	
			140	5700	3.3	16.5	10.3	9.0	
			144	5720	3.3	19.0	10.3	9.0	
		1 Tx HT40	102	5510	3.3	15.0	10.3	9.0	No
			110	5550	3.3	19.0	10.3	9.0	
			118	5590	3.3	19.0	10.3	9.0	
			126	5630	3.3	19.0	10.3	9.0	
			134	5670	3.3	17.5	10.3	9.0	
			142	5710	3.3	19.0	10.3	9.0	
	802.11ac	1 Tx VHT20	100	5500	3.3	16.0	10.3	9.0	No
			104	5520	3.3	19.0	10.3	9.0	
			108	5540	3.3	19.0	10.3	9.0	
			112	5560	3.3	19.0	10.3	9.0	
			116	5580	3.3	19.0	10.3	9.0	
			120	5600	3.3	19.0	10.3	9.0	
			124	5620	3.3	19.0	10.3	9.0	
			128	5640	3.3	19.0	10.3	9.0	
			132	5660	3.3	19.0	10.3	9.0	
			136	5680	3.3	19.0	10.3	9.0	
			140	5700	3.3	16.5	10.3	9.0	
			144	5720	3.3	19.0	10.3	9.0	
		1 Tx VHT40	102	5510	3.3	15.0	10.3	9.0	No
			110	5550	3.3	19.0	10.3	9.0	
			118	5590	3.3	19.0	10.3	9.0	
			126	5630	3.3	19.0	10.3	9.0	
			134	5670	3.3	17.5	10.3	9.0	
			142	5710	3.3	19.0	10.3	9.0	
		1 Tx VHT80	106	5530	3.3	15.0	10.3	9.0	Yes
			122	5610	3.3	19.0	10.3	9.0	
			138	5690	3.3	19.0	10.3	9.0	

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 Pow er (dBm)				SAR Test (Yes/No)
					Head		Body		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	1 Tx	149	5745	4.3	19.0	11.5	10.0	No
			153	5765	4.3	19.0	11.5	10.0	
			157	5785	4.3	19.0	11.5	10.0	
			161	5805	4.3	19.0	11.5	10.0	
			165	5825	4.3	19.0	11.5	10.0	
	802.11n	1 Tx HT20	149	5745	4.3	19.0	11.5	10.0	No
			153	5765	4.3	19.0	11.5	10.0	
			157	5785	4.3	19.0	11.5	10.0	
			161	5805	4.3	19.0	11.5	10.0	
			165	5825	4.3	19.0	11.5	10.0	
		1 Tx HT40	151	5755	4.3	19.0	11.5	10.0	No
			159	5795	4.3	19.0	11.5	10.0	
	802.11ac	1 Tx VHT20	149	5745	4.3	19.0	11.5	10.0	No
			153	5765	4.3	19.0	11.5	10.0	
			157	5785	4.3	19.0	11.5	10.0	
			161	5805	4.3	19.0	11.5	10.0	
			165	5825	4.3	19.0	11.5	10.0	
		1 Tx VHT40	151	5755	4.3	19.0	11.5	10.0	No
			159	5795	4.3	19.0	11.5	10.0	
		1 Tx VHT80	155	5775	4.3	19.0	11.5	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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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	10.3	15.5	13.3	13.0	Yes
			2	2417	10.3	18.0	13.3	13.0	
			3	2422	10.3	18.0	13.3	13.0	
			6	2437	10.3	18.0	13.3	13.0	
			9	2452	10.3	18.0	13.3	13.0	
			10	2457	10.3	17.5	13.3	13.0	
			11	2462	10.3	14.5	13.3	13.0	
			12	2467	10.3	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	10.3	15.5	13.3	13.0	No
			2	2417	10.3	18.0	13.3	13.0	
			3	2422	10.3	18.0	13.3	13.0	
			6	2437	10.3	18.0	13.3	13.0	
			9	2452	10.3	18.0	13.3	13.0	
			10	2457	10.3	17.5	13.3	13.0	
			11	2462	10.3	14.5	13.3	13.0	
			12	2467	10.3	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	13.8	11.0	No
			40	5200	6.0	17.0	13.8	11.0	
			44	5220	6.0	17.0	13.8	11.0	
			48	5240	6.0	17.0	13.8	11.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	6.0	17.0	13.8	11.0	No
			40	5200	6.0	17.0	13.8	11.0	
			44	5220	6.0	17.0	13.8	11.0	
			48	5240	6.0	17.0	13.8	11.0	
		2 Tx HT40 CDD/STBC/SDM	38	5190	6.0	14.5	13.8	11.0	Yes
			46	5230	6.0	19.0	13.8	11.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	6.0	17.0	13.8	11.0	No
			40	5200	6.0	17.0	13.8	11.0	
			44	5220	6.0	17.0	13.8	11.0	
			48	5240	6.0	17.0	13.8	11.0	
		2 Tx VHT40 CDD/STBC/SDM	38	5190	6.0	14.5	13.8	11.0	No
			46	5230	6.0	19.0	13.8	11.0	
		2 Tx VHT80 CDD/STBC/SDM	42	5210	6.0	15.0	13.8	11.0	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	5.0	17.0	13.3	10.5	No
			56	5280	5.0	17.0	13.3	10.5	
			60	5300	5.0	17.0	13.3	10.5	
			64	5320	5.0	16.0	13.3	10.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	5.0	17.0	13.3	10.5	No
			56	5280	5.0	17.0	13.3	10.5	
			60	5300	5.0	17.0	13.3	10.5	
			64	5320	5.0	16.0	13.3	10.5	
		2 Tx HT40 CDD/STBC/SDM	54	5270	5.0	19.0	13.3	10.5	No
			62	5310	5.0	14.5	13.3	10.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	5.0	17.0	13.3	10.5	No
			56	5280	5.0	17.0	13.3	10.5	
			60	5300	5.0	17.0	13.3	10.5	
			64	5320	5.0	16.0	13.3	10.5	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	5.0	19.0	13.3	10.5	No
			62	5310	5.0	14.5	13.3	10.5	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	5.0	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	3.3	16.0	10.3	9.0	No
			104	5520	3.3	17.0	10.3	9.0	
			108	5540	3.3	17.0	10.3	9.0	
			112	5560	3.3	17.0	10.3	9.0	
			116	5580	3.3	17.0	10.3	9.0	
			120	5600	3.3	17.0	10.3	9.0	
			124	5620	3.3	17.0	10.3	9.0	
			128	5640	3.3	17.0	10.3	9.0	
			132	5660	3.3	17.0	10.3	9.0	
			136	5680	3.3	17.0	10.3	9.0	
			140	5700	3.3	16.5	10.3	9.0	
			144	5720	3.3	17.0	10.3	9.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	3.3	16.0	10.3	9.0	No
			104	5520	3.3	17.0	10.3	9.0	
			108	5540	3.3	17.0	10.3	9.0	
			112	5560	3.3	17.0	10.3	9.0	
			116	5580	3.3	17.0	10.3	9.0	
			120	5600	3.3	17.0	10.3	9.0	
			124	5620	3.3	17.0	10.3	9.0	
			128	5640	3.3	17.0	10.3	9.0	
			132	5660	3.3	17.0	10.3	9.0	
			136	5680	3.3	17.0	10.3	9.0	
			140	5700	3.3	16.5	10.3	9.0	
			144	5720	3.3	17.0	10.3	9.0	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	3.3	15.0	10.3	9.0	No
			110	5550	3.3	19.0	10.3	9.0	
			118	5590	3.3	19.0	10.3	9.0	
			126	5630	3.3	19.0	10.3	9.0	
			134	5670	3.3	17.5	10.3	9.0	
			142	5710	3.3	19.0	10.3	9.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	3.3	16.0	10.3	9.0	No
			104	5520	3.3	17.0	10.3	9.0	
			108	5540	3.3	17.0	10.3	9.0	
			112	5560	3.3	17.0	10.3	9.0	
			116	5580	3.3	17.0	10.3	9.0	
			120	5600	3.3	17.0	10.3	9.0	
			124	5620	3.3	17.0	10.3	9.0	
			128	5640	3.3	17.0	10.3	9.0	
			132	5660	3.3	17.0	10.3	9.0	
			136	5680	3.3	17.0	10.3	9.0	
			140	5700	3.3	16.5	10.3	9.0	
			144	5720	3.3	17.0	10.3	9.0	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	3.3	15.0	10.3	9.0	No
			110	5550	3.3	19.0	10.3	9.0	
			118	5590	3.3	19.0	10.3	9.0	
			126	5630	3.3	19.0	10.3	9.0	
			134	5670	3.3	17.5	10.3	9.0	
			142	5710	3.3	19.0	10.3	9.0	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	3.3	14.0	10.3	9.0	Yes
			122	5610	3.3	19.0	10.3	9.0	
			138	5690	3.3	19.0	10.3	9.0	

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	4.3	19.0	11.5	10.0	No
			153	5765	4.3	19.0	11.5	10.0	
			157	5785	4.3	19.0	11.5	10.0	
			161	5805	4.3	19.0	11.5	10.0	
			165	5825	4.3	19.0	11.5	10.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	4.3	19.0	11.5	10.0	No
			153	5765	4.3	19.0	11.5	10.0	
			157	5785	4.3	19.0	11.5	10.0	
			161	5805	4.3	19.0	11.5	10.0	
			165	5825	4.3	19.0	11.5	10.0	
		2 Tx HT40 CDD/STBC/SDM	151	5755	4.3	19.0	11.5	10.0	Yes
			159	5795	4.3	19.0	11.5	10.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	4.3	19.0	11.5	10.0	No
			153	5765	4.3	19.0	11.5	10.0	
			157	5785	4.3	19.0	11.5	10.0	
			161	5805	4.3	19.0	11.5	10.0	
			165	5825	4.3	19.0	11.5	10.0	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	4.3	19.0	11.5	10.0	No
			159	5795	4.3	19.0	11.5	10.0	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	4.3	18.5	11.5	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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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	15.5	19.0	17.5	19.0	Yes
			6	2437	15.5	19.0	17.5	19.0	
			11	2462	15.5	19.0	17.5	19.0	
			12	2467	15.5	18.5	17.5	18.5	
			13	2472	15.5	17.0	17.0	17.0	
	802.11g	1 Tx	1	2412	15.5	16.0	16.0	16.0	No
			2	2417	15.5	18.0	17.5	18.0	
			3	2422	15.5	19.0	17.5	19.0	
			6	2437	15.5	19.0	17.5	19.0	
			9	2452	15.5	19.0	17.5	19.0	
			10	2457	15.5	19.0	17.5	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	15.5	16.0	16.0	16.0	No
			2	2417	15.5	18.0	17.5	18.0	
			3	2422	15.5	19.0	17.5	19.0	
			6	2437	15.5	19.0	17.5	19.0	
			9	2452	15.5	19.0	17.5	19.0	
			10	2457	15.5	19.0	17.5	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	17.5	No
			40	5200	13.8	19.0	19.0	18.0	
			44	5220	13.8	19.0	19.0	18.0	
			48	5240	13.8	19.0	19.0	18.0	
	802.11n	1 Tx HT20	36	5180	13.8	17.5	17.5	17.5	No
			40	5200	13.8	19.0	19.0	18.0	
			44	5220	13.8	19.0	19.0	18.0	
			48	5240	13.8	19.0	19.0	18.0	
		1 Tx HT40	38	5190	13.8	16.5	16.5	16.5	Yes
			46	5230	13.8	19.0	19.0	18.0	
	802.11ac	1 Tx VHT20	36	5180	13.8	17.5	17.5	17.5	No
			40	5200	13.8	19.0	19.0	18.0	
			44	5220	13.8	19.0	19.0	18.0	
			48	5240	13.8	19.0	19.0	18.0	
		1 Tx VHT40	38	5190	13.8	16.5	16.5	16.5	No
			46	5230	13.8	19.0	19.0	18.0	
		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 Pow er (dBm)				SAR Test (Yes/No)
					Head		Body		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	1 Tx	52	5260	12.8	19.0	18.8	17.3	No
			56	5280	12.8	19.0	18.8	17.3	
			60	5300	12.8	19.0	18.8	17.3	
			64	5320	12.8	16.0	16.0	16.0	
	802.11n	1 Tx HT20	52	5260	12.8	19.0	18.8	17.3	No
			56	5280	12.8	19.0	18.8	17.3	
			60	5300	12.8	19.0	18.8	17.3	
			64	5320	12.8	16.0	16.0	16.0	
		1 Tx HT40	54	5270	12.8	19.0	18.8	17.3	Yes
			62	5310	12.8	15.0	15.0	15.0	
	802.11ac	1 Tx VHT20	52	5260	12.8	19.0	18.8	17.3	No
			56	5280	12.8	19.0	18.8	17.3	
			60	5300	12.8	19.0	18.8	17.3	
			64	5320	12.8	16.0	16.0	16.0	
		1 Tx VHT40	54	5270	12.8	19.0	18.8	17.3	No
			62	5310	12.8	15.0	15.0	15.0	
		1 Tx VHT80	58	5290	12.8	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	10.8	16.0	15.5	16.0	No
			104	5520	10.8	19.0	15.5	16.0	
			108	5540	10.8	19.0	15.5	16.0	
			112	5560	10.8	19.0	15.5	16.0	
			116	5580	10.8	19.0	15.5	16.0	
			120	5600	10.8	19.0	15.5	16.0	
			124	5620	10.8	19.0	15.5	16.0	
			128	5640	10.8	19.0	15.5	16.0	
			132	5660	10.8	19.0	15.5	16.0	
			136	5680	10.8	19.0	15.5	16.0	
			140	5700	10.8	16.5	15.5	16.0	
			144	5720	10.8	19.0	15.5	16.0	
	802.11n	1 Tx HT20	100	5500	10.8	16.0	15.5	16.0	No
			104	5520	10.8	19.0	15.5	16.0	
			108	5540	10.8	19.0	15.5	16.0	
			112	5560	10.8	19.0	15.5	16.0	
			116	5580	10.8	19.0	15.5	16.0	
			120	5600	10.8	19.0	15.5	16.0	
			124	5620	10.8	19.0	15.5	16.0	
			128	5640	10.8	19.0	15.5	16.0	
			132	5660	10.8	19.0	15.5	16.0	
			136	5680	10.8	19.0	15.5	16.0	
			140	5700	10.8	16.5	15.5	16.0	
			144	5720	10.8	19.0	15.5	16.0	
		1 Tx HT40	102	5510	10.8	15.0	15.0	15.0	No
			110	5550	10.8	19.0	15.5	16.0	
			118	5590	10.8	19.0	15.5	16.0	
			126	5630	10.8	19.0	15.5	16.0	
			134	5670	10.8	17.5	15.5	16.0	
			142	5710	10.8	19.0	15.5	16.0	
	802.11ac	1 Tx VHT20	100	5500	10.8	16.0	15.5	16.0	No
			104	5520	10.8	19.0	15.5	16.0	
			108	5540	10.8	19.0	15.5	16.0	
			112	5560	10.8	19.0	15.5	16.0	
			116	5580	10.8	19.0	15.5	16.0	
			120	5600	10.8	19.0	15.5	16.0	
			124	5620	10.8	19.0	15.5	16.0	
			128	5640	10.8	19.0	15.5	16.0	
			132	5660	10.8	19.0	15.5	16.0	
			136	5680	10.8	19.0	15.5	16.0	
			140	5700	10.8	16.5	15.5	16.0	
			144	5720	10.8	19.0	15.5	16.0	
		1 Tx VHT40	102	5510	10.8	15.0	15.0	15.0	No
			110	5550	10.8	19.0	15.5	16.0	
			118	5590	10.8	19.0	15.5	16.0	
			126	5630	10.8	19.0	15.5	16.0	
			134	5670	10.8	17.5	15.5	16.0	
			142	5710	10.8	19.0	15.5	16.0	
		1 Tx VHT80	106	5530	10.8	15.0	15.0	15.0	Yes
			122	5610	10.8	19.0	15.5	16.0	
			138	5690	10.8	19.0	15.5	16.0	

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	12.0	19.0	16.8	17.0	No
			153	5765	12.0	19.0	16.8	17.0	
			157	5785	12.0	19.0	16.8	17.0	
			161	5805	12.0	19.0	16.8	17.0	
			165	5825	12.0	19.0	16.8	17.0	
	802.11n	1 Tx HT20	149	5745	12.0	19.0	16.8	17.0	No
			153	5765	12.0	19.0	16.8	17.0	
			157	5785	12.0	19.0	16.8	17.0	
			161	5805	12.0	19.0	16.8	17.0	
			165	5825	12.0	19.0	16.8	17.0	
		1 Tx HT40	151	5755	12.0	19.0	16.8	17.0	No
			159	5795	12.0	19.0	16.8	17.0	
	802.11ac	1 Tx VHT20	149	5745	12.0	19.0	16.8	17.0	No
			153	5765	12.0	19.0	16.8	17.0	
			157	5785	12.0	19.0	16.8	17.0	
			161	5805	12.0	19.0	16.8	17.0	
			165	5825	12.0	19.0	16.8	17.0	
		1 Tx VHT40	151	5755	12.0	19.0	16.8	17.0	No
			159	5795	12.0	19.0	16.8	17.0	
		1 Tx VHT80	155	5775	12.0	19.0	16.8	17.0	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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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	15.5	19.0	17.5	18.0	
			3	2422	15.5	19.0	17.5	19.0	
			6	2437	15.5	19.0	17.5	19.0	
			9	2452	15.5	19.0	17.5	19.0	
			10	2457	15.5	17.5	17.5	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	15.5	19.0	17.5	18.0	
			3	2422	15.5	19.0	17.5	19.0	
			6	2437	15.5	19.0	17.5	19.0	
			9	2452	15.5	19.0	17.5	19.0	
			10	2457	15.5	17.5	17.5	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	17.0	No
			40	5200	13.8	17.0	17.0	17.0	
			44	5220	13.8	17.0	17.0	17.0	
			48	5240	13.8	17.0	17.0	17.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	13.8	17.0	17.0	17.0	No
			40	5200	13.8	17.0	17.0	17.0	
			44	5220	13.8	17.0	17.0	17.0	
			48	5240	13.8	17.0	17.0	17.0	
		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	18.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	13.8	17.0	17.0	17.0	No
			40	5200	13.8	17.0	17.0	17.0	
			44	5220	13.8	17.0	17.0	17.0	
			48	5240	13.8	17.0	17.0	17.0	
		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	18.0	
		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	12.8	17.0	17.0	17.0	No
			56	5280	12.8	17.0	17.0	17.0	
			60	5300	12.8	17.0	17.0	17.0	
			64	5320	12.8	16.0	16.0	16.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	12.8	17.0	17.0	17.0	No
			56	5280	12.8	17.0	17.0	17.0	
			60	5300	12.8	17.0	17.0	17.0	
			64	5320	12.8	16.0	16.0	16.0	
		2 Tx HT40 CDD/STBC/SDM	54	5270	12.8	19.0	18.8	17.3	No
			62	5310	12.8	14.5	14.5	14.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	12.8	17.0	17.0	17.0	No
			56	5280	12.8	17.0	17.0	17.0	
			60	5300	12.8	17.0	17.0	17.0	
			64	5320	12.8	16.0	16.0	16.0	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	12.8	19.0	18.8	17.3	No
			62	5310	12.8	14.5	14.5	14.5	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	12.8	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	10.8	16.0	15.5	16.0	No
			104	5520	10.8	17.0	15.5	16.0	
			108	5540	10.8	17.0	15.5	16.0	
			112	5560	10.8	17.0	15.5	16.0	
			116	5580	10.8	17.0	15.5	16.0	
			120	5600	10.8	17.0	15.5	16.0	
			124	5620	10.8	17.0	15.5	16.0	
			128	5640	10.8	17.0	15.5	16.0	
			132	5660	10.8	17.0	15.5	16.0	
			136	5680	10.8	17.0	15.5	16.0	
			140	5700	10.8	16.5	15.5	16.0	
			144	5720	10.8	17.0	15.5	16.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	10.8	16.0	15.5	16.0	No
			104	5520	10.8	17.0	15.5	16.0	
			108	5540	10.8	17.0	15.5	16.0	
			112	5560	10.8	17.0	15.5	16.0	
			116	5580	10.8	17.0	15.5	16.0	
			120	5600	10.8	17.0	15.5	16.0	
			124	5620	10.8	17.0	15.5	16.0	
			128	5640	10.8	17.0	15.5	16.0	
			132	5660	10.8	17.0	15.5	16.0	
			136	5680	10.8	17.0	15.5	16.0	
			140	5700	10.8	16.5	15.5	16.0	
			144	5720	10.8	17.0	15.5	16.0	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	10.8	15.0	15.0	15.0	No
			110	5550	10.8	19.0	15.5	16.0	
			118	5590	10.8	19.0	15.5	16.0	
			126	5630	10.8	19.0	15.5	16.0	
			134	5670	10.8	17.5	15.5	16.0	
			142	5710	10.8	19.0	15.5	16.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	10.8	16.0	15.5	16.0	No
			104	5520	10.8	17.0	15.5	16.0	
			108	5540	10.8	17.0	15.5	16.0	
			112	5560	10.8	17.0	15.5	16.0	
			116	5580	10.8	17.0	15.5	16.0	
			120	5600	10.8	17.0	15.5	16.0	
			124	5620	10.8	17.0	15.5	16.0	
			128	5640	10.8	17.0	15.5	16.0	
			132	5660	10.8	17.0	15.5	16.0	
			136	5680	10.8	17.0	15.5	16.0	
			140	5700	10.8	16.5	15.5	16.0	
			144	5720	10.8	17.0	15.5	16.0	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	10.8	15.0	15.0	15.0	No
			110	5550	10.8	19.0	15.5	16.0	
			118	5590	10.8	19.0	15.5	16.0	
			126	5630	10.8	19.0	15.5	16.0	
			134	5670	10.8	17.5	15.5	16.0	
			142	5710	10.8	19.0	15.5	16.0	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	10.8	14.0	14.0	14.0	Yes
			122	5610	10.8	19.0	15.5	16.0	
			138	5690	10.8	19.0	15.5	16.0	

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	12.0	19.0	16.8	17.0	No
			153	5765	12.0	19.0	16.8	17.0	
			157	5785	12.0	19.0	16.8	17.0	
			161	5805	12.0	19.0	16.8	17.0	
			165	5825	12.0	19.0	16.8	17.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	12.0	19.0	16.8	17.0	No
			153	5765	12.0	19.0	16.8	17.0	
			157	5785	12.0	19.0	16.8	17.0	
			161	5805	12.0	19.0	16.8	17.0	
			165	5825	12.0	19.0	16.8	17.0	
		2 Tx HT40 CDD/STBC/SDM	151	5755	12.0	19.0	16.8	17.0	Yes
			159	5795	12.0	19.0	16.8	17.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	12.0	19.0	16.8	17.0	No
			153	5765	12.0	19.0	16.8	17.0	
			157	5785	12.0	19.0	16.8	17.0	
			161	5805	12.0	19.0	16.8	17.0	
			165	5825	12.0	19.0	16.8	17.0	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	12.0	19.0	16.8	17.0	No
			159	5795	12.0	19.0	16.8	17.0	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	12.0	18.5	16.8	17.0	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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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)

<table>
<tr><td>LTE transmitter and antenna implementation</td><td>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.</td></tr>
<tr><td>Maximum power reduction (MPR)</td><td>

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

<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (RB)</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
</table>

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.

</td></tr>
<tr><td>Spectrum plots for RB configurations</td><td>A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.</td></tr>
</table>

Notes:

1. 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

<u>Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:</u>
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	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
A	7/7/2016	1900	Body	1900	52.51	53.30	-1.48	1.51	1.52	-0.39
				1850	52.61	53.30	-1.29	1.48	1.52	-2.76
				1920	52.47	53.30	-1.56	1.53	1.52	0.59
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	6/23/2016	2600	Head	2600	37.54	39.01	-3.77	2.05	1.96	4.48
				2495	37.90	39.14	-3.18	1.93	1.85	4.29
				2690	37.21	38.90	-4.34	2.14	2.06	4.06

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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 %
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
C	6/19/2016	1900	Body	1900	53.72	53.30	0.79	1.57	1.52	3.09
				1850	53.85	53.30	1.03	1.52	1.52	0.13
				1920	53.66	53.30	0.68	1.59	1.52	4.41
C	6/19/2016	1900	Head	1900	40.13	40.00	0.33	1.43	1.40	2.29
				1850	40.32	40.00	0.80	1.38	1.40	-1.14
				1920	40.05	40.00	0.12	1.45	1.40	3.50
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	7/1/2016	1900	Head	1900	40.63	40.00	1.58	1.43	1.40	2.14
				1850	40.80	40.00	2.00	1.39	1.40	-0.86
				1920	40.57	40.00	1.43	1.45	1.40	3.43
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	5800	Head	5800	35.69	35.30	1.10	5.41	5.27	2.60
				5700	36.33	35.42	2.57	5.33	5.16	3.32
				5850	35.37	35.30	0.20	5.38	5.27	2.11
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
D	6/23/2016	2600	Body	2600	51.54	52.51	-1.85	2.11	2.16	-2.31
				2495	51.78	52.64	-1.64	1.99	2.01	-1.15
				2690	51.31	52.40	-2.08	2.21	2.29	-3.29

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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 %
D	6/27/2016	2600	Head	2600	37.67	39.01	-3.44	1.88	1.96	-4.19
				2495	38.00	39.14	-2.92	1.77	1.85	-4.25
				2690	37.38	38.90	-3.90	1.97	2.06	-4.20
D	7/2/2016	2450	Body	2450	51.76	52.70	-1.78	2.03	1.95	4.21
				2400	51.86	52.77	-1.73	1.97	1.90	4.00
				2480	51.67	52.66	-1.88	2.06	1.99	3.51
E	6/12/2016	5800	Body	5800	47.58	48.20	-1.29	5.94	6.00	-0.95
				5700	47.93	48.34	-0.85	5.78	5.88	-1.61
				5850	47.48	48.20	-1.49	5.99	6.00	-0.23
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
E	7/6/2016	5800	Head	5800	34.25	35.30	-2.97	5.07	5.27	-3.80
				5700	34.38	35.42	-2.94	4.98	5.16	-3.54
				5850	34.19	35.30	-3.14	5.14	5.27	-2.47

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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	7/6/2016	5800	Body	5800	47.69	48.20	-1.06	5.75	6.00	-4.17
				5700	47.37	48.34	-2.01	5.65	5.88	-3.87
				5850	47.62	48.20	-1.20	5.75	6.00	-4.17
F	6/12/2016	2450	Head	2450	37.40	39.20	-4.59	1.83	1.80	1.89
				2400	37.65	39.30	-4.19	1.78	1.75	1.85
				2480	37.29	39.16	-4.78	1.87	1.83	1.89
F	6/12/2016	2450	Body	2450	51.20	52.70	-2.85	2.01	1.95	2.97
				2400	51.36	52.77	-2.68	1.96	1.90	3.21
				2480	51.11	52.66	-2.95	2.04	1.99	2.55
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
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	6/24/2016	2450	Head	2450	38.89	39.20	-0.79	1.84	1.80	2.06
				2400	39.08	39.30	-0.55	1.78	1.75	1.50
				2480	38.81	39.16	-0.90	1.87	1.83	2.16
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	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	6/12/2016	5600	Body	5600	46.90	48.48	-3.25	6.00	5.76	4.18
				5500	47.09	48.61	-3.13	5.86	5.64	3.78
				5725	46.71	48.31	-3.31	6.18	5.91	4.56
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

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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 %
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	Head	5600	34.37	35.53	-3.28	4.86	5.06	-3.88
				5500	34.50	35.65	-3.22	4.76	4.96	-4.01
				5725	34.18	35.39	-3.42	4.99	5.19	-3.76
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
G	7/6/2016	5600	Body	5600	47.39	48.48	-2.24	5.62	5.76	-2.38
				5500	47.48	48.61	-2.33	5.52	5.64	-2.13
				5725	47.39	48.31	-1.90	5.67	5.91	-3.94
H	6/12/2016	5200	Body	5200	47.72	49.02	-2.65	5.43	5.29	2.54
				5150	47.79	49.09	-2.64	5.38	5.24	2.72
				5350	47.49	48.82	-2.72	5.54	5.47	1.23
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

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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	6/24/2016	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	6/8/2016	835	Head	835	41.08	41.50	-1.01	0.91	0.90	1.11
				805	41.45	41.68	-0.55	0.88	0.90	-1.93
				905	40.23	41.50	-3.07	0.97	0.97	-0.26
1	6/8/2016	835	Body	835	53.63	55.20	-2.84	1.01	0.97	3.71
				805	53.99	55.33	-2.43	0.99	0.97	1.90
				905	53.27	55.00	-3.15	1.09	1.05	3.56
1	6/12/2016	835	Head	835	40.34	41.50	-2.80	0.92	0.90	2.02
				805	40.82	41.68	-2.06	0.89	0.90	-0.77
				905	39.49	41.50	-4.84	0.98	0.97	0.70
1	6/12/2016	835	Body	835	53.41	55.20	-3.24	1.01	0.97	4.23
				805	53.61	55.33	-3.12	0.98	0.97	1.20
				905	52.64	55.00	-4.29	1.09	1.05	3.28
1	6/15/2016	835	Head	835	40.32	41.50	-2.84	0.89	0.90	-0.64
				805	40.76	41.68	-2.21	0.87	0.90	-2.75
				905	39.54	41.50	-4.72	0.96	0.97	-1.43
1	6/15/2016	835	Body	835	52.99	55.20	-4.00	1.00	0.97	3.51
				805	53.35	55.33	-3.59	0.98	0.97	1.46
				905	52.39	55.00	-4.75	1.07	1.05	1.85
1	6/19/2016	835	Head	835	40.20	41.50	-3.13	0.90	0.90	0.26
				805	40.49	41.68	-2.85	0.87	0.90	-2.88
				905	39.46	41.50	-4.92	0.97	0.97	0.16
1	6/19/2016	835	Body	835	53.19	55.20	-3.64	1.01	0.97	3.71
				805	53.43	55.33	-3.44	0.98	0.97	1.02
				905	52.58	55.00	-4.40	1.08	1.05	2.71
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

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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 %
1	6/27/2016	835	Body	835	53.25	55.20	-3.53	1.01	0.97	4.12
				805	53.53	55.33	-3.26	0.98	0.97	0.84
				905	52.42	55.00	-4.69	1.07	1.05	1.85
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	6/12/2016	750	Body	750	54.73	55.55	-1.47	0.98	0.96	1.47
				695	55.14	55.76	-1.11	0.91	0.96	-4.88
				790	54.24	55.39	-2.08	1.01	0.97	4.64
3	6/12/2016	750	Head	750	40.30	41.96	-3.96	0.89	0.89	0.13
				695	41.12	42.24	-2.66	0.85	0.89	-4.53
				790	39.83	41.76	-4.61	0.93	0.90	4.19
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	6/19/2016	750	Head	750	40.32	41.96	-3.91	0.89	0.89	0.19
				695	41.06	42.24	-2.80	0.85	0.89	-4.73
				790	39.85	41.76	-4.57	0.93	0.90	4.29
3	6/21/2016	1900	Body	1900	51.88	53.30	-2.66	1.52	1.52	-0.26
				1850	52.08	53.30	-2.29	1.46	1.52	-4.01
				1920	51.85	53.30	-2.72	1.54	1.52	1.25
3	6/24/2016	1900	Head	1900	39.27	40.00	-1.82	1.44	1.40	2.50
				1850	39.53	40.00	-1.18	1.40	1.40	-0.36
				1920	39.17	40.00	-2.08	1.47	1.40	4.64
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
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	6/15/2016	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

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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 %
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	2300	Head	2300	38.98	39.47	-1.25	1.69	1.66	1.34
				2350	38.81	39.38	-1.46	1.74	1.71	1.66
				2400	38.66	39.30	-1.62	1.80	1.75	2.99
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
4	7/18/2016	750	Body	750	56.71	55.55	2.10	1.00	0.96	3.94
				695	57.05	55.76	2.32	0.95	0.96	-0.47
				725	56.99	55.64	2.42	0.98	0.96	2.25
4	7/18/2016	750	Head	750	40.27	41.96	-4.03	0.93	0.89	3.62
				695	40.94	42.24	-3.09	0.88	0.89	-1.38
				725	40.72	42.09	-3.25	0.91	0.89	2.04
5	7/19/2016	750	Body	750	53.38	55.55	-3.90	0.96	0.96	-0.08
				695	53.98	55.76	-3.19	0.91	0.96	-4.94
				790	52.99	55.39	-4.34	1.00	0.97	3.71

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

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Additional Bluetooth testing 8/23/2016 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 %
F	8/23/2016	2450	Head	2450	40.30	39.20	2.81	1.84	1.80	2.44
				2400	40.46	39.30	2.96	1.79	1.75	2.08
				2480	40.19	39.16	2.62	1.88	1.83	2.49
F	8/23/2016	2450	Body	2450	51.29	52.70	-2.68	1.92	1.95	-1.44
				2400	51.43	52.77	-2.54	1.86	1.90	-2.00
				2480	51.19	52.66	-2.80	1.96	1.99	-1.71
G	8/24/2016	2450	Head	2450	40.31	39.20	2.83	1.77	1.80	-1.56
				2400	40.47	39.30	2.99	1.72	1.75	-2.04
				2480	40.19	39.16	2.62	1.81	1.83	-1.44

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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	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	3,4
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	
A	7/7/2016	Body	D1900V2 SN:5d140	4/12/2017	4.010	40.10	39.30	2.04	2.120	21.20	20.80	1.92	5,6
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	7,8
B	6/23/2016	Head	D2600V2 SN:1006	9/21/2016	5.890	58.90	56.90	3.51	2.570	25.70	25.50	0.78	
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	6/19/2016	Body	D1900V2 SN:5d140	4/12/2017	4.020	40.20	39.30	2.29	2.050	20.50	20.80	-1.44	
C	6/19/2016	Head	D1900V2 SN:5d140	4/12/2017	4.130	41.30	38.30	7.83	2.090	20.90	20.00	4.50	9,10
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	7/1/2016	Head	D1900V2 SN:5d140	4/12/2017	4.030	40.30	38.30	5.22	2.040	20.40	20.00	2.00	
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	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	11,12
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	13,14
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	6/27/2016	Head	D2600V2 SN:1036	3/18/2017	5.720	57.20	55.40	3.25	2.490	24.90	24.60	1.22	
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	15,16
E	6/12/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	6.840	68.40	75.50	-9.40	1.940	19.40	21.00	-7.62	17,18
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	
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	19,20
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	
E	7/6/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.110	71.10	75.50	-5.83	2.000	20.00	21.00	-4.76	

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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	6/12/2016	Head	D2450V2 SN:748	2/22/2017	5.410	54.10	50.90	6.29	2.470	24.70	23.70	4.22	
F	6/12/2016	Body	D2450V2 SN:748	2/22/2017	5.440	54.40	49.80	9.24	2.520	25.20	23.20	8.62	
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	
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	6/24/2016	Head	D2450V2 SN:748	2/22/2017	5.570	55.70	50.90	9.43	2.510	25.10	23.70	5.91	21,22
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	Head	D2450V2 SN:748	2/22/2017	5.170	51.70	50.90	1.57	2.330	23.30	23.70	-1.69	
G	6/12/2016	Body	D5GHzV2 SN:1138 (5.6 GHz)	9/23/2016	8.700	87.00	81.60	6.62	2.430	24.30	22.80	6.58	
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	Head	D5GHzV2 SN:1003 (5.6 GHz)	2/25/2017	8.500	85.00	81.70	4.04	2.410	24.10	23.40	2.99	25,26
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	
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	6/12/2016	Body	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.790	77.90	73.30	6.28	2.200	22.00	20.60	6.80	
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	6/8/2016	Head	D835V2 SN:4d002	11/12/2016	0.951	9.51	9.06	4.97	0.622	6.22	5.90	5.42	
1	6/8/2016	Body	D835V2 SN:4d002	11/12/2016	1.000	10.00	9.47	5.60	0.660	6.60	6.21	6.28	
1	6/12/2016	Head	D835V2 SN:4d002	11/12/2016	0.892	8.92	9.06	-1.55	0.587	5.87	5.90	-0.51	
1	6/12/2016	Body	D835V2 SN:4d002	11/12/2016	0.945	9.45	9.47	-0.21	0.624	6.24	6.21	0.48	
1	6/15/2016	Head	D835V2 SN:4d002	11/12/2016	0.969	9.69	9.06	6.95	0.635	6.35	5.90	7.63	31,32
1	6/15/2016	Body	D835V2 SN:4d002	11/12/2016	1.010	10.10	9.47	6.65	0.668	6.68	6.21	7.57	
1	6/19/2016	Head	D835V2 SN:4d002	11/12/2016	0.947	9.47	9.06	4.53	0.623	6.23	5.90	5.59	
1	6/19/2016	Body	D835V2 SN:4d002	11/12/2016	0.904	9.04	9.47	-4.54	0.596	5.96	6.21	-4.03	
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	
1	6/27/2016	Body	D835V2 SN:4d142	9/23/2016	1.000	10.00	9.41	6.27	0.660	6.60	6.18	6.80	33,34
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	6/12/2016	Head	D750V3 SN:1071	11/12/2016	0.759	7.59	8.21	-7.55	0.498	4.98	5.38	-7.43	35,36
3	6/12/2016	Body	D750V3 SN:1071	11/12/2016	0.876	8.76	8.74	0.23	0.585	5.85	5.81	0.69	
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	
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	6/19/2016	Head	D750V3 SN:1071	11/12/2016	0.867	8.67	8.21	5.60	0.570	5.70	5.38	5.95	
3	6/21/2016	Head	D1900V2 SN:5d163	9/21/2016	3.960	39.60	40.10	-1.25	2.050	20.50	21.00	-2.38	37,38
3	6/24/2016	Head	D1900V2 SN:5d043	11/17/2016	4.160	41.60	40.00	4.00	2.160	21.60	20.90	3.35	
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	39,40
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	6/15/2016	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	41,42
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	D2300V2 SN:1002	3/18/2017	5.240	52.40	50.50	3.76	2.470	24.70	24.20	2.07	43,44
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	
4	6/25/2016	Head	D2600V2 SN:1006	9/21/2016	5.740	57.40	56.90	0.88	2.500	25.00	25.50	-1.96	45,46
4	7/18/2016	Head	D750V3 SN:1071	11/12/2016	0.886	8.86	8.21	7.92	0.580	5.80	5.38	7.81	
4	7/18/2016	Body	D750V3 SN:1071	11/12/2016	0.938	9.38	8.74	7.32	0.627	6.27	5.81	7.92	47,48
5	7/19/2016	Body	D750V3 SN:1071	11/12/2016	0.946	9.46	8.74	8.24	0.628	6.28	5.81	8.09	49,50

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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	51,52
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	53,54
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	55,56
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 8/23/2016 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 %	
F	8/23/2016	Head	D2450V2 SN:748	2/22/2017	5.280	52.80	50.90	3.73	2.360	23.60	23.70	-0.42	
F	8/23/2016	Body	D2450V2 SN:748	2/22/2017	5.280	52.80	49.80	6.02	2.390	23.90	23.20	3.02	57,58
G	8/24/2016	Head	D2450V2 SN:706	5/10/2017	4.920	49.20	50.50	-2.57	2.220	22.20	23.60	-5.93	59,60

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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	30.5	**29.1**	30.5	**29.1**	33.5	**32.5**	33.5	**32.5**
	190	836.6	30.5	**29.1**	30.5	**29.1**	33.5	**32.5**	33.5	**32.5**
	251	848.8	30.5	**29.1**	30.5	**29.1**	33.5	**32.5**	33.5	**32.5**
Frame Power (dBm)										
850	128	824.2	21.5	23.1	21.5	23.1	24.5	26.5	24.5	26.5
	190	836.6	21.5	23.1	21.5	23.1	24.5	26.5	24.5	26.5
	251	848.8	21.5	23.1	21.5	23.1	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	24.5	23.5	24.6	23.6	28.8	28.0	28.9	27.9
	190.0	836.6	24.7	23.5	24.6	23.6	28.8	27.9	28.8	28.0
	251.0	848.8	24.6	23.6	24.7	23.5	28.9	27.9	28.9	27.8
Frame Power (dBm)										
850.0	128.0	824.2	15.5	17.5	15.6	17.6	19.8	22.0	19.9	21.9
	190.0	836.6	15.7	17.5	15.6	17.6	19.8	21.9	19.8	22.0
	251.0	848.8	15.6	17.6	15.7	17.5	19.9	21.9	19.9	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	25.2	**23.8**	25.2	**23.8**	30.5	**29.5**	28.5	**25.5**
	661.0	1880.0	25.2	**24.0**	25.2	**24.0**	30.5	**29.5**	28.5	**25.5**
	810.0	1909.8	25.2	**24.0**	25.2	**24.0**	30.5	**29.5**	28.5	**25.5**
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	16.2	17.8	16.2	17.8	21.5	23.5	19.5	19.5
	661.0	1880.0	16.2	18.0	16.2	18.0	21.5	23.5	19.5	19.5
	810.0	1909.8	16.2	18.0	16.2	18.0	21.5	23.5	19.5	19.5

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)				Burst Power (dBm)			
1900.0	512.0	1850.2	22.4	21.4	22.3	21.3	27.9	16.9	27.9	25.4
	661.0	1880.0	22.5	21.3	22.3	21.3	27.9	16.9	28.0	25.3
	810.0	1909.8	22.4	21.4	22.5	21.4	27.9	16.9	27.8	25.3
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	13.4	15.4	13.3	15.3	18.9	10.9	18.9	19.4
	661.0	1880.0	13.5	15.3	13.3	15.3	18.9	10.9	19.0	19.3
	810.0	1909.8	13.4	15.4	13.5	15.4	18.9	10.9	18.8	19.3

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.

