SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2013

For
Cellular Phone with Bluetooth and WLAN Radios

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Model Name: A1778

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Revision History (continued)

Rev.	Date	Revisions	Revised By
V10	9/1/2016	Report revised based on reviewer's feedback: 1. Sec 9.4.: Added statement and measured output power tables for LTE-2CA SAR test cases	Kenneth Mak

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1. Attestation of Test Results

Applicant Name		APPLE, INC.			
FCC ID		BCG-E3091A			
Model Name		A1778			
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		1.19	1.18	1.19	0.59
Body-worn		1.09	1.13	1.19	0.29
Hotspot/Airplay		1.14	1.13	1.19	N/A
Simultaneous TX	Head	1.56	1.56	1.56	1.56
	Body-worn	1.51	1.51	1.50	1.50
	Hotspot/ Airplay	1.58	1.58	1.50	N/A
Date Tested		6/19/2016 to 7/8/2016; 7/18/2016 to 7/20/2016; Additional LTE CA testing: 8/15/2016 to 8/17/2016 Additional Bluetooth: 8/24/2016			
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.	Chakrit Thammanavarat Engineer UL Verification Services Inc.

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2. Test Specification, Methods and Procedures

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

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

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

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

Additional Guidance: Manufacturer KDB enquiry.

- 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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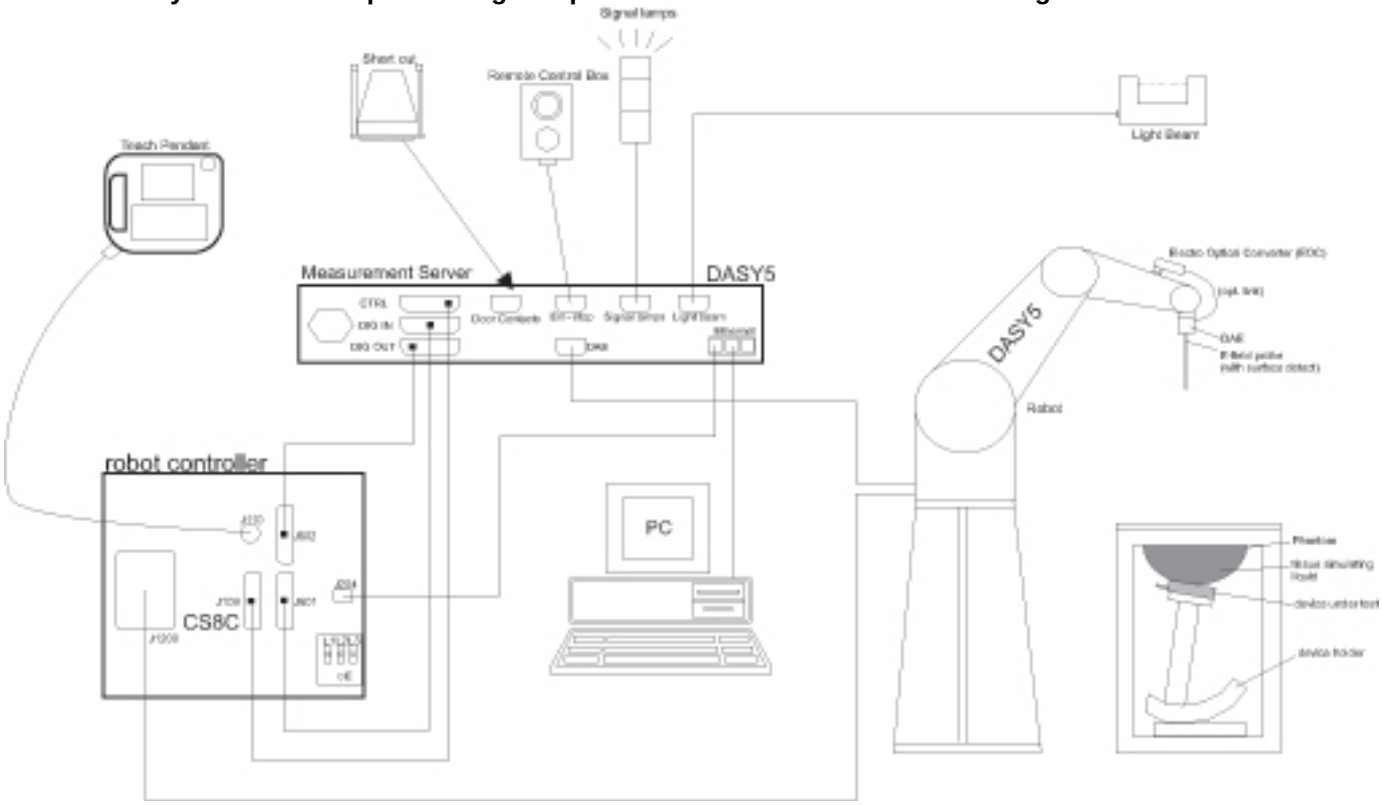
4. SAR Measurement System & Test Equipment