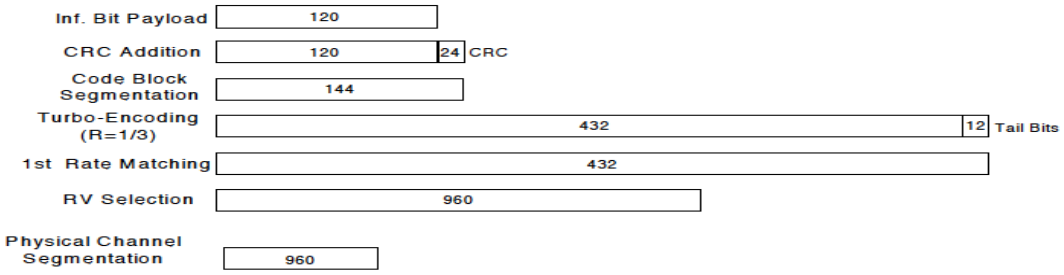

Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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	23.0	23.0	25.0	25.0
			4183	836.6	N/A	23.0	23.0	25.0	25.0
			4233	846.6	N/A	23.0	23.0	25.0	25.0
	HSDPA	Subtest 1	4132	826.4	0	22.9	22.8	24.8	24.8
			4183	836.6	0	23.0	23.0	25.0	24.9
			4233	846.6	0	22.9	22.9	24.9	24.9
		Subtest 2	4132	826.4	0	22.9	22.8	24.9	24.9
			4183	836.6	0	22.9	22.9	24.8	25.0
			4233	846.6	0	22.9	22.9	24.9	24.8
		Subtest 3	4132	826.4	0.5	22.4	22.4	24.3	24.3
			4183	836.6	0.5	22.3	22.5	24.4	24.5
			4233	846.6	0.5	22.3	22.5	24.4	24.5
		Subtest 4	4132	826.4	0.5	22.4	22.4	24.4	24.5
			4183	836.6	0.5	22.3	22.4	24.5	24.3
			4233	846.6	0.5	22.3	22.5	24.5	24.3
	HSUPA	Subtest 1	4132	826.4	0	22.8	22.8	24.9	24.8
			4183	836.6	0	22.8	22.9	24.8	24.8
			4233	846.6	0	22.9	23.0	25.0	24.9
		Subtest 2	4132	826.4	2	20.8	20.8	22.9	23.0
			4183	836.6	2	20.8	20.9	23.0	22.8
			4233	846.6	2	21.0	20.9	22.9	23.0
		Subtest 3	4132	826.4	1	22.0	21.8	23.8	23.9
			4183	836.6	1	21.9	21.9	23.9	23.9
			4233	846.6	1	22.0	22.0	23.9	23.9
		Subtest 4	4132	826.4	2	20.8	21.0	22.9	22.9
			4183	836.6	2	20.9	20.8	22.8	22.8
			4233	846.6	2	20.9	20.9	22.9	22.9
		Subtest 5	4132	826.4	0	22.9	22.9	25.0	25.0
			4183	836.6	0	23.0	22.9	24.8	24.8
			4233	846.6	0	22.9	22.9	24.9	24.8
	DC-HSDPA	Subtest 1	4132	826.4	0	22.8	22.9	24.9	24.9
			4183	836.6	0	22.8	22.8	24.9	25.0
			4233	846.6	0	22.8	22.9	24.8	24.8
		Subtest 2	4132	826.4	0	23.0	23.0	24.9	24.9
			4183	836.6	0	22.9	22.9	24.8	24.9
			4233	846.6	0	22.9	23.0	25.0	24.9
		Subtest 3	4132	826.4	0.5	22.3	22.4	24.3	24.4
			4183	836.6	0.5	22.4	22.3	24.3	24.5
			4233	846.6	0.5	22.4	22.4	24.4	24.4
		Subtest 4	4132	826.4	0.5	22.4	22.4	24.4	24.5
			4183	836.6	0.5	22.4	22.3	24.4	24.4
			4233	846.6	0.5	22.3	22.3	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	17.5	20.7	24.8	19.7
			1413	1732.6	N/A	17.6	20.7	25.1	19.7
			1513	1752.6	N/A	17.5	21.0	25.0	19.7
	HSDPA	Subtest 1	1312	1712.4	0	17.3	20.5	24.6	19.5
			1413	1732.6	0	17.5	20.5	24.9	19.5
			1513	1752.6	0	17.4	21.0	24.8	19.7
		Subtest 2	1312	1712.4	0	17.3	20.7	24.8	19.5
			1413	1732.6	0	17.5	20.6	24.9	19.5
			1513	1752.6	0	17.4	20.8	24.9	19.5
		Subtest 3	1312	1712.4	0.5	16.9	20.0	24.1	19.1
			1413	1732.6	0.5	17.1	20.0	24.6	19.0
			1513	1752.6	0.5	17.0	20.4	24.4	19.0
		Subtest 4	1312	1712.4	0.5	16.9	20.0	24.2	19.0
			1413	1732.6	0.5	17.1	20.0	24.4	19.1
			1513	1752.6	0.5	16.8	20.4	24.3	19.0
	HSUPA	Subtest 1	1312	1712.4	0	17.3	20.5	24.8	19.5
			1413	1732.6	0	17.5	20.6	25.0	19.5
			1513	1752.6	0	17.4	21.0	24.8	19.5
		Subtest 2	1312	1712.4	2	16.0	19.0	22.7	17.7
			1413	1732.6	2	16.0	19.0	22.9	17.5
			1513	1752.6	2	16.0	19.0	22.8	17.6
		Subtest 3	1312	1712.4	1	16.4	19.5	23.8	18.6
			1413	1732.6	1	16.4	19.6	24.0	18.5
			1513	1752.6	1	16.3	19.0	23.9	18.5
		Subtest 4	1312	1712.4	2	16.0	19.0	22.6	17.7
			1413	1732.6	2	16.0	19.0	22.9	17.6
			1513	1752.6	2	16.0	18.9	22.9	17.5
		Subtest 5	1312	1712.4	0	17.4	20.7	24.6	19.5
			1413	1732.6	0	17.5	20.5	25.1	19.7
			1513	1752.6	0	17.5	20.9	24.8	19.6
	DC-HSDPA	Subtest 1	1312	1712.4	0	17.3	20.5	24.6	19.6
			1413	1732.6	0	17.5	20.6	25.0	19.7
			1513	1752.6	0	17.4	20.8	25.0	19.5
		Subtest 2	1312	1712.4	0	17.5	20.5	24.6	19.7
			1413	1732.6	0	17.4	20.6	25.1	19.7
			1513	1752.6	0	17.4	20.9	24.9	19.6
		Subtest 3	1312	1712.4	0.5	16.8	20.0	24.1	19.0
			1413	1732.6	0.5	16.9	20.0	24.6	19.1
			1513	1752.6	0.5	16.8	20.5	24.3	19.1
		Subtest 4	1312	1712.4	0.5	16.8	20.0	24.1	19.1
			1413	1732.6	0.5	16.9	20.0	24.5	19.2
			1513	1752.6	0.5	16.8	20.4	24.4	19.1

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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	18.5	21.0	25.2	19.0
			9400	1880.0	N/A	18.5	21.0	25.2	19.3
			9538	1907.6	N/A	18.5	21.0	25.2	19.0
	HSDPA	Subtest 1	9262	1852.4	0	18.4	20.8	25.1	18.9
			9400	1880.0	0	18.3	20.9	25.1	19.2
			9538	1907.6	0	18.3	20.8	25.1	18.8
		Subtest 2	9262	1852.4	0	18.3	20.9	25.1	19.0
			9400	1880.0	0	18.5	20.9	25.0	19.2
			9538	1907.6	0	18.5	20.9	25.1	18.8
		Subtest 3	9262	1852.4	0.5	17.9	20.5	24.7	18.4
			9400	1880.0	0.5	17.8	20.3	24.6	18.7
			9538	1907.6	0.5	17.9	20.4	24.6	18.4
		Subtest 4	9262	1852.4	0.5	17.8	20.5	24.6	18.3
			9400	1880.0	0.5	18.0	20.4	24.5	18.6
			9538	1907.6	0.5	18.0	20.3	24.5	18.3
	HSUPA	Subtest 1	9262	1852.4	0	18.3	21.0	25.0	18.8
			9400	1880.0	0	18.3	20.8	25.1	19.2
			9538	1907.6	0	18.3	20.8	25.1	18.8
		Subtest 2	9262	1852.4	2	16.4	18.9	23.0	16.8
			9400	1880.0	2	16.4	18.8	23.1	17.3
			9538	1907.6	2	16.3	19.0	23.2	16.8
		Subtest 3	9262	1852.4	1	17.4	19.9	24.0	18.0
			9400	1880.0	1	17.4	19.9	24.0	18.1
			9538	1907.6	1	17.4	19.8	24.1	17.9
		Subtest 4	9262	1852.4	2	16.5	19.0	23.0	16.8
			9400	1880.0	2	16.3	18.9	23.1	17.3
			9538	1907.6	2	16.3	18.9	23.0	16.9
		Subtest 5	9262	1852.4	0	18.4	20.9	25.2	18.9
			9400	1880.0	0	18.4	20.8	25.1	19.2
			9538	1907.6	0	18.5	20.8	25.0	18.9
	DC-HSDPA	Subtest 1	9262	1852.4	0	18.4	21.0	25.2	18.9
			9400	1880.0	0	18.3	20.9	25.0	19.2
			9538	1907.6	0	18.3	20.8	25.1	18.9
		Subtest 2	9262	1852.4	0	18.4	20.8	25.2	18.8
			9400	1880.0	0	18.5	21.0	25.0	19.1
			9538	1907.6	0	18.3	20.9	25.1	18.8
		Subtest 3	9262	1852.4	0.5	18.0	20.4	24.5	18.3
			9400	1880.0	0.5	18.0	20.4	24.6	18.7
			9538	1907.6	0.5	17.8	20.4	24.6	18.5
		Subtest 4	9262	1852.4	0.5	17.8	20.4	24.5	18.3
			9400	1880.0	0.5	17.8	20.4	24.5	18.7
			9538	1907.6	0.5	17.9	20.5	24.6	18.3

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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	23.2	23.2	24.8	24.8
			384	836.52	23.0	23.0	25.0	24.8
			777	848.31	23.2	23.1	24.9	24.7
		RC3 SO55 (Loopback)	1013	824.70	23.3	23.1	24.9	24.7
			384	836.52	23.2	23.2	25.0	25.0
			777	848.31	23.4	23.0	25.0	24.8
		RC3 SO32 (+F-SCH)	1013	824.70	23.2	23.2	24.8	24.9
			384	836.52	23.2	23.2	24.9	25.0
			777	848.31	23.3	23.2	24.8	24.9
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	1013	824.70	23.2	23.1	24.8	24.7
			384	836.52	23.1	23.0	24.8	25.0
			777	848.31	23.3	23.2	24.9	24.8
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	1013	824.70	22.7	22.7	25.0	25.0
			384	836.52	22.7	22.7	25.0	25.0
			777	848.31	22.7	22.7	24.9	24.9
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	1013	824.70	22.7	22.5	25.0	24.9
			384	836.52	22.5	22.7	24.9	25.0
			777	848.31	22.6	22.6	24.9	24.9

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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	18.4	20.5	25.1	19.0
			600	1880.00	18.4	20.7	25.2	19.0
			1175	1908.75	18.3	20.6	25.1	18.9
		RC3 SO55 (Loopback)	25	1851.25	18.5	20.4	25.2	18.9
			600	1880.00	18.5	20.6	25.2	18.8
			1175	1908.75	18.5	20.5	25.2	18.8
		RC3 SO32 (+F-SCH)	25	1851.25	18.5	20.6	25.0	19.0
			600	1880.00	18.5	20.8	25.2	19.0
			1175	1908.75	18.5	20.7	25.1	19.0
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	25	1851.25	18.4	20.5	25.1	19.0
			600	1880.00	18.4	20.7	25.1	19.0
			1175	1908.75	18.4	20.6	25.0	18.8
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	25	1851.25	18.4	20.9	24.0	19.0
			600	1880.00	18.4	20.9	24.0	19.0
			1175	1908.75	18.4	20.9	24.0	19.0
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	25	1851.25	18.2	20.9	23.9	19.0
			600	1880.00	18.3	20.8	23.8	19.0
			1175	1908.75	18.4	20.7	23.8	18.8

CDMA BC10 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 10	1xRTT	RC1 SO55 (Loopback)	476	817.90	23.2	23.4	24.7	24.9
			580	820.50	23.2	23.5	24.7	24.8
			684	823.10	23.4	23.3	24.8	24.8
		RC3 SO55 (Loopback)	476	817.90	23.4	23.2	24.9	24.8
			580	820.50	23.4	23.5	24.9	25.0
			684	823.10	23.5	23.3	24.9	24.8
		RC3 SO32 (+F-SCH)	476	817.90	23.3	23.4	24.8	24.9
			580	820.50	23.2	23.5	24.8	25.0
			684	823.10	23.3	23.5	24.8	24.9
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	476	817.90	23.2	23.2	24.7	24.7
			580	820.50	23.3	23.4	24.7	24.8
			684	823.10	23.4	23.4	24.8	24.8
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	476	817.90	22.7	22.7	24.1	24.1
			580	820.50	22.7	22.7	24.1	24.1
			684	823.10	22.7	22.7	24.1	24.1
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	476	817.90	22.7	22.5	24.0	24.0
			580	820.50	22.6	22.5	24.1	24.0
			684	823.10	22.6	22.7	23.9	24.0

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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 overlapping 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	17.9	17.9	17.9	0	20.9	21.0	21.0	0	24.4	24.5	24.4	0	19.6	19.7	19.6
			1	49	0	18.0	18.0	17.9	0	21.0	21.0	20.9	0	24.4	24.5	24.5	0	19.7	19.7	19.7
			1	99	0	17.9	17.9	17.8	0	21.0	20.9	20.8	0	24.4	24.4	24.5	0	19.6	19.6	19.7
			50	0	0	17.1	17.1	17.1	1	19.9	19.9	19.9	1	23.4	23.4	23.4	0	18.6	18.6	18.5
			50	24	0	17.2	17.1	17.1	1	20.0	20.0	20.0	1	23.5	23.5	23.4	0	18.9	18.8	18.8
			50	49	0	17.1	17.1	17.1	1	20.0	19.9	19.9	1	23.4	23.5	23.4	0	18.6	18.5	18.7
			100	0	0	17.1	17.2	17.1	1	20.0	20.0	19.9	1	23.4	23.5	23.4	0	18.5	18.9	18.6
		16QAM	1	0	0	17.9	17.9	17.9	1	19.9	20.0	19.9	1	23.5	23.4	23.4	0	19.6	19.7	19.6
			1	49	0	18.0	18.0	18.0	1	19.9	19.9	19.9	1	23.5	23.5	23.4	0	19.6	19.5	19.6
			1	99	0	17.9	17.9	18.0	1	19.9	19.9	20.0	1	23.3	23.3	23.5	0	19.6	19.6	19.7
			50	0	0	17.0	17.1	17.1	2	19.0	18.9	19.0	2	22.4	22.4	22.4	0	18.6	18.6	18.5
			50	24	0	17.1	17.1	17.1	2	18.9	18.9	18.9	2	22.4	22.4	22.3	0	18.9	18.8	18.8
			50	49	0	17.1	17.1	17.1	2	18.9	18.9	18.8	2	22.5	22.5	22.4	0	18.6	18.5	18.7
			100	0	0	17.0	17.2	17.1	2	19.0	18.9	19.0	2	22.4	22.4	22.4	0	18.5	18.9	18.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	17.9	17.9	17.9	0	21.0	20.9	20.9	0	24.4	24.4	24.4	0	19.6	19.6	19.6
			1	36	0	18.0	18.0	18.0	0	20.9	20.9	20.9	0	24.3	24.5	24.4	0	19.6	19.5	19.6
			1	74	0	17.9	17.9	18.0	0	20.9	20.9	20.9	0	24.4	24.4	24.4	0	19.6	19.6	19.7
			36	0	0	17.1	17.1	17.1	1	19.9	19.9	19.9	1	23.5	23.5	23.4	0	18.6	18.6	18.5
			36	18	0	17.2	17.1	17.1	1	19.9	20.0	19.9	1	23.5	23.5	23.4	0	18.9	18.8	18.8
			36	37	0	17.1	17.1	17.1	1	19.9	19.9	19.9	1	23.5	23.4	23.4	0	18.6	18.5	18.7
			75	0	0	17.1	17.2	17.1	1	19.9	20.0	19.9	1	23.4	23.5	23.3	0	18.5	18.9	18.6
		16QAM	1	0	0	17.9	17.9	17.9	1	20.0	19.9	19.9	1	23.4	23.5	23.5	0	19.6	19.6	19.5
			1	36	0	18.0	18.0	18.0	1	19.9	19.9	20.0	1	23.5	23.3	23.4	0	19.6	19.5	19.6
			1	74	0	17.9	17.9	18.0	1	19.8	19.9	19.9	1	23.4	23.4	23.4	0	19.6	19.6	19.7
			36	0	0	17.1	17.1	17.1	2	18.9	18.9	18.9	2	22.4	22.4	22.4	0	18.6	18.6	18.5
			36	18	0	17.2	17.1	17.1	2	18.9	19.0	18.9	2	22.5	22.4	22.5	0	18.9	18.8	18.8
			36	37	0	17.1	17.1	17.1	2	18.9	19.0	19.0	2	22.4	22.3	22.4	0	18.6	18.5	18.7
			75	0	0	17.1	17.2	17.1	2	19.0	19.0	19.0	2	22.4	22.4	22.4	0	18.5	18.9	18.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	17.9	17.9	17.9	0	21.0	21.0	20.9	0	24.5	24.5	24.4	0	19.5	19.6	19.6
			1	24	0	18.0	18.0	18.0	0	20.9	21.0	20.9	0	24.4	24.4	24.5	0	19.6	19.5	19.6
			1	49	0	17.9	17.9	18.0	0	20.9	21.0	20.9	0	24.5	24.3	24.4	0	19.6	19.6	19.5
			25	0	0	17.1	17.1	17.1	1	19.9	19.9	19.9	1	23.4	23.3	23.4	0	18.6	18.6	18.5
			25	12	0	17.2	17.1	17.1	1	20.0	19.9	19.9	1	23.4	23.5	23.4	0	18.9	18.8	18.8
			25	24	0	17.1	17.1	17.1	1	19.9	19.9	19.9	1	23.4	23.5	23.5	0	18.6	18.5	18.7
			50	0	0	17.1	17.2	17.1	1	19.9	19.9	19.8	1	23.5	23.3	23.4	0	18.5	18.9	18.6
		16QAM	1	0	0	17.9	17.9	17.9	1	20.0	19.9	19.9	1	23.4	23.5	23.4	0	19.6	19.7	19.6
			1	24	0	18.0	18.0	18.0	1	20.0	20.0	19.9	1	23.4	23.4	23.5	0	19.6	19.5	19.6
			1	49	0	17.9	17.9	18.0	1	19.9	19.9	19.9	1	23.4	23.4	23.5	0	19.6	19.6	19.6
			25	0	0	17.1	17.1	17.1	2	18.9	18.9	19.0	2	22.5	22.5	22.4	0	18.6	18.6	18.5
			25	12	0	17.2	17.1	17.1	2	19.0	18.9	19.0	2	22.4	22.5	22.4	0	18.9	18.8	18.8
			25	24	0	17.1	17.1	17.1	2	19.0	18.9	18.9	2	22.3	22.4	22.5	0	18.6	18.5	18.7
			50	0	0	17.1	17.2	17.1	2	18.9	19.0	18.8	2	22.4	22.4	22.5	0	18.5	18.9	18.6

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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	17.9	17.9	17.9	0	20.9	20.8	20.9	0	24.5	24.5	24.5	0	19.6	19.6	19.6
			1	12	0	18.0	18.0	18.0	0	20.8	20.9	20.9	0	24.4	24.5	24.4	0	19.6	19.5	19.6
			1	24	0	17.9	17.9	18.0	0	20.9	20.9	21.0	0	24.4	24.4	24.5	0	19.6	19.6	19.7
			12	0	0	17.1	17.1	17.1	1	20.0	19.9	19.9	1	23.4	23.5	23.3	0	18.6	18.6	18.5
			12	7	0	17.2	17.1	17.1	1	19.9	19.9	19.9	1	23.4	23.5	23.5	0	18.9	18.8	18.8
			12	13	0	17.1	17.1	17.1	1	20.0	19.9	20.0	1	23.5	23.4	23.5	0	18.6	18.5	18.7
			25	0	0	17.1	17.2	17.1	1	19.8	19.9	19.8	1	23.5	23.5	23.4	0	18.5	18.9	18.6
		16QAM	1	0	0	17.9	17.9	17.9	1	19.9	19.9	19.9	1	23.4	23.4	23.4	0	19.6	19.6	19.5
			1	12	0	18.0	18.0	18.0	1	19.9	20.0	19.9	1	23.4	23.4	23.4	0	19.6	19.5	19.6
			1	24	0	17.9	17.9	18.0	1	20.0	20.0	19.9	1	23.4	23.3	23.4	0	19.6	19.6	19.7
			12	0	0	17.0	17.1	17.1	2	18.9	19.0	19.0	2	22.3	22.5	22.4	0	18.6	18.5	18.5
			12	7	0	17.1	17.1	17.1	2	19.0	18.9	19.0	2	22.5	22.5	22.4	0	18.9	18.7	18.8
			12	13	0	17.1	17.1	17.1	2	19.0	18.9	18.9	2	22.4	22.5	22.3	0	18.6	18.5	18.7
			25	0	0	17.0	17.2	17.1	2	18.9	19.0	18.8	2	22.5	22.4	22.4	0	18.5	18.9	18.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	17.9	17.9	17.9	0	20.8	21.0	20.9	0	24.5	24.4	24.4	0	19.6	19.6	19.6
			1	8	0	18.0	18.0	18.0	0	20.9	20.8	20.9	0	24.4	24.4	24.4	0	19.6	19.5	19.6
			1	14	0	17.9	17.9	18.0	0	20.9	21.0	20.9	0	24.5	24.4	24.4	0	19.6	19.6	19.7
			8	0	0	17.1	17.1	17.1	1	20.0	19.9	20.0	1	23.4	23.4	23.5	0	18.6	18.6	18.5
			8	4	0	17.2	17.1	17.1	1	19.8	20.0	19.9	1	23.4	23.4	23.5	0	18.9	18.8	18.8
			8	7	0	17.1	17.1	17.1	1	20.0	19.8	19.9	1	23.4	23.4	23.4	0	18.6	18.5	18.7
			15	0	0	17.1	17.2	17.1	1	19.9	19.8	19.9	1	23.4	23.5	23.4	0	18.5	18.9	18.6
		16QAM	1	0	0	17.9	17.9	17.9	1	19.9	19.9	20.0	1	23.4	23.4	23.4	0	19.6	19.6	19.5
			1	8	0	18.0	18.0	18.0	1	19.8	19.9	20.0	1	23.4	23.5	23.4	0	19.6	19.4	19.6
			1	14	0	17.9	17.9	18.0	1	20.0	20.0	19.9	1	23.5	23.4	23.4	0	19.6	19.6	19.7
			8	0	0	17.1	17.1	17.1	2	18.9	19.0	18.9	2	22.3	22.5	22.4	0	18.6	18.5	18.5
			8	4	0	17.2	17.1	17.1	2	19.0	18.9	19.0	2	22.4	22.4	22.5	0	18.8	18.8	18.8
			8	7	0	17.1	17.1	17.1	2	19.0	18.9	18.9	2	22.4	22.5	22.4	0	18.6	18.5	18.7
			15	0	0	17.1	17.2	17.1	2	18.8	18.9	18.9	2	22.4	22.5	22.4	0	18.5	18.9	18.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	17.9	17.9	17.9	0	20.9	21.0	20.8	0	24.4	24.5	24.3	0	19.6	19.6	19.6
			1	3	0	18.0	18.0	18.0	0	21.0	20.9	20.9	0	24.4	24.4	24.4	0	19.6	19.5	19.6
			1	5	0	17.9	17.9	18.0	0	20.9	21.0	20.9	0	24.4	24.4	24.5	0	19.6	19.6	19.7
			3	0	0	17.1	17.1	17.1	0	20.9	21.0	21.0	0	24.4	24.5	24.5	0	18.6	18.6	18.5
			3	1	0	17.2	17.1	17.1	0	20.9	21.0	20.9	0	24.5	24.4	24.4	0	18.9	18.8	18.8
			3	3	0	17.1	17.1	17.1	0	21.0	20.9	20.9	0	24.5	24.4	24.5	0	18.6	18.5	18.7
			6	0	0	17.1	17.2	17.1	1	19.9	19.9	19.9	1	23.5	23.4	23.4	0	18.5	18.9	18.6
		16QAM	1	0	0	17.9	17.9	17.9	1	20.0	19.9	19.9	1	23.4	23.4	23.4	0	19.6	19.6	19.5
			1	3	0	18.0	18.0	18.0	1	19.9	20.0	20.0	1	23.4	23.5	23.4	0	19.6	19.4	19.6
			1	5	0	17.9	17.9	18.0	1	19.9	20.0	19.9	1	23.4	23.5	23.4	0	19.6	19.6	19.7
			3	0	0	17.1	17.1	17.1	1	19.9	19.9	19.8	1	23.3	23.4	23.5	0	18.6	18.5	18.5
			3	1	0	17.2	17.1	17.1	1	20.0	19.8	19.9	1	23.4	23.3	23.3	0	18.8	18.8	18.8
			3	3	0	17.1	17.1	17.1	1	19.8	20.0	19.8	1	23.4	23.5	23.4	0	18.6	18.5	18.7
			6	0	0	17.1	17.2	17.1	2	18.9	18.9	19.0	2	22.4	22.5	22.4	0	18.5	18.9	18.6

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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 overlapping 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	15.0	15.0	0	18.6	18.4	18.3	0	23.4	23.4	23.4	0	17.7	17.7	17.7
			1	49	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.5	23.5	23.5	0	17.7	17.7	17.7
			1	99	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.4	23.4	23.4	0	17.7	17.6	17.7
			50	0	0	15.0	15.0	15.0	0	17.5	17.5	17.4	0	23.5	23.3	23.4	0	16.6	16.7	16.6
			50	24	0	15.0	15.0	15.0	0	17.8	17.5	17.4	0	23.5	23.5	23.5	0	16.6	16.7	16.6
			50	49	0	15.0	15.0	15.0	0	17.5	17.5	17.4	0	23.5	23.5	23.4	0	16.6	16.7	16.5
			100	0	0	15.0	15.0	15.0	0	17.7	17.7	17.7	0	23.4	23.5	23.4	0	16.5	16.6	16.6
		16QAM	1	0	0	15.0	15.0	15.0	0	18.6	18.4	18.3	0	23.4	23.4	23.4	0	17.7	17.7	17.7
			1	49	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.5	23.4	23.5	0	17.7	17.7	17.7
			1	99	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.4	23.4	23.5	0	17.7	17.6	17.7
			50	0	0	14.9	15.0	15.0	0	17.5	17.5	17.4	0	23.4	23.4	23.4	0	16.6	16.7	16.6
			50	24	0	14.9	15.0	15.0	0	17.8	17.5	17.4	0	23.4	23.5	23.4	0	16.6	16.7	16.7
			50	49	0	15.0	14.9	15.0	0	17.5	17.5	17.4	0	23.4	23.4	23.5	0	16.6	16.7	16.5
			100	0	0	15.0	15.0	15.0	0	17.7	17.7	17.7	0	23.3	23.4	23.4	0	16.5	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	15.0	15.0	0	18.5	18.4	18.3	0	23.5	23.4	23.5	0	17.6	17.6	17.7
			1	36	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.4	23.4	23.5	0	17.6	17.7	17.7
			1	74	0	15.0	15.0	15.0	0	18.7	18.3	18.4	0	23.4	23.4	23.5	0	17.7	17.6	17.5
			36	0	0	15.0	15.0	15.0	0	17.5	17.3	17.4	0	23.4	23.5	23.5	0	16.6	16.7	16.6
			36	18	0	15.0	15.0	15.0	0	17.8	17.5	17.4	0	23.5	23.5	23.5	0	16.6	16.7	16.7
			36	37	0	15.0	15.0	15.0	0	17.5	17.4	17.4	0	23.5	23.5	23.3	0	16.6	16.5	16.5
			75	0	0	15.0	15.0	15.0	0	17.7	17.7	17.7	0	23.4	23.5	23.4	0	16.5	16.6	16.6
		16QAM	1	0	0	15.0	15.0	15.0	0	18.6	18.4	18.3	0	23.4	23.4	23.5	0	17.7	17.7	17.7
			1	36	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.4	23.4	23.4	0	17.7	17.7	17.7
			1	74	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.5	23.4	23.4	0	17.7	17.6	17.7
			36	0	0	14.9	14.9	14.8	0	17.5	17.5	17.4	0	23.4	23.5	23.4	0	16.6	16.7	16.6
			36	18	0	14.9	15.0	15.0	0	17.8	17.5	17.4	0	23.5	23.5	23.4	0	16.6	16.7	16.7
			36	37	0	15.0	14.9	15.0	0	17.5	17.5	17.4	0	23.5	23.5	23.5	0	16.6	16.7	16.5
			75	0	0	15.0	15.0	15.0	0	17.7	17.7	17.7	0	23.4	23.4	23.4	0	16.5	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		
						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	15.0	15.0	15.0	0	18.6	18.4	18.3	0	23.4	23.4	23.3	0	17.6	17.6	17.7
			1	24	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.4	23.5	23.5	0	17.6	17.7	17.7
			1	49	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.4	23.4	23.4	0	17.7	17.6	17.5
			25	0	0	15.0	15.0	15.0	0	17.5	17.5	17.4	0	23.5	23.4	23.4	0	16.6	16.7	16.6
			25	12	0	15.0	15.0	15.0	0	17.8	17.5	17.4	0	23.4	23.5	23.3	0	16.6	16.7	16.7
			25	24	0	14.9	15.0	15.0	0	17.5	17.5	17.4	0	23.4	23.4	23.4	0	16.6	16.5	16.5
			50	0	0	15.0	15.0	14.8	0	17.7	17.7	17.7	0	23.5	23.5	23.4	0	16.5	16.6	16.6
		16QAM	1	0	0	15.0	15.0	15.0	0	18.6	18.4	18.3	0	23.4	23.4	23.4	0	17.6	17.6	17.5
			1	24	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.5	23.4	23.4	0	17.7	17.7	17.7
			1	49	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.5	23.4	23.4	0	17.7	17.6	17.7
			25	0	0	14.9	14.9	14.8	0	17.5	17.5	17.4	0	23.4	23.4	23.5	0	16.6	16.7	16.6
			25	12	0	14.9	15.0	15.0	0	17.8	17.5	17.4	0	23.4	23.3	23.4	0	16.6	16.6	16.7
			25	24	0	15.0	14.9	15.0	0	17.5	17.5	17.4	0	23.4	23.4	23.4	0	16.6	16.6	16.5
			50	0	0	15.0	15.0	15.0	0	17.7	17.7	17.7	0	23.3	23.4	23.4	0	16.5	16.5	16.5

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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	15.0	15.0	15.0	0	18.5	18.4	18.3	0	23.4	23.5	23.4	0	17.6	17.6	17.7
			1	12	0	15.0	15.0	15.0	0	18.7	18.4	18.3	0	23.4	23.4	23.5	0	17.6	17.7	17.7
			1	24	0	15.0	15.0	15.0	0	18.7	18.3	18.4	0	23.5	23.4	23.5	0	17.7	17.6	17.5
			12	0	0	15.0	15.0	15.0	0	17.5	17.3	17.4	0	23.5	23.4	23.5	0	16.6	16.7	16.6
			12	7	0	15.0	15.0	15.0	0	17.8	17.5	17.4	0	23.4	23.4	23.4	0	16.6	16.7	16.7
			12	13	0	14.9	15.0	15.0	0	17.5	17.4	17.4	0	23.5	23.4	23.4	0	16.6	16.5	16.5
			25	0	0	15.0	15.0	14.8	0	17.7	17.7	17.7	0	23.4	23.5	23.4	0	16.5	16.6	16.6
		16QAM	1	0	0	14.9	15.0	14.8	0	18.6	18.4	18.3	0	23.5	23.5	23.5	0	17.7	17.7	17.7
			1	12	0	15.0	15.0	14.9	0	18.7	18.4	18.3	0	23.4	23.5	23.5	0	17.7	17.7	17.7
			1	24	0	15.0	15.0	14.9	0	18.7	18.4	18.3	0	23.5	23.5	23.4	0	17.7	17.6	17.7
			12	0	0	14.9	14.9	14.8	0	17.5	17.5	17.4	0	23.4	23.4	23.4	0	16.6	16.7	16.6
			12	7	0	14.9	15.0	15.0	0	17.8	17.5	17.4	0	23.4	23.4	23.5	0	16.6	16.7	16.7
			12	13	0	15.0	14.9	15.0	0	17.5	17.5	17.4	0	23.5	23.4	23.5	0	16.6	16.7	16.5
			25	0	0	15.0	15.0	15.0	0	17.7	17.7	17.7	0	23.5	23.4	23.5	0	16.5	16.6	16.6

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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	23.3	22.8	23.0	0	23.3	22.8	23.0	0	24.4	24.4	24.5	0	24.4	24.4	24.5
			1	24	0	23.2	23.5	23.2	0	23.2	23.5	23.2	0	24.4	24.5	24.5	0	24.4	24.5	24.5
			1	49	0	22.9	23.0	23.0	0	22.9	23.0	23.0	0	24.4	24.5	24.5	0	24.4	24.5	24.5
			25	0	1	22.0	22.0	22.0	1	22.0	22.0	22.0	1	23.5	23.5	23.5	1	23.5	23.5	23.5
			25	12	1	22.0	22.0	22.0	1	22.0	22.0	22.0	1	23.3	23.5	23.4	1	23.3	23.5	23.4
			25	24	1	22.0	22.0	21.9	1	22.0	22.0	21.9	1	23.5	23.5	23.4	1	23.5	23.5	23.4
			50	0	1	22.0	22.0	22.0	1	22.0	22.0	22.0	1	23.5	23.5	23.5	1	23.5	23.5	23.5
		16QAM	1	0	1	21.7	21.7	21.7	1	21.7	21.7	21.7	1	23.2	23.2	23.2	1	23.2	23.2	23.2
			1	24	1	22.0	22.0	22.0	1	22.0	22.0	22.0	1	23.5	23.5	23.5	1	23.5	23.5	23.5
			1	49	1	21.8	21.9	21.7	1	21.8	21.9	21.7	1	23.3	23.4	23.2	1	23.3	23.4	23.2
			25	0	2	21.0	20.8	20.8	2	21.0	20.8	20.8	2	22.5	22.3	22.3	2	22.5	22.3	22.3
			25	12	2	20.9	20.9	20.8	2	20.9	20.9	20.8	2	22.4	22.4	22.3	2	22.4	22.4	22.3
			25	24	2	20.9	20.9	20.8	2	20.9	20.9	20.8	2	22.4	22.4	22.3	2	22.4	22.4	22.3
			50	0	2	20.7	20.7	20.7	2	20.7	20.7	20.7	2	22.2	22.2	22.2	2	22.2	22.2	22.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz
LTE Band 12	5	QPSK	1	0	0	23.4	23.0	23.0	0	23.4	23.0	23.0	0	24.3	24.4	24.4	0	24.3	24.4	24.4
			1	12	0	22.8	22.9	23.0	0	22.8	22.9	23.0	0	24.4	24.4	24.3	0	24.4	24.4	24.3
			1	24	0	22.8	23.0	22.8	0	22.8	23.0	22.8	0	24.4	24.4	24.4	0	24.4	24.4	24.4
			12	0	1	21.9	21.8	21.8	1	21.9	21.8	21.8	1	23.3	23.4	23.5	1	23.3	23.4	23.5
			12	7	1	21.8	21.8	21.8	1	21.8	21.8	21.8	1	23.3	23.5	23.4	1	23.3	23.5	23.4
			12	13	1	21.8	21.8	21.7	1	21.8	21.8	21.7	1	23.5	23.5	23.4	1	23.5	23.5	23.4
			25	0	1	21.5	21.6	21.6	1	21.5	21.6	21.6	1	23.5	23.5	23.5	1	23.5	23.5	23.5
		16QAM	1	0	1	21.9	22.0	22.0	1	21.9	22.0	22.0	1	23.2	23.2	23.2	1	23.2	23.2	23.2
			1	12	1	21.7	21.8	22.0	1	21.7	21.8	22.0	1	23.5	23.5	23.5	1	23.5	23.5	23.5
			1	24	1	21.8	21.9	21.8	1	21.8	21.9	21.8	1	23.3	23.4	23.2	1	23.3	23.4	23.2
			12	0	2	20.8	20.7	20.8	2	20.8	20.7	20.8	2	22.5	22.3	22.3	2	22.5	22.3	22.3
			12	7	2	20.7	20.7	20.7	2	20.7	20.7	20.7	2	22.4	22.4	22.3	2	22.4	22.4	22.3
			12	13	2	20.7	20.7	20.6	2	20.7	20.7	20.6	2	22.3	22.5	22.3	2	22.3	22.5	22.3
			25	0	2	20.4	20.5	20.6	2	20.4	20.5	20.6	2	22.2	22.3	22.2	2	22.2	22.3	22.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz
LTE Band 12	3	QPSK	1	0	0	23.5	23.0	22.9	0	23.5	23.0	22.9	0	24.3	24.4	24.4	0	24.3	24.4	24.4
			1	8	0	22.9	22.8	22.8	0	22.9	22.8	22.8	0	24.4	24.4	24.3	0	24.4	24.4	24.3
			1	14	0	23.0	22.9	22.8	0	23.0	22.9	22.8	0	24.4	24.4	24.4	0	24.4	24.4	24.4
			8	0	1	21.9	21.9	21.9	1	21.9	21.9	21.9	1	23.3	23.4	23.5	1	23.3	23.4	23.5
			8	4	1	21.8	21.8	21.7	1	21.8	21.8	21.7	1	23.3	23.5	23.4	1	23.3	23.5	23.4
			8	7	1	21.8	21.9	21.8	1	21.8	21.9	21.8	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			15	0	1	21.4	21.6	21.4	1	21.4	21.6	21.4	1	23.3	23.3	23.4	1	23.3	23.3	23.4
		16QAM	1	0	1	21.9	21.9	21.9	1	21.9	21.9	21.9	1	23.2	23.2	23.2	1	23.2	23.2	23.2
			1	8	1	21.9	21.8	21.8	1	21.9	21.8	21.8	1	23.5	23.5	23.5	1	23.5	23.5	23.5
			1	14	1	21.9	21.9	21.7	1	21.9	21.9	21.7	1	23.3	23.4	23.2	1	23.3	23.4	23.2
			8	0	2	20.9	20.9	20.9	2	20.9	20.9	20.9	2	22.5	22.3	22.3	2	22.5	22.3	22.3
			8	4	2	20.8	20.8	20.6	2	20.8	20.8	20.6	2	22.4	22.4	22.3	2	22.4	22.4	22.3
			8	7	2	20.7	20.9	20.7	2	20.7	20.9	20.7	2	22.3	22.5	22.3	2	22.3	22.5	22.3
			15	0	2	20.3	20.5	20.3	2	20.3	20.5	20.3	2	22.2	22.3	22.2	2	22.2	22.3	22.2

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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	23.2	22.8	22.9	0	23.2	22.8	22.9	0	24.3	24.4	24.4	0	24.3	24.4	24.4
			1	2	0	22.8	23.0	22.7	0	22.8	23.0	22.7	0	24.4	24.4	24.3	0	24.4	24.4	24.3
			1	5	0	22.7	22.8	22.7	0	22.7	22.8	22.7	0	24.4	24.4	24.4	0	24.4	24.4	24.4
			3	0	0	22.8	22.8	22.7	0	22.8	22.8	22.7	0	24.3	24.4	24.4	0	24.3	24.4	24.4
			3	1	0	22.8	22.9	22.7	0	22.8	22.9	22.7	0	24.4	24.5	24.3	0	24.4	24.5	24.3
			3	2	0	22.8	22.8	22.8	0	22.8	22.8	22.8	0	24.4	24.4	24.3	0	24.4	24.4	24.3
			6	0	1	21.7	21.7	21.5	1	21.7	21.7	21.5	1	23.3	23.3	23.4	1	23.3	23.3	23.4
		16QAM	1	0	1	21.6	21.8	21.8	1	21.6	21.8	21.8	1	23.2	23.2	23.2	1	23.2	23.2	23.2
			1	2	1	21.8	21.9	21.6	1	21.8	21.9	21.6	1	23.5	23.5	23.5	1	23.5	23.5	23.5
			1	5	1	21.6	21.8	21.6	1	21.6	21.8	21.6	1	23.3	23.4	23.2	1	23.3	23.4	23.2
			3	0	1	21.8	21.7	21.6	1	21.8	21.7	21.6	1	23.3	23.4	23.2	1	23.3	23.4	23.2
			3	1	1	21.8	21.8	21.7	1	21.8	21.8	21.7	1	23.3	23.3	23.3	1	23.3	23.3	23.3
			3	2	1	21.7	21.8	21.7	1	21.7	21.8	21.7	1	23.4	23.3	23.3	1	23.4	23.3	23.3
			6	0	2	20.6	20.6	20.4	2	20.6	20.6	20.4	2	22.2	22.3	22.2	2	22.2	22.3	22.2

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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	23.1	0	23.1	0	24.3	0	24.3
			1	24	0	23.1	0	23.1	0	24.5	0	24.5
			1	49	0	23.1	0	23.1	0	24.4	0	24.4
			25	0	1	22.0	1	22.0	1	23.5	1	23.5
			25	12	1	22.0	1	22.0	1	23.5	1	23.5
			25	24	1	22.0	1	22.0	1	23.5	1	23.5
			50	0	1	22.0	1	22.0	1	23.5	1	23.5
		16QAM	1	0	1	22.5	1	22.5	1	23.5	1	23.5
			1	24	1	22.4	1	22.4	1	23.5	1	23.5
			1	49	1	22.4	1	22.4	1	23.5	1	23.5
			25	0	2	21.4	2	21.4	2	22.3	2	22.3
			25	12	2	21.4	2	21.4	2	22.4	2	22.4
			25	24	2	21.4	2	21.4	2	22.3	2	22.3
			50	0	2	21.4	2	21.4	2	22.4	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	23.5	23.3	23.4	0	23.4	23.3	23.5	0	24.2	24.3	24.3	0	24.2	24.3	24.3
			1	12	0	23.3	23.4	23.4	0	23.5	23.4	23.5	0	24.4	24.5	24.3	0	24.4	24.5	24.3
			1	24	0	23.4	23.4	23.4	0	23.5	23.4	23.4	0	24.4	24.4	24.3	0	24.4	24.4	24.3
			12	0	1	22.5	22.4	22.5	1	22.4	22.5	22.4	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			12	7	1	22.3	22.4	22.4	1	22.4	22.4	22.4	1	23.4	23.5	23.4	1	23.4	23.5	23.4
			12	13	1	22.3	22.3	22.4	1	22.4	22.3	22.4	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			25	0	1	22.5	22.4	22.4	1	22.4	22.5	22.4	1	23.4	23.4	23.4	1	23.4	23.4	23.4
		16QAM	1	0	1	22.4	22.4	22.4	1	22.5	22.4	22.5	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			1	12	1	22.5	22.5	22.4	1	22.4	22.4	22.4	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			1	24	1	22.5	22.4	22.5	1	22.5	22.4	22.4	1	23.4	23.5	23.4	1	23.4	23.5	23.4
			12	0	2	21.3	21.5	21.4	2	21.5	21.4	21.5	2	22.5	22.4	22.4	2	22.5	22.4	22.4
			12	7	2	21.4	21.4	21.4	2	21.5	21.5	21.5	2	22.4	22.5	22.4	2	22.4	22.5	22.4
			12	13	2	21.5	21.5	21.4	2	21.5	21.5	21.4	2	22.4	22.4	22.4	2	22.4	22.4	22.4
			25	0	2	21.5	21.5	21.3	2	21.3	21.4	21.4	2	22.4	22.5	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 overlapping 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	18.5	18.4	18.4	0	20.9	20.9	21.0	0	24.4	24.4	24.5	0	19.4	19.5	19.3
			1	49	0	18.5	18.5	18.5	0	20.3	20.7	20.9	0	24.5	24.5	24.5	0	19.3	19.5	19.3
			1	99	0	18.4	18.4	18.4	0	20.9	20.9	21.0	0	24.4	24.4	24.4	0	19.4	19.5	19.3
			50	0	0	18.4	18.3	18.5	1	20.0	19.9	19.9	1	23.4	23.4	23.4	0	18.4	18.4	18.4
			50	24	0	18.4	18.4	18.5	1	19.9	19.9	20.0	1	23.5	23.5	23.5	0	18.4	18.4	18.5
			50	49	0	18.5	18.4	18.4	1	20.0	19.9	19.9	1	23.4	23.3	23.3	0	18.4	18.4	18.4
			100	0	0	18.3	18.4	18.4	1	19.9	19.9	19.8	1	23.5	23.5	23.5	0	18.5	18.5	18.4
		16QAM	1	0	0	18.4	18.5	18.4	1	20.9	20.9	21.0	1	23.4	23.5	23.5	0	19.3	19.4	19.3
			1	49	0	18.5	18.5	18.4	1	20.3	20.7	20.9	1	23.4	23.5	23.5	0	19.3	19.5	19.3
			1	99	0	18.4	18.4	18.5	1	20.8	20.8	20.9	1	23.5	23.4	23.4	0	19.3	19.4	19.3
			50	0	0	18.5	18.4	18.4	2	20.0	19.9	19.9	2	22.4	22.4	22.4	0	18.3	18.4	18.4
			50	24	0	18.5	18.5	18.4	2	19.9	19.9	20.0	2	22.4	22.4	22.5	0	18.3	18.4	18.5
			50	49	0	18.4	18.4	18.5	2	20.0	19.9	19.9	2	22.5	22.4	22.4	0	18.4	18.4	18.4
			100	0	0	18.5	18.4	18.4	2	19.9	19.9	19.8	2	22.4	22.5	22.5	0	18.5	18.5	18.4
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	18.4	18.4	18.3	0	20.8	20.9	21.0	0	24.4	24.4	24.4	0	19.4	19.5	19.3
			1	36	0	18.4	18.4	18.4	0	20.3	20.7	20.9	0	24.3	24.4	24.5	0	19.3	19.5	19.3
			1	74	0	18.5	18.4	18.4	0	20.9	20.9	21.0	0	24.4	24.4	24.5	0	19.4	19.5	19.3
			36	0	0	18.4	18.4	18.4	1	20.0	19.9	19.9	1	23.5	23.4	23.4	0	18.4	18.4	18.4
			36	18	0	18.5	18.5	18.5	1	19.9	19.9	20.0	1	23.4	23.3	23.4	0	18.4	18.4	18.5
			36	37	0	18.4	18.4	18.5	1	20.0	19.9	19.9	1	23.5	23.5	23.5	0	18.4	18.4	18.4
			75	0	0	18.4	18.5	18.5	1	19.9	19.9	19.8	1	23.4	23.5	23.4	0	18.4	18.5	18.4
		16QAM	1	0	0	18.3	18.4	18.4	1	20.9	20.9	21.0	1	23.4	23.5	23.5	0	19.4	19.4	19.3
			1	36	0	18.4	18.4	18.3	1	20.3	20.7	20.9	1	23.4	23.4	23.5	0	19.3	19.5	19.3
			1	74	0	18.5	18.5	18.3	1	20.8	20.8	20.9	1	23.4	23.4	23.4	0	19.2	19.4	19.3
			36	0	0	18.5	18.5	18.4	2	20.0	19.9	19.9	2	22.5	22.4	22.4	0	18.3	18.4	18.4
			36	18	0	18.4	18.5	18.5	2	19.9	19.9	20.0	2	22.4	22.5	22.4	0	18.3	18.4	18.5
			36	37	0	18.5	18.4	18.4	2	20.0	19.9	19.9	2	22.5	22.4	22.4	0	18.4	18.4	18.4
			75	0	0	18.5	18.4	18.5	2	19.9	19.9	19.8	2	22.4	22.5	22.4	0	18.4	18.5	18.4
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	18.4	18.4	18.4	0	20.9	20.9	29.0	0	24.4	24.5	24.4	0	19.4	19.5	19.3
			1	24	0	18.4	18.4	18.4	0	20.3	20.7	20.9	0	24.4	24.4	24.5	0	19.3	19.5	19.3
			1	49	0	18.4	18.4	18.4	0	20.8	20.9	20.9	0	24.4	24.5	24.4	0	19.4	19.5	19.3
			25	0	0	18.5	18.5	18.4	1	20.0	19.9	19.9	1	23.4	23.4	23.4	0	18.4	18.4	18.4
			25	12	0	18.4	18.5	18.3	1	19.9	19.9	20.0	1	23.4	23.4	23.5	0	18.4	18.4	18.5
			25	24	0	18.4	18.5	18.5	1	20.0	19.9	19.9	1	23.4	23.3	23.5	0	18.4	18.4	18.4
			50	0	0	18.5	18.4	18.4	1	19.9	19.9	19.8	1	23.4	23.5	23.4	0	18.5	18.5	18.4
		16QAM	1	0	0	18.4	18.4	18.4	1	20.9	20.9	21.0	1	23.5	23.4	23.4	0	19.3	19.4	19.3
			1	24	0	18.5	18.3	18.4	1	20.3	20.7	20.9	1	23.4	23.3	23.4	0	19.5	19.4	19.4
			1	49	0	18.4	18.4	18.5	1	20.8	20.8	20.9	1	23.4	23.4	23.4	0	19.3	19.4	19.3
			25	0	0	18.3	18.4	18.5	2	20.0	19.9	19.9	2	22.4	22.4	22.4	0	18.3	18.4	18.4
			25	12	0	18.4	18.4	18.4	2	19.9	19.9	20.0	2	22.3	22.4	22.5	0	18.3	18.4	18.5
			25	24	0	18.4	18.4	18.5	2	20.0	19.9	19.9	2	22.4	22.4	22.4	0	18.4	18.4	18.4
			50	0	0	18.5	18.4	18.4	2	19.9	19.9	19.8	2	22.5	22.4	22.5	0	18.5	18.5	18.4

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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	18.4	18.4	18.3	0	20.7	20.7	20.7	0	24.4	24.4	24.5	0	19.4	19.5	19.3
			1	12	0	18.5	18.5	18.5	0	20.8	20.9	20.9	0	24.5	24.5	24.5	0	19.3	19.5	19.3
			1	24	0	18.4	18.4	18.4	0	20.9	21.0	20.9	0	24.4	24.4	24.5	0	19.4	19.5	19.3
			12	0	0	18.4	18.4	18.4	1	20.0	20.0	19.9	1	23.4	23.4	23.4	0	18.4	18.4	18.4
			12	7	0	18.4	18.5	18.4	1	19.9	19.9	19.9	1	23.5	23.4	23.4	0	18.4	18.4	18.5
			12	13	0	18.4	18.4	18.4	1	19.9	20.0	19.8	1	23.5	23.5	23.5	0	18.4	18.4	18.4
			25	0	0	18.4	18.4	18.4	1	19.9	19.8	20.0	1	23.5	23.4	23.5	0	18.5	18.5	18.4
		16QAM	1	0	0	18.3	18.4	18.5	1	20.9	20.9	21.0	1	23.4	23.4	23.4	0	19.4	19.4	19.4
			1	12	0	18.4	18.4	18.4	1	20.3	20.7	20.9	1	23.4	23.4	23.4	0	19.3	19.5	19.4
			1	24	0	18.4	18.4	18.4	1	20.8	20.8	20.9	1	23.4	23.4	23.4	0	19.3	19.4	19.3
			12	0	0	18.4	18.4	18.4	2	19.0	18.9	19.0	2	22.5	22.4	22.4	0	18.3	18.4	18.4
			12	7	0	18.4	18.5	18.5	2	18.9	18.9	18.9	2	22.4	22.4	22.4	0	18.3	18.4	18.5
			12	13	0	18.4	18.4	18.4	2	19.0	19.0	18.9	2	22.5	22.5	22.4	0	18.4	18.4	18.4
			25	0	0	18.4	18.4	18.4	2	19.0	18.9	18.9	2	22.5	22.5	22.4	0	18.5	18.5	18.4
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	18.5	18.4	18.4	0	20.8	20.9	20.9	0	24.4	24.4	24.3	0	19.4	19.5	19.3
			1	8	0	18.4	18.5	18.5	0	20.8	20.9	20.9	0	24.4	24.4	24.4	0	19.3	19.5	19.3
			1	14	0	18.4	18.4	18.4	0	20.8	20.8	20.8	0	24.4	24.4	24.4	0	19.4	19.5	19.3
			8	0	0	18.4	18.4	18.4	1	19.9	19.8	19.9	1	23.4	23.4	23.4	0	18.4	18.4	18.4
			8	4	0	18.5	18.4	18.4	1	20.0	19.9	19.9	1	23.4	23.5	23.4	0	18.4	18.4	18.5
			8	7	0	18.5	18.4	18.5	1	19.9	19.9	19.8	1	23.4	23.4	23.5	0	18.4	18.4	18.4
			15	0	0	18.4	18.4	18.4	1	19.9	19.9	19.9	1	23.4	23.5	23.4	0	18.5	18.5	18.4
		16QAM	1	0	0	18.4	18.4	18.3	1	19.9	20.0	20.0	1	23.4	23.4	23.5	0	19.3	19.3	19.3
			1	8	0	18.4	18.5	18.4	1	20.0	19.9	19.9	1	23.4	23.4	23.4	0	19.3	19.4	19.3
			1	14	0	18.4	18.5	18.5	1	20.0	19.9	19.9	1	23.5	23.4	23.5	0	19.3	19.3	19.2
			8	0	0	18.5	18.5	18.4	2	18.8	18.9	18.9	2	22.5	22.3	22.4	0	18.3	18.4	18.4
			8	4	0	18.5	18.3	18.4	2	19.0	19.0	18.9	2	22.4	22.4	22.4	0	18.3	18.4	18.5
			8	7	0	18.4	18.4	18.4	2	18.9	18.8	18.9	2	22.3	22.5	22.4	0	18.4	18.4	18.4
			15	0	0	18.4	18.4	18.5	2	19.0	19.0	18.8	2	22.4	22.5	22.4	0	18.5	18.5	18.4
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	18.5	18.4	18.5	0	20.7	20.7	20.7	0	24.4	24.5	24.4	0	19.4	19.4	19.3
			1	3	0	18.5	18.5	18.4	0	20.8	20.9	20.9	0	24.4	24.5	24.4	0	19.3	19.4	19.3
			1	5	0	18.4	18.4	18.4	0	20.9	21.0	20.9	0	24.5	24.5	24.4	0	19.3	19.4	19.3
			3	0	0	18.4	18.4	18.5	0	20.0	20.0	19.9	0	24.4	24.5	24.4	0	18.4	18.4	18.4
			3	1	0	18.3	18.4	18.4	0	19.9	19.9	19.9	0	24.4	24.4	24.4	0	18.4	18.4	18.5
			3	3	0	18.4	18.3	18.4	0	19.9	20.0	19.8	0	24.4	24.4	24.4	0	18.4	18.4	18.4
			6	0	0	18.4	18.4	18.5	1	19.9	19.8	20.0	1	23.4	23.4	23.4	0	18.5	18.5	18.4
		16QAM	1	0	0	18.4	18.4	18.5	1	20.9	20.9	21.0	1	23.5	23.5	23.5	0	19.3	19.4	19.3
			1	3	0	18.4	18.5	18.5	1	20.3	20.7	20.9	1	23.5	23.4	23.4	0	19.3	19.5	19.3
			1	5	0	18.4	18.4	18.5	1	20.8	20.8	20.9	1	23.4	23.4	23.4	0	19.3	19.4	19.3
			3	0	0	18.3	18.4	18.4	1	19.0	18.9	19.0	1	23.4	23.5	23.4	0	18.3	18.4	18.4
			3	1	0	18.4	18.3	18.4	1	18.9	18.9	18.9	1	23.4	23.4	23.4	0	18.3	18.4	18.5
			3	3	0	18.5	18.4	18.3	1	19.0	19.0	18.9	1	23.4	23.4	23.5	0	18.4	18.4	18.4
			6	0	0	18.4	18.4	18.5	2	19.0	18.9	18.9	2	22.4	22.4	22.4	0	18.5	18.5	18.4

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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	22.4	22.4	22.4	0	22.5	22.5	22.4	0	23.9	23.9	23.9	0	23.4	23.3	23.4
			1	24	0	22.5	22.5	22.4	0	22.4	22.5	22.4	0	23.9	24.0	23.9	0	23.5	23.5	23.5
			1	49	0	22.4	22.4	22.5	0	22.4	22.4	22.4	0	23.9	23.9	24.0	0	23.3	23.5	23.4
			25	0	1	21.4	21.4	21.4	1	21.4	21.4	21.4	1	22.9	22.8	22.8	1	22.3	22.4	22.5
			25	12	1	21.5	21.5	21.4	1	21.4	21.5	21.4	1	23.0	23.0	23.0	1	22.5	22.5	22.5
			25	24	1	21.3	21.4	21.4	1	21.5	21.5	21.4	1	22.9	23.0	23.0	1	22.5	22.5	22.5
			50	0	1	21.4	21.5	21.5	1	21.4	21.4	21.4	1	22.8	23.0	23.0	1	22.5	22.5	22.5
		16QAM	1	0	1	21.5	21.5	21.4	1	21.4	21.5	21.4	1	23.0	22.9	22.9	1	22.5	22.5	22.5
			1	24	1	21.5	21.4	21.4	1	21.4	21.3	21.4	1	22.9	23.0	22.9	1	22.5	22.5	22.5
			1	49	1	21.3	21.4	21.4	1	21.4	21.5	21.4	1	22.9	22.9	23.0	1	21.5	21.5	21.5
			25	0	2	20.5	20.4	20.4	2	20.5	20.4	20.4	2	21.9	21.9	21.9	2	21.5	21.5	21.5
			25	12	2	20.4	20.5	20.5	2	20.4	20.4	20.3	2	21.8	21.9	21.9	2	21.5	21.5	21.5
			25	24	2	20.3	20.4	20.5	2	20.4	20.4	20.5	2	21.9	22.0	21.9	2	21.5	21.5	21.5
			50	0	2	20.4	20.5	20.4	2	20.5	20.4	20.5	2	21.9	22.0	22.0	2	21.5	21.5	21.5

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	22.4	22.5	22.4	0	22.5	22.4	22.4	0	23.9	23.8	24.0	0	23.4	23.3	23.4
			1	12	0	22.5	22.4	22.4	0	22.4	22.5	22.4	0	23.9	23.9	23.9	0	23.5	23.5	23.5
			1	24	0	22.4	22.4	22.5	0	22.4	22.4	22.5	0	23.9	23.9	23.9	0	23.3	23.5	23.4
			12	0	1	21.5	21.5	21.4	1	21.4	21.4	21.4	1	22.9	22.9	23.0	1	22.3	22.4	22.5
			12	7	1	21.5	21.4	21.4	1	21.4	21.4	21.5	1	23.0	22.9	22.9	1	22.5	22.5	22.5
			12	13	1	21.4	21.4	21.4	1	21.4	21.4	21.4	1	23.0	23.0	22.8	1	22.5	22.5	22.5
			25	0	1	21.5	21.4	21.4	1	21.4	21.4	21.4	1	23.0	22.9	22.9	1	22.5	22.5	22.5
		16QAM	1	0	1	21.4	21.5	21.4	1	21.5	21.5	21.4	1	23.0	22.9	22.9	1	22.5	22.5	22.5
			1	12	1	21.4	21.4	21.5	1	21.3	21.5	21.5	1	23.0	23.0	22.9	1	22.5	22.5	22.5
			1	24	1	21.5	21.5	21.4	1	21.5	21.4	21.5	1	23.0	23.0	22.9	1	21.5	21.5	21.5
			12	0	2	20.5	20.5	20.4	2	20.4	20.4	20.5	2	22.0	21.8	21.9	2	21.5	21.5	21.5
			12	7	2	20.5	20.5	20.4	2	20.4	20.5	20.4	2	21.9	21.9	21.8	2	21.5	21.5	21.5
			12	13	2	20.4	20.5	20.4	2	20.4	20.4	20.3	2	21.9	22.0	21.9	2	21.5	21.5	21.5
			25	0	2	20.3	20.4	20.4	2	20.3	20.5	20.4	2	22.0	22.0	21.9	2	21.5	21.5	21.5

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	22.4	22.4	22.4	0	22.4	22.4	22.5	0	23.9	23.9	23.9	0	23.4	23.3	23.4
			1	8	0	22.5	22.5	22.4	0	22.5	22.3	22.5	0	23.9	23.9	23.8	0	23.5	23.5	23.5
			1	14	0	22.4	22.4	22.5	0	22.4	22.4	22.4	0	24.0	23.9	23.9	0	23.3	23.5	23.4
			8	0	1	21.5	21.3	21.4	1	21.4	21.4	21.4	1	22.8	22.9	22.8	1	22.3	22.4	22.5
			8	4	1	21.4	21.4	21.4	1	21.4	21.4	21.5	1	23.0	22.9	23.0	1	22.5	22.5	22.5
			8	7	1	21.4	21.4	21.4	1	21.4	21.5	21.4	1	22.9	22.8	22.9	1	22.5	22.5	22.5
			15	0	1	21.5	21.3	21.4	1	21.4	21.4	21.4	1	22.8	23.0	22.9	1	22.5	22.5	22.5
		16QAM	1	0	1	21.5	21.5	21.5	1	21.4	21.4	21.4	1	23.0	22.9	22.9	1	22.5	22.5	22.5
			1	8	1	21.4	21.4	21.4	1	21.4	21.4	21.4	1	23.0	22.8	22.9	1	22.5	22.5	22.5
			1	14	1	21.4	21.4	21.4	1	21.4	21.5	21.4	1	23.0	22.9	22.9	1	21.5	21.5	21.5
			8	0	2	20.4	20.5	20.3	2	20.4	20.5	20.4	2	21.8	21.8	22.0	2	21.5	21.5	21.5
			8	4	2	20.3	20.4	20.4	2	20.4	20.5	20.5	2	21.9	21.9	22.0	2	21.5	21.5	21.5
			8	7	2	20.5	20.5	20.4	2	20.4	20.5	20.4	2	21.9	21.9	21.9	2	21.5	21.5	21.5
			15	0	2	20.4	20.4	20.5	2	20.4	20.3	20.4	2	22.0	21.9	21.9	2	21.5	21.5	21.5

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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	22.5	22.5	22.4	0	22.4	22.4	22.4	0	23.9	24.0	23.9	0	23.4	23.3	23.4
			1	3	0	22.5	22.5	22.4	0	22.5	22.4	22.5	0	24.0	23.9	23.9	0	23.5	23.5	23.5
			1	5	0	22.4	22.4	22.5	0	22.3	22.4	22.4	0	23.8	24.0	23.9	0	23.3	23.5	23.4
			3	0	0	22.4	22.4	22.4	0	22.4	22.4	22.4	0	24.0	24.0	24.0	0	23.4	23.3	23.4
			3	1	0	22.4	22.4	22.5	0	22.4	22.4	22.5	0	23.9	23.9	24.0	0	23.5	23.5	23.5
			3	3	0	22.5	22.5	22.4	0	22.4	22.5	22.4	0	23.9	23.9	24.0	0	23.3	23.5	23.4
			6	0	1	21.4	21.4	21.4	1	21.4	21.3	21.4	1	22.9	22.9	23.0	1	22.5	22.5	22.5
		16QAM	1	0	1	21.5	21.5	21.5	1	21.5	21.5	21.5	1	22.9	22.9	23.0	1	22.5	22.5	22.5
			1	3	1	21.5	21.5	21.5	1	21.4	21.5	21.4	1	22.8	22.9	23.0	1	22.5	22.5	22.5
			1	5	1	21.4	21.3	21.4	1	21.3	21.4	21.4	1	22.8	22.8	23.0	1	22.5	22.5	22.5
			3	0	1	21.4	21.4	21.4	1	21.5	21.5	21.4	1	23.0	23.0	22.9	1	22.5	22.5	22.5
			3	1	1	21.5	21.5	21.5	1	21.5	21.4	21.4	1	23.0	23.0	22.9	1	22.5	22.5	22.5
			3	3	1	21.4	21.4	21.4	1	21.5	21.4	21.4	1	23.0	23.0	22.9	1	22.5	22.5	22.5
			6	0	2	20.5	20.4	20.4	2	20.4	20.4	20.5	2	21.9	21.9	22.0	2	21.5	21.5	21.5

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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 overlapping frequency range, same 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		17.4		0.0		22.1		0		18.1	
			1	24	0		15.5		0		17.4		0.0		22.3		0		18.3	
			1	49	0		15.3		0		17.4		0.0		22.2		0		18.2	
			25	0	0		15.3		0		17.3		0.0		22.1		0		18.1	
			25	12	0		15.5		0		17.4		0.0		22.2		0		18.3	
			25	24	0		15.5		0		17.3		0.0		22.2		0		18.3	
			50	0	0		15.5		0		17.4		0.0		22.2		0		18.3	
		16QAM	1	0	0		15.3		0		17.3		0.0		22.0		0		18.0	
			1	24	0		15.5		0		17.3		0.0		22.2		0		18.2	
			1	49	0		15.3		0		17.4		0.0		22.1		0		18.2	
			25	0	0		15.3		0		17.3		0.3		21.7		0		18.0	
			25	12	0		15.4		0		17.4		0.3		21.8		0		18.2	
			25	24	0		15.5		0		17.2		0.3		21.8		0		18.2	
			50	0	0		15.4		0		17.3		0.3		21.8		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	15.3	15.4	15.4	0	17.1	17.4	17.4	0.0	22.2	22.1	22.2	0	18.1	18.2	18.2
			1	12	0	15.3	15.5	15.2	0	17.1	17.4	17.3	0.0	22.1	22.1	22.1	0	18.1	18.1	18.1
			1	24	0	15.4	15.5	15.3	0	17.2	17.3	17.2	0.0	22.0	22.2	22.1	0	18.0	18.1	18.0
			12	0	0	15.4	15.5	15.3	0	17.4	17.4	17.2	0.0	22.0	22.0	22.1	0	18.0	18.1	18.0
			12	7	0	15.4	15.4	15.5	0	17.3	17.2	17.3	0.0	22.0	22.1	22.1	0	18.0	18.1	18.0
			12	13	0	15.3	15.5	15.3	0	17.3	17.3	17.4	0.0	22.0	22.0	22.1	0	18.1	18.2	18.0
			25	0	0	15.1	15.4	15.2	0	17.0	17.3	17.2	0.0	22.1	22.2	22.1	0	18.0	18.2	18.0
		16QAM	1	0	0	15.2	15.4	15.3	0	17.0	17.3	17.3	0.0	22.1	22.0	22.1	0	18.0	18.1	18.2
			1	12	0	15.3	15.4	15.1	0	17.0	17.3	17.2	0.0	22.1	22.0	22.1	0	18.0	18.1	18.0
			1	24	0	15.3	15.5	15.2	0	17.1	17.2	17.2	0.0	22.0	22.2	22.0	0	17.9	18.0	18.0
			12	0	0	15.4	15.4	15.2	0	17.3	17.3	17.2	0.3	21.7	21.6	21.7	0	18.0	18.1	17.9
			12	7	0	15.3	15.3	15.4	0	17.2	17.2	17.3	0.3	21.6	21.8	21.7	0	18.0	18.1	18.0
			12	13	0	15.2	15.5	15.2	0	17.2	17.2	17.3	0.3	21.6	21.6	21.7	0	18.0	18.1	17.9
			25	0	0	15.0	15.4	15.1	0	16.9	17.2	17.1	0.3	21.7	21.8	21.7	0	18.0	18.2	18.0

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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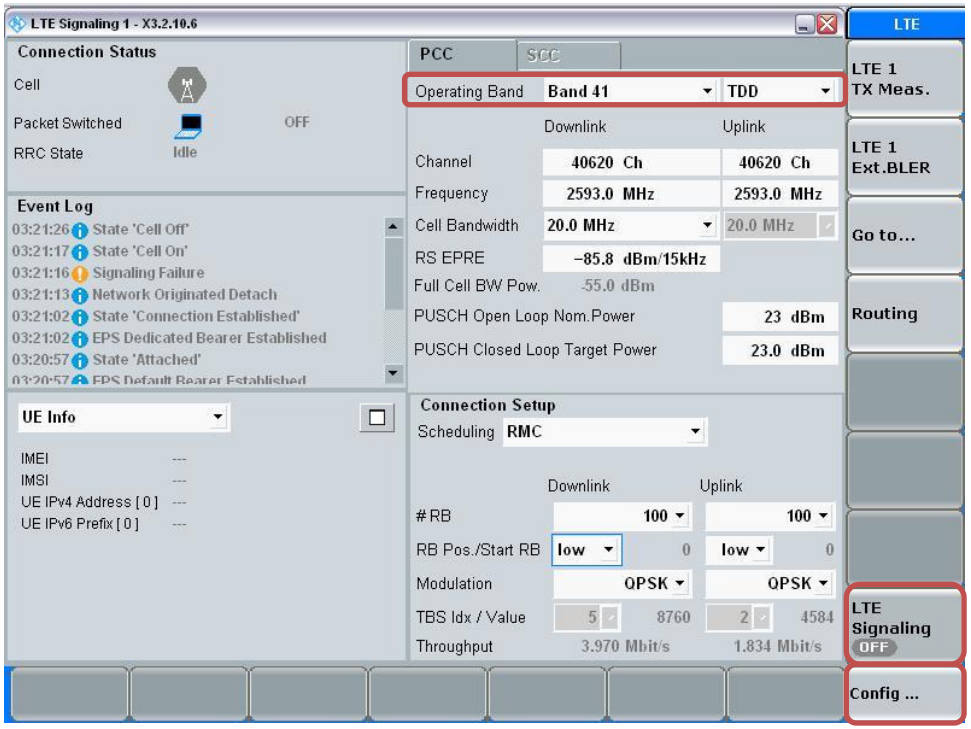
LTE TDD Band Measured Results

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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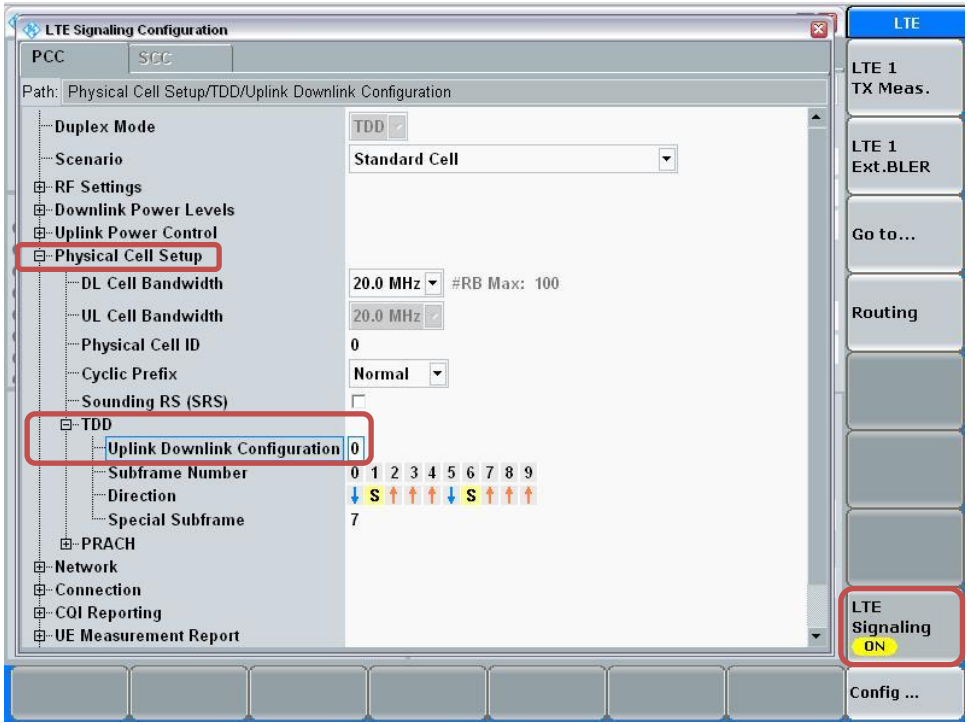

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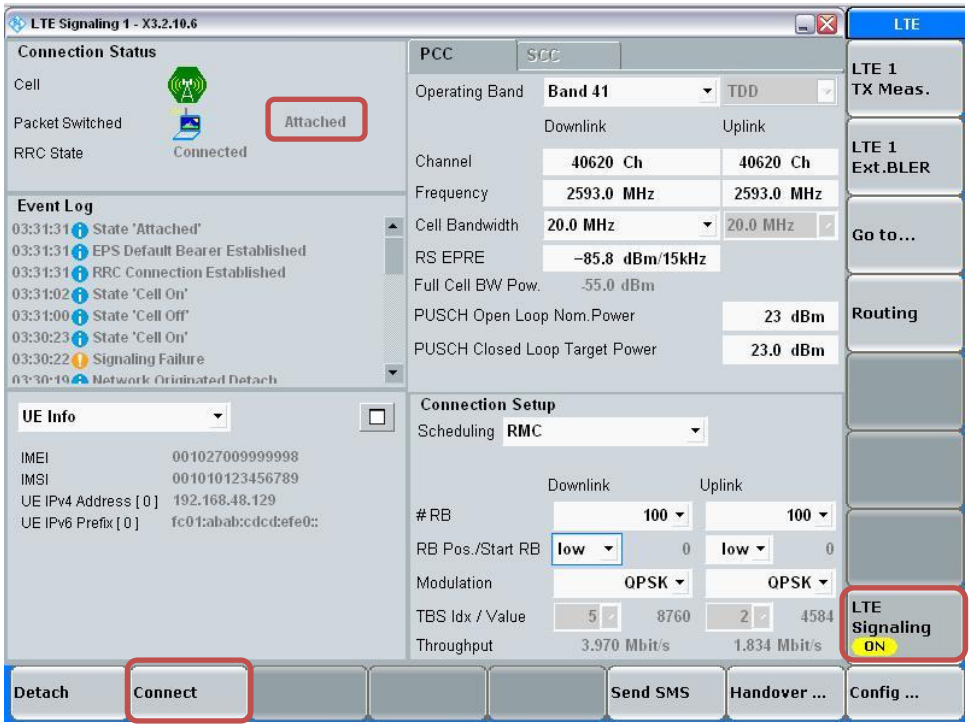
Connect to EUT

- 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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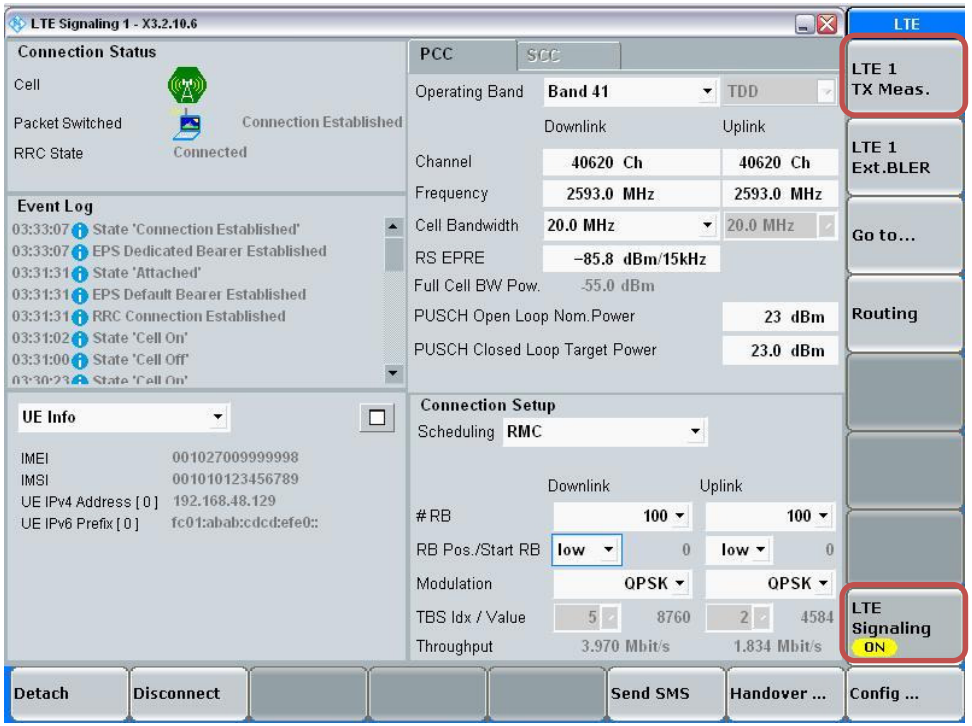

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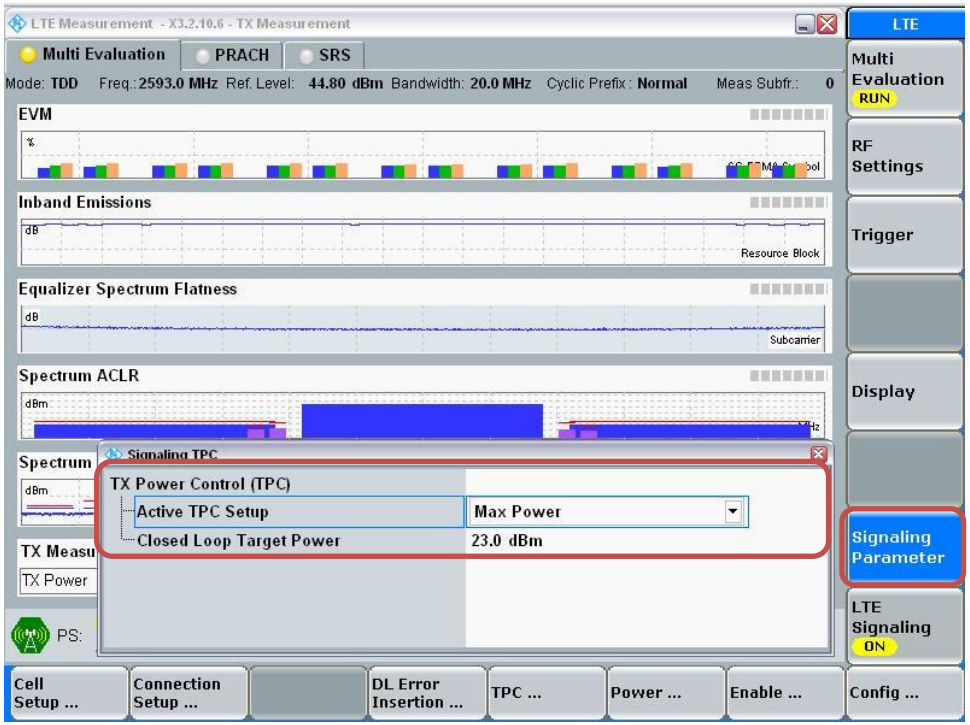
- Select “Signaling Parameter”
- Select “TX Power Control (TPC)” > Select “Active TPC Setup” to “Max Power” > Set “Closed Loop Target Power” to “23 dBm”



View TX Power

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

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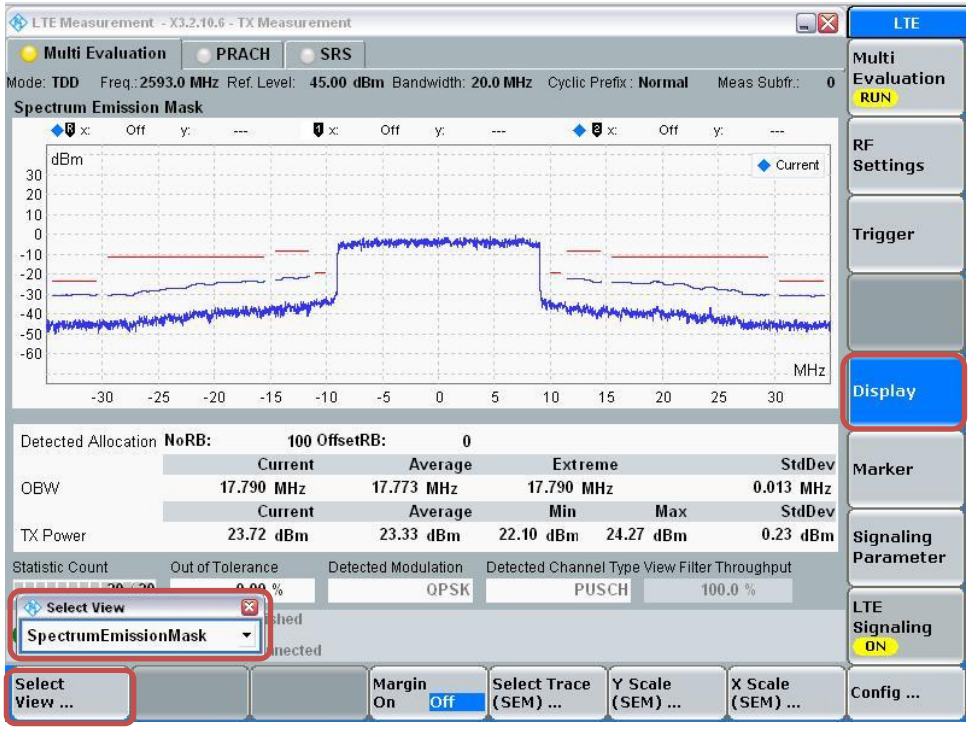

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LTE Band 41 Measured Results