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

Note(s):

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 A1778 is a mobile phone with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/ WCDMA/HSPA+/DC-HSDPA/HSUPA, LTE FDD/TDD & Carrier Aggregation / 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 as (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): 138.3 mm x 67.1 mm Overall Diagonal: 147 mm Display Diagonal: 120 mm
Back Cover	☒ The rechargeable battery is not user accessible.
Battery Options	☒ The rechargeable battery is not user accessible.
Accessory	Headset
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz) ☐ Mobile Hotspot (Wi-Fi 5 GHz)
AirPlay	AirPlay mode enabled devices transfer data directly between each other ☒ AirPlay (Wi-Fi 2.4 GHz) ☒ AirPlay (Wi-Fi 5 GHz)

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6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: ☐ Class 8 - 1 Up, 4 Down ☒ Class 10 - 2 Up, 4 Down ☐ Class 12 - 4 Up, 4 Down ☐ Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
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)[1]

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. RF Output Pow er (dBm)							
		UAT				LAT			
		Head		Body		Head		Body	
		Burst	Frame	Burst	Frame	Burst	Frame	Burst	Frame
GSM850	Voice/GPRS (1 slot)	31.0	22.0	31.0	22.0	33.5	24.5	33.5	24.5
	GPRS 2 slots	30.0	24.0	30.0	24.0	32.5	26.5	32.5	26.5
	EGPRS 1 slot	26.5	17.5	26.5	17.5	29.0	20.0	29.0	20.0
	EGPRS 2 slots	25.5	19.5	25.5	19.5	28.0	22.0	28.0	22.0
GSM1900	Voice/GPRS (1 slot)	26.2	17.2	26.2	17.2	31.5	22.5	29.3	20.3
	GPRS 2 slots	23.7	17.7	25.2	19.2	30.5	24.5	26.3	20.3
	EGPRS 1 slot	24.5	15.5	24.5	15.5	28.0	19.0	28.0	19.0
	EGPRS 2 slots	23.5	17.5	23.5	17.5	27.0	21.0	26.3	20.3