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	17.5	17.1	17.2	17.4	17.3	0.0	19.7	19.6	19.5	19.7	19.5	0.0	22.5	22.3	22.4	22.3	22.4	0	19.3	19.3	19.5	19.5	19.3
			1	49	0	17.5	17.3	17.3	17.5	17.4	0.0	19.7	19.7	19.7	19.7	19.7	0.0	22.5	22.5	22.5	22.5	22.5	0	19.5	19.5	19.5	19.5	19.5
			1	99	0	17.3	17.3	17.3	17.5	17.3	0.0	19.7	19.5	19.6	19.5	19.7	0.0	22.3	22.4	22.5	22.4	22.5	0	19.4	19.3	19.4	19.3	19.4
			50	0	0	16.3	16.5	16.4	16.4	16.3	0.5	18.4	18.2	18.4	18.5	18.3	0.0	21.3	21.5	21.4	21.1	21.4	0	18.9	18.8	18.9	18.9	18.8
			50	24	0	16.5	16.5	16.5	16.5	16.5	0.5	18.4	18.4	18.5	18.5	18.4	0.0	21.3	21.5	21.5	21.3	21.5	0	19.0	19.0	19.0	19.0	19.0
			50	49	0	16.3	16.3	16.3	16.3	16.4	0.5	18.4	18.3	18.4	18.4	18.4	0.0	21.1	21.4	21.3	21.2	21.3	0	19.0	18.9	18.8	18.9	18.9
			100	0	0	16.3	16.5	16.5	16.5	16.4	0.5	18.3	18.4	18.5	18.5	18.4	0.0	21.5	21.4	21.5	21.5	21.5	0	18.9	19.0	19.0	19.0	18.9
		16QAM	1	0	0	17.5	17.0	17.1	17.3	17.3	0.5	19.1	19.0	19.0	19.1	18.9	0.0	22.5	22.2	22.3	22.2	22.3	0	19.3	19.3	19.4	19.4	19.3
			1	49	0	17.5	17.2	17.2	17.4	17.3	0.5	19.1	19.2	19.1	19.1	19.1	0.0	22.4	22.4	22.4	22.4	22.4	0	19.5	19.4	19.5	19.5	19.5
			1	99	0	17.2	17.3	17.2	17.4	17.3	0.5	19.1	18.9	19.0	19.0	19.1	0.0	22.2	22.3	22.4	22.4	22.5	0	19.3	19.2	19.4	19.2	19.3
			50	0	0	16.3	16.4	16.4	16.3	16.3	1.5	17.3	17.1	17.3	17.4	17.2	0.0	20.8	20.9	20.9	20.5	20.8	0	18.8	18.7	18.9	18.9	18.7
			50	24	0	16.4	16.4	16.4	16.5	16.4	1.5	17.4	17.4	17.4	17.4	17.4	0.0	20.7	20.9	20.9	20.8	21.0	0	18.9	18.9	19.0	18.9	18.9
			50	49	0	16.2	16.3	16.2	16.3	16.4	1.5	17.3	17.2	17.3	17.4	17.3	0.0	20.5	20.9	20.7	20.7	20.8	0	18.9	18.8	18.7	18.8	18.8
			100	0	0	16.3	16.5	16.5	16.4	16.4	1.5	17.3	17.4	17.4	17.4	17.3	0.5	20.9	20.9	20.9	21.0	21.0	0	18.9	19.0	18.9	18.9	18.8

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	17.3	17.1	17.2	17.5	17.2	0.0	19.6	19.6	19.5	19.6	19.7	0.0	22.4	22.3	22.4	22.3	22.4	0	19.3	19.4	19.4	19.3	19.4
			1	36	0	17.5	17.3	17.2	17.4	17.4	0.0	19.5	19.5	19.6	19.5	19.5	0.0	22.3	22.3	22.3	22.4	22.5	0	19.4	19.4	19.5	19.3	19.4
			1	74	0	17.3	17.1	17.1	17.3	17.2	0.0	19.6	19.5	19.5	19.6	19.6	0.0	22.5	22.4	22.3	22.4	22.3	0	19.3	19.3	19.5	19.3	19.4
			36	0	0	16.3	16.4	16.3	16.4	16.4	0.5	18.2	18.2	18.3	18.5	18.4	0.0	21.2	21.3	21.5	21.2	21.4	0	18.9	18.9	19.0	18.9	18.9
			36	18	0	16.5	16.3	16.4	16.3	16.5	0.5	18.3	18.3	18.5	18.3	18.3	0.0	21.2	21.5	21.4	21.2	21.3	0	18.8	19.0	18.8	18.9	18.9
			36	37	0	16.4	16.4	16.4	16.4	16.3	0.5	18.4	18.3	18.4	18.5	18.2	0.0	21.3	21.4	21.3	21.2	21.3	0	18.9	18.9	18.8	19.0	18.9
			75	0	0	16.1	16.4	16.3	16.3	16.2	0.5	18.2	18.2	18.4	18.5	18.5	0.0	21.1	21.2	21.4	21.5	21.3	0	18.7	19.0	18.8	18.8	18.7
		16QAM	1	0	0	17.2	17.0	17.2	17.5	17.1	0.5	19.0	19.0	19.0	19.1	19.1	0.0	22.3	22.2	22.3	22.3	22.4	0	19.3	19.3	19.4	19.2	19.3
			1	36	0	17.4	17.2	17.2	17.3	17.4	0.5	18.9	18.9	19.1	19.0	18.9	0.0	22.2	22.2	22.2	22.3	22.4	0	19.3	19.4	19.5	19.2	19.4
			1	74	0	17.3	17.1	17.0	17.3	17.1	0.5	19.1	18.9	18.9	19.0	19.0	0.0	22.5	22.4	22.2	22.4	22.2	0	19.2	19.2	19.4	19.2	19.3
			36	0	0	16.2	16.3	16.3	16.4	16.3	1.5	17.1	17.1	17.3	17.4	17.3	0.0	20.7	20.7	21.0	20.6	20.9	0	18.9	18.8	19.0	18.8	18.8
			36	18	0	16.4	16.2	16.4	16.2	16.4	1.5	17.3	17.2	17.4	17.2	17.2	0.0	20.7	21.0	20.9	20.7	20.7	0	18.7	18.9	18.8	18.8	18.8
			36	37	0	16.3	16.3	16.4	16.3	16.3	1.5	17.4	17.2	17.4	17.5	17.2	0.0	20.7	20.8	20.8	20.7	20.7	0	18.8	18.8	18.7	19.0	18.8
			75	0	0	16.0	16.3	16.2	16.2	16.2	1.5	17.1	17.1	17.4	17.5	17.4	0.5	20.5	20.6	20.8	20.9	20.8	0	18.6	18.9	18.7	18.8	18.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						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	17.4	17.2	17.2	17.3	17.4	0.0	19.6	19.6	19.5	19.5	19.5	0.0	22.3	22.3	22.3	22.5	22.3	0	19.4	19.4	19.5	19.4	19.4
			1	24	0	17.3	17.1	17.2	17.3	17.2	0.0	19.6	19.5	19.6	19.5	19.6	0.0	22.4	22.3	22.3	22.3	22.5	0	19.4	19.4	19.3	19.4	19.4
			1	49	0	17.3	17.2	17.2	17.4	17.3	0.0	19.5	19.5	19.6	19.6	19.5	0.0	22.3	22.3	22.4	22.3	22.3	0	19.4	19.3	19.5	19.3	19.3
			25	0	0	16.5	16.3	16.5	16.3	16.4	0.5	18.3	18.4	18.3	18.3	18.2	0.0	21.1	21.3	21.5	21.3	21.4	0	18.8	19.0	18.8	18.8	18.8
			25	12	0	16.5	16.3	16.4	16.4	16.4	0.5	18.4	18.4	18.5	18.3	18.3	0.0	21.1	21.5	21.3	21.1	21.4	0	18.9	19.0	18.8	18.8	18.8
			25	24	0	16.4	16.3	16.3	16.4	16.4	0.5	18.2	18.2	18.4	18.3	18.4	0.0	21.2	21.5	21.4	21.1	21.3	0	18.8	18.8	19.0	18.9	18.9
			50	0	0	16.2	16.3	16.3	16.3	16.3	0.5	18.2	18.2	18.4	18.3	18.5	0.0	21.1	21.2	21.5	21.4	21.2	0	18.8	19.0	19.0	18.9	18.9
		16QAM	1	0	0	17.3	17.1	17.1	17.2	17.4	0.5	19.1	19.1	18.9	19.0	18.9	0.0	22.2	22.2	22.2	22.5	22.2	0	19.3	19.3	19.4	19.3	19.3
			1	24	0	17.2	17.0	17.2	17.2	17.1	0.5	19.0	18.9	19.1	19.0	19.0	0.0	22.3	22.2	22.2	22.2	22.4	0	19.4	19.3	19.3	19.3	19.3
			1	49	0	17.2	17.1	17.2	17.3	17.3	0.5	18.9	18.9	19.0	19.0	18.9	0.0	22.3	22.3	22.3	22.3	22.3	0	19.4	19.3	19.5	19.2	19.2
			25	0	0	16.4	16.3	16.5	16.3	16.3	1.5	17.2	17.3	17.2	17.3	17.1	0.0	20.6	20.7	20.9	20.7	20.8	0	18.7	18.9	18.7	18.8	18.7
			25	12	0	16.4	16.3	16.4	16.3	16.3	1.5	17.3	17.4	17.4	17.3	17.3	0.0	20.5	20.9	20.8	20.5	20.8	0	18.8	18.9	18.8	18.7	18.7
			25	24	0	16.3	16.2	16.2	16.3	16.4	1.5	17.1	17.2	17.3	17.3	17.3	0.0	20.6	20.9	20.9	20.6	20.8	0	18.7	18.7	18.9	18.9	18.8
			50	0	0	16.2	16.2	16.3	16.3	16.2	1.5	17.1	17.1	17.3	17.2	17.4	0.5	20.5	20.6	20.9	20.8	20.7	0	18.7	18.9	18.9	18.9	18.9

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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	17.5	17.3	17.3	17.4	17.2	0.0	19.5	19.6	19.5	19.6	19.6	0.0	22.5	22.3	22.3	22.3	22.3	0	19.3	19.3	19.3	19.4	19.3
			1	12	0	17.3	17.2	17.3	17.5	17.2	0.0	19.7	19.6	19.7	19.6	19.5	0.0	22.3	22.3	22.3	22.3	22.3	0	19.3	19.3	19.4	19.5	19.3
			1	24	0	17.4	17.1	17.2	17.3	17.3	0.0	19.7	19.7	19.6	19.6	19.5	0.0	22.4	22.3	22.4	22.4	22.3	0	19.4	19.5	19.3	19.5	19.5
			12	0	0	16.4	16.4	16.3	16.4	16.5	0.5	18.3	18.3	18.4	18.3	18.3	0.0	21.1	21.4	21.4	21.2	21.4	0	18.8	18.8	18.9	18.8	18.9
			12	7	0	16.3	16.3	16.5	16.4	16.5	0.5	18.4	18.2	18.4	18.5	18.3	0.0	21.1	21.3	21.4	21.2	21.4	0	18.9	18.9	18.9	18.9	18.9
			12	13	0	16.4	16.3	16.4	16.4	16.3	0.5	18.4	18.2	18.3	18.3	18.3	0.0	21.1	21.5	21.3	21.2	21.5	0	18.9	18.9	18.9	19.0	18.8
			25	0	0	16.3	16.4	16.4	16.4	16.2	0.5	18.2	18.2	18.4	18.3	18.3	0.0	21.1	21.3	21.5	21.4	21.4	0	18.8	19.0	18.9	18.9	18.8
		16QAM	1	0	0	17.4	17.2	17.2	17.4	17.2	0.5	19.0	19.0	19.0	19.0	19.0	0.0	22.4	22.2	22.2	22.2	22.2	0	19.3	19.2	19.3	19.3	19.3
			1	12	0	17.2	17.1	17.3	17.4	17.1	0.5	19.2	19.1	19.1	19.0	18.9	0.0	22.3	22.2	22.2	22.2	22.2	0	19.2	19.2	19.4	19.5	19.2
			1	24	0	17.3	17.0	17.1	17.3	17.3	0.5	19.2	19.1	19.0	19.0	19.0	0.0	22.3	22.2	22.3	22.3	22.3	0	19.3	19.5	19.3	19.5	19.4
			12	0	0	16.4	16.4	16.3	16.3	16.5	1.5	17.2	17.2	17.4	17.2	17.2	0.0	20.5	20.8	20.9	20.6	20.8	0	18.7	18.7	18.8	18.7	18.9
			12	7	0	16.2	16.2	16.4	16.4	16.5	1.5	17.4	17.2	17.3	17.4	17.2	0.0	20.6	20.7	20.8	20.6	20.8	0	18.9	18.8	18.8	18.9	18.8
			12	13	0	16.3	16.3	16.3	16.4	16.3	1.5	17.3	17.1	17.3	17.3	17.3	0.0	20.5	21.0	20.7	20.6	20.9	0	18.8	18.8	18.8	19.0	18.7
			25	0	0	16.2	16.3	16.3	16.3	16.2	1.5	17.1	17.2	17.3	17.2	17.2	0.5	20.6	20.8	20.9	20.9	20.8	0	18.7	18.9	18.9	18.8	18.7

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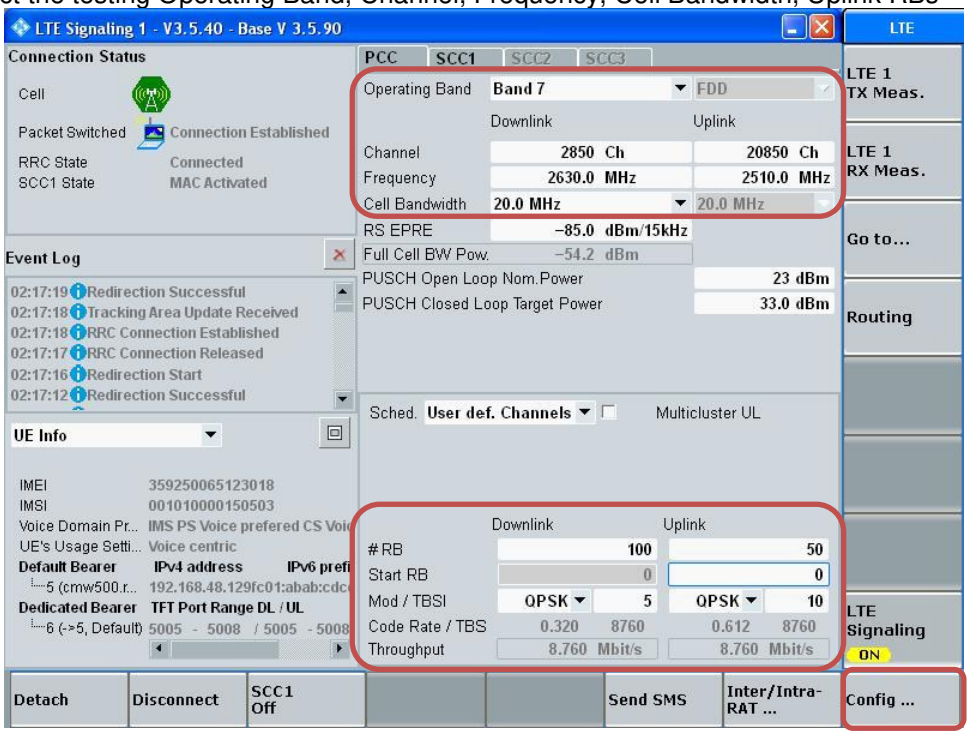
9.5. LTE Rel. 11 Carrier Aggregation

<u>LTE Carrier Aggregation Test Signal Set-up Procedure</u>
(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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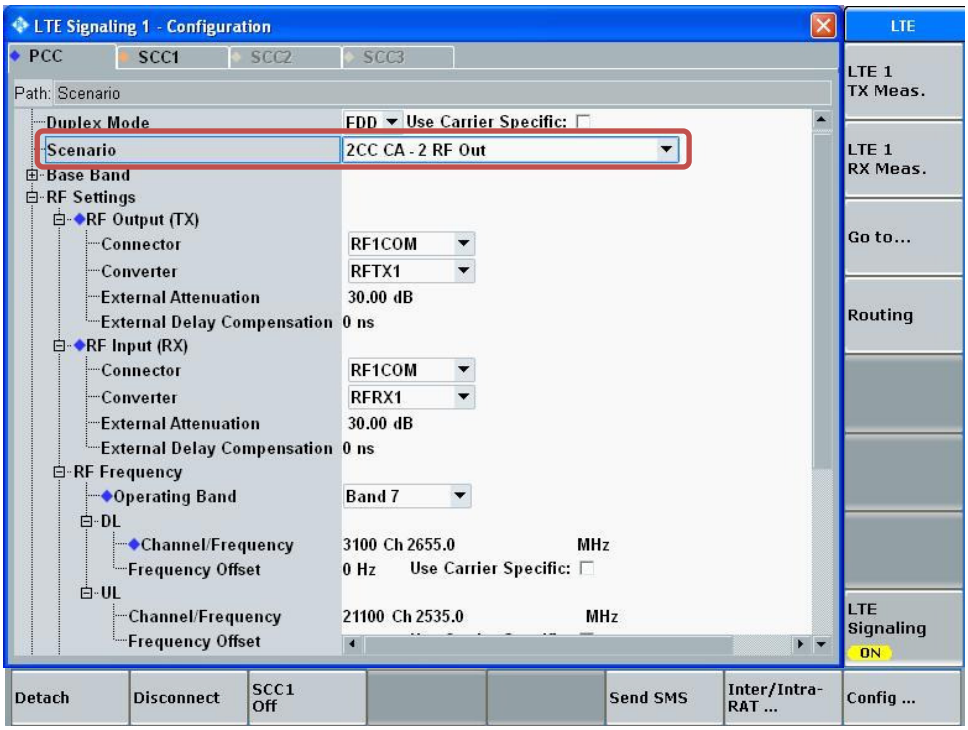
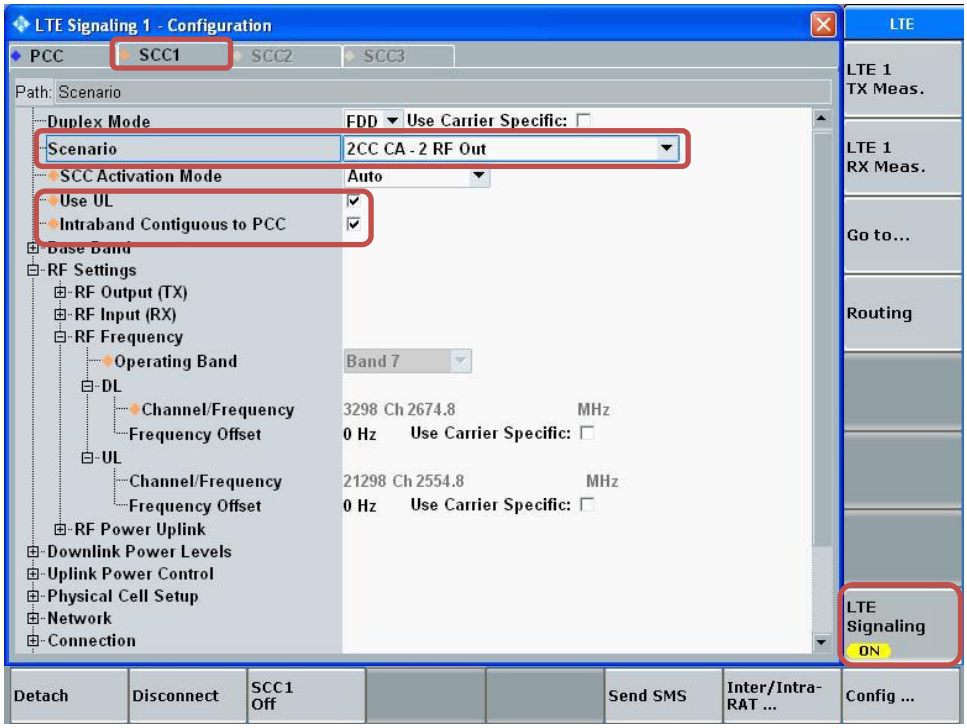
- Go to “Scenario”
- Set to “2CC CA – 2 RF Out”



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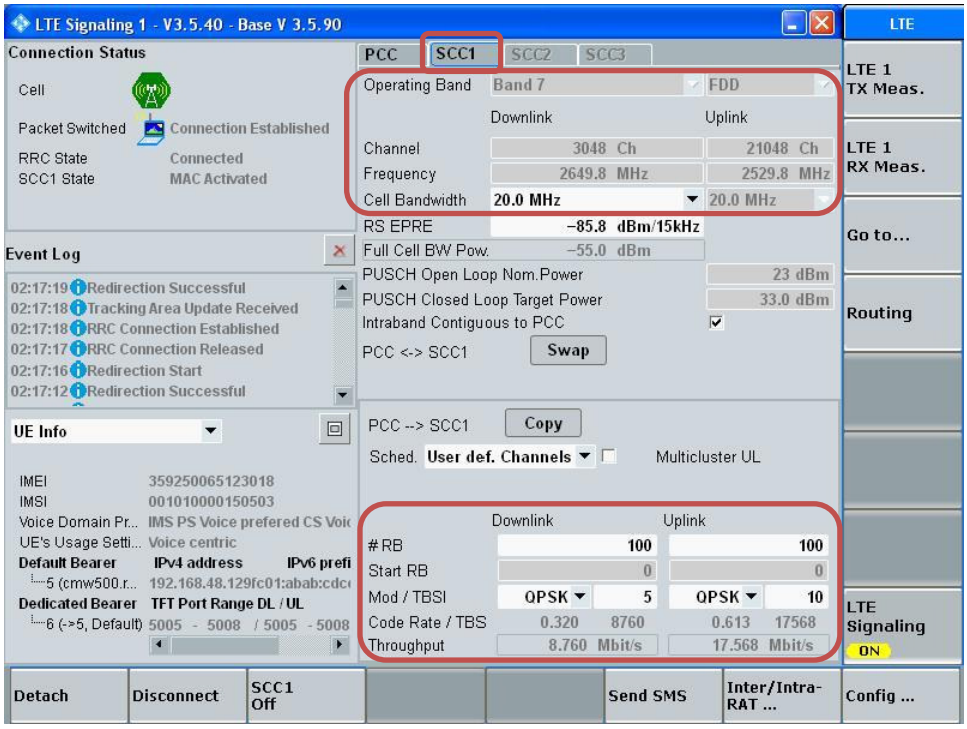
- Select “SCC1” tab
  - Select the testing Cell Bandwidth, Uplink RBs



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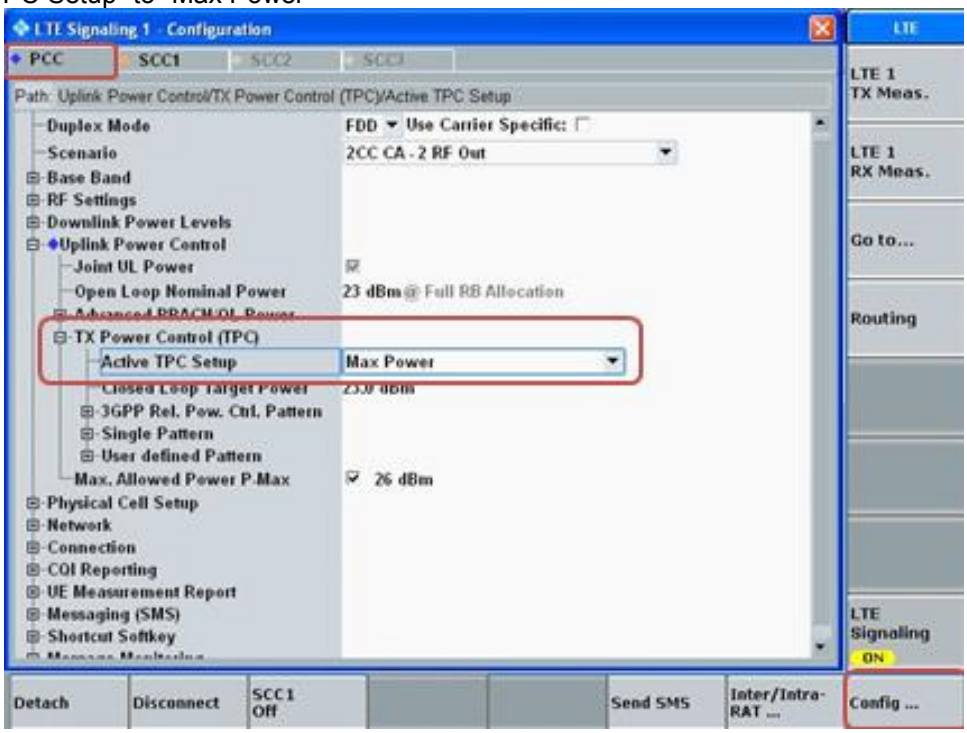
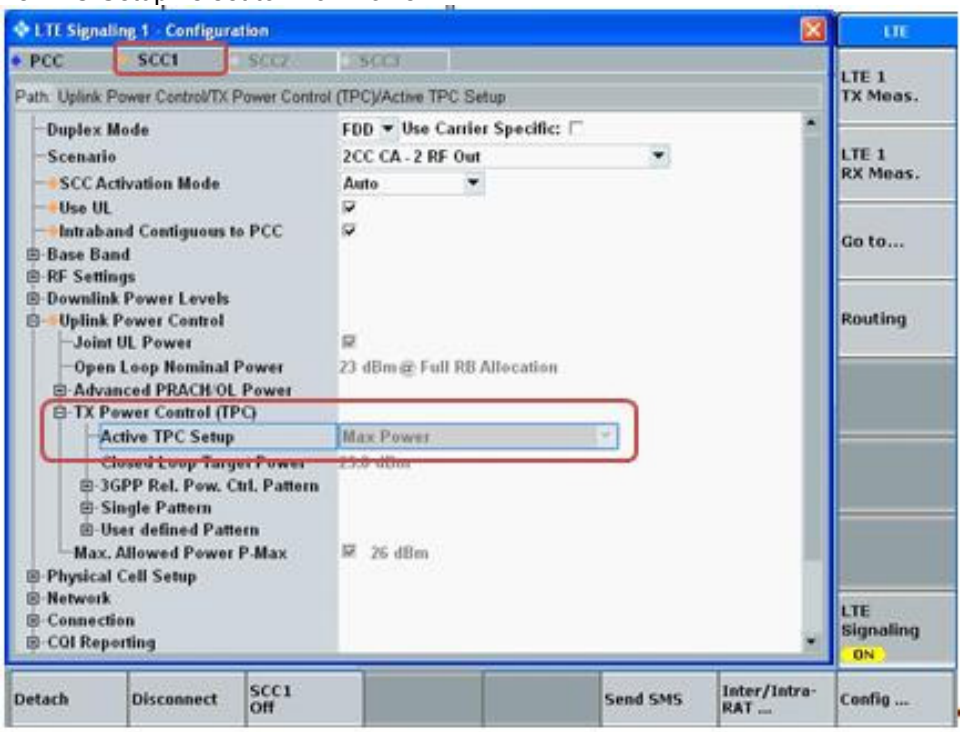
Max Power Setting

- 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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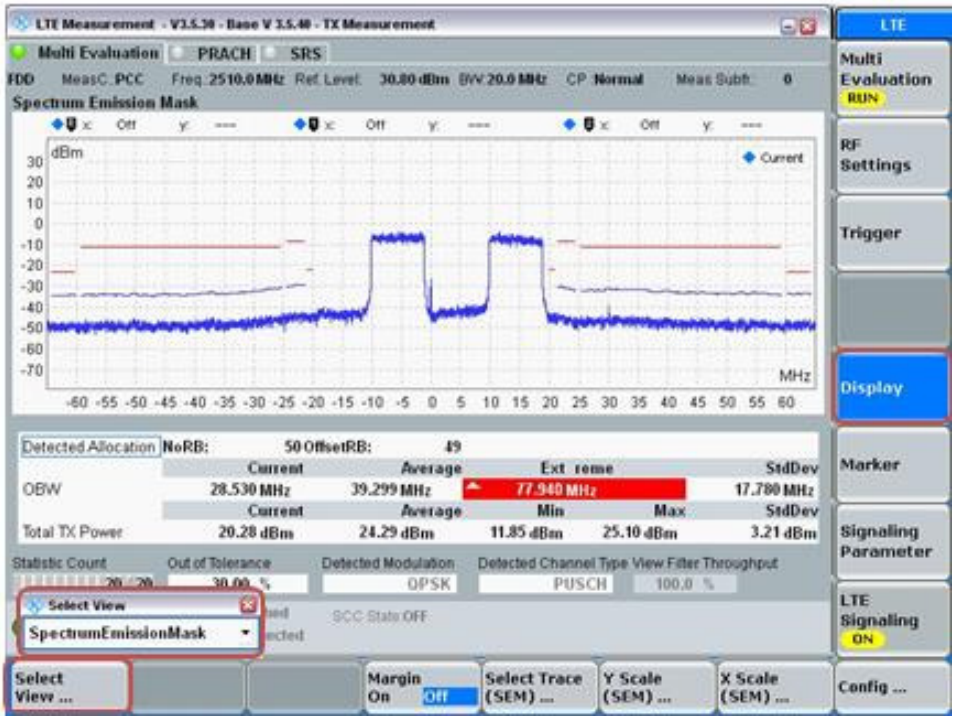
View TX Power

- 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	24.5	24.4	-0.1							
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	24.5	0							
2	5		5	1960	10	881.5			QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	5		10	1960	10	881.5			QPSK	1	24	1880	0	24.5	24.5	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	24.5	0							
2	12		5	1960	10	737.5			QPSK	1	12	1880	0	24.4	24.4	0							
2	12		10	1960	10	737.5			QPSK	1	24	1880	0	24.5	24.5	0							
2	12		15	1960	10	737.5			QPSK	1	36	1880	0	24.4	24.3	-0.1							
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	24.5	24.4	-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	24.3	-0.1							
2	17		10	1960	10	740			QPSK	1	24	1880	0	24.5	24.4	-0.1							
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	24.5	24.4	-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	24.5	24.4	-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	24.5	24.5	0							
4	2		10	2132.5	20	1960			QPSK	1	24	1732.5	0	24.4	24.4	0							
4	2		15	2132.5	20	1960			QPSK	1	36	1732.5	0	24.5	24.5	0							
4	2		20	2132.5	20	1960			QPSK	1	49	1732.5	0	24.5	24.5	0							
5	2		5	881.5	20	1960			QPSK	1	12	836.5	0	24.0	24.0	0							
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	23.4	23.4	0							
7	4		10	2655	10	2132.5			QPSK	1	24	2535	0	23.5	23.4	-0.1							
7	4		15	2655	10	2132.5			QPSK	1	36	2535	0	23.4	23.3	-0.1							
7	4		20	2655	10	2132.5			QPSK	1	49	2535	0	23.5	23.5	0							
12	2		3	737.5	20	1960			QPSK	1	8	707.5	0	24.5	24.4	-0.1							
12	2		5	737.5	20	1960			QPSK	1	12	707.5	0	24.5	24.4	-0.1							
12	2		10	737.5	20	1960			QPSK	1	24	707.5	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
13	2		10	751	20	1960			QPSK	1	24	782	0	24.5	24.4	-0.1							
17	2		5	740	20	1960			QPSK	1	12	710	0	24.5	24.4	-0.1							
17	2		10	740	20	1960			QPSK	1	24	710	0	24.5	24.4	-0.1							
25	26		3	1962.5	15	876.5			QPSK	1	8	1882.5	0	24.4	24.3	-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	24.4	0							
25	26		15	1962.5	15	876.5			QPSK	1	36	1882.5	0	24.4	24.3	-0.1							
25	26		20	1962.5	15	876.5			QPSK	1	49	1882.5	0	24.5	24.5	0							
26	25		3	876.5	20	1962.5			QPSK	1	8	831.5	0	23.9	23.8	-0.1							
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	23.9	23.8	-0.1							
26	25		15	876.5	20	1962.5			QPSK	1	36	831.5	0	24.0	23.9	-0.1							
30	2		5	2355	20	1960			QPSK	1	12	2310	0	22.2	22.1	-0.1							
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	24.5	24.5	0							
2	4	12	15	1960	20	2132.5	10	737.5	QPSK	1	36	1880	0	24.4	24.4	0							
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	24.5	24.4	-0.1							
2	4	13	15	1960	20	2132.5	10	751	QPSK	1	36	1880	0	24.4	24.4	0							
2	4	13	20	1960	20	2132.5	10	751	QPSK	1	49	1880	0	24.5	24.5	0							
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	24.5	24.4	-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	24.5	24.4	-0.1							
2	12	30	15	1960	10	737.5	10	2355	QPSK	1	36	1880	0	24.4	24.4	0							
2	12	30	20	1960	10	737.5	10	2355	QPSK	1	49	1880	0	24.5	24.5	0							
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	24.5	24.4	-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	24.5	24.4	-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	24.4	-0.1							
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	24.0	0							
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	24.4	-0.1							
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	24.4	-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
30	2	5	5	2355	20	1960	10	881.5	QPSK	1	12	2310	0	22.2	22.1	-0.1							
30	2	5	10	2355	20	1960	10	881.5	QPSK	1	24	2310	0	22.3	22.2	-0.1							
12A	2A	2A	5	737.5	20	1960	20	1960	QPSK	1	12	707.5	0	24.5	24.4	-0.1							
12A	2A	2A	10	737.5	20	1960	20	1960	QPSK	1	24	707.5	0	24.4	24.4	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	24.4	24.4	0							
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	24.5	24.4	-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	24.5	24.5	0							
2C	2C	12A	15	1960	20	1960	10	737.5	QPSK	1	36	1880	0	24.4	24.4	0							
2C	2C	12A	20	1960	20	1960	10	737.5	QPSK	1	49	1880	0	24.5	24.4	-0.1							
4A	12B	12B	5	2132.5	5	737.5	10	737.5	QPSK	1	12	1732.5	0	24.5	24.4	-0.1							
4A	12B	12B	10	2132.5	5	737.5	10	737.5	QPSK	1	24	1732.5	0	24.4	24.3	-0.1							
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	24.5	0							
4C	4C	12A	5	2132.5	20	2132.5	10	737.5	QPSK	1	12	1732.5	0	24.5	24.4	-0.1							
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	24.5	0							
4C	4C	12A	20	2132.5	20	2132.5	10	737.5	QPSK	1	49	1732.5	0	24.5	24.4	-0.1							
7A	4A	4A	5	2655	20	2132.5	20	2132.5	QPSK	1	12	2535	0	23.4	23.4	0							
7A	4A	4A	10	2655	20	2132.5	20	2132.5	QPSK	1	24	2535	0	23.5	23.4	-0.1							

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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	24.4	0							
2	2		10	1935	20	1980			QPSK	1	24	1855	0	24.4	24.3	-0.1							
2	2		15	1937.5	20	1980			QPSK	1	36	1857.5	0	24.4	24.3	-0.1							
2	2		20	1940	20	1980			QPSK	1	49	1860	0	24.4	24.3	-0.1							
4	4		5	2112.5	20	2145			QPSK	1	12	1712.5	0	24.4	24.4	0							
4	4		10	2115	20	2145			QPSK	1	24	1715	0	24.4	24.3	-0.1							
4	4		15	2117.5	20	2145			QPSK	1	36	1717.5	0	24.3	24.3	0							
4	4		20	2120	20	2145			QPSK	1	49	1720	0	24.4	24.3	-0.1							
7	7		5	2622.5	15	2682.5			QPSK	1	12	2502.5	0	23.4	23.3	-0.1							
7	7		10	2625	10	2685			QPSK	1	24	2505	0	23.4	23.4	0							
7	7		10	2625	15	2682.5			QPSK	1	24	2505	0	23.4	23.4	0							
7	7		15	2627.5	15	2682.5			QPSK	1	36	2507.5	0	23.4	23.3	-0.1							
7	7		15	2627.5	20	2680			QPSK	1	36	2507.5	0	23.4	23.3	-0.1							
7	7		20	2630	20	2680			QPSK	1	49	2510	0	23.5	23.4	-0.1							
25	25		5	1932.5	20	1985			QPSK	1	12	1852.5	0	24.5	24.4	-0.1							
25	25		10	1935	20	1985			QPSK	1	24	1855	0	24.4	24.4	0							
25	25		15	1937.5	20	1985			QPSK	1	36	1857.5	0	24.3	24.2	-0.1							
25	25		20	1940	20	1985			QPSK	1	49	1860	0	24.5	24.5	0							
41	41		5	2498.5	20	2680			QPSK	1	12	2498.5	0	22.5	22.4	-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	22.3	-0.1							
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	22.5	22.4	-0.1							
41A	41C	41C	10	2501	20	2593	20	2680	QPSK	1	24	2501	0	22.4	22.3	-0.1							
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	22.5	22.4	-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	22.3	-0.1							
41C	41C	41A	20	2506	20	2593	20	2680	QPSK	1	49	2506	0	22.5	22.4	-0.1							

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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	24.5	24.4	-0.1							
2C	2C		10	1960	20	1975			QPSK	1	24	1880	0	24.4	24.4	0							
2C	2C		15	1960	20	1977.5			QPSK	1	36	1880	0	24.4	24.4	0							
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	23.5	23.5	0							
7B	7B		15	2655	5	2665			QPSK	1	36	2535	0	23.4	23.4	0							
7C	7C		10	2655	20	2670			QPSK	1	24	2535	0	23.5	23.5	0							
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	23.4	23.4	0							
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	23.5	23.5	0							
12B	12B		5	737.5	5	742.5			QPSK	1	12	707.5	0	24.5	24.4	-0.1							
12B	12B		5	737.5	10	745			QPSK	1	12	707.5	0	24.5	24.4	-0.1							
12B	12B		10	737.5	5	745			QPSK	1	24	707.5	0	24.4	24.3	-0.1							
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	22.4	22.3	-0.1							
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	22.3	22.3	0							
41C	41C		15	2593	20	2610.5			QPSK	1	36	2593	0	22.5	22.4	-0.1							
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	23.5	23.0	-0.5	1	49	2550	0	23.5	23.0	-0.5
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	23.4	22.9	-0.5	1	49	2552.5	0	23.4	22.9	-0.5
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	23.5	23.0	-0.5	1	49	2555	0	23.5	23.0	-0.5
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	22.4	22.3	-0.1	1	49	2605.5	0	22.4	22.4	0
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	22.3	22.2	-0.1	1	49	2608	0	22.3	22.2	-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	22.3	22.3	0							
41D	41D	41D	15	2593	20	2610.5	20	2630.5	QPSK	1	36	2593	0	22.5	22.5	0							
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	1	49	15.3	15.3
LAT	Body & Hotspot	QPSK	20	21350	2560.0	1	49	20	21152	2540.2	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	Head	QPSK	20	39750	2506.0	1	49	20	39948	2525.8	1	49	17.5	17.5
LAT	Body & Hotspot	QPSK	20	40620	2593.0	1	49	20	40422	2573.2	1	49	19.5	19.5

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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 RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	10.3	18.0	13.2	13.0
			6	2437	10.3	18.0	13.2	13.0
			11	2462	10.3	18.0	13.2	13.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11ac	1 Tx VHT80	42	5210	5.9	Not required	13.8	11.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	
			62	5310		15.0		
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	1 Tx VHT80	106	5530	2.5	15.0	9.7	8.9
			122	5610	2.5	18.8	9.7	8.9
			138	5690	2.5	18.8	9.7	8.9
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11ac	1 Tx VHT80	155	5775	4.1	18.8	11.5	9.5

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 RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11g	2 Tx CDD	1	2412	10.3	15.5	13.3	13.0
			2	2417	10.3	18.0	13.3	13.0
			3	2422	10.3	18.0	13.3	13.0
			6	2437	10.3	18.0	13.3	13.0
			9	2452	10.3	18.0	13.3	13.0
			10	2457	10.3	17.5	13.3	13.0
			11	2462	10.3	14.5	13.3	13.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	18.9		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	42	5210	Not required		13.8	11.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	3.3	14.0	10.3	9.0
			122	5610	3.3	19.0	10.3	9.0
			138	5690	3.3	19.0	10.3	9.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	4.3	19.0	Not required	
			159	5795	4.3	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	155	5775	Not required		11.5	10.0

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 RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	15.5	19.0	17.0	19.0
			6	2437	15.5	19.0	17.0	19.0
			11	2462	15.5	19.0	17.0	19.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11n	1 Tx HT40	38	5190	Not required		16.3	16.4
			46	5230			19.0	18.0
	802.11ac	1 Tx VHT80	42	5210	13.8	Not required	Not required	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	
			62	5310		15.0		

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	1 Tx VHT80	106	5530	10.8	15.0	15.0	15.0
			122	5610	10.8	18.8	15.4	15.9
			138	5690	10.8	18.8	15.5	15.9

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11ac	1 Tx VHT80	155	5775	11.9	18.8	16.4	16.9

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 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	15.5	19.0	17.5	18.0
			3	2422	15.5	19.0	17.5	19.0
			6	2437	15.5	19.0	17.5	19.0
			9	2452	15.5	19.0	17.5	19.0
			10	2457	15.5	17.5	17.5	17.5
			11	2462	14.5	14.5	14.5	14.5

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	14.5	14.5
			46	5230	13.8	19.0	18.5	17.5

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	10.8	14.0	14.0	14.0
			122	5610	10.8	19.0	15.0	15.9
			138	5690	10.8	19.0	15.0	16.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	12.0	19.0	Not required	
			159	5795	12.0	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	155	5775	Not required		16.3	16.5

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	11.6
		39	2441	11.6
		78	2480	11.6

P_{Low}

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	V3.0 + EDR, GFSK	0	2402	9.9
		39	2441	9.9
		78	2480	9.9

$P_{Standalone}$

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

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

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

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

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

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	GPRS 2 Slots	0	Left Touch	190	836.6	29.5	29.1	0.488	0.535	0.332	0.364	
			Left Tilt	190	836.6	29.5	29.1	0.428	0.469	0.255	0.280	
			Right Touch	190	836.6	29.5	29.1	0.337	0.370	0.202	0.221	
			Right Tilt	190	836.6	29.5	29.1	0.263	0.288	0.144	0.158	
Body-worn & Hotspot	GPRS 2 Slots	5	Rear	190	836.6	29.5	29.1	0.346	0.379	0.203	0.223	
			Front	190	836.6	29.5	29.1	0.376	0.412	0.209	0.229	
Hotspot			Edge 1	190	836.6	29.5	29.1	0.227	0.249	0.103	0.113	
			Edge 2	190	836.6	29.5	29.1	0.383	0.420	0.252	0.276	
			Edge 4	190	836.6	29.5	29.1	0.204	0.224	0.133	0.146	

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	GPRS 2 Slots	0	Left Touch	190	836.6	32.5	32.5	0.592	0.592	0.454	0.454	1
			Left Tilt	190	836.6	32.5	32.5	0.366	0.366	0.283	0.283	
			Right Touch	190	836.6	32.5	32.5	0.529	0.529	0.403	0.403	
			Right Tilt	190	836.6	32.5	32.5	0.399	0.399	0.306	0.306	
Body-worn & Hotspot	GPRS 2 Slots	5	Rear	128	824.2	32.5	32.5	0.692	0.692	0.409	0.409	
				190	836.6	32.5	32.5	0.854	0.854	0.494	0.494	
				251	848.8	32.5	32.5	1.070	1.070	0.606	0.606	2
			Front	128	824.2	32.5	32.5	0.866	0.866	0.490	0.490	
				190	836.6	32.5	32.5	0.977	0.977	0.546	0.546	
				251	848.8	32.5	32.5	0.689	0.689	0.379	0.379	
Hotspot			Edge 2	190	836.6	32.5	32.5	0.701	0.701	0.454	0.454	
			Edge 3	190	836.6	32.5	32.5	0.765	0.765	0.349	0.349	
			Edge 4	128	824.2	32.5	32.5	1.160	1.160	0.763	0.763	3
				190	836.6	32.5	32.5	1.000	1.000	0.663	0.663	
				251	848.8	32.5	32.5	0.858	0.858	0.564	0.564	

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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	24.2	24.0	0.474	0.496	0.276	0.289	
			Left Tilt	661	1880.0	24.2	24.0	0.334	0.350	0.194	0.203	
			Right Touch	512	1850.2	24.2	23.8	0.799	0.876	0.422	0.463	
				661	1880.0	24.2	24.0	0.998	1.045	0.518	0.542	4
				810	1909.8	24.2	24.0	0.928	0.972	0.484	0.507	
			Right Tilt	661	1880.0	24.2	24.0	0.724	0.758	0.369	0.386	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	661	1880.0	24.2	24.0	0.248	0.260	0.137	0.143	
			Front	661	1880.0	24.2	24.0	0.297	0.311	0.152	0.159	
Hotspot			Edge 1	661	1880.0	24.2	24.0	0.248	0.260	0.116	0.121	
			Edge 2	661	1880.0	24.2	24.0	0.073	0.077	0.039	0.041	
			Edge 4	661	1880.0	24.2	24.0	0.329	0.345	0.176	0.184	

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	0.289	0.289	0.192	0.192	
			Left Tilt	661	1880.0	29.5	29.5	0.157	0.157	0.103	0.103	
			Right Touch	661	1880.0	29.5	29.5	0.553	0.553	0.346	0.346	
			Right Tilt	661	1880.0	29.5	29.5	0.188	0.188	0.123	0.123	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	512	1850.2	25.5	25.5	0.738	0.738	0.386	0.386	
				661	1880.0	25.5	25.5	0.860	0.860	0.446	0.446	
				810	1909.8	25.5	25.5	0.935	0.935	0.483	0.483	
			Front	512	1850.2	25.5	25.5	0.894	0.894	0.448	0.448	
				661	1880.0	25.5	25.5	1.020	1.020	0.504	0.504	
				810	1909.8	25.5	25.5	1.060	1.060	0.516	0.516	5
Hotspot			Edge 2	661	1880.0	25.5	25.5	0.467	0.467	0.260	0.260	
			Edge 3	661	1880.0	25.5	25.5	0.690	0.690	0.306	0.306	
			Edge 4	661	1880.0	25.5	25.5	0.125	0.125	0.068	0.068	

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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	23.0	23.0	0.688	0.688	0.507	0.507	
			Left Tilt	4183	836.6	23.0	23.0	0.442	0.442	0.266	0.266	
			Right Touch	4183	836.6	23.0	23.0	0.738	0.738	0.464	0.464	6
			Right Tilt	4183	836.6	23.0	23.0	0.544	0.544	0.298	0.298	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	23.0	23.0	0.327	0.327	0.198	0.198	
			Front	4183	836.6	23.0	23.0	0.296	0.296	0.214	0.214	
Hotspot	Rel 99 RMC	5	Edge 1	4183	836.6	23.0	23.0	0.149	0.149	0.068	0.068	
			Edge 2	4183	836.6	23.0	23.0	0.429	0.429	0.282	0.282	
			Edge 4	4183	836.6	23.0	23.0	0.214	0.214	0.138	0.138	

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	0.556	0.556	0.419	0.419	
			Left Tilt	4183	836.6	25.0	25.0	0.304	0.304	0.235	0.235	
			Right Touch	4183	836.6	25.0	25.0	0.399	0.399	0.305	0.305	
			Right Tilt	4183	836.6	25.0	25.0	0.297	0.297	0.224	0.224	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	25.0	25.0	0.713	0.713	0.406	0.406	
			Front	4132	826.4	25.0	25.0	0.756	0.756	0.421	0.421	
				4183	836.6	25.0	25.0	0.871	0.871	0.478	0.478	
				4233	846.6	25.0	25.0	0.921	0.921	0.505	0.505	7
Hotspot	Rel 99 RMC	5	Edge 2	4183	836.6	25.0	25.0	0.350	0.350	0.230	0.230	
			Edge 3	4183	836.6	25.0	25.0	0.603	0.603	0.276	0.276	
			Edge 4	4132	826.4	25.0	25.0	0.894	0.894	0.590	0.590	
				4183	836.6	25.0	25.0	0.934	0.934	0.615	0.615	8
				4233	846.6	25.0	25.0	0.776	0.776	0.510	0.510	

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10.4. W-CDMA Band IV

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	1413	1732.6	18.0	17.6	0.460	0.504	0.281	0.308	
			Left Tilt	1413	1732.6	18.0	17.6	0.481	0.527	0.292	0.320	
			Right Touch	1312	1712.4	18.0	17.5	0.806	0.904	0.460	0.516	
				1413	1732.6	18.0	17.6	0.854	0.936	0.483	0.530	
				1513	1752.6	18.0	17.5	0.920	1.032	0.516	0.579	9
			Right Tilt	1413	1732.6	18.0	17.6	0.716	0.785	0.407	0.446	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1312	1712.4	21.0	20.7	0.774	0.829	0.419	0.449	
				1413	1732.6	21.0	20.7	0.833	0.893	0.450	0.482	
				1513	1752.6	21.0	21.0	0.904	0.904	0.486	0.486	
			Front	1312	1712.4	21.0	20.7	0.866	0.928	0.438	0.469	
				1413	1732.6	21.0	20.7	0.902	0.967	0.466	0.499	10
				1513	1752.6	21.0	21.0	0.917	0.917	0.468	0.468	
Hotspot	Rel 99 RMC	5	Edge 1	1312	1712.4	21.0	20.7	0.881	0.944	0.417	0.447	
				1413	1732.6	21.0	20.7	0.904	0.969	0.432	0.463	
				1513	1752.6	21.0	21.0	0.983	0.983	0.474	0.474	
			Edge 2	1413	1732.6	21.0	20.7	0.067	0.072	0.037	0.040	
			Edge 4	1413	1732.6	21.0	20.7	0.738	0.791	0.408	0.437	

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	25.1	0.448	0.458	0.307	0.314	
			Left Tilt	1413	1732.6	25.2	25.1	0.267	0.273	0.166	0.170	
			Right Touch	1312	1712.4	25.2	24.8	0.810	0.888	0.522	0.572	
				1413	1732.6	25.2	25.1	0.895	0.916	0.576	0.589	
				1513	1752.6	25.2	25.0	0.836	0.875	0.542	0.568	
			Right Tilt	1413	1732.6	25.2	25.1	0.233	0.238	0.151	0.155	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	19.7	19.7	0.592	0.592	0.321	0.321	
			Front	1312	1712.4	19.7	19.7	0.924	0.924	0.471	0.471	
				1413	1732.6	19.7	19.7	0.943	0.943	0.475	0.475	
				1513	1752.6	19.7	19.7	0.933	0.933	0.466	0.466	
Hotspot	Rel 99 RMC	5	Edge 2	1413	1732.6	19.7	19.7	0.605	0.605	0.330	0.330	
			Edge 3	1312	1712.4	19.7	19.7	0.957	0.957	0.451	0.451	
				1413	1732.6	19.7	19.7	0.993	0.993	0.468	0.468	
				1513	1752.6	19.7	19.7	1.040	1.040	0.489	0.489	11
			Edge 4	1413	1732.6	19.7	19.7	0.046	0.046	0.025	0.025	

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10.5. W-CDMA Band II

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	9400	1880.0	18.5	18.5	0.482	0.482	0.283	0.283	
			Left Tilt	9400	1880.0	18.5	18.5	0.383	0.383	0.225	0.225	
			Right Touch	9262	1852.4	18.5	18.5	1.020	1.020	0.543	0.543	
				9400	1880.0	18.5	18.5	1.050	1.050	0.549	0.549	12
				9538	1907.6	18.5	18.5	1.020	1.020	0.517	0.517	
			Right Tilt	9400	1880.0	18.5	18.5	0.569	0.569	0.297	0.297	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9400	1880.0	21.0	21.0	0.666	0.666	0.370	0.370	
			Front	9262	1852.4	21.0	21.0	0.837	0.837	0.421	0.421	
				9400	1880.0	21.0	21.0	0.765	0.765	0.380	0.380	
				9538	1907.6	21.0	21.0	0.934	0.934	0.468	0.468	
Hotspot	Rel 99 RMC	5	Edge 1	9262	1852.4	21.0	21.0	0.919	0.919	0.425	0.425	
				9400	1880.0	21.0	21.0	0.872	0.872	0.396	0.396	
				9538	1907.6	21.0	21.0	0.852	0.852	0.386	0.386	
			Edge 2	9400	1880.0	21.0	21.0	0.039	0.039	0.021	0.021	
			Edge 4	9400	1880.0	21.0	21.0	0.730	0.730	0.390	0.390	

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	25.2	0.433	0.433	0.286	0.286	
			Left Tilt	9400	1880.0	25.2	25.2	0.230	0.230	0.148	0.148	
			Right Touch	9262	1852.4	25.2	25.2	0.910	0.910	0.564	0.564	
				9400	1880.0	25.2	25.2	0.984	0.984	0.600	0.600	
				9538	1907.6	25.2	25.2	0.984	0.984	0.596	0.596	
			Right Tilt	9400	1880.0	25.2	25.2	0.262	0.262	0.158	0.158	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9262	1852.4	19.5	19.0	0.824	0.925	0.419	0.470	
				9400	1880.0	19.5	19.3	0.900	0.942	0.446	0.467	
				9538	1907.6	19.5	19.0	0.919	1.031	0.457	0.513	13
			Front	9400	1880.0	19.5	19.3	0.756	0.792	0.368	0.385	
Hotspot	Rel 99 RMC	5	Edge 2	9400	1880.0	19.5	19.3	0.709	0.742	0.379	0.397	
			Edge 3	9400	1880.0	19.5	19.3	0.660	0.691	0.288	0.302	
			Edge 4	9400	1880.0	19.5	19.3	0.114	0.119	0.059	0.062	

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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	1013	824.7	23.5	23.3	0.717	0.751	0.533	0.558	
				384	836.5	23.5	23.2	0.864	0.926	0.636	0.681	14
				777	848.3	23.5	23.4	0.720	0.737	0.527	0.539	
			Left Tilt	384	836.5	23.5	23.2	0.501	0.537	0.281	0.301	
			Right Touch	384	836.5	23.5	23.2	0.622	0.666	0.375	0.402	
			Right Tilt	384	836.5	23.5	23.2	0.527	0.565	0.290	0.311	
	1xEVDO (Rel. 0)	0	Left Touch	1013	824.7	23.5	22.7	0.585	0.703	0.437	0.525	
				384	836.5	23.5	22.7	0.761	0.915	0.561	0.674	
				777	848.3	23.5	22.7	0.744	0.894	0.550	0.661	
			Left Tilt	384	836.5	23.5	22.7	0.484	0.582	0.303	0.364	
			Right Touch	384	836.5	23.5	22.7	0.600	0.721	0.382	0.459	
			Right Tilt	384	836.5	23.5	22.7	0.468	0.563	0.271	0.326	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	384	836.5	23.5	23.2	0.336	0.360	0.234	0.251	
			Front	384	836.5	23.5	23.2	0.333	0.357	0.207	0.222	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	384	836.5	23.5	23.2	0.164	0.176	0.076	0.081	
			Edge 2	384	836.5	23.5	23.2	0.520	0.557	0.338	0.362	
			Edge 4	384	836.5	23.5	23.2	0.281	0.301	0.182	0.195	

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	0.398	0.398	0.300	0.300	
			Left Tilt	384	836.5	25.0	25.0	0.123	0.123	0.098	0.098	
			Right Touch	384	836.5	25.0	25.0	0.325	0.325	0.247	0.247	
			Right Tilt	384	836.5	25.0	25.0	0.146	0.146	0.111	0.111	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	25.0	25.0	0.227	0.227	0.173	0.173	
			Left Tilt	384	836.5	25.0	25.0	0.136	0.136	0.106	0.106	
			Right Touch	384	836.5	25.0	25.0	0.192	0.192	0.147	0.147	
			Right Tilt	384	836.5	25.0	25.0	0.148	0.148	0.114	0.114	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	384	836.5	25.0	25.0	0.578	0.578	0.332	0.332	
			Front	384	836.5	25.0	25.0	0.632	0.632	0.355	0.355	15
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	384	836.5	25.0	25.0	0.165	0.165	0.109	0.109	
			Edge 3	384	836.5	25.0	25.0	0.427	0.427	0.198	0.198	
			Edge 4	384	836.5	25.0	25.0	0.592	0.592	0.389	0.389	

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10.7. CDMA BC1

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	18.5	18.5	0.426	0.426	0.249	0.249	
			Left Tilt	600	1880.0	18.5	18.5	0.317	0.317	0.193	0.193	
			Right Touch	25	1851.3	18.5	18.5	1.040	1.040	0.534	0.534	
				600	1880.0	18.5	18.5	1.080	1.080	0.547	0.547	
				1175	1908.8	18.5	18.5	1.080	1.080	0.550	0.550	16
			Right Tilt	600	1880.0	18.5	18.5	0.706	0.706	0.350	0.350	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	18.5	18.5	0.317	0.317	0.187	0.187	
			Left Tilt	600	1880.0	18.5	18.5	0.293	0.293	0.176	0.176	
			Right Touch	25	1851.3	18.5	18.4	0.953	0.975	0.490	0.501	
				600	1880.0	18.5	18.4	0.945	0.967	0.481	0.492	
				1175	1908.8	18.5	18.4	0.880	0.900	0.446	0.456	
			Right Tilt	600	1880.0	18.5	18.5	0.658	0.658	0.326	0.326	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	600	1880.0	21.0	20.8	0.728	0.762	0.399	0.418	
			Front	25	1851.3	21.0	20.6	0.844	0.925	0.433	0.475	
				600	1880.0	21.0	20.8	0.903	0.946	0.457	0.479	
				1175	1908.8	21.0	20.7	0.883	0.946	0.445	0.477	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	600	1880.0	21.0	20.8	0.758	0.794	0.347	0.363	
			Edge 2	600	1880.0	21.0	20.8	0.064	0.067	0.032	0.034	
			Edge 4	25	1851.3	21.0	20.6	0.719	0.788	0.386	0.423	
				600	1880.0	21.0	20.8	0.857	0.897	0.459	0.481	
				1175	1908.8	21.0	20.7	0.731	0.783	0.395	0.423	

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	25.2	0.388	0.388	0.256	0.256	
			Left Tilt	600	1880.0	25.2	25.2	0.212	0.212	0.130	0.130	
			Right Touch	25	1851.3	25.2	25.2	0.763	0.763	0.475	0.475	
				600	1880.0	25.2	25.2	0.837	0.837	0.519	0.519	
				1175	1908.8	25.2	25.2	0.844	0.844	0.515	0.515	
			Right Tilt	600	1880.0	25.2	25.2	0.270	0.270	0.163	0.163	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	25.2	24.0	0.276	0.364	0.181	0.239	
			Left Tilt	600	1880.0	25.2	24.0	0.157	0.207	0.097	0.127	
			Right Touch	600	1880.0	25.2	24.0	0.571	0.753	0.357	0.471	
			Right Tilt	600	1880.0	25.2	24.0	0.146	0.192	0.094	0.124	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	600	1880.0	19.5	19.0	0.687	0.771	0.362	0.406	
			Front	25	1851.3	19.5	19.0	0.885	0.993	0.450	0.505	
				600	1880.0	19.5	19.0	0.791	0.888	0.400	0.449	
				1175	1908.8	19.5	19.0	0.935	1.049	0.468	0.525	17
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	600	1880.0	19.5	19.0	0.670	0.752	0.369	0.414	
			Edge 3	25	1851.3	19.5	19.0	0.787	0.883	0.357	0.401	
				600	1880.0	19.5	19.0	0.884	0.992	0.392	0.440	
				1175	1908.8	19.5	19.0	0.942	1.057	0.411	0.461	18
			Edge 4	600	1880.0	19.5	19.0	0.092	0.103	0.049	0.055	

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10.8. CDMA BC10

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	23.5	23.5	0.781	0.781	0.579	0.579	19
			Left Tilt	580	820.5	23.5	23.5	0.487	0.487	0.309	0.309	
			Right Touch	580	820.5	23.5	23.5	0.735	0.735	0.484	0.484	
			Right Tilt	580	820.5	23.5	23.5	0.602	0.602	0.339	0.339	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	23.5	22.7	0.587	0.706	0.434	0.522	
			Left Tilt	580	820.5	23.5	22.7	0.465	0.559	0.272	0.327	
			Right Touch	580	820.5	23.5	22.7	0.635	0.763	0.408	0.491	
			Right Tilt	580	820.5	23.5	22.7	0.483	0.581	0.275	0.331	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	580	820.5	23.5	23.5	0.306	0.306	0.207	0.207	
			Front	580	820.5	23.5	23.5	0.364	0.364	0.232	0.232	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	580	820.5	23.5	23.5	0.122	0.122	0.058	0.058	
			Edge 2	580	820.5	23.5	23.5	0.456	0.456	0.302	0.302	
			Edge 4	580	820.5	23.5	23.5	0.247	0.247	0.163	0.163	

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	0.271	0.271	0.203	0.203	
			Left Tilt	580	820.5	25.0	25.0	0.177	0.177	0.140	0.140	
			Right Touch	580	820.5	25.0	25.0	0.223	0.223	0.164	0.164	
			Right Tilt	580	820.5	25.0	25.0	0.165	0.165	0.127	0.127	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	25.0	24.1	0.166	0.204	0.127	0.156	
			Left Tilt	580	820.5	25.0	24.1	0.119	0.146	0.092	0.113	
			Right Touch	580	820.5	25.0	24.1	0.129	0.159	0.100	0.123	
			Right Tilt	580	820.5	25.0	24.1	0.087	0.107	0.068	0.084	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	580	820.5	25.0	25.0	0.368	0.368	0.227	0.227	
			Front	580	820.5	25.0	25.0	0.404	0.404	0.232	0.232	20
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	580	820.5	25.0	25.0	0.167	0.167	0.109	0.109	
			Edge 3	580	820.5	25.0	25.0	0.225	0.225	0.118	0.118	
			Edge 4	580	820.5	25.0	25.0	0.471	0.471	0.310	0.310	21

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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 overlapping 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 offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	18.0	18.0	0.442	0.442	0.274	0.274	
						50	24	18.0	17.1	0.356	0.438	0.220	0.271	
			Left Tilt	20175	1732.5	1	49	18.0	18.0	0.422	0.422	0.252	0.252	
						50	24	18.0	17.1	0.333	0.410	0.207	0.255	
			Right Touch	20050	1720.0	1	49	18.0	18.0	0.977	0.977	0.538	0.538	
						50	24	18.0	17.2	0.812	0.976	0.436	0.524	
				20175	1732.5	1	49	18.0	18.0	1.020	1.020	0.555	0.555	
						50	24	18.0	17.1	0.841	1.035	0.459	0.565	
						100	0	18.0	17.2	0.901	1.083	0.503	0.605	
				20300	1745.0	1	49	18.0	17.9	1.070	1.095	0.580	0.594	22
						50	24	18.0	17.1	0.846	1.041	0.454	0.559	
			Right Tilt	20050	1720.0	1	49	18.0	18.0	0.752	0.752	0.402	0.402	
				20175	1732.5	1	49	18.0	18.0	0.782	0.782	0.421	0.421	
						50	24	18.0	17.1	0.637	0.784	0.343	0.422	
				20300	1745.0	1	49	18.0	17.9	0.785	0.803	0.426	0.436	
Body-worn & Hotspot	QPSK	5	Rear	20050	1720.0	1	49	21.0	21.0	0.725	0.725	0.388	0.388	
				20175	1732.5	1	49	21.0	21.0	0.814	0.814	0.437	0.437	
						50	24	20.0	20.0	0.601	0.601	0.327	0.327	
				20300	1745.0	1	49	21.0	20.9	0.788	0.806	0.428	0.438	
			Front	20050	1720.0	1	49	21.0	21.0	0.845	0.845	0.437	0.437	
						50	24	20.0	20.0	0.762	0.762	0.393	0.393	
				20175	1732.5	1	49	21.0	21.0	0.891	0.891	0.459	0.459	
						50	24	20.0	20.0	0.837	0.837	0.426	0.426	
						100	0	20.0	20.0	0.818	0.818	0.422	0.422	
				20300	1745.0	1	49	21.0	20.9	0.896	0.917	0.465	0.476	23
						50	24	20.0	20.0	0.778	0.778	0.406	0.406	
Hotspot	QPSK	5	Edge 1	20050	1720.0	1	49	21.0	21.0	0.934	0.934	0.453	0.453	
						50	24	20.0	20.0	0.844	0.844	0.405	0.405	
				20175	1732.5	1	49	21.0	21.0	1.000	1.000	0.484	0.484	
						50	24	20.0	20.0	0.874	0.874	0.420	0.420	
						100	0	20.0	20.0	0.968	0.968	0.459	0.459	
				20300	1745.0	1	49	21.0	20.9	0.966	0.989	0.480	0.491	
						50	24	20.0	20.0	0.868	0.868	0.416	0.416	
			Edge 2	20175	1732.5	1	49	21.0	21.0	0.023	0.023	0.012	0.012	
						50	24	20.0	20.0	0.019	0.019	0.008	0.008	
			Edge 4	20175	1732.5	1	49	21.0	21.0	0.790	0.790	0.431	0.431	
						50	24	20.0	20.0	0.639	0.639	0.348	0.348	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	24.5	24.5	0.402	0.402	0.274	0.274	
						50	24	23.5	23.5	0.270	0.270	0.186	0.186	
			Left Tilt	20175	1732.5	1	49	24.5	24.5	0.216	0.216	0.133	0.133	
						50	24	23.5	23.5	0.167	0.167	0.102	0.102	
			Right Touch	20050	1720.0	1	49	24.5	24.4	0.816	0.835	0.524	0.536	
				20175	1732.5	1	49	24.5	24.5	0.832	0.832	0.534	0.534	
						50	24	23.5	23.5	0.658	0.658	0.423	0.423	
				20300	1745.0	1	49	24.5	24.5	0.870	0.870	0.554	0.554	
			Right Tilt	20175	1732.5	1	49	24.5	24.5	0.209	0.209	0.138	0.138	
						50	24	23.5	23.5	0.139	0.139	0.093	0.093	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	19.7	19.7	0.675	0.675	0.357	0.357	
						50	24	19.7	18.8	0.416	0.512	0.225	0.277	
			Front	20050	1720.0	1	49	19.7	19.7	0.855	0.855	0.443	0.443	
						50	24	19.7	18.9	0.608	0.731	0.314	0.378	
				20175	1732.5	1	49	19.7	19.7	0.899	0.899	0.460	0.460	
						50	24	19.7	18.8	0.672	0.827	0.341	0.420	
						100	0	19.7	18.9	0.636	0.765	0.320	0.385	
				20300	1745.0	1	49	19.7	19.7	0.914	0.914	0.463	0.463	
						50	24	19.7	18.8	0.588	0.723	0.301	0.370	
Hotspot	QPSK	5	Edge 2	20050	1720.0	1	49	19.7	19.7	0.643	0.643	0.351	0.351	
						50	24	19.7	18.8	0.467	0.575	0.256	0.315	
			Edge 3	20175	1732.5	1	49	19.7	19.7	1.100	1.100	0.515	0.515	
						50	24	19.7	18.9	0.721	0.867	0.335	0.403	
				20175	1732.5	1	49	19.7	19.7	1.140	1.140	0.530	0.530	
						50	24	19.7	18.8	0.825	1.015	0.383	0.471	
						100	0	19.7	18.9	0.800	0.962	0.372	0.447	
				20300	1745.0	1	49	19.7	19.7	1.140	1.140	0.538	0.538	24
						50	24	19.7	18.8	0.781	0.961	0.363	0.447	
			Edge 4	20175	1732.5	1	49	19.7	19.7	0.040	0.040	0.021	0.021	
						50	24	19.7	18.8	0.030	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 overlapping 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 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	15.3	15.0	0.938	1.005	0.361	0.387	
						50	24	15.3	15.0	0.941	1.008	0.362	0.388	
				21100	2535.0	1	49	15.3	15.0	0.843	0.903	0.333	0.357	
						50	24	15.3	15.0	0.849	0.910	0.333	0.357	
						100	0	15.3	15.0	0.843	0.903	0.330	0.354	
				21350	2560.0	1	49	15.3	15.0	0.744	0.797	0.300	0.321	
						50	24	15.3	15.0	0.752	0.806	0.302	0.324	
			Left Tilt	20850	2510.0	1	49	15.3	15.0	0.943	1.010	0.327	0.350	
						50	24	15.3	15.0	0.952	1.020	0.332	0.356	
				21100	2535.0	1	49	15.3	15.0	0.867	0.929	0.311	0.333	
						50	24	15.3	15.0	0.879	0.942	0.314	0.336	
						100	24	15.3	15.0	0.749	0.803	0.263	0.282	
				21350	2560.0	1	49	15.3	15.0	0.706	0.756	0.254	0.272	
						50	24	15.3	15.0	0.715	0.766	0.259	0.278	
			Right Touch	21100	2535.0	1	49	15.3	15.0	0.366	0.392	0.143	0.153	
						50	24	15.3	15.0	0.370	0.396	0.144	0.154	
			Right Tilt	21100	2535.0	1	49	15.3	15.0	0.430	0.461	0.166	0.178	
						50	24	15.3	15.0	0.434	0.465	0.167	0.179	
Body-worn & Hotspot	QPSK	5	Rear	20850	2510.0	1	49	18.7	18.7	0.834	0.834	0.333	0.333	
						50	24	18.7	17.8	0.677	0.833	0.251	0.309	
				21100	2535.0	1	49	18.7	18.4	0.855	0.916	0.370	0.396	
						50	24	18.7	17.5	0.697	0.919	0.295	0.389	
						100	0	18.7	17.7	0.683	0.860	0.307	0.386	
				21350	2560.0	1	49	18.7	18.3	0.805	0.883	0.364	0.399	
						50	24	18.7	17.4	0.539	0.727	0.231	0.312	
			Front	20850	2510.0	1	49	18.7	18.7	0.960	0.960	0.371	0.371	
						50	24	18.7	17.8	0.776	0.955	0.301	0.370	
				21100	2535.0	1	49	18.7	18.4	0.904	0.969	0.357	0.383	
						50	24	18.7	17.5	0.726	0.957	0.284	0.374	
						100	0	18.7	17.7	0.755	0.950	0.293	0.369	
				21350	2560.0	1	49	18.7	18.3	0.874	0.958	0.333	0.365	
						50	24	18.7	17.4	0.700	0.944	0.287	0.387	
Hotspot	QPSK	5	Edge 1	21100	2535.0	1	49	18.7	18.4	0.664	0.711	0.224	0.240	
						50	24	18.7	17.5	0.507	0.668	0.170	0.224	
			Edge 2	21100	2535.0	1	49	18.7	18.4	0.628	0.673	0.297	0.318	
						50	24	18.7	17.5	0.477	0.629	0.225	0.297	
			Edge 4	21100	2535.0	1	49	18.7	18.4	0.060	0.064	0.024	0.026	
						50	24	18.7	17.5	0.045	0.059	0.017	0.022	

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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	23.5	23.5	0.944	0.944	0.503	0.503	
						50	24	23.5	23.5	0.792	0.792	0.422	0.422	
				21100	2535.0	1	49	23.5	23.5	0.851	0.851	0.457	0.457	
						50	24	23.5	23.5	0.756	0.756	0.407	0.407	
						100	0	23.5	23.5	0.718	0.718	0.383	0.383	
				21350	2560.0	1	49	23.5	23.5	1.030	1.030	0.552	0.552	25
						50	24	23.5	23.5	0.909	0.909	0.482	0.482	
			Left Tilt	21100	2535.0	1	49	23.5	23.5	0.251	0.251	0.131	0.131	
						50	24	23.5	23.5	0.236	0.236	0.121	0.121	
			Right Touch	21100	2535.0	1	49	23.5	23.5	0.649	0.649	0.355	0.355	
						50	24	23.5	23.5	0.527	0.527	0.288	0.288	
			Right Tilt	21100	2535.0	1	49	23.5	23.5	0.300	0.300	0.155	0.155	
						50	24	23.5	23.5	0.271	0.271	0.136	0.136	
Body-worn & Hotspot	QPSK	5	Rear	21100	2535.0	1	49	17.7	17.7	0.659	0.659	0.295	0.295	
						50	24	17.7	16.7	0.409	0.515	0.182	0.229	
			Front	20850	2510.0	1	49	17.7	17.7	1.000	1.000	0.383	0.383	
						50	24	17.7	16.6	0.770	0.992	0.300	0.386	
				21100	2535.0	1	49	17.7	17.7	1.110	1.110	0.425	0.425	
						50	24	17.7	16.7	0.834	1.050	0.326	0.410	
						100	0	17.7	16.6	0.746	0.961	0.242	0.312	
				21350	2560.0	1	49	17.7	17.7	1.140	1.140	0.447	0.447	26
						50	24	17.7	16.6	0.855	1.101	0.342	0.441	
Hotspot	QPSK	5	Edge 2	21100	2535.0	1	49	17.7	17.7	0.049	0.049	0.021	0.021	
						50	24	17.7	16.7	0.034	0.043	0.015	0.019	
			Edge 3	21100	2535.0	1	49	17.7	17.7	0.655	0.655	0.222	0.222	
						50	24	17.7	16.7	0.453	0.570	0.134	0.169	
			Edge 4	21100	2535.0	1	49	17.7	17.7	0.619	0.619	0.268	0.268	
						50	24	17.7	16.7	0.367	0.462	0.174	0.219	

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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	23.5	23.5	0.477	0.477	0.316	0.316	
						25	12	22.5	22.0	0.402	0.451	0.266	0.298	
			Left Tilt	23095	707.5	1	24	23.5	23.5	0.487	0.487	0.279	0.279	
						25	12	22.5	22.0	0.407	0.457	0.231	0.259	
			Right Touch	23095	707.5	1	24	23.5	23.5	0.574	0.574	0.329	0.329	27
						25	12	22.5	22.0	0.483	0.542	0.279	0.313	
			Right Tilt	23095	707.5	1	24	23.5	23.5	0.458	0.458	0.253	0.253	
						25	12	22.5	22.0	0.392	0.440	0.216	0.242	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	23.5	23.5	0.259	0.259	0.158	0.158	
						25	12	22.5	22.0	0.217	0.243	0.132	0.148	
			Front	23095	707.5	1	24	23.5	23.5	0.283	0.283	0.162	0.162	
						25	12	22.5	22.0	0.239	0.268	0.138	0.155	
Hotspot	QPSK	5	Edge 1	23095	707.5	1	24	23.5	23.5	0.157	0.157	0.071	0.071	
						25	12	22.5	22.0	0.130	0.146	0.059	0.066	
			Edge 2	23095	707.5	1	24	23.5	23.5	0.348	0.348	0.235	0.235	
						25	12	22.5	22.0	0.293	0.329	0.197	0.221	
			Edge 4	23095	707.5	1	24	23.5	23.5	0.177	0.177	0.118	0.118	
						25	12	22.5	22.0	0.149	0.167	0.099	0.111	

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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	24.5	24.5	0.290	0.290	0.226	0.226	
						25	12	23.5	23.5	0.234	0.234	0.182	0.182	
			Left Tilt	23095	707.5	1	24	24.5	24.5	0.105	0.105	0.084	0.084	
						25	12	23.5	23.5	0.096	0.096	0.077	0.077	
			Right Touch	23095	707.5	1	24	24.5	24.5	0.257	0.257	0.192	0.192	
						25	12	23.5	23.5	0.202	0.202	0.149	0.149	
			Right Tilt	23095	707.5	1	24	24.5	24.5	0.100	0.100	0.080	0.080	
						25	12	23.5	23.5	0.081	0.081	0.065	0.065	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	24.5	24.5	0.399	0.399	0.260	0.260	
						25	12	23.5	23.5	0.331	0.331	0.226	0.226	
			Front	23095	707.5	1	24	24.5	24.5	0.432	0.432	0.251	0.251	28
						25	12	23.5	23.5	0.352	0.352	0.248	0.248	
Hotspot	QPSK	5	Edge 2	23095	707.5	1	24	24.5	24.5	0.199	0.199	0.132	0.132	
						25	12	23.5	23.5	0.152	0.152	0.106	0.106	
			Edge 3	23095	707.5	1	24	24.5	24.5	0.358	0.358	0.165	0.165	
						25	12	23.5	23.5	0.291	0.291	0.137	0.137	
			Edge 4	23095	707.5	1	24	24.5	24.5	0.455	0.455	0.309	0.309	29
						25	12	23.5	23.5	0.375	0.375	0.258	0.258	

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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 offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	23.5	23.1	0.554	0.607	0.403	0.442	
						25	12	22.5	22.0	0.449	0.504	0.328	0.368	
			Left Tilt	23230	782.0	1	24	23.5	23.1	0.471	0.516	0.276	0.303	
						25	12	22.5	22.0	0.379	0.425	0.222	0.249	
			Right Touch	23230	782.0	1	24	23.5	23.1	0.672	0.737	0.396	0.434	30
						25	12	22.5	22.0	0.544	0.610	0.318	0.357	
			Right Tilt	23230	782.0	1	24	23.5	23.1	0.496	0.544	0.275	0.302	
						25	12	22.5	22.0	0.403	0.452	0.222	0.249	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	23.5	23.1	0.397	0.435	0.232	0.254	
						25	12	22.5	22.0	0.321	0.360	0.188	0.211	
			Front	23230	782.0	1	24	23.5	23.1	0.429	0.470	0.249	0.273	
						25	12	22.5	22.0	0.350	0.393	0.204	0.229	
Hotspot	QPSK	5	Edge 1	23230	782.0	1	24	23.5	23.1	0.247	0.271	0.112	0.123	
						25	12	22.5	22.0	0.202	0.227	0.091	0.102	
			Edge 2	23230	782.0	1	24	23.5	23.1	0.424	0.465	0.283	0.310	
						25	12	22.5	22.0	0.379	0.425	0.252	0.283	
			Edge 4	23230	782.0	1	24	23.5	23.1	0.222	0.243	0.146	0.160	
						25	12	22.5	22.0	0.177	0.199	0.116	0.130	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	24.5	24.5	0.355	0.355	0.273	0.273	
						25	12	23.5	23.5	0.322	0.322	0.247	0.247	
			Left Tilt	23230	782.0	1	24	24.5	24.5	0.230	0.230	0.178	0.178	
						25	12	23.5	23.5	0.201	0.201	0.156	0.156	
			Right Touch	23230	782.0	1	24	24.5	24.5	0.312	0.312	0.231	0.231	
						25	12	23.5	23.5	0.277	0.277	0.206	0.206	
			Right Tilt	23230	782.0	1	24	24.5	24.5	0.198	0.198	0.155	0.155	
						25	12	23.5	23.5	0.174	0.174	0.137	0.137	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	24.5	24.5	0.607	0.607	0.343	0.343	31
						25	12	23.5	23.5	0.556	0.556	0.312	0.312	
			Front	23230	782.0	1	24	24.5	24.5	0.604	0.604	0.346	0.346	
						25	12	23.5	23.5	0.540	0.540	0.309	0.309	
Hotspot	QPSK	5	Edge 2	23230	782.0	1	24	24.5	24.5	0.456	0.456	0.299	0.299	
						25	12	23.5	23.5	0.411	0.411	0.269	0.269	
			Edge 3	23230	782.0	1	24	24.5	24.5	0.470	0.470	0.216	0.216	
						25	12	23.5	23.5	0.422	0.422	0.193	0.193	
			Edge 4	23230	782.0	1	24	24.5	24.5	0.838	0.838	0.557	0.557	32
						25	12	23.5	23.5	0.748	0.748	0.496	0.496	

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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 overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

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10.16. LTE Band 25 (20MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26365	1882.5	1	49	18.5	18.5	0.430	0.430	0.253	0.253	
						50	24	18.5	18.4	0.404	0.413	0.235	0.240	
			Left Tilt	26365	1882.5	1	49	18.5	18.5	0.326	0.326	0.196	0.196	
						50	24	18.5	18.4	0.280	0.287	0.167	0.171	
			Right Touch	26140	1860.0	1	49	18.5	18.5	1.030	1.030	0.543	0.543	
						50	24	18.5	18.4	0.973	0.996	0.495	0.507	
				26365	1882.5	1	49	18.5	18.5	1.040	1.040	0.547	0.547	
						50	24	18.5	18.4	0.970	0.993	0.494	0.506	
						100	0	18.5	18.4	1.010	1.034	0.521	0.533	
				26590	1905.0	1	49	18.5	18.5	1.080	1.080	0.550	0.550	33
						50	24	18.5	18.5	1.070	1.070	0.538	0.538	
			Right Tilt	26140	1860.0	1	49	18.5	18.5	0.800	0.800	0.413	0.413	
				26365	1882.5	1	49	18.5	18.5	0.782	0.782	0.413	0.413	
						50	24	18.5	18.4	0.743	0.760	0.373	0.382	
				26590	1905.0	1	49	18.5	18.5	0.826	0.826	0.415	0.415	
Body-worn & Hotspot	QPSK	5	Rear	26365	1882.5	1	49	21.0	20.7	0.669	0.717	0.368	0.394	
						50	24	20.0	19.9	0.544	0.557	0.299	0.306	
			Front	26365	1882.5	1	49	21.0	20.7	0.597	0.640	0.309	0.331	
						50	24	20.0	19.9	0.484	0.495	0.250	0.256	
Hotspot	QPSK	5	Edge 1	26365	1882.5	1	49	21.0	20.7	0.701	0.751	0.317	0.340	
						50	24	21.0	19.9	0.572	0.737	0.258	0.332	
			Edge 2	26365	1882.5	1	49	21.0	20.7	0.060	0.064	0.031	0.033	
						50	24	21.0	19.9	0.049	0.063	0.025	0.032	
			Edge 4	26140	1860.0	1	49	21.0	20.3	0.848	0.996	0.447	0.525	
						50	24	21.0	19.9	0.550	0.709	0.295	0.380	
				26365	1882.5	1	49	21.0	20.7	0.923	0.989	0.486	0.521	
						50	24	21.0	19.9	0.747	0.962	0.394	0.508	
						100	0	21.0	19.9	0.556	0.716	0.296	0.381	
				26590	1905.0	1	49	21.0	20.9	0.974	0.997	0.513	0.525	
						50	24	21.0	20.0	0.792	0.997	0.417	0.525	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26365	1882.5	1	49	24.5	24.5	0.542	0.542	0.356	0.356	
						50	24	23.5	23.5	0.500	0.500	0.330	0.330	
			Left Tilt	26365	1882.5	1	49	24.5	24.5	0.262	0.262	0.170	0.170	
						50	24	23.5	23.5	0.250	0.250	0.163	0.163	
			Right Touch	26140	1860.0	1	49	24.5	24.5	0.825	0.825	0.514	0.514	
						50	24	23.5	23.5	0.792	0.792	0.493	0.493	
				26365	1882.5	1	49	24.5	24.5	0.931	0.931	0.579	0.579	
						50	24	23.5	23.5	0.906	0.906	0.555	0.555	
						100	0	23.5	23.5	0.927	0.927	0.569	0.569	
				26590	1905.0	1	49	24.5	24.5	0.965	0.965	0.589	0.589	
						50	24	23.5	23.5	0.911	0.911	0.556	0.556	
			Right Tilt	26365	1882.5	1	49	24.5	24.5	0.300	0.300	0.188	0.188	
						50	24	23.5	23.5	0.285	0.285	0.179	0.179	
Body-worn & Hotspot	QPSK	5	Rear	26365	1882.5	1	49	19.5	19.5	0.734	0.734	0.381	0.381	
						50	24	19.5	18.4	0.525	0.676	0.276	0.356	
			Front	26140	1860.0	1	49	19.5	19.3	0.846	0.886	0.419	0.439	
				26365	1882.5	1	49	19.5	19.5	0.886	0.886	0.438	0.438	
						50	24	19.5	18.4	0.598	0.770	0.304	0.392	
				26590	1905.0	1	49	19.5	19.3	0.874	0.915	0.435	0.456	34
Hotspot	QPSK	5	Edge 2	26365	1882.5	1	49	19.5	19.5	0.537	0.537	0.300	0.300	
						50	24	19.5	18.4	0.501	0.645	0.278	0.358	
			Edge 3	26140	1860.0	1	49	19.5	19.3	0.974	1.020	0.425	0.445	
						50	24	19.5	18.4	0.695	0.895	0.314	0.405	
				26365	1882.5	1	49	19.5	19.5	1.070	1.070	0.464	0.464	
						50	24	19.5	18.4	0.793	1.022	0.355	0.457	
						100	0	19.5	18.5	0.764	0.962	0.342	0.431	
				26590	1905.0	1	49	19.5	19.3	1.050	1.099	0.444	0.465	35
						50	24	19.5	18.5	0.762	0.959	0.338	0.426	
			Edge 4	26365	1882.5	1	49	19.5	19.5	0.066	0.066	0.036	0.036	
						50	24	19.5	18.4	0.053	0.068	0.029	0.037	