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RF Air interface	Mode	Max. 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	18.3	21.0	25.2	20.7
	HSDPA	18.3	21.0	25.2	20.7
	HSUPA	18.3	21.0	25.2	20.7
	DC-HSDPA	18.3	21.0	25.2	20.7
	HSPA+	18.3	21.0	25.2	20.7
W-CDMA Band II	R99	17.7	21.5	25.2	19.7
	HSDPA	17.7	21.5	25.2	19.7
	HSUPA	17.7	21.5	25.2	19.7
	DC-HSDPA	17.7	21.5	25.2	19.7
	HSPA+	17.7	21.5	25.2	19.7
LTE Band 2	QPSK	17.7	21.0	25.0	19.7
LTE Band 4	QPSK	18.3	21.0	25.0	20.7
LTE Band 5	QPSK	22.5	22.5	24.0	24.0
LTE Band 7	QPSK	16.3	19.0	24.7	18.0
LTE Band 12	QPSK	23.5	23.5	25.0	25.0
LTE Band 13	QPSK	23.5	23.5	25.0	25.0
LTE Band 17	QPSK	23.5	23.5	25.0	25.0
LTE Band 25	QPSK	17.7	21.0	24.0	19.7
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	17.5	20.0	22.3	18.7
LTE Band 41	QPSK	18.0	20.0	24.5	20.5
LTE-2CA Band 7	QPSK	16.3	19.0	24.0	18.0
LTE-2CA Band 41	QPSK	18.0	19.5	24.0	20.5
RF Air interface	Mode	Max. 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 antenna is active or Wi-Fi antenna 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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11b	1 Tx	1	2412	10.5	18.0	15.0	13.0	Yes
			6	2437	10.5	18.0	15.0	13.0	
			11	2462	10.5	18.0	15.0	13.0	
			12	2467	10.5	18.0	15.0	13.0	
			13	2472	10.5	17.0	15.0	13.0	
	802.11g	1 Tx	1	2412	10.5	16.0	15.0	13.0	No
			2	2417	10.5	18.0	15.0	13.0	
			3	2422	10.5	18.0	15.0	13.0	
			6	2437	10.5	18.0	15.0	13.0	
			9	2452	10.5	18.0	15.0	13.0	
			10	2457	10.5	18.0	15.0	13.0	
			11	2462	10.5	15.0	15.0	13.0	
			12	2467	10.5	14.0	14.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	
	802.11n	1 Tx HT20	1	2412	10.5	16.0	15.0	13.0	No
			2	2417	10.5	18.0	15.0	13.0	
			3	2422	10.5	18.0	15.0	13.0	
			6	2437	10.5	18.0	15.0	13.0	
			9	2452	10.5	18.0	15.0	13.0	
			10	2457	10.5	18.0	15.0	13.0	
			11	2462	10.5	15.0	15.0	13.0	
			12	2467	10.5	14.0	14.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	1 Tx	36	5180	6.3	17.5	14.8	11.5	No
			40	5200	6.3	19.0	14.8	11.5	
			44	5220	6.3	19.0	14.8	11.5	
			48	5240	6.3	19.0	14.8	11.5	
	802.11n	1 Tx HT20	36	5180	6.3	17.5	14.8	11.5	No
			40	5200	6.3	19.0	14.8	11.5	
			44	5220	6.3	19.0	14.8	11.5	
			48	5240	6.3	19.0	14.8	11.5	
		1 Tx HT40	38	5190	6.3	16.5	14.8	11.5	No
			46	5230	6.3	19.0	14.8	11.5	
	802.11ac	1 Tx VHT20	36	5180	6.3	17.5	14.8	11.5	No
			40	5200	6.3	19.0	14.8	11.5	
			44	5220	6.3	19.0	14.8	11.5	
			48	5240	6.3	19.0	14.8	11.5	
		1 Tx VHT40	38	5190	6.3	16.5	14.8	11.5	No
			46	5230	6.3	19.0	14.8	11.5	
		1 Tx VHT80	42	5210	6.3	15.5	14.8	11.5	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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	1 Tx	52	5260	5.5	19.0	13.3	10.5	No
			56	5280	5.5	19.0	13.3	10.5	
			60	5300	5.5	19.0	13.3	10.5	
			64	5320	5.5	16.0	13.3	10.5	
	802.11n	1 Tx HT20	52	5260	5.5	19.0	13.3	10.5	No