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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 offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	22.5	22.5	0.445	0.445	0.294	0.294	
						25	12	21.5	21.5	0.371	0.371	0.244	0.244	
			Left Tilt	26865	831.5	1	24	22.5	22.5	0.474	0.474	0.262	0.262	
						25	12	21.5	21.5	0.386	0.386	0.212	0.212	
			Right Touch	26865	831.5	1	24	22.5	22.5	0.572	0.572	0.322	0.322	36
						25	12	21.5	21.5	0.469	0.469	0.264	0.264	
			Right Tilt	26865	831.5	1	24	22.5	22.5	0.468	0.468	0.249	0.249	
						25	12	21.5	21.5	0.385	0.385	0.203	0.203	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	22.5	22.5	0.435	0.435	0.238	0.238	
						25	12	21.5	21.5	0.361	0.361	0.197	0.197	
			Front	26865	831.5	1	24	22.5	22.5	0.430	0.430	0.230	0.230	
						25	12	21.5	21.5	0.366	0.366	0.196	0.196	
Hotspot	QPSK	5	Edge 1	26865	831.5	1	24	22.5	22.5	0.232	0.232	0.105	0.105	
						25	12	21.5	21.5	0.191	0.191	0.086	0.086	
			Edge 2	26865	831.5	1	24	22.5	22.5	0.345	0.345	0.226	0.226	
						25	12	21.5	21.5	0.292	0.292	0.192	0.192	
			Edge 4	26865	831.5	1	24	22.5	22.5	0.195	0.195	0.126	0.126	
						25	12	21.5	21.5	0.157	0.157	0.102	0.102	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	24.0	24.0	0.385	0.385	0.298	0.298	
						25	12	23.0	23.0	0.317	0.317	0.241	0.241	
			Left Tilt	26865	831.5	1	24	24.0	24.0	0.189	0.189	0.146	0.146	
						25	12	23.0	23.0	0.162	0.162	0.125	0.125	
			Right Touch	26865	831.5	1	24	24.0	24.0	0.325	0.325	0.245	0.245	
						25	12	23.0	23.0	0.264	0.264	0.199	0.199	
			Right Tilt	26865	831.5	1	24	24.0	24.0	0.209	0.209	0.161	0.161	
						25	12	23.0	23.0	0.164	0.164	0.126	0.126	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	24.0	23.5	0.570	0.640	0.350	0.393	
						25	12	23.0	22.5	0.459	0.515	0.281	0.315	
			Front	26865	831.5	1	24	24.0	23.5	0.604	0.678	0.337	0.378	37
						25	12	23.0	22.5	0.477	0.535	0.271	0.304	
Hotspot	QPSK	5	Edge 2	26865	831.5	1	24	24.0	23.5	0.280	0.314	0.182	0.204	
						25	12	23.0	22.5	0.220	0.247	0.143	0.160	
			Edge 3	26865	831.5	1	24	24.0	23.5	0.458	0.514	0.212	0.238	
						25	12	23.0	22.5	0.367	0.412	0.170	0.191	
			Edge 4	26740	819.0	1	24	24.0	23.5	0.751	0.843	0.496	0.557	38
				26865	831.5	1	24	24.0	23.5	0.738	0.828	0.489	0.549	
						25	12	23.0	22.5	0.598	0.671	0.394	0.442	
				26990	844.0	1	24	24.0	23.5	0.605	0.679	0.399	0.448	

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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 overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

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10.19. LTE Band 30 (10MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	27710	2310.0	1	24	15.5	15.5	0.412	0.412	0.200	0.200	
						25	12	15.5	15.5	0.420	0.420	0.203	0.203	
			Left Tilt	27710	2310.0	1	24	15.5	15.5	0.527	0.527	0.195	0.195	
						25	12	15.5	15.5	0.449	0.449	0.169	0.169	
			Right Touch	27710	2310.0	1	24	15.5	15.5	1.090	1.090	0.481	0.481	39
						25	12	15.5	15.5	1.080	1.080	0.458	0.458	
						50	0	15.5	15.5	0.917	0.917	0.414	0.414	
			Right Tilt	27710	2310.0	1	24	15.5	15.5	1.090	1.090	0.429	0.429	
						25	12	15.5	15.5	0.914	0.914	0.412	0.412	
						50	0	15.5	15.5	0.916	0.916	0.413	0.413	
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	17.5	17.4	0.794	0.812	0.348	0.356	
						25	12	17.5	17.4	0.819	0.838	0.357	0.365	
						50	0	17.5	17.4	0.902	0.923	0.401	0.410	
			Front	27710	2310.0	1	24	17.5	17.4	0.887	0.908	0.386	0.395	
						25	12	17.5	17.4	0.908	0.929	0.395	0.404	
						50	0	17.5	17.4	0.922	0.943	0.409	0.419	
Hotspot	QPSK	5	Edge 1	27710	2310.0	1	24	17.5	17.4	0.684	0.700	0.235	0.240	
						25	12	17.5	17.4	0.699	0.715	0.239	0.245	
			Edge 2	27710	2310.0	1	24	17.5	17.4	0.234	0.239	0.114	0.117	
						25	12	17.5	17.4	0.180	0.184	0.088	0.090	
			Edge 4	27710	2310.0	1	24	17.5	17.4	0.810	0.829	0.375	0.384	
						25	12	17.5	17.4	0.648	0.663	0.301	0.308	

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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	27710	2310.0	1	24	22.3	22.3	0.395	0.395	0.236	0.236	
						25	12	22.3	22.3	0.344	0.344	0.206	0.206	
			Left Tilt	27710	2310.0	1	24	22.3	22.3	0.315	0.315	0.181	0.181	
						25	12	22.3	22.3	0.281	0.281	0.159	0.159	
			Right Touch	27710	2310.0	1	24	22.3	22.3	0.350	0.350	0.201	0.201	
						25	12	22.3	22.3	0.294	0.294	0.169	0.169	
			Right Tilt	27710	2310.0	1	24	22.3	22.3	0.424	0.424	0.226	0.226	
						25	12	22.3	22.3	0.359	0.359	0.191	0.191	
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	18.3	18.3	0.658	0.658	0.295	0.295	
						25	12	18.3	18.3	0.666	0.666	0.299	0.299	
			Front	27710	2310.0	1	24	18.3	18.3	1.110	1.110	0.453	0.453	40
						25	12	18.3	18.3	1.080	1.080	0.442	0.442	
						50	0	18.3	18.3	1.040	1.040	0.428	0.428	
Hotspot	QPSK	5	Edge 2	27710	2310.0	1	24	18.3	18.3	0.452	0.452	0.215	0.215	
						25	12	18.3	18.3	0.460	0.460	0.219	0.219	
			Edge 3	27710	2310.0	1	24	18.3	18.3	0.737	0.737	0.256	0.256	
						25	12	18.3	18.3	0.785	0.785	0.270	0.270	
			Edge 4	27710	2310.0	1	24	18.3	18.3	0.194	0.194	0.094	0.094	
						25	12	18.3	18.3	0.199	0.199	0.096	0.096	

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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 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	39750	2506.0	1	49	17.5	17.5	1.080	1.080	0.404	0.404	41
				40185	2549.5	1	49	17.5	17.3	0.920	0.963	0.351	0.368	
				40620	2593.0	1	49	17.5	17.3	0.792	0.829	0.317	0.332	
						50	24	17.5	16.3	0.564	0.743	0.226	0.298	
				41055	2636.5	1	49	17.5	17.5	0.734	0.734	0.302	0.302	
				41490	2680.0	1	49	17.5	17.4	0.602	0.616	0.246	0.252	
			Left Tilt	39750	2506.0	1	49	17.5	17.5	1.050	1.050	0.372	0.372	
				40185	2549.5	1	49	17.5	17.3	0.925	0.969	0.329	0.345	
				40620	2593.0	1	49	17.5	17.3	0.779	0.816	0.281	0.294	
						50	24	17.5	16.5	0.619	0.779	0.223	0.281	
				41055	2636.5	1	49	17.5	17.5	0.655	0.655	0.242	0.242	
				41490	2680.0	1	49	17.5	17.4	0.510	0.522	0.191	0.195	
			Right Touch	40620	2593.0	1	49	17.5	17.3	0.382	0.400	0.147	0.154	
						50	24	17.5	16.5	0.289	0.364	0.111	0.140	
			Right Tilt	40620	2593.0	1	49	17.5	17.3	0.393	0.412	0.150	0.157	
						50	24	17.5	16.5	0.296	0.373	0.112	0.141	
Body-worn & Hotspot	QPSK	5	Rear	40620	2593.0	1	49	20.5	19.7	0.599	0.720	0.278	0.334	
						50	24	20.0	18.5	0.505	0.713	0.223	0.315	
			Front	40620	2593.0	1	49	20.5	19.7	0.613	0.737	0.290	0.349	
						50	24	20.0	18.5	0.396	0.559	0.184	0.260	
Hotspot	QPSK	5	Edge 1	40620	2593.0	1	49	20.5	19.7	0.400	0.481	0.144	0.173	
						50	24	20.0	18.5	0.250	0.353	0.087	0.123	
			Edge 2	40620	2593.0	1	49	20.5	19.7	0.572	0.688	0.266	0.320	
						50	24	20.0	18.5	0.370	0.523	0.169	0.239	
			Edge 4	40620	2593.0	1	49	20.5	19.7	0.224	0.269	0.098	0.118	
						50	24	20.0	18.5	0.138	0.195	0.058	0.082	

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LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	40620	2593.0	1	49	22.5	22.5	0.535	0.535	0.285	0.285	
						50	24	22.5	21.5	0.340	0.428	0.180	0.227	
			Left Tilt	40620	2593.0	1	49	22.5	22.5	0.105	0.105	0.054	0.054	
						50	24	22.5	21.5	0.067	0.084	0.034	0.043	
			Right Touch	40620	2593.0	1	49	22.5	22.5	0.312	0.312	0.168	0.168	
						50	24	22.5	21.5	0.195	0.245	0.104	0.131	
			Right Tilt	40620	2593.0	1	49	22.5	22.5	0.173	0.173	0.089	0.089	
						50	24	22.5	21.5	0.105	0.132	0.054	0.068	
Body-worn & Hotspot	QPSK	5	Rear	39750	2506.0	1	49	19.5	19.5	0.642	0.642	0.273	0.273	
						50	24	19.5	19.0	0.490	0.550	0.210	0.236	
				40185	2549.5	1	49	19.5	19.5	0.774	0.774	0.352	0.352	
						50	24	19.5	19.0	0.546	0.613	0.248	0.278	
				40620	2593.0	1	49	19.5	19.5	0.834	0.834	0.409	0.409	
						50	24	19.5	19.0	0.647	0.726	0.310	0.348	
						100	0	19.5	19.0	0.647	0.726	0.310	0.348	
				41055	2636.5	1	49	19.5	19.5	0.970	0.970	0.443	0.443	
						50	24	19.5	19.0	0.814	0.913	0.374	0.420	
				41490	2680.0	1	49	19.5	19.5	1.010	1.010	0.430	0.430	
						50	24	19.5	19.0	0.912	1.023	0.391	0.439	
			Front	39750	2506.0	1	49	19.5	19.5	0.864	0.864	0.339	0.339	
						50	24	19.5	19.0	0.656	0.736	0.244	0.274	
				40185	2549.5	1	49	19.5	19.5	1.000	1.000	0.399	0.399	
						50	24	19.5	19.0	0.689	0.773	0.275	0.309	
				40620	2593.0	1	49	19.5	19.5	1.060	1.060	0.441	0.441	42
						50	24	19.5	19.0	0.794	0.891	0.328	0.368	
						100	0	19.5	19.0	0.714	0.801	0.299	0.335	
				41055	2636.5	1	49	19.5	19.5	0.882	0.882	0.386	0.386	
						50	24	19.5	19.0	0.714	0.801	0.309	0.347	
				41490	2680.0	1	49	19.5	19.5	0.754	0.754	0.332	0.332	
						50	24	19.5	19.0	0.641	0.719	0.283	0.318	
Hotspot	QPSK	5	Edge 2	40620	2593.0	1	49	19.5	19.5	0.033	0.033	0.014	0.014	
						50	24	19.5	19.0	0.048	0.054	0.022	0.025	
			Edge 3	40620	2593.0	1	49	19.5	19.5	0.632	0.632	0.192	0.192	
						50	24	19.5	19.0	0.533	0.598	0.162	0.182	
			Edge 4	40620	2593.0	1	49	19.5	19.5	0.674	0.674	0.290	0.290	
						50	24	19.5	19.0	0.526	0.590	0.226	0.254	

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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	1	49	15.3	15.3	0.897	0.897	0.347	0.347	

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	21350	2560.0	1	49	21152	2540.2	1	49	17.7	17.7	1.020	1.020	0.415	0.415	43

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	
Head	QPSK	0	Left Touch	39750	2506.0	1	49	39948	2525.8	1	49	17.5	17.5	0.892	0.892	0.336	0.336	44

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	40620	2593.0	1	49	40422	2573.2	1	49	19.5	19.5	0.877	0.877	0.376	0.376	

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 Conditions	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	10.3	10.3			0.461									
					Left Tilt	6	2437	10.3	10.3			0.500	0.321	0.114	0.321	0.114					
					Right Touch	6	2437	10.3	10.3			0.401									
					Right Tilt	6	2437	10.3	10.3			0.409									
					Left Touch	6	2437			18.0	18.0	0.109									
					Left Tilt	6	2437			18.0	18.0	0.087									
					Right Touch	6	2437			18.0	18.0	0.230					0.179	0.095	0.179	0.095	
					Right Tilt	6	2437			18.0	18.0	0.046									
		802.11g 20MHz	0	2 Tx	Left Touch	6	2437	10.3	10.3	18.0	18.0	0.359									
					Left Tilt	6	2437	10.3	10.3	18.0	18.0	0.536	0.329	0.129	0.329	0.129	-	-	-	-	
					Right Touch	6	2437	10.3	10.3	18.0	18.0	0.381									
					Right Tilt	6	2437	10.3	10.3	18.0	18.0	0.423									
	Body-worn, Hotspot and Airplay	802.11b 20MHz	5	1 Tx	Rear	6	2437	13.3	13.2			0.391									
					Front	6	2437	13.3	13.2			0.396	0.391	0.153	0.400	0.157					
					Edge 1	6	2437	13.3	13.2			0.398	0.272	0.090	0.278	0.092					
					Edge 2	6	2437	13.3	13.2			0.127									
					Edge 4	6	2437	13.3	13.2			0.096									
					Rear	6	2437			13.0	13.0	0.084									
					Front	6	2437			13.0	13.0	0.247					0.249	0.113	0.249	0.113	
					Edge 2	6	2437			13.0	13.0	0.073									
					Edge 3	6	2437			13.0	13.0	0.075									
					Edge 4	6	2437			13.0	13.0	0.005									
		802.11g 20MHz	5	2 Tx	Rear	6	2437	13.3	13.3	13.0	13.0	0.286									
					Front	6	2437	13.3	13.3	13.0	13.0	0.512	0.364	0.145	0.364	0.145	0.214	0.097	0.214	0.097	
					Edge 1	6	2437	13.3	13.3	13.0	13.0	0.258									
					Edge 2	6	2437	13.3	13.3	13.0	13.0	0.149									
					Edge 3	6	2437	13.3	13.3	13.0	13.0	0.073									
					Edge 4	6	2437	13.3	13.3	13.0	13.0	0.139									

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 Conditions	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	1	2412	15.5	15.5				0.810	0.307	0.810	0.307					
						6	2437	15.5	15.5			1.350	0.998	0.380	0.998	0.380					
					Left Tilt	1	2412	15.5	15.5				1.040	0.372	1.040	0.372					
						6	2437	15.5	15.5			1.590	1.080	0.384	1.080	0.384					
					Right Touch	1	2412	15.5	15.5				0.790	0.311	0.790	0.311					
						6	2437	15.5	15.5			1.310	0.923	0.364	0.923	0.364					
					Right Tilt	1	2412	15.5	15.5				0.885	0.334	0.885	0.334					
						6	2437	15.5	15.5			1.520	0.989	0.374	0.989	0.374					
					Left Touch	6	2437			19.0	19.0	0.132									
					Left Tilt	6	2437			19.0	19.0	0.110									
					Right Touch	6	2437			19.0	19.0	0.250					0.215	0.115	0.215	0.115	
					Right Tilt	6	2437			19.0	19.0	0.077									
		802.11g 20MHz	0	2 Tx	Left Touch	6	2437	15.5	15.5	19.0	19.0	0.913	0.659	0.263	0.659	0.263	-	-	-	-	
					Left Tilt	6	2437	15.5	15.5	19.0	19.0	1.580	1.060	0.393	1.060	0.393	-	-	-	-	
						9	2452	15.5	15.5	19.0	19.0		1.130	0.421	1.130	0.421	-	-	-	-	
					Right Touch	6	2437	15.5	15.5	19.0	19.0	1.360	1.020	0.406	1.020	0.406	0.201	0.110	0.201	0.110	
						9	2452	15.5	15.5	19.0	19.0		0.839	0.340	0.839	0.340	-	-	-	-	
					Right Tilt	6	2437	15.5	15.5	19.0	19.0	1.620	1.070	0.414	1.070	0.414	-	-	-	-	
						9	2452	15.5	15.5	19.0	19.0		1.170	0.448	1.170	0.448	-	-	-	-	45
	Body-worn & Airplay	802.11b 20MHz	5	1 Tx	Rear	6	2437	17.5	17.0			1.030	0.691	0.271	0.775	0.304					
					Front	6	2437	17.5	17.0			0.874	0.916	0.357	1.028	0.401					46
						11	2462	17.5	17.0				0.725	0.279	0.813	0.313					
					Edge 1	6	2437	17.5	17.0			1.330	0.798	0.262	0.895	0.294					
						11	2462	17.5	17.0				0.737	0.242	0.827	0.272					
					Edge 2	6	2437	17.5	17.0			0.432									
					Edge 4	6	2437	17.5	17.0			0.284									
					Rear	6	2437			19.0	19.0	0.456					0.364	0.186	0.364	0.186	
					Front	6	2437			19.0	19.0	0.830					0.748	0.347	0.748	0.347	
					Edge 2	6	2437			19.0	19.0	0.344									
					Edge 3	6	2437			19.0	19.0	0.386									
					Edge 4	6	2437			19.0	19.0	0.063									
		802.11g 20MHz	5	2 Tx	Rear	6	2437	17.5	17.5	19.0	19.0	1.180	0.856	0.333	0.856	0.333	0.261	0.139	0.261	0.139	
						9	2452	17.5	17.5	19.0	19.0		0.564	0.220	0.564	0.220	0.296	0.154	0.296	0.154	
					Front	6	2437	17.5	17.5	19.0	19.0	1.330	0.990	0.385	0.990	0.385	0.562	0.257	0.562	0.257	
						9	2452	17.5	17.5	19.0	19.0		0.729	0.288	0.729	0.288	0.685	0.311	0.685	0.311	
					Edge 1	6	2437	17.5	17.5	19.0	19.0	0.792	0.764	0.253	0.764	0.253	0.325	0.108	0.325	0.108	
					Edge 2	6	2437	17.5	17.5	19.0	19.0	0.400									
					Edge 3	6	2437	17.5	17.5	19.0	19.0	0.291									
					Edge 4	6	2437	17.5	17.5	19.0	19.0	0.406									

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 Conditions	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	5.9			0.139									
					Left Tilt	42	5210	6.0	5.9			0.156									
					Right Touch	42	5210	6.0	5.9			0.334	0.182	0.050	0.186	0.051					
					Right Tilt	42	5210	6.0	5.9			0.221									
5.3 GHz		802.11n HT40	0	1 Tx	Left Touch	54	5270			19.0	18.8	0.158									
					Left Tilt	54	5270			19.0	18.8	0.040									
					Right Touch	54	5270			19.0	18.8	0.171					0.096	0.039	0.101	0.041	
					Right Tilt	54	5270			19.0	18.8	0.039									
5.2 GHz		802.11n HT40 CDD	0	2 Tx	Left Touch	46	5230	6.0	6.0	19.0	18.9	0.144									
					Left Tilt	46	5230	6.0	6.0	19.0	18.9	0.129									
					Right Touch	46	5230	6.0	6.0	19.0	18.9	0.290	0.140	0.045	0.140	0.045	-	-	-	-	
					Right Tilt	46	5230	6.0	6.0	19.0	18.9	0.264									
5.2 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	42	5210	13.8	13.8			0.121									
					Front	42	5210	13.8	13.8			0.442	0.334	0.114	0.334	0.114					
					Edge 1	42	5210	13.8	13.8			0.210									
					Edge 2	42	5210	13.8	13.8			0.052									
					Edge 4	42	5210	13.8	13.8			0.250									
5.2 GHz		802.11ac VHT80	5	1 Tx	Rear	42	5210			11.0	11.0	0.021									
					Front	42	5210			11.0	11.0	0.364					0.240	0.053	0.240	0.053	
					Edge 2	42	5210			11.0	11.0	0.028									
					Edge 3	42	5210			11.0	11.0	0.063									
					Edge 4	42	5210			11.0	11.0	0.032									
5.2 GHz		802.11n HT40 CDD	5	2 Tx	Rear	42	5210	13.8	13.8	11.0	11.0	0.113									
					Front	42	5210	13.8	13.8	11.0	11.0	0.544	0.273	0.090	0.273	0.090	0.171	0.039	0.171	0.039	
					Edge 1	42	5210	13.8	13.8	11.0	11.0	0.225									
					Edge 2	42	5210	13.8	13.8	11.0	11.0	0.085									
					Edge 3	42	5210	13.8	13.8	11.0	11.0	0.082									
					Edge 4	42	5210	13.8	13.8	11.0	11.0	0.352									

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

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	
802.11ac VHT80	0	1 Tx	Left Touch	42	5210	13.8	13.8			0.721									
			Left Tilt	42	5210	13.8	13.8			1.150	0.605	0.200	0.605	0.200					
			Right Touch	42	5210	13.8	13.8			1.890	1.190	0.390	1.190	0.390					47
			Right Tilt	42	5210	13.8	13.8			1.850	1.090	0.341	1.090	0.341					
802.11n HT40	0	1 Tx	Left Touch	54	5270			19.0	18.8	0.158									
			Left Tilt	54	5270			19.0	18.8	0.040									
			Right Touch	54	5270			19.0	18.8	0.171					0.096	0.039	0.101	0.041	
			Right Tilt	54	5270			19.0	18.8	0.039									
802.11n HT40 CDD	0	2 Tx	Left Touch	46	5230	13.8	13.8	19.0	19.0	0.721									
			Left Tilt	46	5230	13.8	13.8	19.0	19.0	0.702									
			Right Touch	38	5190	13.8	13.8	14.5	14.5		0.992	0.329	0.992	0.329	-	-	-	-	
				46	5230	13.8	13.8	19.0	19.0	1.690	1.170	0.383	1.170	0.383	-	-	-	-	
			Right Tilt	46	5230	13.8	13.8	19.0	19.0	1.180	0.716	0.233	0.716	0.233	-	-	-	-	
802.11n HT40 CDD	5	1 Tx	Rear	46	5230	19.0	19.0			0.384									
			Front	38	5190	16.5	16.3				0.304	0.107	0.318	0.112					
				46	5230	19.0	19.0			1.610	1.080	0.366	1.080	0.366					
			Edge 1	46	5230	19.0	19.0			0.549									
			Edge 2	46	5230	19.0	19.0			0.172									
			Edge 4	46	5230	19.0	19.0			0.847	0.452	0.155	0.452	0.155					
802.11a	5	1 Tx	Rear	46	5230			18.0	18.0	0.137					0.057	0.018	0.057	0.018	
			Front	38	5190			16.5	16.4						0.608	0.144	0.622	0.147	
				46	5230			18.0	18.0	2.190					1.150	0.281	1.150	0.281	48
			Edge 2	46	5230			18.0	18.0	0.148									
			Edge 3	46	5230			18.0	18.0	0.327					0.177	0.056	0.177	0.056	
			Edge 4	46	5230			18.0	18.0	0.020									
802.11n HT40 CDD	5	2 Tx	Rear	46	5230	19.0	18.5	18.0	17.5	0.429									
			Front	38	5190	14.5	14.5	14.5	14.5		0.240	0.081	0.240	0.081	0.326	0.077	0.326	0.077	
				46	5230	19.0	18.5	18.0	17.5	1.460	0.861	0.303	0.966	0.340	0.845	0.202	0.948	0.227	
			Edge 1	46	5230	19.0	18.5	18.0	17.5	0.616									
			Edge 2	46	5230	19.0	18.5	18.0	17.5	0.224									
			Edge 3	46	5230	19.0	18.5	18.0	17.5	0.366									
			Edge 4	46	5230	19.0	18.5	18.0	17.5	1.080	0.427	0.136	0.479	0.153					

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 Conditions	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	3.3	2.5			0.200									
					Left Tilt	138	5690	3.3	2.5			0.169									
					Right	138	5690	3.3	2.5			0.280	0.155	0.036	0.186	0.043					
					Right Tilt	138	5690	3.3	2.5			0.211									
		802.11ac VHT80	0	1 Tx	Left Touch	138	5690			19.0	18.8	0.197									
					Left Tilt	138	5690			19.0	18.8	0.122									
					Right	138	5690			19.0	18.8	0.357					0.210	0.085	0.220	0.089	
					Right Tilt	138	5690			19.0	18.8	0.120									
		802.11ac VHT80 CDD	0	2 Tx	Left Touch	138	5690	3.3	3.3	19.0	19.0	0.508									
					Left Tilt	138	5690	3.3	3.3	19.0	19.0	0.263									
					Right	138	5690	3.3	3.3	19.0	19.0	0.745	0.161	0.040	0.161	0.040	0.199	0.079	0.199	0.079	
					Right Tilt	138	5690	3.3	3.3	19.0	19.0	0.459									
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	138	5690	10.3	9.7			0.096									
					Front	138	5690	10.3	9.7			0.580	0.273	0.081	0.313	0.093					
					Edge 1	138	5690	10.3	9.7			0.162									
					Edge 2	138	5690	10.3	9.7			0.003									
					Edge 4	138	5690	10.3	9.7			0.109									
		802.11ac VHT80	5	1 Tx	Rear	138	5690			9.0	8.9	0.053									
					Front	138	5690			9.0	8.9	0.474					0.230	0.058	0.235	0.059	
					Edge 2	138	5690			9.0	8.9	0.095									
					Edge 3	138	5690			9.0	8.9	0.105									
					Edge 4	138	5690			9.0	8.9	0.006									
		802.11ac VHT80 CDD	5	2 Tx	Rear	138	5690	10.3	10.3	9.0	9.0	0.062									
					Front	138	5690	10.3	10.3	9.0	9.0	0.462	0.313	0.092	0.313	0.092	0.221	0.055	0.221	0.055	
					Edge 1	138	5690	10.3	10.3	9.0	9.0	0.157									
					Edge 2	138	5690	10.3	10.3	9.0	9.0	0.069									
					Edge 3	138	5690	10.3	10.3	9.0	9.0	0.092									
					Edge 4	138	5690	10.3	10.3	9.0	9.0	0.140									

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 Conditions	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	10.8	10.8			0.483									
					Left Tilt	138	5690	10.8	10.8			0.510									
					Right Touch	106	5530	10.8	10.8				0.666	0.195	0.666	0.195					
						138	5690	10.8	10.8			1.630	1.010	0.277	1.010	0.277					
					Right Tilt	106	5530	10.8	10.8				0.590	0.153	0.590	0.153					
						138	5690	10.8	10.8			1.000	0.872	0.234	0.872	0.234					
		802.11ac VHT80	0	1 Tx	Left Touch	138	5690			19.0	18.8	0.197									
					Left Tilt	138	5690			19.0	18.8	0.122									
					Right Touch	138	5690			19.0	18.8	0.357					0.210	0.085	0.220	0.089	
					Right Tilt	138	5690			19.0	18.8	0.120									
		802.11ac VHT80 CDD	0	2 Tx	Left Touch	138	5690	10.8	10.8	19.0	19.0	1.050									
					Left Tilt	138	5690	10.8	10.8	19.0	19.0	0.963									
					Right Touch	122	5610	10.8	10.8	19.0	19.0		0.889	0.251	0.889	0.251	-	-	-	-	
						138	5690	10.8	10.8	19.0	19.0	2.140	1.090	0.299	1.090	0.299	0.288	0.072	0.288	0.072	49
					Right Tilt	122	5610	10.8	10.8	19.0	19.0										
						138	5690	10.8	10.8	19.0	19.0	1.700	0.664	0.191	0.664	0.191	<0.001	<0.001	<0.001	<0.001	
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	138	5690	15.5	15.5			0.217									
					Front	122	5610	15.5	15.4				0.724	0.226	0.741	0.231					
						138	5690	15.5	15.5			1.510	0.905	0.287	0.905	0.287					
					Edge 1	138	5690	15.5	15.5			0.450	0.261	0.080	0.261	0.080					
					Edge 2	138	5690	15.5	15.5			0.028									
					Edge 4	138	5690	15.5	15.5			0.308									
		802.11ac VHT80	5	1 Tx	Rear	138	5690			16.0	15.9	0.277									
					Front	122	5610			16.0	15.9						1.080	0.291	1.105	0.298	50
						138	5690			16.0	15.9	1.900					0.859	0.235	0.879	0.240	
					Edge 2	138	5690			16.0	15.9	0.258									
					Edge 3	138	5690			16.0	15.9	0.451					0.209	0.076	0.214	0.078	
					Edge 4	138	5690			16.0	15.9	0.026									
		802.11ac VHT80	5	2 Tx	Rear	122	5610	15.5	15.0	16.0	15.9										
						138	5690	15.5	15.0	16.0	16.0	0.370									
					Front	122	5610	15.5	15.0	16.0	15.9		0.466	0.155	0.523	0.174	0.814	0.229	0.833	0.234	
						138	5690	15.5	15.0	16.0	16.0	1.700	0.609	0.190	0.683	0.213	0.991	0.268	0.991	0.268	
					Edge 1	138	5690	15.5	15.0	16.0	16.0	0.570	0.312	0.096	0.350	0.108	-	-	-	-	
					Edge 2	138	5690	15.5	15.0	16.0	16.0	0.355									
					Edge 3	138	5690	15.5	15.0	16.0	16.0	0.491									
					Edge 4	138	5690	15.5	15.0	16.0	16.0	0.389									

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 Conditions	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	4.3	4.1			0.190									
					Left Tilt	155	5775	4.3	4.1			0.171									
					Right	155	5775	4.3	4.1			0.257	0.147	0.039	0.154	0.041					
					Right Tilt	155	5775	4.3	4.1			0.188									
		802.11ac VHT80	0	1 Tx	Left Touch	155	5775			19.0	18.8	0.232									
					Left Tilt	155	5775			19.0	18.8	0.154									
					Right	155	5775			19.0	18.8	0.404					0.220	0.094	0.230	0.098	
					Right Tilt	155	5775			19.0	18.8	0.171									
		802.11n HT40	0	2 Tx	Left Touch	159	5795	4.3	4.3	19.0	19.0	0.346									
					Left Tilt	159	5795	4.3	4.3	19.0	19.0	0.283									
					Right	159	5795	4.3	4.3	19.0	19.0	0.428	0.148	0.042	0.148	0.042	0.244	0.100	0.244	0.100	
					Right Tilt	159	5795	4.3	4.3	19.0	19.0	0.355									
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	11.5	11.5			0.034									
					Front	155	5775	11.5	11.5			0.675	0.332	0.110	0.332	0.110					
					Edge 1	155	5775	11.5	11.5			0.014									
					Edge 2	155	5775	11.5	11.5			0.014									
					Edge 4	155	5775	11.5	11.5			0.015									
		802.11ac VHT80	5	1 Tx	Rear	155	5775			10.0	9.5	0.029									
					Front	155	5775			10.0	9.5	0.332					0.176	0.051	0.197	0.057	
					Edge 2	155	5775			10.0	9.5	0.018									
					Edge 3	155	5775			10.0	9.5	0.084									
					Edge 4	155	5775			10.0	9.5	0.013									
		802.11ac VHT80	5	2 Tx	Rear	155	5775	11.5	11.5	10.0	10.0	0.158									
					Front	155	5775	11.5	11.5	10.0	10.0	0.499	0.281	0.052	0.281	0.052	0.179	0.057	0.179	0.057	
					Edge 1	155	5775	11.5	11.5	10.0	10.0	0.285									
					Edge 2	155	5775	11.5	11.5	10.0	10.0	0.069									
					Edge 3	155	5775	11.5	11.5	10.0	10.0	0.095									
					Edge 4	155	5775	11.5	11.5	10.0	10.0	0.174									

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 Conditions	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	12.0	11.9			1.110	0.606	0.201	0.620	0.206					
					Left Tilt	155	5775	12.0	11.9			0.952									
					Right Touch	155	5775	12.0	11.9			1.330	0.966	0.279	0.989	0.285					
					Right Tilt	155	5775	12.0	11.9			1.660	0.869	0.246	0.889	0.252					
		802.11ac VHT80	0	1 Tx	Left Touch	155	5775			19.0	18.8	0.232									
					Left Tilt	155	5775			19.0	18.8	0.154									
					Right Touch	155	5775			19.0	18.8	0.404					0.220	0.094	0.230	0.098	
					Right Tilt	155	5775			19.0	18.8	0.171									
		802.11n HT40	0	2 Tx	Left Touch	159	5795	12.0	12.0	19.0	19.0	0.988									
					Left Tilt	159	5795	12.0	12.0	19.0	19.0	1.180	0.671	0.227	0.671	0.227	-	-	-	-	
					Right Touch	151	5755	12.0	12.0	19.0	19.0		0.915	0.271	0.915	0.271	0.259	0.110	0.259	0.110	
						159	5795	12.0	12.0	19.0	19.0	2.140	1.000	0.288	1.000	0.288	0.254	0.107	0.254	0.107	
					Right Tilt	151	5755	12.0	12.0	19.0	19.0		0.867	0.248	0.867	0.248	0.114	0.048	0.114	0.048	
						159	5795	12.0	12.0	19.0	19.0	2.220	1.080	0.313	1.080	0.313	0.154	0.069	0.154	0.069	51
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	16.8	16.4			0.485									
					Front	155	5775	16.8	16.4			2.280	1.090	0.352	1.195	0.386					52
					Edge 1	155	5775	16.8	16.4			0.958	0.578	0.192	0.634	0.211					
					Edge 2	155	5775	16.8	16.4			0.065									
					Edge 4	155	5775	16.8	16.4			0.595									
		802.11ac VHT80	5	1 Tx	Rear	155	5775			17.0	16.9	0.164									
					Front	155	5775			17.0	16.9	1.650					0.982	0.306	1.005	0.313	
					Edge 2	155	5775			17.0	16.9	0.303									
					Edge 3	155	5775			17.0	16.9	0.539					0.298	0.118	0.305	0.121	
					Edge 4	155	5775			17.0	16.9	0.031									
		802.11ac VHT80	5	2 Tx	Rear	155	5775	16.8	16.3	17.0	16.5	0.567									
					Front	155	5775	16.8	16.3	17.0	16.5	2.400	0.900	0.301	1.010	0.338	0.787	0.249	0.883	0.279	
					Edge 1	155	5775	16.8	16.3	17.0	16.5	0.956	0.551	0.187	0.618	0.210	-	-	-	-	
					Edge 2	155	5775	16.8	16.3	17.0	16.5	0.449									
					Edge 3	155	5775	16.8	16.3	17.0	16.5	0.580									
					Edge 4	155	5775	16.8	16.3	17.0	16.5	0.674									

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	802.11g 20MHz	0	2Tx	Right Tilt	9	2452	15.5	15.5	19.0	19.0	1.170	0.448	1.170	0.448	-	-	-	-
		Body-worn & Airplay	802.11b 20MHz	5	1Tx	Front	6	2437	17.5	17.0			0.916	0.357	1.028	0.401				
Variant 2 Spot Check	2.4 GHz	Head	802.11g 20MHz	0	2Tx	Right Tilt	9	2452	15.5	15.5	19.0	19.0	1.090	0.426	1.090	0.426	-	-	-	-
		Body-worn & Airplay	802.11b 20MHz	5	1Tx	Front	6	2437	17.5	17.2			0.935	0.373	1.002	0.400				

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	802.11ac vHT80	0	1 Tx	Right Touch	42	5210	13.8	13.8			1.190	0.390	1.190	0.390				
		Body-worn & Airplay	802.11a	5	1 Tx	Front	46	5230			18.0	18.0					1.150	0.281	1.150	0.281
Variant 2 Spot Check	5.2 & 5.3 GHz	Head	802.11ac vHT80	0	1 Tx	Right Touch	42	5210	13.8	13.8			1.160	0.372	1.160	0.372				
		Body-worn & Airplay	802.11a	5	1 Tx	Front	46	5230			18.0	18.0					1.060	0.288	1.060	0.288

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	2 Tx	Right Touch	138	5690	10.8	10.8	19.0	19.0	1.090	0.299	1.090	0.299	0.288	0.072	0.288	0.072
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	122	5610			16.0	15.9					1.080	0.291	1.105	0.298
Variant 2 Spot Check	5.6 GHz	Head	802.11ac VHT80	0	2 Tx	Right Touch	138	5690	10.8	10.8	19.0	19.0	0.956	0.178	0.956	0.178	-	-	-	-
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	122	5610			16.0	16.0					1.020	0.270	1.020	0.270

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 Tilt	159	5795	12.0	12.0	19.0	19.0	1.080	0.313	1.080	0.313	0.154	0.069	0.154	0.069
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	155	5775	16.8	16.4			1.090	0.352	1.195	0.386				
Variant 2 Spot Check	5.8 GHz	Head	802.11n HT40	0	2 Tx	Right Tilt	159	5795	12.0	12.0	19.0	19.0	0.968	0.209	0.968	0.209	-	-	-	-
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	155	5775	16.8	16.7			1.150	0.359	1.177	0.367				

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	11.6	0.195	0.214	0.074	0.081	
				Left Tilt	39	2441.0	12.0	11.6	0.176	0.193	0.062	0.068	
				Right Touch	39	2441.0	12.0	11.6	0.221	0.242	0.085	0.093	53
				Right Tilt	39	2441.0	12.0	11.6	0.211	0.231	0.086	0.094	
	Body-worn	GFSK	5	Rear	39	2441.0	12.0	11.6	0.139	0.152	0.050	0.055	
				Front	39	2441.0	12.0	11.6	0.193	0.212	0.071	0.078	54

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	9.9	0.137	0.140	0.049	0.050	
				Left Tilt	39	2441.0	10.0	9.9	0.134	0.137	0.051	0.052	
				Right Touch	39	2441.0	10.0	9.9	0.146	0.149	0.059	0.060	
				Right Tilt	39	2441.0	10.0	9.9	0.146	0.149	0.055	0.056	
	Body-worn	GFSK	5	Rear	39	2441.0	10.0	9.9	0.063	0.064	0.020	0.020	
				Front	39	2441.0	10.0	9.9	0.085	0.087	0.029	0.030	

$P_{standalone}$

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	0.688	0.688	0.259	0.259	55
				Left Tilt	39	2441.0	16.5	16.5	0.686	0.686	0.248	0.248	
				Right Touch	39	2441.0	16.5	16.5	0.625	0.625	0.254	0.254	
				Right Tilt	39	2441.0	16.5	16.5	0.660	0.660	0.259	0.259	
	Body-worn	GFSK	5	Rear	39	2441.0	16.5	16.5	0.208	0.208	0.081	0.081	
				Front	39	2441.0	16.5	16.5	0.335	0.335	0.127	0.127	56

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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 13	Hotspot	Edge 4	Yes	0.838	0.801	1.05	N/A	N/A	
	LTE Band 17	Head	Right Touch	No	0.589	N/A	N/A	N/A	N/A	N/A
850	GSM 850	Hotspot	Edge 4	Yes	1.160	1.140	1.02	N/A	N/A	
	CDMA BC10	Head	Left Touch	No	0.781	N/A	N/A	N/A	N/A	N/A
	WCDMA Band V	Hotspot	Edge 4	No	0.934	N/A	N/A			
	LTE Band 26	Hotspot	Edge 4	No	0.751	N/A	N/A	N/A	N/A	N/A
	LTE Band 27	Hotspot	Edge 4	No	0.861	N/A	N/A			
1900	GSM 1900	Head	Right Touch	No	0.998	N/A	N/A			
	CDMA BC1	Head	Right Touch	Yes	1.080	N/A	N/A			
	WCDMA Band II	Head	Right Touch	No	1.050	N/A	N/A			
	LTE Band 25	Head	Right Touch	Yes	1.080	1.080	1.00	N/A	N/A	
1700	LTE Band 4	Hotspot	Edge 3	Yes	1.140	1.130	1.01	N/A	N/A	
	WCDMA Band IV	Hotspot	Edge 3	No	1.040	N/A	N/A			
2300	LTE Band 30	Body & Hotspot	Front	Yes	1.110	1.080	1.03	N/A	N/A	
2400	Wi-Fi 802.11b/g/n	Head	Right Tilt	Yes	1.170	1.010	1.16	N/A	N/A	
	BT	Head	Left Touch	No	0.688	N/A	N/A	N/A	N/A	N/A
2600	LTE Band 7	Body & Hotspot	Front	Yes	1.140	1.120	1.02	N/A	N/A	
	LTE Band 41	Head	Left Touch	No	1.080	N/A	N/A			
5200	Wi-Fi 802.11a/n/ac	Head	Right Touch	Yes	1.190	1.190	1.00	N/A	N/A	
5500	Wi-Fi 802.11a/n/ac	Head	Right Touch	Yes	1.090	1.09	1.00	N/A	N/A	
5800	Wi-Fi 802.11a/n/ac	Body	Front	Yes	1.090	1.05	1.04	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	+ LAT Wi-Fi 2.4 GHz SISO	+	Bluetooth (P_{high})
	2		+ UAT Wi-Fi 5 GHz SISO	+	Bluetooth (P_{high})
	3		+ LAT Wi-Fi 5 GHz SISO	+	Bluetooth (P_{high})
	4		+ Wi-Fi 5 GHz MIMO	+	Bluetooth (P_{high})
	5	WWAN ON	+ UAT Wi-Fi 2.4 GHz SISO		
	6		+ LAT Wi-Fi 2.4 GHz SISO		
	7		+ Wi-Fi 2.4 GHz MIMO		
	8			+	Bluetooth (P_{low})
	9		+ LAT Wi-Fi 2.4 GHz SISO	+	Bluetooth (P_{low})
	10		+ UAT Wi-Fi 5 GHz SISO		
	11		+ LAT Wi-Fi 5 GHz SISO		
	12		+ Wi-Fi 5 GHz MIMO		
	13		+ UAT Wi-Fi 5 GHz SISO	+	Bluetooth (P_{low})
	14		+ LAT Wi-Fi 5 GHz SISO	+	Bluetooth (P_{low})
	15		+ Wi-Fi 5 GHz MIMO	+	Bluetooth (P_{low})

Notes:

1. UAT 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	0.215	1.190	0.230	1.170	0.214	0.429	No	1.404	No	0.444	No	1.384	No
	Left Tilt	0.215	1.010	0.230	1.170	0.193	0.408	No	1.203	No	0.423	No	1.363	No
	Right Touch	0.215	1.190	0.230	1.170	0.242	0.457	No	1.432	No	0.472	No	1.412	No
	Right Tilt	0.215	1.090	0.230	1.080	0.231	0.446	No	1.321	No	0.461	No	1.311	No
Body-worn Accessory & Hotspot	Rear	0.364	1.195	1.105	1.010	0.152	0.516	No	1.347	No	1.257	No	1.162	No
	Front	0.748	1.195	1.150	1.010	0.212	0.960	No	1.407	No	1.362	No	1.222	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	0.535	0.321	0.179	0.329	0.140	0.856	No	0.714	No	0.864	No	0.675	No	0.854	No
	Left Tilt	0.469	0.321	0.179	0.329	0.137	0.790	No	0.648	No	0.798	No	0.606	No	0.785	No
	Right Touch	0.370	0.321	0.179	0.329	0.149	0.691	No	0.549	No	0.699	No	0.519	No	0.698	No
	Right Tilt	0.288	0.321	0.179	0.329	0.149	0.609	No	0.467	No	0.617	No	0.437	No	0.616	No
Body-worn & Hotspot & Airplay	Rear	0.379	0.400	0.249	0.364	0.064	0.779	No	0.628	No	0.743	No	0.443	No	0.692	No
	Front	0.412	0.400	0.249	0.364	0.087	0.812	No	0.661	No	0.776	No	0.499	No	0.748	No
Hotspot & Airplay	Edge 1	0.249	0.278	0.249	0.364		0.527	No	0.498	No	0.613	No				
	Edge 2	0.420	0.400	0.249	0.364		0.820	No	0.669	No	0.784	No				
	Edge 4	0.224	0.400	0.249	0.364		0.624	No	0.473	No	0.588	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	0.592	0.321	0.179	0.329	0.140	0.913	No	0.771	No	0.921	No	0.732	No	0.911	No
	Left Tilt	0.366	0.321	0.179	0.329	0.137	0.687	No	0.545	No	0.695	No	0.503	No	0.682	No
	Right Touch	0.529	0.321	0.179	0.329	0.149	0.850	No	0.708	No	0.858	No	0.678	No	0.857	No
	Right Tilt	0.399	0.321	0.179	0.329	0.149	0.720	No	0.578	No	0.728	No	0.548	No	0.727	No
Body-worn & Hotspot & Airplay	Rear	1.070	0.400	0.249	0.364	0.064	1.470	No	1.319	No	1.434	No	1.134	No	1.383	No
	Front	0.977	0.400	0.249	0.364	0.087	1.377	No	1.226	No	1.341	No	1.064	No	1.313	No
Hotspot & Airplay	Edge 2	0.701	0.278	0.249	0.364		0.979	No	0.950	No	1.065	No				
	Edge 3	0.765	0.400	0.249	0.364		1.165	No	1.014	No	1.129	No				
	Edge 4	1.160	0.400	0.249	0.364		1.560	No	1.409	No	1.524	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	0.496	0.321	0.179	0.329	0.140	0.817	No	0.675	No	0.825	No	0.636	No	0.815	No
	Left Tilt	0.350	0.321	0.179	0.329	0.137	0.671	No	0.529	No	0.679	No	0.487	No	0.666	No
	Right Touch	1.045	0.321	0.179	0.329	0.149	1.366	No	1.224	No	1.374	No	1.194	No	1.373	No
	Right Tilt	0.758	0.321	0.179	0.329	0.149	1.079	No	0.937	No	1.087	No	0.907	No	1.086	No
Body-worn & Hotspot & Airplay	Rear	0.260	0.400	0.249	0.364	0.064	0.660	No	0.509	No	0.624	No	0.324	No	0.573	No
	Front	0.311	0.400	0.249	0.364	0.087	0.711	No	0.560	No	0.675	No	0.398	No	0.647	No
Hotspot & Airplay	Edge 1	0.260	0.278	0.249	0.364		0.538	No	0.509	No	0.624	No				
	Edge 2	0.077	0.400	0.249	0.364		0.477	No	0.326	No	0.441	No				
	Edge 4	0.345	0.400	0.249	0.364		0.745	No	0.594	No	0.709	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	0.289	0.321	0.179	0.329	0.140	0.610	No	0.468	No	0.618	No	0.429	No	0.608	No
	Left Tilt	0.157	0.321	0.179	0.329	0.137	0.478	No	0.336	No	0.486	No	0.294	No	0.473	No
	Right Touch	0.553	0.321	0.179	0.329	0.149	0.874	No	0.732	No	0.882	No	0.702	No	0.881	No
	Right Tilt	0.188	0.321	0.179	0.329	0.149	0.509	No	0.367	No	0.517	No	0.337	No	0.516	No
Body-worn & Hotspot & Airplay	Rear	0.935	0.400	0.249	0.364	0.064	1.335	No	1.184	No	1.299	No	0.999	No	1.248	No
	Front	1.060	0.400	0.249	0.364	0.087	1.460	No	1.309	No	1.424	No	1.147	No	1.396	No
Hotspot & Airplay	Edge 2	0.467	0.278	0.249	0.364		0.745	No	0.716	No	0.831	No				
	Edge 3	0.690	0.400	0.249	0.364		1.090	No	0.939	No	1.054	No				
	Edge 4	0.125	0.400	0.249	0.364		0.525	No	0.374	No	0.489	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	0.688	0.321	0.179	0.329	0.140	1.009	No	0.867	No	1.017	No	0.828	No	1.007	No
	Left Tilt	0.442	0.321	0.179	0.329	0.137	0.763	No	0.621	No	0.771	No	0.579	No	0.758	No
	Right Touch	0.738	0.321	0.179	0.329	0.149	1.059	No	0.917	No	1.067	No	0.887	No	1.066	No
	Right Tilt	0.544	0.321	0.179	0.329	0.149	0.865	No	0.723	No	0.873	No	0.693	No	0.872	No
Body-worn & Hotspot & Airplay	Rear	0.327	0.400	0.249	0.364	0.064	0.727	No	0.576	No	0.691	No	0.391	No	0.640	No
	Front	0.296	0.400	0.249	0.364	0.087	0.696	No	0.545	No	0.660	No	0.383	No	0.632	No
Hotspot & Airplay	Edge 1	0.149	0.278	0.249	0.364		0.427	No	0.398	No	0.513	No				
	Edge 2	0.429	0.400	0.249	0.364		0.829	No	0.678	No	0.793	No				
	Edge 4	0.214	0.400	0.249	0.364		0.614	No	0.463	No	0.578	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	0.556	0.321	0.179	0.329	0.140	0.877	No	0.735	No	0.885	No	0.696	No	0.875	No
	Left Tilt	0.304	0.321	0.179	0.329	0.137	0.625	No	0.483	No	0.633	No	0.441	No	0.620	No
	Right Touch	0.399	0.321	0.179	0.329	0.149	0.720	No	0.578	No	0.728	No	0.548	No	0.727	No
	Right Tilt	0.297	0.321	0.179	0.329	0.149	0.618	No	0.476	No	0.626	No	0.446	No	0.625	No
Body-worn & Hotspot & Airplay	Rear	0.713	0.400	0.249	0.364	0.064	1.113	No	0.962	No	1.077	No	0.777	No	1.026	No
	Front	0.921	0.400	0.249	0.364	0.087	1.321	No	1.170	No	1.285	No	1.008	No	1.257	No
Hotspot & Airplay	Edge 2	0.350	0.278	0.249	0.364		0.628	No	0.599	No	0.714	No				
	Edge 3	0.603	0.400	0.249	0.364		1.003	No	0.852	No	0.967	No				
	Edge 4	0.934	0.400	0.249	0.364		1.334	No	1.183	No	1.298	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	0.504	0.321	0.179	0.329	0.140	0.825	No	0.683	No	0.833	No	0.644	No	0.823	No
	Left Tilt	0.527	0.321	0.179	0.329	0.137	0.848	No	0.706	No	0.856	No	0.664	No	0.843	No
	Right Touch	1.032	0.321	0.179	0.329	0.149	1.353	No	1.211	No	1.361	No	1.181	No	1.360	No
	Right Tilt	0.785	0.321	0.179	0.329	0.149	1.106	No	0.964	No	1.114	No	0.934	No	1.113	No
Body-worn & Hotspot & Airplay	Rear	0.904	0.400	0.249	0.364	0.064	1.304	No	1.153	No	1.268	No	0.968	No	1.217	No
	Front	0.967	0.400	0.249	0.364	0.087	1.367	No	1.216	No	1.331	No	1.054	No	1.303	No
Hotspot & Airplay	Edge 1	0.983	0.278	0.249	0.364		1.261	No	1.232	No	1.347	No				
	Edge 2	0.072	0.400	0.249	0.364		0.472	No	0.321	No	0.436	No				
	Edge 4	0.791	0.400	0.249	0.364		1.191	No	1.040	No	1.155	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	0.458	0.321	0.179	0.329	0.140	0.779	No	0.637	No	0.787	No	0.598	No	0.777	No
	Left Tilt	0.273	0.321	0.179	0.329	0.137	0.594	No	0.452	No	0.602	No	0.410	No	0.589	No
	Right Touch	0.916	0.321	0.179	0.329	0.149	1.237	No	1.095	No	1.245	No	1.065	No	1.244	No
	Right Tilt	0.238	0.321	0.179	0.329	0.149	0.559	No	0.417	No	0.567	No	0.387	No	0.566	No
Body-worn & Hotspot & Airplay	Rear	0.592	0.400	0.249	0.364	0.064	0.992	No	0.841	No	0.956	No	0.656	No	0.905	No
	Front	0.943	0.400	0.249	0.364	0.087	1.343	No	1.192	No	1.307	No	1.030	No	1.279	No
Hotspot & Airplay	Edge 2	0.605	0.278	0.249	0.364		0.883	No	0.854	No	0.969	No				
	Edge 3	1.040	0.400	0.249	0.364		1.440	No	1.289	No	1.404	No				
	Edge 4	0.046	0.400	0.249	0.364		0.446	No	0.295	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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12.10. 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	0.482	0.321	0.179	0.329	0.140	0.803	No	0.661	No	0.811	No	0.622	No	0.801	No
	Left Tilt	0.383	0.321	0.179	0.329	0.137	0.704	No	0.562	No	0.712	No	0.520	No	0.699	No
	Right Touch	1.050	0.321	0.179	0.329	0.149	1.371	No	1.229	No	1.379	No	1.199	No	1.378	No
	Right Tilt	0.569	0.321	0.179	0.329	0.149	0.890	No	0.748	No	0.898	No	0.718	No	0.897	No
Body-worn & Hotspot & Airplay	Rear	0.666	0.400	0.249	0.364	0.064	1.066	No	0.915	No	1.030	No	0.730	No	0.979	No
	Front	0.934	0.400	0.249	0.364	0.087	1.334	No	1.183	No	1.298	No	1.021	No	1.270	No
Hotspot & Airplay	Edge 1	0.919	0.278	0.249	0.364		1.197	No	1.168	No	1.283	No				
	Edge 2	0.039	0.400	0.249	0.364		0.439	No	0.288	No	0.403	No				
	Edge 4	0.730	0.400	0.249	0.364		1.130	No	0.979	No	1.094	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	0.433	0.321	0.179	0.329	0.140	0.754	No	0.612	No	0.762	No	0.573	No	0.752	No
	Left Tilt	0.230	0.321	0.179	0.329	0.137	0.551	No	0.409	No	0.559	No	0.367	No	0.546	No
	Right Touch	0.984	0.321	0.179	0.329	0.149	1.305	No	1.163	No	1.313	No	1.133	No	1.312	No
	Right Tilt	0.262	0.321	0.179	0.329	0.149	0.583	No	0.441	No	0.591	No	0.411	No	0.590	No
Body-worn & Hotspot & Airplay	Rear	1.031	0.400	0.249	0.364	0.064	1.431	No	1.280	No	1.395	No	1.095	No	1.344	No
	Front	0.792	0.400	0.249	0.364	0.087	1.192	No	1.041	No	1.156	No	0.879	No	1.128	No
Hotspot & Airplay	Edge 2	0.742	0.278	0.249	0.364		1.020	No	0.991	No	1.106	No				
	Edge 3	0.691	0.400	0.249	0.364		1.091	No	0.940	No	1.055	No				
	Edge 4	0.119	0.400	0.249	0.364		0.519	No	0.368	No	0.483	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	0.926	0.321	0.179	0.329	0.140	1.247	No	1.105	No	1.255	No	1.066	No	1.245	No
	Left Tilt	0.582	0.321	0.179	0.329	0.137	0.903	No	0.761	No	0.911	No	0.719	No	0.898	No
	Right Touch	0.721	0.321	0.179	0.329	0.149	1.042	No	0.900	No	1.050	No	0.870	No	1.049	No
	Right Tilt	0.565	0.321	0.179	0.329	0.149	0.886	No	0.744	No	0.894	No	0.714	No	0.893	No
Body-worn & Hotspot & Airplay	Rear	0.336	0.400	0.249	0.364	0.064	0.736	No	0.585	No	0.700	No	0.400	No	0.649	No
	Front	0.357	0.400	0.249	0.364	0.087	0.757	No	0.606	No	0.721	No	0.444	No	0.693	No
Hotspot & Airplay	Edge 1	0.176	0.278	0.249	0.364		0.454	No	0.425	No	0.540	No				
	Edge 2	0.557	0.400	0.249	0.364		0.957	No	0.806	No	0.921	No				
	Edge 4	0.301	0.400	0.249	0.364		0.701	No	0.550	No	0.665	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	0.398	0.321	0.179	0.329	0.140	0.719	No	0.577	No	0.727	No	0.538	No	0.717	No
	Left Tilt	0.325	0.321	0.179	0.329	0.137	0.646	No	0.504	No	0.654	No	0.462	No	0.641	No
	Right Touch	0.167	0.321	0.179	0.329	0.149	0.488	No	0.346	No	0.496	No	0.316	No	0.495	No
	Right Tilt	0.182	0.321	0.179	0.329	0.149	0.503	No	0.361	No	0.511	No	0.331	No	0.510	No
Body-worn & Hotspot & Airplay	Rear	0.578	0.400	0.249	0.364	0.064	0.978	No	0.827	No	0.942	No	0.642	No	0.891	No
	Front	0.632	0.400	0.249	0.364	0.087	1.032	No	0.881	No	0.996	No	0.719	No	0.968	No
Hotspot & Airplay	Edge 2	0.165	0.278	0.249	0.364		0.443	No	0.414	No	0.529	No				
	Edge 3	0.427	0.400	0.249	0.364		0.827	No	0.676	No	0.791	No				
	Edge 4	0.592	0.400	0.249	0.364		0.992	No	0.841	No	0.956	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	0.426	0.321	0.179	0.329	0.140	0.747	No	0.605	No	0.755	No	0.566	No	0.745	No
	Left Tilt	0.317	0.321	0.179	0.329	0.137	0.638	No	0.496	No	0.646	No	0.454	No	0.633	No
	Right Touch	1.080	0.321	0.179	0.329	0.149	1.401	No	1.259	No	1.409	No	1.229	No	1.408	No
	Right Tilt	0.706	0.321	0.179	0.329	0.149	1.027	No	0.885	No	1.035	No	0.855	No	1.034	No
Body-worn & Hotspot & Airplay	Rear	0.762	0.400	0.249	0.364	0.064	1.162	No	1.011	No	1.126	No	0.826	No	1.075	No
	Front	0.946	0.400	0.249	0.364	0.087	1.346	No	1.195	No	1.310	No	1.033	No	1.282	No
Hotspot & Airplay	Edge 1	0.794	0.278	0.249	0.364		1.072	No	1.043	No	1.158	No				
	Edge 2	0.067	0.400	0.249	0.364		0.467	No	0.316	No	0.431	No				
	Edge 4	0.897	0.400	0.249	0.364		1.297	No	1.146	No	1.261	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	0.388	0.321	0.179	0.329	0.140	0.709	No	0.567	No	0.717	No	0.528	No	0.707	No
	Left Tilt	0.212	0.321	0.179	0.329	0.137	0.533	No	0.391	No	0.541	No	0.349	No	0.528	No
	Right Touch	0.844	0.321	0.179	0.329	0.149	1.165	No	1.023	No	1.173	No	0.993	No	1.172	No
	Right Tilt	0.270	0.321	0.179	0.329	0.149	0.591	No	0.449	No	0.599	No	0.419	No	0.598	No
Body-worn & Hotspot & Airplay	Rear	0.771	0.400	0.249	0.364	0.064	1.171	No	1.020	No	1.135	No	0.835	No	1.084	No
	Front	1.049	0.400	0.249	0.364	0.087	1.449	No	1.298	No	1.413	No	1.136	No	1.385	No
Hotspot & Airplay	Edge 2	0.752	0.278	0.249	0.364		1.030	No	1.001	No	1.116	No				
	Edge 3	1.057	0.400	0.249	0.364		1.457	No	1.306	No	1.421	No				
	Edge 4	0.103	0.400	0.249	0.364		0.503	No	0.352	No	0.467	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	0.781	0.321	0.179	0.329	0.140	1.102	No	0.960	No	1.110	No	0.921	No	1.100	No
	Left Tilt	0.559	0.321	0.179	0.329	0.137	0.880	No	0.738	No	0.888	No	0.696	No	0.875	No
	Right Touch	0.763	0.321	0.179	0.329	0.149	1.084	No	0.942	No	1.092	No	0.912	No	1.091	No
	Right Tilt	0.602	0.321	0.179	0.329	0.149	0.923	No	0.781	No	0.931	No	0.751	No	0.930	No
Body-worn & Hotspot & Airplay	Rear	0.306	0.400	0.249	0.364	0.064	0.706	No	0.555	No	0.670	No	0.370	No	0.619	No
	Front	0.364	0.400	0.249	0.364	0.087	0.764	No	0.613	No	0.728	No	0.451	No	0.700	No
Hotspot & Airplay	Edge 1	0.122	0.278	0.249	0.364		0.400	No	0.371	No	0.486	No				
	Edge 2	0.456	0.400	0.249	0.364		0.856	No	0.705	No	0.820	No				
	Edge 4	0.247	0.400	0.249	0.364		0.647	No	0.496	No	0.611	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	0.271	0.321	0.179	0.329	0.140	0.592	No	0.450	No	0.600	No	0.411	No	0.590	No
	Left Tilt	0.177	0.321	0.179	0.329	0.137	0.498	No	0.356	No	0.506	No	0.314	No	0.493	No
	Right Touch	0.223	0.321	0.179	0.329	0.149	0.544	No	0.402	No	0.552	No	0.372	No	0.551	No
	Right Tilt	0.165	0.321	0.179	0.329	0.149	0.486	No	0.344	No	0.494	No	0.314	No	0.493	No
Body-worn & Hotspot & Airplay	Rear	0.368	0.400	0.249	0.364	0.064	0.768	No	0.617	No	0.732	No	0.432	No	0.681	No
	Front	0.404	0.400	0.249	0.364	0.087	0.804	No	0.653	No	0.768	No	0.491	No	0.740	No
Hotspot & Airplay	Edge 2	0.167	0.278	0.249	0.364		0.445	No	0.416	No	0.531	No				
	Edge 3	0.225	0.400	0.249	0.364		0.625	No	0.474	No	0.589	No				
	Edge 4	0.471	0.400	0.249	0.364		0.871	No	0.720	No	0.835	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})

SAR for LTE Band 2 (Frequency range: 1850 - 1910 MHz) is covered by LTE Band 25 (Frequency range: 1850 - 1915 MHz) due to overlapping 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})

SAR for LTE Band 2 (Frequency range: 1850 - 1910 MHz) is covered by LTE Band 25 (Frequency range: 1850 - 1915 MHz) due to overlapping 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	0.442	0.321	0.179	0.329	0.140	0.763	No	0.621	No	0.771	No	0.582	No	0.761	No
	Left Tilt	0.422	0.321	0.179	0.329	0.137	0.743	No	0.601	No	0.751	No	0.559	No	0.738	No
	Right Touch	1.095	0.321	0.179	0.329	0.149	1.416	No	1.274	No	1.424	No	1.244	No	1.423	No
	Right Tilt	0.803	0.321	0.179	0.329	0.149	1.124	No	0.982	No	1.132	No	0.952	No	1.131	No
Body-worn & Hotspot & Airplay	Rear	0.814	0.400	0.249	0.364	0.064	1.214	No	1.063	No	1.178	No	0.878	No	1.127	No
	Front	0.917	0.400	0.249	0.364	0.087	1.317	No	1.166	No	1.281	No	1.004	No	1.253	No
Hotspot & Airplay	Edge 1	1.000	0.278	0.249	0.364		1.278	No	1.249	No	1.364	No				
	Edge 2	0.023	0.400	0.249	0.364		0.423	No	0.272	No	0.387	No				
	Edge 4	0.790	0.400	0.249	0.364		1.190	No	1.039	No	1.154	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	0.402	0.321	0.179	0.329	0.140	0.723	No	0.581	No	0.731	No	0.542	No	0.721	No
	Left Tilt	0.216	0.321	0.179	0.329	0.137	0.537	No	0.395	No	0.545	No	0.353	No	0.532	No
	Right Touch	0.870	0.321	0.179	0.329	0.149	1.191	No	1.049	No	1.199	No	1.019	No	1.198	No
	Right Tilt	0.209	0.321	0.179	0.329	0.149	0.530	No	0.388	No	0.538	No	0.358	No	0.537	No
Body-worn & Hotspot & Airplay	Rear	0.675	0.400	0.249	0.364	0.064	1.075	No	0.924	No	1.039	No	0.739	No	0.988	No
	Front	0.914	0.400	0.249	0.364	0.087	1.314	No	1.163	No	1.278	No	1.001	No	1.250	No
Hotspot & Airplay	Edge 2	0.643	0.278	0.249	0.364		0.921	No	0.892	No	1.007	No				
	Edge 3	1.140	0.400	0.249	0.364		1.540	No	1.389	No	1.504	No				
	Edge 4	0.040	0.400	0.249	0.364		0.440	No	0.289	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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12.22. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

SAR for LTE Band 5 (Frequency range: 824 - 849 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping 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})

SAR for LTE Band 5 (Frequency range: 824 - 849 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping 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	1.008	0.321	0.179	0.329	0.140	1.329	No	1.187	No	1.337	No	1.148	No	1.327	No
	Left Tilt	1.020	0.321	0.179	0.329	0.137	1.341	No	1.199	No	1.349	No	1.157	No	1.336	No
	Right Touch	0.396	0.321	0.179	0.329	0.149	0.717	No	0.575	No	0.725	No	0.545	No	0.724	No
	Right Tilt	0.466	0.321	0.179	0.329	0.149	0.787	No	0.645	No	0.795	No	0.615	No	0.794	No
Body-worn & Hotspot & Airplay	Rear	0.919	0.400	0.249	0.364	0.064	1.319	No	1.168	No	1.283	No	0.983	No	1.232	No
	Front	0.969	0.400	0.249	0.364	0.087	1.369	No	1.218	No	1.333	No	1.056	No	1.305	No
Hotspot & Airplay	Edge 1	0.711	0.278	0.249	0.364		0.989	No	0.960	No	1.075	No				
	Edge 2	0.673	0.400	0.249	0.364		1.073	No	0.922	No	1.037	No				
	Edge 4	0.064	0.400	0.249	0.364		0.464	No	0.313	No	0.428	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	1.030	0.321	0.179	0.329	0.140	1.351	No	1.209	No	1.359	No	1.170	No	1.349	No
	Left Tilt	0.251	0.321	0.179	0.329	0.137	0.572	No	0.430	No	0.580	No	0.388	No	0.567	No
	Right Touch	0.649	0.321	0.179	0.329	0.149	0.970	No	0.828	No	0.978	No	0.798	No	0.977	No
	Right Tilt	0.300	0.321	0.179	0.329	0.149	0.621	No	0.479	No	0.629	No	0.449	No	0.628	No
Body-worn & Hotspot & Airplay	Rear	0.659	0.400	0.249	0.364	0.064	1.059	No	0.908	No	1.023	No	0.723	No	0.972	No
	Front	1.140	0.400	0.249	0.364	0.087	1.540	No	1.389	No	1.504	No	1.227	No	1.476	No
Hotspot & Airplay	Edge 2	0.049	0.278	0.249	0.364		0.327	No	0.298	No	0.413	No				
	Edge 3	0.655	0.400	0.249	0.364		1.055	No	0.904	No	1.019	No				
	Edge 4	0.619	0.400	0.249	0.364		1.019	No	0.868	No	0.983	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	0.477	0.321	0.179	0.329	0.140	0.798	No	0.656	No	0.806	No	0.617	No	0.796	No
	Left Tilt	0.487	0.321	0.179	0.329	0.137	0.808	No	0.666	No	0.816	No	0.624	No	0.803	No
	Right Touch	0.574	0.321	0.179	0.329	0.149	0.895	No	0.753	No	0.903	No	0.723	No	0.902	No
	Right Tilt	0.458	0.321	0.179	0.329	0.149	0.779	No	0.637	No	0.787	No	0.607	No	0.786	No
Body-worn & Hotspot & Airplay	Rear	0.259	0.400	0.249	0.364	0.064	0.659	No	0.508	No	0.623	No	0.323	No	0.572	No
	Front	0.283	0.400	0.249	0.364	0.087	0.683	No	0.532	No	0.647	No	0.370	No	0.619	No
Hotspot & Airplay	Edge 1	0.157	0.278	0.249	0.364		0.435	No	0.406	No	0.521	No				
	Edge 2	0.348	0.400	0.249	0.364		0.748	No	0.597	No	0.712	No				
	Edge 4	0.177	0.400	0.249	0.364		0.577	No	0.426	No	0.541	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	0.290	0.321	0.179	0.329	0.140	0.611	No	0.469	No	0.619	No	0.430	No	0.609	No
	Left Tilt	0.105	0.321	0.179	0.329	0.137	0.426	No	0.284	No	0.434	No	0.242	No	0.421	No
	Right Touch	0.257	0.321	0.179	0.329	0.149	0.578	No	0.436	No	0.586	No	0.406	No	0.585	No
	Right Tilt	0.100	0.321	0.179	0.329	0.149	0.421	No	0.279	No	0.429	No	0.249	No	0.428	No
Body-worn & Hotspot & Airplay	Rear	0.399	0.400	0.249	0.364	0.064	0.799	No	0.648	No	0.763	No	0.463	No	0.712	No
	Front	0.432	0.400	0.249	0.364	0.087	0.832	No	0.681	No	0.796	No	0.519	No	0.768	No
Hotspot & Airplay	Edge 2	0.199	0.278	0.249	0.364		0.477	No	0.448	No	0.563	No				
	Edge 3	0.358	0.400	0.249	0.364		0.758	No	0.607	No	0.722	No				
	Edge 4	0.455	0.400	0.249	0.364		0.855	No	0.704	No	0.819	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	0.607	0.321	0.179	0.329	0.140	0.928	No	0.786	No	0.936	No	0.747	No	0.926	No
	Left Tilt	0.516	0.321	0.179	0.329	0.137	0.837	No	0.695	No	0.845	No	0.653	No	0.832	No
	Right Touch	0.737	0.321	0.179	0.329	0.149	1.058	No	0.916	No	1.066	No	0.886	No	1.065	No
	Right Tilt	0.544	0.321	0.179	0.329	0.149	0.865	No	0.723	No	0.873	No	0.693	No	0.872	No
Body-worn & Hotspot & Airplay	Rear	0.435	0.400	0.249	0.364	0.064	0.835	No	0.684	No	0.799	No	0.499	No	0.748	No
	Front	0.470	0.400	0.249	0.364	0.087	0.870	No	0.719	No	0.834	No	0.557	No	0.806	No
Hotspot & Airplay	Edge 1	0.271	0.278	0.249	0.364		0.549	No	0.520	No	0.635	No				
	Edge 2	0.465	0.400	0.249	0.364		0.865	No	0.714	No	0.829	No				
	Edge 4	0.243	0.400	0.249	0.364		0.643	No	0.492	No	0.607	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	0.355	0.321	0.179	0.329	0.140	0.676	No	0.534	No	0.684	No	0.495	No	0.674	No
	Left Tilt	0.230	0.321	0.179	0.329	0.137	0.551	No	0.409	No	0.559	No	0.367	No	0.546	No
	Right Touch	0.312	0.321	0.179	0.329	0.149	0.633	No	0.491	No	0.641	No	0.461	No	0.640	No
	Right Tilt	0.198	0.321	0.179	0.329	0.149	0.519	No	0.377	No	0.527	No	0.347	No	0.526	No
Body-worn & Hotspot & Airplay	Rear	0.607	0.400	0.249	0.364	0.064	1.007	No	0.856	No	0.971	No	0.671	No	0.920	No
	Front	0.604	0.400	0.249	0.364	0.087	1.004	No	0.853	No	0.968	No	0.691	No	0.940	No
Hotspot & Airplay	Edge 2	0.456	0.278	0.249	0.364		0.734	No	0.705	No	0.820	No				
	Edge 3	0.470	0.400	0.249	0.364		0.870	No	0.719	No	0.834	No				
	Edge 4	0.838	0.400	0.249	0.364		1.238	No	1.087	No	1.202	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})

SAR for LTE Band 17 (Frequency range: 704 – 716 MHz) is covered by LTE Band 12 (Frequency range: 699 – 716 MHz) due to overlapping 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})

SAR for LTE Band 17 (Frequency range: 704 – 716 MHz) is covered by LTE Band 12 (Frequency range: 699 – 716 MHz) due to overlapping 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	0.430	0.321	0.179	0.329	0.140	0.751	No	0.609	No	0.759	No	0.570	No	0.749	No
	Left Tilt	0.326	0.321	0.179	0.329	0.137	0.647	No	0.505	No	0.655	No	0.463	No	0.642	No
	Right Touch	1.080	0.321	0.179	0.329	0.149	1.401	No	1.259	No	1.409	No	1.229	No	1.408	No
	Right Tilt	0.826	0.321	0.179	0.329	0.149	1.147	No	1.005	No	1.155	No	0.975	No	1.154	No
Body-worn & Hotspot & Airplay	Rear	0.717	0.400	0.249	0.364	0.064	1.117	No	0.966	No	1.081	No	0.781	No	1.030	No
	Front	0.640	0.400	0.249	0.364	0.087	1.040	No	0.889	No	1.004	No	0.727	No	0.976	No
Hotspot & Airplay	Edge 1	0.751	0.278	0.249	0.364		1.029	No	1.000	No	1.115	No				
	Edge 2	0.064	0.400	0.249	0.364		0.464	No	0.313	No	0.428	No				
	Edge 4	0.997	0.400	0.249	0.364		1.397	No	1.246	No	1.361	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	0.542	0.321	0.179	0.329	0.140	0.863	No	0.721	No	0.871	No	0.682	No	0.861	No
	Left Tilt	0.262	0.321	0.179	0.329	0.137	0.583	No	0.441	No	0.591	No	0.399	No	0.578	No
	Right Touch	0.965	0.321	0.179	0.329	0.149	1.286	No	1.144	No	1.294	No	1.114	No	1.293	No
	Right Tilt	0.300	0.321	0.179	0.329	0.149	0.621	No	0.479	No	0.629	No	0.449	No	0.628	No
Body-worn & Hotspot & Airplay	Rear	0.734	0.400	0.249	0.364	0.064	1.134	No	0.983	No	1.098	No	0.798	No	1.047	No
	Front	0.915	0.400	0.249	0.364	0.087	1.315	No	1.164	No	1.279	No	1.002	No	1.251	No
Hotspot & Airplay	Edge 2	0.645	0.278	0.249	0.364		0.923	No	0.894	No	1.009	No				
	Edge 3	1.099	0.400	0.249	0.364		1.499	No	1.348	No	1.463	No				
	Edge 4	0.068	0.400	0.249	0.364		0.468	No	0.317	No	0.432	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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12.34. 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	0.445	0.321	0.179	0.329	0.140	0.766	No	0.624	No	0.774	No	0.585	No	0.764	No
	Left Tilt	0.474	0.321	0.179	0.329	0.137	0.795	No	0.653	No	0.803	No	0.611	No	0.790	No
	Right Touch	0.572	0.321	0.179	0.329	0.149	0.893	No	0.751	No	0.901	No	0.721	No	0.900	No
	Right Tilt	0.468	0.321	0.179	0.329	0.149	0.789	No	0.647	No	0.797	No	0.617	No	0.796	No
Body-worn & Hotspot & Airplay	Rear	0.435	0.400	0.249	0.364	0.064	0.835	No	0.684	No	0.799	No	0.499	No	0.748	No
	Front	0.430	0.400	0.249	0.364	0.087	0.830	No	0.679	No	0.794	No	0.517	No	0.766	No
Hotspot & Airplay	Edge 1	0.232	0.278	0.249	0.364		0.510	No	0.481	No	0.596	No				
	Edge 2	0.345	0.400	0.249	0.364		0.745	No	0.594	No	0.709	No				
	Edge 4	0.195	0.400	0.249	0.364		0.595	No	0.444	No	0.559	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	0.385	0.321	0.179	0.329	0.140	0.706	No	0.564	No	0.714	No	0.525	No	0.704	No
	Left Tilt	0.189	0.321	0.179	0.329	0.137	0.510	No	0.368	No	0.518	No	0.326	No	0.505	No
	Right Touch	0.325	0.321	0.179	0.329	0.149	0.646	No	0.504	No	0.654	No	0.474	No	0.653	No
	Right Tilt	0.209	0.321	0.179	0.329	0.149	0.530	No	0.388	No	0.538	No	0.358	No	0.537	No
Body-worn & Hotspot & Airplay	Rear	0.640	0.400	0.249	0.364	0.064	1.040	No	0.889	No	1.004	No	0.704	No	0.953	No
	Front	0.678	0.400	0.249	0.364	0.087	1.078	No	0.927	No	1.042	No	0.765	No	1.014	No
Hotspot & Airplay	Edge 2	0.314	0.278	0.249	0.364		0.592	No	0.563	No	0.678	No				
	Edge 3	0.514	0.400	0.249	0.364		0.914	No	0.763	No	0.878	No				
	Edge 4	0.843	0.400	0.249	0.364		1.243	No	1.092	No	1.207	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})

SAR for LTE Band 27 (Frequency range: 814 – 824 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping frequency range, same 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})

SAR for LTE Band 27 (Frequency range: 814 – 824 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping frequency range, same 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	0.420	0.321	0.179	0.329	0.140	0.741	No	0.599	No	0.749	No	0.560	No	0.739	No
	Left Tilt	0.527	0.321	0.179	0.329	0.137	0.848	No	0.706	No	0.856	No	0.664	No	0.843	No
	Right Touch	1.090	0.321	0.179	0.329	0.149	1.411	No	1.269	No	1.419	No	1.239	No	1.418	No
	Right Tilt	1.090	0.321	0.179	0.329	0.149	1.411	No	1.269	No	1.419	No	1.239	No	1.418	No
Body-worn & Hotspot & Airplay	Rear	0.923	0.400	0.249	0.364	0.064	1.323	No	1.172	No	1.287	No	0.987	No	1.236	No
	Front	0.943	0.400	0.249	0.364	0.087	1.343	No	1.192	No	1.307	No	1.030	No	1.279	No
Hotspot & Airplay	Edge 1	0.715	0.278	0.249	0.364		0.993	No	0.964	No	1.079	No				
	Edge 2	0.239	0.400	0.249	0.364		0.639	No	0.488	No	0.603	No				
	Edge 4	0.829	0.400	0.249	0.364		1.229	No	1.078	No	1.193	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	0.395	0.321	0.179	0.329	0.140	0.716	No	0.574	No	0.724	No	0.535	No	0.714	No
	Left Tilt	0.315	0.321	0.179	0.329	0.137	0.636	No	0.494	No	0.644	No	0.452	No	0.631	No
	Right Touch	0.350	0.321	0.179	0.329	0.149	0.671	No	0.529	No	0.679	No	0.499	No	0.678	No
	Right Tilt	0.424	0.321	0.179	0.329	0.149	0.745	No	0.603	No	0.753	No	0.573	No	0.752	No
Body-worn & Hotspot & Airplay	Rear	0.666	0.400	0.249	0.364	0.064	1.066	No	0.915	No	1.030	No	0.730	No	0.979	No
	Front	1.110	0.400	0.249	0.364	0.087	1.510	No	1.359	No	1.474	No	1.197	No	1.446	No
Hotspot & Airplay	Edge 2	0.460	0.278	0.249	0.364		0.738	No	0.709	No	0.824	No				
	Edge 3	0.785	0.400	0.249	0.364		1.185	No	1.034	No	1.149	No				
	Edge 4	0.199	0.400	0.249	0.364		0.599	No	0.448	No	0.563	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	1.080	0.321	0.179	0.329	0.140	1.401	No	1.259	No	1.409	No	1.220	No	1.399	No
	Left Tilt	1.050	0.321	0.179	0.329	0.137	1.371	No	1.229	No	1.379	No	1.187	No	1.366	No
	Right Touch	0.400	0.321	0.179	0.329	0.149	0.721	No	0.579	No	0.729	No	0.549	No	0.728	No
	Right Tilt	0.412	0.321	0.179	0.329	0.149	0.733	No	0.591	No	0.741	No	0.561	No	0.740	No
Body-worn & Hotspot & Airplay	Rear	0.720	0.400	0.249	0.364	0.064	1.120	No	0.969	No	1.084	No	0.784	No	1.033	No
	Front	0.737	0.400	0.249	0.364	0.087	1.137	No	0.986	No	1.101	No	0.824	No	1.073	No
Hotspot & Airplay	Edge 1	0.481	0.278	0.249	0.364		0.759	No	0.730	No	0.845	No				
	Edge 2	0.688	0.400	0.249	0.364		1.088	No	0.937	No	1.052	No				
	Edge 4	0.269	0.400	0.249	0.364		0.669	No	0.518	No	0.633	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	0.535	0.321	0.179	0.329	0.140	0.856	No	0.714	No	0.864	No	0.675	No	0.854	No
	Left Tilt	0.105	0.321	0.179	0.329	0.137	0.426	No	0.284	No	0.434	No	0.242	No	0.421	No
	Right Touch	0.312	0.321	0.179	0.329	0.149	0.633	No	0.491	No	0.641	No	0.461	No	0.640	No
	Right Tilt	0.173	0.321	0.179	0.329	0.149	0.494	No	0.352	No	0.502	No	0.322	No	0.501	No
Body-worn & Hotspot & Airplay	Rear	1.023	0.400	0.249	0.364	0.064	1.423	No	1.272	No	1.387	No	1.087	No	1.336	No
	Front	1.000	0.400	0.249	0.364	0.087	1.400	No	1.249	No	1.364	No	1.087	No	1.336	No
Hotspot & Airplay	Edge 2	0.054	0.278	0.249	0.364		0.332	No	0.303	No	0.418	No				
	Edge 3	0.632	0.400	0.249	0.364		1.032	No	0.881	No	0.996	No				
	Edge 4	0.674	0.400	0.249	0.364		1.074	No	0.923	No	1.038	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	0.897	0.321	0.179	0.329	0.140	1.037	No	0.461	No	0.319	No	0.469	No	1.216	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	1.020	0.400	0.249	0.364	0.087	1.107	No	0.487	No	0.336	No	0.451	No	1.356	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.