			56	5280	5.5	19.0	13.3	10.5	
			60	5300	5.5	19.0	13.3	10.5	
			64	5320	5.5	16.0	13.3	10.5	
		1 Tx HT40	54	5270	5.5	19.0	13.3	10.5	Yes
			62	5310	5.5	15.0	13.3	10.5	
	802.11ac	1 Tx VHT20	52	5260	5.5	19.0	13.3	10.5	No
			56	5280	5.5	19.0	13.3	10.5	
			60	5300	5.5	19.0	13.3	10.5	
			64	5320	5.5	16.0	13.3	10.5	
		1 Tx VHT40	54	5270	5.5	19.0	13.3	10.5	No
			62	5310	5.5	15.0	13.3	10.5	
		1 Tx VHT80	58	5290	5.5	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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	1 Tx	100	5500	4.0	16.0	10.8	9.0	No
			104	5520	4.0	19.0	10.8	9.0	
			108	5540	4.0	19.0	10.8	9.0	
			112	5560	4.0	19.0	10.8	9.0	
			116	5580	4.0	19.0	10.8	9.0	
			120	5600	4.0	19.0	10.8	9.0	
			124	5620	4.0	19.0	10.8	9.0	
			128	5640	4.0	19.0	10.8	9.0	
			132	5660	4.0	19.0	10.8	9.0	
			136	5680	4.0	19.0	10.8	9.0	
			140	5700	4.0	16.5	10.8	9.0	
			144	5720	4.0	19.0	10.8	9.0	
	802.11n	1 Tx HT20	100	5500	4.0	16.0	10.8	9.0	No
			104	5520	4.0	19.0	10.8	9.0	
			108	5540	4.0	19.0	10.8	9.0	
			112	5560	4.0	19.0	10.8	9.0	
			116	5580	4.0	19.0	10.8	9.0	
			120	5600	4.0	19.0	10.8	9.0	
			124	5620	4.0	19.0	10.8	9.0	
			128	5640	4.0	19.0	10.8	9.0	
			132	5660	4.0	19.0	10.8	9.0	
			136	5680	4.0	19.0	10.8	9.0	
			140	5700	4.0	16.5	10.8	9.0	
			144	5720	4.0	19.0	10.8	9.0	
		1 Tx HT40	102	5510	4.0	15.0	10.8	9.0	No
			110	5550	4.0	19.0	10.8	9.0	
			118	5590	4.0	19.0	10.8	9.0	
			126	5630	4.0	19.0	10.8	9.0	
			134	5670	4.0	17.5	10.8	9.0	
			142	5710	4.0	19.0	10.8	9.0	
	802.11ac	1 Tx VHT20	100	5500	4.0	16.0	10.8	9.0	No
			104	5520	4.0	19.0	10.8	9.0	
			108	5540	4.0	19.0	10.8	9.0	
			112	5560	4.0	19.0	10.8	9.0	
			116	5580	4.0	19.0	10.8	9.0	
			120	5600	4.0	19.0	10.8	9.0	
			124	5620	4.0	19.0	10.8	9.0	
			128	5640	4.0	19.0	10.8	9.0	
			132	5660	4.0	19.0	10.8	9.0	
			136	5680	4.0	19.0	10.8	9.0	
			140	5700	4.0	16.5	10.8	9.0	
			144	5720	4.0	19.0	10.8	9.0	
		1 Tx VHT40	102	5510	4.0	15.0	10.8	9.0	No
			110	5550	4.0	19.0	10.8	9.0	
			118	5590	4.0	19.0	10.8	9.0	
			126	5630	4.0	19.0	10.8	9.0	
			134	5670	4.0	17.5	10.8	9.0	
			142	5710	4.0	19.0	10.8	9.0	
		1 Tx VHT80	106	5530	4.0	15.0	10.8	9.0	Yes
			122	5610	4.0	19.0	10.8	9.0	
			138	5690	4.0	19.0	10.8	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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	1 Tx	149	5745	4.8	19.0	11.8	11.0	No
			153	5765	4.8	19.0	11.8	11.0	
			157	5785	4.8	19.0	11.8	11.0	
			161	5805	4.8	19.0	11.8	11.0	
			165	5825	4.8	19.0	11.8	11.0	
	802.11n	1 Tx HT20	149	5745	4.8	19.0	11.8	11.0	No
			153	5765	4.8	19.0	11.8	11.0	
			157	5785	4.8	19.0	11.8	11.0	
			161	5805	4.8	19.0	11.8	11.0	
			165	5825	4.8	19.0	11.8	11.0	
		1 Tx HT40	151	5755	4.8	19.0	11.8	11.0	No
			159	5795	4.8	19.0	11.8	11.0	
	802.11ac	1 Tx VHT20	149	5745	4.8	19.0	11.8	11.0	No
			153	5765	4.8	19.0	11.8	11.0	
			157	5785	4.8	19.0	11.8	11.0	
			161	5805	4.8	19.0	11.8	11.0	
			165	5825	4.8	19.0	11.8	11.0	
		1 Tx VHT40	151	5755	4.8	19.0	11.8	11.0	No
			159	5795	4.8	19.0	11.8	11.0	
		1 Tx VHT80	155	5775	4.8	19.0	11.8	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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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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11g	2 Tx CDD	1	2412	10.5	15.5	15.0	13.0	Yes
			2	2417	10.5	18.0	15.0	13.0	
			3	2422	10.5	18.0	15.0	13.0	
			6	2437	10.5	18.0	15.0	13.0	
			9	2452	10.5	18.0	15.0	13.0	
			10	2457	10.5	17.5	15.0	13.0	
			11	2462	10.5	14.5	14.5	13.0	
			12	2467	10.5	13.0	13.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	1	2412	10.5	15.5	15.0	13.0	No
			2	2417	10.5	18.0	15.0	13.0	
			3	2422	10.5	18.0	15.0	13.0	
			6	2437	10.5	18.0	15.0	13.0	
			9	2452	10.5	18.0	15.0	13.0	
			10	2457	10.5	17.5	15.0	13.0	
			11	2462	10.5	14.5	14.5	13.0	
			12	2467	10.5	13.0	13.0	13.0	
			13	2472	5.0	5.0	5.0	5.0	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	6.3	17.0	14.8	11.5	No
			40	5200	6.3	17.0	14.8	11.5	
			44	5220	6.3	17.0	14.8	11.5	
			48	5240	6.3	17.0	14.8	11.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	6.3	17.0	14.8	11.5	No
			40	5200	6.3	17.0	14.8	11.5	
			44	5220	6.3	17.0	14.8	11.5	
			48	5240	6.3	17.0	14.8	11.5	
		2 Tx HT40 CDD/STBC/SDM	38	5190	6.3	14.5	14.5	11.5	Yes
			46	5230	6.3	19.0	14.8	11.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	6.3	17.0	14.8	11.5	No
			40	5200	6.3	17.0	14.8	11.5	
			44	5220	6.3	17.0	14.8	11.5	
			48	5240	6.3	17.0	14.8	11.5	
		2 Tx VHT40 CDD/STBC/SDM	38	5190	6.3	14.5	14.5	11.5	No
			46	5230	6.3	19.0	14.8	11.5	
		2 Tx VHT80 CDD/STBC/SDM	42	5210	6.3	15.0	14.8	11.5	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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	2 Tx CDD	52	5260	5.5	17.0	13.3	10.5	No
			56	5280	5.5	17.0	13.3	10.5	
			60	5300	5.5	17.0	13.3	10.5	
			64	5320	5.5	16.0	13.3	10.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	5.5	17.0	13.3	10.5	No
			56	5280	5.5	17.0	13.3	10.5	
			60	5300	5.5	17.0	13.3	10.5	
			64	5320	5.5	16.0	13.3	10.5	
		2 Tx HT40 CDD/STBC/SDM	54	5270	5.5	19.0	13.3	10.5	No
			62	5310	5.5	14.5	13.3	10.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	5.5	17.0	13.3	10.5	No
			56	5280	5.5	17.0	13.3	10.5	
			60	5300	5.5	17.0	13.3	10.5	
			64	5320	5.5	16.0	13.3	10.5	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	5.5	19.0	13.3	10.5	No
			62	5310	5.5	14.5	13.3	10.5	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	5.5	13.0	13.0	10.5	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	2 Tx CDD	100	5500	4.0	16.0	10.8	9.0	No
			104	5520	4.0	17.0	10.8	9.0	
			108	5540	4.0	17.0	10.8	9.0	
			112	5560	4.0	17.0	10.8	9.0	
			116	5580	4.0	17.0	10.8	9.0	
			120	5600	4.0	17.0	10.8	9.0	
			124	5620	4.0	17.0	10.8	9.0	