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)
Head	Left Touch	0.892	0.321	0.179	0.329	0.140	1.032	No	0.461	No	0.319	No	0.469	No	1.211	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	0.877	0.400	0.249	0.364	0.087	0.964	No	0.487	No	0.336	No	0.451	No	1.213	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	0.535	0.186	0.230	0.244	0.140	0.721	No	0.765	No	0.779	No	0.861	No	0.905	No	0.919	No
	Left Tilt	0.469	0.186	0.230	0.244	0.137	0.655	No	0.699	No	0.713	No	0.792	No	0.836	No	0.850	No
	Right Touch	0.370	0.186	0.230	0.244	0.149	0.556	No	0.600	No	0.614	No	0.705	No	0.749	No	0.763	No
	Right Tilt	0.288	0.186	0.230	0.244	0.149	0.474	No	0.518	No	0.532	No	0.623	No	0.667	No	0.681	No
Body-worn Accessory & Airplay	Rear	0.379	0.334	0.240	0.313	0.064	0.713	No	0.619	No	0.692	No	0.777	No	0.683	No	0.756	No
	Front	0.412	0.334	0.240	0.313	0.087	0.746	No	0.652	No	0.725	No	0.833	No	0.739	No	0.812	No
Airplay	Edge 1	0.249	0.334	0.240	0.313		0.583	No	0.489	No	0.562	No						
	Edge 2	0.420	0.334	0.240	0.313		0.754	No	0.660	No	0.733	No						
	Edge 4	0.224	0.334	0.240	0.313		0.558	No	0.464	No	0.537	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	0.592	0.186	0.230	0.244	0.140	0.778	No	0.822	No	0.836	No	0.918	No	0.962	No	0.976	No
	Left Tilt	0.366	0.186	0.230	0.244	0.137	0.552	No	0.596	No	0.610	No	0.689	No	0.733	No	0.747	No
	Right Touch	0.529	0.186	0.230	0.244	0.149	0.715	No	0.759	No	0.773	No	0.864	No	0.908	No	0.922	No
	Right Tilt	0.399	0.186	0.230	0.244	0.149	0.585	No	0.629	No	0.643	No	0.734	No	0.778	No	0.792	No
Body-worn Accessory & Airplay	Rear	1.070	0.334	0.240	0.313	0.064	1.404	No	1.310	No	1.383	No	1.468	No	1.374	No	1.447	No
	Front	0.977	0.334	0.240	0.313	0.087	1.311	No	1.217	No	1.290	No	1.398	No	1.304	No	1.377	No
Airplay	Edge 2	0.701	0.334	0.240	0.313		1.035	No	0.941	No	1.014	No						
	Edge 3	0.765	0.334	0.240	0.313		1.099	No	1.005	No	1.078	No						
	Edge 4	1.160	0.334	0.240	0.313		1.494	No	1.400	No	1.473	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	0.496	0.186	0.230	0.244	0.140	0.682	No	0.726	No	0.740	No	0.822	No	0.866	No	0.880	No
	Left Tilt	0.350	0.186	0.230	0.244	0.137	0.536	No	0.580	No	0.594	No	0.673	No	0.717	No	0.731	No
	Right Touch	1.045	0.186	0.230	0.244	0.149	1.231	No	1.275	No	1.289	No	1.380	No	1.424	No	1.438	No
	Right Tilt	0.758	0.186	0.230	0.244	0.149	0.944	No	0.988	No	1.002	No	1.093	No	1.137	No	1.151	No
Body-worn Accessory & Airplay	Rear	0.260	0.334	0.240	0.313	0.064	0.594	No	0.500	No	0.573	No	0.658	No	0.564	No	0.637	No
	Front	0.311	0.334	0.240	0.313	0.087	0.645	No	0.551	No	0.624	No	0.732	No	0.638	No	0.711	No
Airplay	Edge 1	0.260	0.334	0.240	0.313		0.594	No	0.500	No	0.573	No						
	Edge 2	0.077	0.334	0.240	0.313		0.411	No	0.317	No	0.390	No						
	Edge 4	0.345	0.334	0.240	0.313		0.679	No	0.585	No	0.658	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	0.289	0.186	0.230	0.244	0.140	0.475	No	0.519	No	0.533	No	0.615	No	0.659	No	0.673	No
	Left Tilt	0.157	0.186	0.230	0.244	0.137	0.343	No	0.387	No	0.401	No	0.480	No	0.524	No	0.538	No
	Right Touch	0.553	0.186	0.230	0.244	0.149	0.739	No	0.783	No	0.797	No	0.888	No	0.932	No	0.946	No
	Right Tilt	0.188	0.186	0.230	0.244	0.149	0.374	No	0.418	No	0.432	No	0.523	No	0.567	No	0.581	No
Body-worn Accessory & Airplay	Rear	0.935	0.334	0.240	0.313	0.064	1.269	No	1.175	No	1.248	No	1.333	No	1.239	No	1.312	No
	Front	1.060	0.334	0.240	0.313	0.087	1.394	No	1.300	No	1.373	No	1.481	No	1.387	No	1.460	No
Airplay	Edge 2	0.467	0.334	0.240	0.313		0.801	No	0.707	No	0.780	No						
	Edge 3	0.690	0.334	0.240	0.313		1.024	No	0.930	No	1.003	No						
	Edge 4	0.125	0.334	0.240	0.313		0.459	No	0.365	No	0.438	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	0.688	0.186	0.230	0.244	0.140	0.874	No	0.918	No	0.932	No	1.014	No	1.058	No	1.072	No
	Left Tilt	0.442	0.186	0.230	0.244	0.137	0.628	No	0.672	No	0.686	No	0.765	No	0.809	No	0.823	No
	Right Touch	0.738	0.186	0.230	0.244	0.149	0.924	No	0.968	No	0.982	No	1.073	No	1.117	No	1.131	No
	Right Tilt	0.544	0.186	0.230	0.244	0.149	0.730	No	0.774	No	0.788	No	0.879	No	0.923	No	0.937	No
Body-worn Accessory & Airplay	Rear	0.327	0.334	0.240	0.313	0.064	0.661	No	0.567	No	0.640	No	0.725	No	0.631	No	0.704	No
	Front	0.296	0.334	0.240	0.313	0.087	0.630	No	0.536	No	0.609	No	0.717	No	0.623	No	0.696	No
Airplay	Edge 1	0.149	0.334	0.240	0.313		0.483	No	0.389	No	0.462	No						
	Edge 2	0.429	0.334	0.240	0.313		0.763	No	0.669	No	0.742	No						
	Edge 4	0.214	0.334	0.240	0.313		0.548	No	0.454	No	0.527	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	0.556	0.186	0.230	0.244	0.140	0.742	No	0.786	No	0.800	No	0.882	No	0.926	No	0.940	No
	Left Tilt	0.304	0.186	0.230	0.244	0.137	0.490	No	0.534	No	0.548	No	0.627	No	0.671	No	0.685	No
	Right Touch	0.399	0.186	0.230	0.244	0.149	0.585	No	0.629	No	0.643	No	0.734	No	0.778	No	0.792	No
	Right Tilt	0.297	0.186	0.230	0.244	0.149	0.483	No	0.527	No	0.541	No	0.632	No	0.676	No	0.690	No
Body-worn Accessory & Airplay	Rear	0.713	0.334	0.240	0.313	0.064	1.047	No	0.953	No	1.026	No	1.111	No	1.017	No	1.090	No
	Front	0.921	0.334	0.240	0.313	0.087	1.255	No	1.161	No	1.234	No	1.342	No	1.248	No	1.321	No
Airplay	Edge 2	0.350	0.334	0.240	0.313		0.684	No	0.590	No	0.663	No						
	Edge 3	0.603	0.334	0.240	0.313		0.937	No	0.843	No	0.916	No						
	Edge 4	0.934	0.334	0.240	0.313		1.268	No	1.174	No	1.247	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	0.504	0.186	0.230	0.244	0.140	0.690	No	0.734	No	0.748	No	0.830	No	0.874	No	0.888	No
	Left Tilt	0.527	0.186	0.230	0.244	0.137	0.713	No	0.757	No	0.771	No	0.850	No	0.894	No	0.908	No
	Right Touch	1.032	0.186	0.230	0.244	0.149	1.218	No	1.262	No	1.276	No	1.367	No	1.411	No	1.425	No
	Right Tilt	0.785	0.186	0.230	0.244	0.149	0.971	No	1.015	No	1.029	No	1.120	No	1.164	No	1.178	No
Body-worn Accessory & Airplay	Rear	0.904	0.334	0.240	0.313	0.064	1.238	No	1.144	No	1.217	No	1.302	No	1.208	No	1.281	No
	Front	0.967	0.334	0.240	0.313	0.087	1.301	No	1.207	No	1.280	No	1.388	No	1.294	No	1.367	No
Airplay	Edge 1	0.983	0.334	0.240	0.313		1.317	No	1.223	No	1.296	No						
	Edge 2	0.072	0.334	0.240	0.313		0.406	No	0.312	No	0.385	No						
	Edge 4	0.791	0.334	0.240	0.313		1.125	No	1.031	No	1.104	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	0.458	0.186	0.230	0.244	0.140	0.644	No	0.688	No	0.702	No	0.784	No	0.828	No	0.842	No
	Left Tilt	0.273	0.186	0.230	0.244	0.137	0.459	No	0.503	No	0.517	No	0.596	No	0.640	No	0.654	No
	Right Touch	0.916	0.186	0.230	0.244	0.149	1.102	No	1.146	No	1.160	No	1.251	No	1.295	No	1.309	No
	Right Tilt	0.238	0.186	0.230	0.244	0.149	0.424	No	0.468	No	0.482	No	0.573	No	0.617	No	0.631	No
Body-worn Accessory & Airplay	Rear	0.592	0.334	0.240	0.313	0.064	0.926	No	0.832	No	0.905	No	0.990	No	0.896	No	0.969	No
	Front	0.943	0.334	0.240	0.313	0.087	1.277	No	1.183	No	1.256	No	1.364	No	1.270	No	1.343	No
Airplay	Edge 2	0.605	0.334	0.240	0.313		0.939	No	0.845	No	0.918	No						
	Edge 3	1.040	0.334	0.240	0.313		1.374	No	1.280	No	1.353	No						
	Edge 4	0.046	0.334	0.240	0.313		0.380	No	0.286	No	0.359	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	0.482	0.186	0.230	0.244	0.140	0.668	No	0.712	No	0.726	No	0.808	No	0.852	No	0.866	No
	Left Tilt	0.383	0.186	0.230	0.244	0.137	0.569	No	0.613	No	0.627	No	0.706	No	0.750	No	0.764	No
	Right Touch	1.050	0.186	0.230	0.244	0.149	1.236	No	1.280	No	1.294	No	1.385	No	1.429	No	1.443	No
	Right Tilt	0.569	0.186	0.230	0.244	0.149	0.755	No	0.799	No	0.813	No	0.904	No	0.948	No	0.962	No
Body-worn Accessory & Airplay	Rear	0.666	0.334	0.240	0.313	0.064	1.000	No	0.906	No	0.979	No	1.064	No	0.970	No	1.043	No
	Front	0.934	0.334	0.240	0.313	0.087	1.268	No	1.174	No	1.247	No	1.355	No	1.261	No	1.334	No
Airplay	Edge 1	0.919	0.334	0.240	0.313		1.253	No	1.159	No	1.232	No						
	Edge 2	0.039	0.334	0.240	0.313		0.373	No	0.279	No	0.352	No						
	Edge 4	0.730	0.334	0.240	0.313		1.064	No	0.970	No	1.043	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	0.433	0.186	0.230	0.244	0.140	0.619	No	0.663	No	0.677	No	0.759	No	0.803	No	0.817	No
	Left Tilt	0.230	0.186	0.230	0.244	0.137	0.416	No	0.460	No	0.474	No	0.553	No	0.597	No	0.611	No
	Right Touch	0.984	0.186	0.230	0.244	0.149	1.170	No	1.214	No	1.228	No	1.319	No	1.363	No	1.377	No
	Right Tilt	0.262	0.186	0.230	0.244	0.149	0.448	No	0.492	No	0.506	No	0.597	No	0.641	No	0.655	No
Body-worn Accessory & Airplay	Rear	1.031	0.334	0.240	0.313	0.064	1.365	No	1.271	No	1.344	No	1.429	No	1.335	No	1.408	No
	Front	0.792	0.334	0.240	0.313	0.087	1.126	No	1.032	No	1.105	No	1.213	No	1.119	No	1.192	No
Airplay	Edge 2	0.742	0.334	0.240	0.313		1.076	No	0.982	No	1.055	No						
	Edge 3	0.691	0.334	0.240	0.313		1.025	No	0.931	No	1.004	No						
	Edge 4	0.119	0.334	0.240	0.313		0.453	No	0.359	No	0.432	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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12.56. 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	0.926	0.186	0.230	0.244	0.140	1.112	No	1.156	No	1.170	No	1.252	No	1.296	No	1.310	No
	Left Tilt	0.582	0.186	0.230	0.244	0.137	0.768	No	0.812	No	0.826	No	0.905	No	0.949	No	0.963	No
	Right Touch	0.721	0.186	0.230	0.244	0.149	0.907	No	0.951	No	0.965	No	1.056	No	1.100	No	1.114	No
	Right Tilt	0.565	0.186	0.230	0.244	0.149	0.751	No	0.795	No	0.809	No	0.900	No	0.944	No	0.958	No
Body-worn Accessory & Airplay	Rear	0.336	0.334	0.240	0.313	0.064	0.670	No	0.576	No	0.649	No	0.734	No	0.640	No	0.713	No
	Front	0.357	0.334	0.240	0.313	0.087	0.691	No	0.597	No	0.670	No	0.778	No	0.684	No	0.757	No
Airplay	Edge 1	0.176	0.334	0.240	0.313		0.510	No	0.416	No	0.489	No						
	Edge 2	0.557	0.334	0.240	0.313		0.891	No	0.797	No	0.870	No						
	Edge 4	0.301	0.334	0.240	0.313		0.635	No	0.541	No	0.614	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	0.398	0.186	0.230	0.244	0.140	0.584	No	0.628	No	0.642	No	0.724	No	0.768	No	0.782	No
	Left Tilt	0.325	0.186	0.230	0.244	0.137	0.511	No	0.555	No	0.569	No	0.648	No	0.692	No	0.706	No
	Right Touch	0.167	0.186	0.230	0.244	0.149	0.353	No	0.397	No	0.411	No	0.502	No	0.546	No	0.560	No
	Right Tilt	0.182	0.186	0.230	0.244	0.149	0.368	No	0.412	No	0.426	No	0.517	No	0.561	No	0.575	No
Body-worn Accessory & Airplay	Rear	0.578	0.334	0.240	0.313	0.064	0.912	No	0.818	No	0.891	No	0.976	No	0.882	No	0.955	No
	Front	0.632	0.334	0.240	0.313	0.087	0.966	No	0.872	No	0.945	No	1.053	No	0.959	No	1.032	No
Airplay	Edge 2	0.165	0.334	0.240	0.313		0.499	No	0.405	No	0.478	No						
	Edge 3	0.427	0.334	0.240	0.313		0.761	No	0.667	No	0.740	No						
	Edge 4	0.592	0.334	0.240	0.313		0.926	No	0.832	No	0.905	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	0.426	0.186	0.230	0.244	0.140	0.612	No	0.656	No	0.670	No	0.752	No	0.796	No	0.810	No
	Left Tilt	0.317	0.186	0.230	0.244	0.137	0.503	No	0.547	No	0.561	No	0.640	No	0.684	No	0.698	No
	Right Touch	1.080	0.186	0.230	0.244	0.149	1.266	No	1.310	No	1.324	No	1.415	No	1.459	No	1.473	No
	Right Tilt	0.706	0.186	0.230	0.244	0.149	0.892	No	0.936	No	0.950	No	1.041	No	1.085	No	1.099	No
Body-worn Accessory & Airplay	Rear	0.762	0.334	0.240	0.313	0.064	1.096	No	1.002	No	1.075	No	1.160	No	1.066	No	1.139	No
	Front	0.946	0.334	0.240	0.313	0.087	1.280	No	1.186	No	1.259	No	1.367	No	1.273	No	1.346	No
Airplay	Edge 1	0.794	0.334	0.240	0.313		1.128	No	1.034	No	1.107	No						
	Edge 2	0.067	0.334	0.240	0.313		0.401	No	0.307	No	0.380	No						
	Edge 4	0.897	0.334	0.240	0.313		1.231	No	1.137	No	1.210	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	0.388	0.186	0.230	0.244	0.140	0.574	No	0.618	No	0.632	No	0.714	No	0.758	No	0.772	No
	Left Tilt	0.212	0.186	0.230	0.244	0.137	0.398	No	0.442	No	0.456	No	0.535	No	0.579	No	0.593	No
	Right Touch	0.844	0.186	0.230	0.244	0.149	1.030	No	1.074	No	1.088	No	1.179	No	1.223	No	1.237	No
	Right Tilt	0.270	0.186	0.230	0.244	0.149	0.456	No	0.500	No	0.514	No	0.605	No	0.649	No	0.663	No
Body-worn Accessory & Airplay	Rear	0.771	0.334	0.240	0.313	0.064	1.105	No	1.011	No	1.084	No	1.169	No	1.075	No	1.148	No
	Front	1.049	0.334	0.240	0.313	0.087	1.383	No	1.289	No	1.362	No	1.470	No	1.376	No	1.449	No
Airplay	Edge 2	0.752	0.334	0.240	0.313		1.086	No	0.992	No	1.065	No						
	Edge 3	1.057	0.334	0.240	0.313		1.391	No	1.297	No	1.370	No						
	Edge 4	0.103	0.334	0.240	0.313		0.437	No	0.343	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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12.60. 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	0.781	0.186	0.230	0.244	0.140	0.967	No	1.011	No	1.025	No	1.107	No	1.151	No	1.165	No
	Left Tilt	0.559	0.186	0.230	0.244	0.137	0.745	No	0.789	No	0.803	No	0.882	No	0.926	No	0.940	No
	Right Touch	0.763	0.186	0.230	0.244	0.149	0.949	No	0.993	No	1.007	No	1.098	No	1.142	No	1.156	No
	Right Tilt	0.602	0.186	0.230	0.244	0.149	0.788	No	0.832	No	0.846	No	0.937	No	0.981	No	0.995	No
Body-worn Accessory & Airplay	Rear	0.306	0.334	0.240	0.313	0.064	0.640	No	0.546	No	0.619	No	0.704	No	0.610	No	0.683	No
	Front	0.364	0.334	0.240	0.313	0.087	0.698	No	0.604	No	0.677	No	0.785	No	0.691	No	0.764	No
Airplay	Edge 1	0.122	0.334	0.240	0.313		0.456	No	0.362	No	0.435	No						
	Edge 2	0.456	0.334	0.240	0.313		0.790	No	0.696	No	0.769	No						
	Edge 4	0.247	0.334	0.240	0.313		0.581	No	0.487	No	0.560	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	0.271	0.186	0.230	0.244	0.140	0.457	No	0.501	No	0.515	No	0.597	No	0.641	No	0.655	No
	Left Tilt	0.177	0.186	0.230	0.244	0.137	0.363	No	0.407	No	0.421	No	0.500	No	0.544	No	0.558	No
	Right Touch	0.223	0.186	0.230	0.244	0.149	0.409	No	0.453	No	0.467	No	0.558	No	0.602	No	0.616	No
	Right Tilt	0.165	0.186	0.230	0.244	0.149	0.351	No	0.395	No	0.409	No	0.500	No	0.544	No	0.558	No
Body-worn Accessory & Airplay	Rear	0.368	0.334	0.240	0.313	0.064	0.702	No	0.608	No	0.681	No	0.766	No	0.672	No	0.745	No
	Front	0.404	0.334	0.240	0.313	0.087	0.738	No	0.644	No	0.717	No	0.825	No	0.731	No	0.804	No
Airplay	Edge 2	0.167	0.334	0.240	0.313		0.501	No	0.407	No	0.480	No						
	Edge 3	0.225	0.334	0.240	0.313		0.559	No	0.465	No	0.538	No						
	Edge 4	0.471	0.334	0.240	0.313		0.805	No	0.711	No	0.784	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})

SAR for LTE Band 2 (Frequency range: 1850 - 1910 MHz) is covered by LTE Band 25 (Frequency range: 1850 - 1915 MHz) due to overlapping 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})

SAR for LTE Band 2 (Frequency range: 1850 - 1910 MHz) is covered by LTE Band 25 (Frequency range: 1850 - 1915 MHz) due to overlapping 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	0.442	0.186	0.230	0.244	0.140	0.628	No	0.672	No	0.686	No	0.768	No	0.812	No	0.826	No
	Left Tilt	0.422	0.186	0.230	0.244	0.137	0.608	No	0.652	No	0.666	No	0.745	No	0.789	No	0.803	No
	Right Touch	1.095	0.186	0.230	0.244	0.149	1.281	No	1.325	No	1.339	No	1.430	No	1.474	No	1.488	No
	Right Tilt	0.803	0.186	0.230	0.244	0.149	0.989	No	1.033	No	1.047	No	1.138	No	1.182	No	1.196	No
Body-worn Accessory & Airplay	Rear	0.814	0.334	0.240	0.313	0.064	1.148	No	1.054	No	1.127	No	1.212	No	1.118	No	1.191	No
	Front	0.917	0.334	0.240	0.313	0.087	1.251	No	1.157	No	1.230	No	1.338	No	1.244	No	1.317	No
Airplay	Edge 1	1.000	0.334	0.240	0.313		1.334	No	1.240	No	1.313	No						
	Edge 2	0.023	0.334	0.240	0.313		0.357	No	0.263	No	0.336	No						
	Edge 4	0.790	0.334	0.240	0.313		1.124	No	1.030	No	1.103	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	0.402	0.186	0.230	0.244	0.140	0.588	No	0.632	No	0.646	No	0.728	No	0.772	No	0.786	No
	Left Tilt	0.216	0.186	0.230	0.244	0.137	0.402	No	0.446	No	0.460	No	0.539	No	0.583	No	0.597	No
	Right Touch	0.870	0.186	0.230	0.244	0.149	1.056	No	1.100	No	1.114	No	1.205	No	1.249	No	1.263	No
	Right Tilt	0.209	0.186	0.230	0.244	0.149	0.395	No	0.439	No	0.453	No	0.544	No	0.588	No	0.602	No
Body-worn Accessory & Airplay	Rear	0.675	0.334	0.240	0.313	0.064	1.009	No	0.915	No	0.988	No	1.073	No	0.979	No	1.052	No
	Front	0.914	0.334	0.240	0.313	0.087	1.248	No	1.154	No	1.227	No	1.335	No	1.241	No	1.314	No
Airplay	Edge 2	0.643	0.334	0.240	0.313		0.977	No	0.883	No	0.956	No						
	Edge 3	1.140	0.334	0.240	0.313		1.474	No	1.380	No	1.453	No						
	Edge 4	0.040	0.334	0.240	0.313		0.374	No	0.280	No	0.353	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})

SAR for LTE Band 5 (Frequency range: 824 - 849 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping 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})

SAR for LTE Band 5 (Frequency range: 824 - 849 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping 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	1.008	0.186	0.230	0.244	0.140	1.194	No	1.238	No	1.252	No	1.334	No	1.378	No	1.392	No
	Left Tilt	1.020	0.186	0.230	0.244	0.137	1.206	No	1.250	No	1.264	No	1.343	No	1.387	No	1.401	No
	Right Touch	0.396	0.186	0.230	0.244	0.149	0.582	No	0.626	No	0.640	No	0.731	No	0.775	No	0.789	No
	Right Tilt	0.466	0.186	0.230	0.244	0.149	0.652	No	0.696	No	0.710	No	0.801	No	0.845	No	0.859	No
Body-worn Accessory & Airplay	Rear	0.919	0.334	0.240	0.313	0.064	1.253	No	1.159	No	1.232	No	1.317	No	1.223	No	1.296	No
	Front	0.969	0.334	0.240	0.313	0.087	1.303	No	1.209	No	1.282	No	1.390	No	1.296	No	1.369	No
Airplay	Edge 1	0.711	0.334	0.240	0.313		1.045	No	0.951	No	1.024	No						
	Edge 2	0.673	0.334	0.240	0.313		1.007	No	0.913	No	0.986	No						
	Edge 4	0.064	0.334	0.240	0.313		0.398	No	0.304	No	0.377	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	1.030	0.186	0.230	0.244	0.140	1.216	No	1.260	No	1.274	No	1.356	No	1.400	No	1.414	No
	Left Tilt	0.251	0.186	0.230	0.244	0.137	0.437	No	0.481	No	0.495	No	0.574	No	0.618	No	0.632	No
	Right Touch	0.649	0.186	0.230	0.244	0.149	0.835	No	0.879	No	0.893	No	0.984	No	1.028	No	1.042	No
	Right Tilt	0.300	0.186	0.230	0.244	0.149	0.486	No	0.530	No	0.544	No	0.635	No	0.679	No	0.693	No
Body-worn Accessory & Airplay	Rear	0.659	0.334	0.240	0.313	0.064	0.993	No	0.899	No	0.972	No	1.057	No	0.963	No	1.036	No
	Front	1.140	0.334	0.240	0.313	0.087	1.474	No	1.380	No	1.453	No	1.561	No	1.467	No	1.540	No
Airplay	Edge 2	0.049	0.334	0.240	0.313		0.383	No	0.289	No	0.362	No						
	Edge 3	0.655	0.334	0.240	0.313		0.989	No	0.895	No	0.968	No						
	Edge 4	0.619	0.334	0.240	0.313		0.953	No	0.859	No	0.932	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	0.477	0.186	0.230	0.244	0.140	0.663	No	0.707	No	0.721	No	0.803	No	0.847	No	0.861	No
	Left Tilt	0.487	0.186	0.230	0.244	0.137	0.673	No	0.717	No	0.731	No	0.810	No	0.854	No	0.868	No
	Right Touch	0.574	0.186	0.230	0.244	0.149	0.760	No	0.804	No	0.818	No	0.909	No	0.953	No	0.967	No
	Right Tilt	0.458	0.186	0.230	0.244	0.149	0.644	No	0.688	No	0.702	No	0.793	No	0.837	No	0.851	No
Body-worn Accessory & Airplay	Rear	0.259	0.334	0.240	0.313	0.064	0.593	No	0.499	No	0.572	No	0.657	No	0.563	No	0.636	No
	Front	0.283	0.334	0.240	0.313	0.087	0.617	No	0.523	No	0.596	No	0.704	No	0.610	No	0.683	No
Airplay	Edge 1	0.157	0.334	0.240	0.313		0.491	No	0.397	No	0.470	No						
	Edge 2	0.348	0.334	0.240	0.313		0.682	No	0.588	No	0.661	No						
	Edge 4	0.177	0.334	0.240	0.313		0.511	No	0.417	No	0.490	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	0.290	0.186	0.230	0.244	0.140	0.476	No	0.520	No	0.534	No	0.616	No	0.660	No	0.674	No
	Left Tilt	0.105	0.186	0.230	0.244	0.137	0.291	No	0.335	No	0.349	No	0.428	No	0.472	No	0.486	No
	Right Touch	0.257	0.186	0.230	0.244	0.149	0.443	No	0.487	No	0.501	No	0.592	No	0.636	No	0.650	No
	Right Tilt	0.100	0.186	0.230	0.244	0.149	0.286	No	0.330	No	0.344	No	0.435	No	0.479	No	0.493	No
Body-worn Accessory & Airplay	Rear	0.399	0.334	0.240	0.313	0.064	0.733	No	0.639	No	0.712	No	0.797	No	0.703	No	0.776	No
	Front	0.432	0.334	0.240	0.313	0.087	0.766	No	0.672	No	0.745	No	0.853	No	0.759	No	0.832	No
Airplay	Edge 2	0.199	0.334	0.240	0.313		0.533	No	0.439	No	0.512	No						
	Edge 3	0.358	0.334	0.240	0.313		0.692	No	0.598	No	0.671	No						
	Edge 4	0.455	0.334	0.240	0.313		0.789	No	0.695	No	0.768	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	0.607	0.186	0.230	0.244	0.140	0.793	No	0.837	No	0.851	No	0.933	No	0.977	No	0.991	No
	Left Tilt	0.516	0.186	0.230	0.244	0.137	0.702	No	0.746	No	0.760	No	0.839	No	0.883	No	0.897	No
	Right Touch	0.737	0.186	0.230	0.244	0.149	0.923	No	0.967	No	0.981	No	1.072	No	1.116	No	1.130	No
	Right Tilt	0.544	0.186	0.230	0.244	0.149	0.730	No	0.774	No	0.788	No	0.879	No	0.923	No	0.937	No
Body-worn Accessory & Airplay	Rear	0.435	0.334	0.240	0.313	0.064	0.769	No	0.675	No	0.748	No	0.833	No	0.739	No	0.812	No
	Front	0.470	0.334	0.240	0.313	0.087	0.804	No	0.710	No	0.783	No	0.891	No	0.797	No	0.870	No
Airplay	Edge 1	0.271	0.334	0.240	0.313		0.605	No	0.511	No	0.584	No						
	Edge 2	0.465	0.334	0.240	0.313		0.799	No	0.705	No	0.778	No						
	Edge 4	0.243	0.334	0.240	0.313		0.577	No	0.483	No	0.556	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	0.355	0.186	0.230	0.244	0.140	0.541	No	0.585	No	0.599	No	0.681	No	0.725	No	0.739	No
	Left Tilt	0.230	0.186	0.230	0.244	0.137	0.416	No	0.460	No	0.474	No	0.553	No	0.597	No	0.611	No
	Right Touch	0.312	0.186	0.230	0.244	0.149	0.498	No	0.542	No	0.556	No	0.647	No	0.691	No	0.705	No
	Right Tilt	0.198	0.186	0.230	0.244	0.149	0.384	No	0.428	No	0.442	No	0.533	No	0.577	No	0.591	No
Body-worn Accessory & Airplay	Rear	0.607	0.334	0.240	0.313	0.064	0.941	No	0.847	No	0.920	No	1.005	No	0.911	No	0.984	No
	Front	0.604	0.334	0.240	0.313	0.087	0.938	No	0.844	No	0.917	No	1.025	No	0.931	No	1.004	No
Airplay	Edge 2	0.456	0.334	0.240	0.313		0.790	No	0.696	No	0.769	No						
	Edge 3	0.470	0.334	0.240	0.313		0.804	No	0.710	No	0.783	No						
	Edge 4	0.838	0.334	0.240	0.313		1.172	No	1.078	No	1.151	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})

SAR for LTE Band 17 (Frequency range: 704 – 716 MHz) is covered by LTE Band 12 (Frequency range: 699 – 716 MHz) due to overlapping 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})

SAR for LTE Band 17 (Frequency range: 704 – 716 MHz) is covered by LTE Band 12 (Frequency range: 699 – 716 MHz) due to overlapping 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	0.430	0.186	0.230	0.244	0.140	0.616	No	0.660	No	0.674	No	0.756	No	0.800	No	0.814	No
	Left Tilt	0.326	0.186	0.230	0.244	0.137	0.512	No	0.556	No	0.570	No	0.649	No	0.693	No	0.707	No
	Right Touch	1.080	0.186	0.230	0.244	0.149	1.266	No	1.310	No	1.324	No	1.415	No	1.459	No	1.473	No
	Right Tilt	0.826	0.186	0.230	0.244	0.149	1.012	No	1.056	No	1.070	No	1.161	No	1.205	No	1.219	No
Body-worn Accessory & Airplay	Rear	0.717	0.334	0.240	0.313	0.064	1.051	No	0.957	No	1.030	No	1.115	No	1.021	No	1.094	No
	Front	0.640	0.334	0.240	0.313	0.087	0.974	No	0.880	No	0.953	No	1.061	No	0.967	No	1.040	No
Airplay	Edge 1	0.751	0.334	0.240	0.313		1.085	No	0.991	No	1.064	No						
	Edge 2	0.064	0.334	0.240	0.313		0.398	No	0.304	No	0.377	No						
	Edge 4	0.997	0.334	0.240	0.313		1.331	No	1.237	No	1.310	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	0.542	0.186	0.230	0.244	0.140	0.728	No	0.772	No	0.786	No	0.868	No	0.912	No	0.926	No
	Left Tilt	0.262	0.186	0.230	0.244	0.137	0.448	No	0.492	No	0.506	No	0.585	No	0.629	No	0.643	No
	Right Touch	0.965	0.186	0.230	0.244	0.149	1.151	No	1.195	No	1.209	No	1.300	No	1.344	No	1.358	No
	Right Tilt	0.300	0.186	0.230	0.244	0.149	0.486	No	0.530	No	0.544	No	0.635	No	0.679	No	0.693	No
Body-worn Accessory & Airplay	Rear	0.734	0.334	0.240	0.313	0.064	1.068	No	0.974	No	1.047	No	1.132	No	1.038	No	1.111	No
	Front	0.915	0.334	0.240	0.313	0.087	1.249	No	1.155	No	1.228	No	1.336	No	1.242	No	1.315	No
Airplay	Edge 2	0.645	0.334	0.240	0.313		0.979	No	0.885	No	0.958	No						
	Edge 3	1.099	0.334	0.240	0.313		1.433	No	1.339	No	1.412	No						
	Edge 4	0.068	0.334	0.240	0.313		0.402	No	0.308	No	0.381	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	0.445	0.186	0.230	0.244	0.140	0.631	No	0.675	No	0.689	No	0.771	No	0.815	No	0.829	No
	Left Tilt	0.474	0.186	0.230	0.244	0.137	0.660	No	0.704	No	0.718	No	0.797	No	0.841	No	0.855	No
	Right Touch	0.572	0.186	0.230	0.244	0.149	0.758	No	0.802	No	0.816	No	0.907	No	0.951	No	0.965	No
	Right Tilt	0.468	0.186	0.230	0.244	0.149	0.654	No	0.698	No	0.712	No	0.803	No	0.847	No	0.861	No
Body-worn Accessory & Airplay	Rear	0.435	0.334	0.240	0.313	0.064	0.769	No	0.675	No	0.748	No	0.833	No	0.739	No	0.812	No
	Front	0.430	0.334	0.240	0.313	0.087	0.764	No	0.670	No	0.743	No	0.851	No	0.757	No	0.830	No
Airplay	Edge 1	0.232	0.334	0.240	0.313		0.566	No	0.472	No	0.545	No						
	Edge 2	0.345	0.334	0.240	0.313		0.679	No	0.585	No	0.658	No						
	Edge 4	0.195	0.334	0.240	0.313		0.529	No	0.435	No	0.508	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	0.385	0.186	0.230	0.244	0.140	0.571	No	0.615	No	0.629	No	0.711	No	0.755	No	0.769	No
	Left Tilt	0.189	0.186	0.230	0.244	0.137	0.375	No	0.419	No	0.433	No	0.512	No	0.556	No	0.570	No
	Right Touch	0.325	0.186	0.230	0.244	0.149	0.511	No	0.555	No	0.569	No	0.660	No	0.704	No	0.718	No
	Right Tilt	0.209	0.186	0.230	0.244	0.149	0.395	No	0.439	No	0.453	No	0.544	No	0.588	No	0.602	No
Body-worn Accessory & Airplay	Rear	0.640	0.334	0.240	0.313	0.064	0.974	No	0.880	No	0.953	No	1.038	No	0.944	No	1.017	No
	Front	0.678	0.334	0.240	0.313	0.087	1.012	No	0.918	No	0.991	No	1.099	No	1.005	No	1.078	No
Airplay	Edge 2	0.314	0.334	0.240	0.313		0.648	No	0.554	No	0.627	No						
	Edge 3	0.514	0.334	0.240	0.313		0.848	No	0.754	No	0.827	No						
	Edge 4	0.843	0.334	0.240	0.313		1.177	No	1.083	No	1.156	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})

SAR for LTE Band 27 (Frequency range: 814 – 824 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping frequency range, same 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})

SAR for LTE Band 27 (Frequency range: 814 – 824 MHz) is covered by LTE Band 26 (Frequency range: 814 – 849 MHz) due to overlapping frequency range, same 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	0.420	0.186	0.230	0.244	0.140	0.606	No	0.650	No	0.664	No	0.746	No	0.790	No	0.804	No
	Left Tilt	0.527	0.186	0.230	0.244	0.137	0.713	No	0.757	No	0.771	No	0.850	No	0.894	No	0.908	No
	Right Touch	1.090	0.186	0.230	0.244	0.149	1.276	No	1.320	No	1.334	No	1.425	No	1.469	No	1.483	No
	Right Tilt	1.090	0.186	0.230	0.244	0.149	1.276	No	1.320	No	1.334	No	1.425	No	1.469	No	1.483	No
Body-worn Accessory & Airplay	Rear	0.923	0.334	0.240	0.313	0.064	1.257	No	1.163	No	1.236	No	1.321	No	1.227	No	1.300	No
	Front	0.943	0.334	0.240	0.313	0.087	1.277	No	1.183	No	1.256	No	1.364	No	1.270	No	1.343	No
Airplay	Edge 1	0.715	0.334	0.240	0.313		1.049	No	0.955	No	1.028	No						
	Edge 2	0.239	0.334	0.240	0.313		0.573	No	0.479	No	0.552	No						
	Edge 4	0.829	0.334	0.240	0.313		1.163	No	1.069	No	1.142	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	0.395	0.186	0.230	0.244	0.140	0.581	No	0.625	No	0.639	No	0.721	No	0.765	No	0.779	No
	Left Tilt	0.315	0.186	0.230	0.244	0.137	0.501	No	0.545	No	0.559	No	0.638	No	0.682	No	0.696	No
	Right Touch	0.350	0.186	0.230	0.244	0.149	0.536	No	0.580	No	0.594	No	0.685	No	0.729	No	0.743	No
	Right Tilt	0.424	0.186	0.230	0.244	0.149	0.610	No	0.654	No	0.668	No	0.759	No	0.803	No	0.817	No
Body-worn Accessory & Airplay	Rear	0.666	0.334	0.240	0.313	0.064	1.000	No	0.906	No	0.979	No	1.064	No	0.970	No	1.043	No
	Front	1.110	0.334	0.240	0.313	0.087	1.444	No	1.350	No	1.423	No	1.531	No	1.437	No	1.510	No
Airplay	Edge 2	0.460	0.334	0.240	0.313		0.794	No	0.700	No	0.773	No						
	Edge 3	0.785	0.334	0.240	0.313		1.119	No	1.025	No	1.098	No						
	Edge 4	0.199	0.334	0.240	0.313		0.533	No	0.439	No	0.512	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	1.080	0.186	0.230	0.244	0.140	1.266	No	1.310	No	1.324	No	1.406	No	1.450	No	1.464	No
	Left Tilt	1.050	0.186	0.230	0.244	0.137	1.236	No	1.280	No	1.294	No	1.373	No	1.417	No	1.431	No
	Right Touch	0.400	0.186	0.230	0.244	0.149	0.586	No	0.630	No	0.644	No	0.735	No	0.779	No	0.793	No
	Right Tilt	0.412	0.186	0.230	0.244	0.149	0.598	No	0.642	No	0.656	No	0.747	No	0.791	No	0.805	No
Body-worn Accessory & Airplay	Rear	0.720	0.334	0.240	0.313	0.064	1.054	No	0.960	No	1.033	No	1.118	No	1.024	No	1.097	No
	Front	0.737	0.334	0.240	0.313	0.087	1.071	No	0.977	No	1.050	No	1.158	No	1.064	No	1.137	No
Airplay	Edge 1	0.481	0.334	0.240	0.313		0.815	No	0.721	No	0.794	No						
	Edge 2	0.688	0.334	0.240	0.313		1.022	No	0.928	No	1.001	No						
	Edge 4	0.269	0.334	0.240	0.313		0.603	No	0.509	No	0.582	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	0.535	0.186	0.230	0.244	0.140	0.721	No	0.765	No	0.779	No	0.861	No	0.905	No	0.919	No
	Left Tilt	0.105	0.186	0.230	0.244	0.137	0.291	No	0.335	No	0.349	No	0.428	No	0.472	No	0.486	No
	Right Touch	0.312	0.186	0.230	0.244	0.149	0.498	No	0.542	No	0.556	No	0.647	No	0.691	No	0.705	No
	Right Tilt	0.173	0.186	0.230	0.244	0.149	0.359	No	0.403	No	0.417	No	0.508	No	0.552	No	0.566	No
Body-worn Accessory & Airplay	Rear	1.023	0.334	0.240	0.313	0.064	1.357	No	1.263	No	1.336	No	1.421	No	1.327	No	1.400	No
	Front	1.000	0.334	0.240	0.313	0.087	1.334	No	1.240	No	1.313	No	1.421	No	1.327	No	1.400	No
Airplay	Edge 2	0.054	0.334	0.240	0.313		0.388	No	0.294	No	0.367	No						
	Edge 3	0.632	0.334	0.240	0.313		0.966	No	0.872	No	0.945	No						
	Edge 4	0.674	0.334	0.240	0.313		1.008	No	0.914	No	0.987	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	0.897	0.186	0.230	0.244	0.140	1.037	No	0.326	No	0.370	No	0.384	No	1.267	No	1.281	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	1.020	0.334	0.240	0.313	0.087	1.107	No	0.421	No	0.327	No	0.400	No	1.347	No	1.420	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.

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)
Head	Left Touch	0.892	0.186	0.230	0.244	0.140	1.032	No	0.326	No	0.370	No	0.384	No	1.262	No	1.276	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	0.877	0.334	0.240	0.313	0.087	0.964	No	0.421	No	0.327	No	0.400	No	1.204	No	1.277	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.

16U23309-S1V1 SAR_App A Setup Photos (STC_180days)

16U23309-S1V4 SAR_App B System Check Plots

16U23309-S1V4 SAR_App C Highest Test Plots

16U23309-S1V1 SAR_App D Tissue Ingredients

16U23309-S1V1 SAR_App E Probe Cal. Certificates

16U23309-S1V1 SAR_App F Dipole Cal. Certificates

END OF REPORT

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