			128	5640	4.0	17.0	10.8	9.0	
			132	5660	4.0	17.0	10.8	9.0	
			136	5680	4.0	17.0	10.8	9.0	
			140	5700	4.0	16.5	10.8	9.0	
			144	5720	4.0	17.0	10.8	9.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	4.0	16.0	10.8	9.0	No
			104	5520	4.0	17.0	10.8	9.0	
			108	5540	4.0	17.0	10.8	9.0	
			112	5560	4.0	17.0	10.8	9.0	
			116	5580	4.0	17.0	10.8	9.0	
			120	5600	4.0	17.0	10.8	9.0	
			124	5620	4.0	17.0	10.8	9.0	
			128	5640	4.0	17.0	10.8	9.0	
			132	5660	4.0	17.0	10.8	9.0	
			136	5680	4.0	17.0	10.8	9.0	
			140	5700	4.0	16.5	10.8	9.0	
			144	5720	4.0	17.0	10.8	9.0	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	4.0	15.0	10.8	9.0	No
			110	5550	4.0	19.0	10.8	9.0	
			118	5590	4.0	19.0	10.8	9.0	
			126	5630	4.0	19.0	10.8	9.0	
			134	5670	4.0	17.5	10.8	9.0	
			142	5710	4.0	19.0	10.8	9.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	4.0	16.0	10.8	9.0	No
			104	5520	4.0	17.0	10.8	9.0	
			108	5540	4.0	17.0	10.8	9.0	
			112	5560	4.0	17.0	10.8	9.0	
			116	5580	4.0	17.0	10.8	9.0	
			120	5600	4.0	17.0	10.8	9.0	
			124	5620	4.0	17.0	10.8	9.0	
			128	5640	4.0	17.0	10.8	9.0	
			132	5660	4.0	17.0	10.8	9.0	
			136	5680	4.0	17.0	10.8	9.0	
			140	5700	4.0	16.5	10.8	9.0	
			144	5720	4.0	17.0	10.8	9.0	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	4.0	15.0	10.8	9.0	No
			110	5550	4.0	19.0	10.8	9.0	
			118	5590	4.0	19.0	10.8	9.0	
			126	5630	4.0	19.0	10.8	9.0	
			134	5670	4.0	17.5	10.8	9.0	
			142	5710	4.0	19.0	10.8	9.0	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	4.0	14.0	10.8	9.0	Yes
			122	5610	4.0	19.0	10.8	9.0	
			138	5690	4.0	19.0	10.8	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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	2 Tx CDD	149	5745	4.8	19.0	11.8	11.0	No
			153	5765	4.8	19.0	11.8	11.0	
			157	5785	4.8	19.0	11.8	11.0	
			161	5805	4.8	19.0	11.8	11.0	
			165	5825	4.8	19.0	11.8	11.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	4.8	19.0	11.8	11.0	No
			153	5765	4.8	19.0	11.8	11.0	
			157	5785	4.8	19.0	11.8	11.0	
			161	5805	4.8	19.0	11.8	11.0	
			165	5825	4.8	19.0	11.8	11.0	
		2 Tx HT40 CDD/STBC/SDM	151	5755	4.8	19.0	11.8	11.0	Yes
			159	5795	4.8	19.0	11.8	11.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	4.8	19.0	11.8	11.0	No
			153	5765	4.8	19.0	11.8	11.0	
			157	5785	4.8	19.0	11.8	11.0	
			161	5805	4.8	19.0	11.8	11.0	
			165	5825	4.8	19.0	11.8	11.0	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	4.8	19.0	11.8	11.0	No
			159	5795	4.8	19.0	11.8	11.0	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	4.8	18.5	11.8	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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6.3.3. WLAN SISO (P_{Cell_OFF})

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	16.0	19.0	19.0	19.0	Yes
			6	2437	16.0	19.0	19.0	19.0	
			11	2462	16.0	19.0	19.0	19.0	
			12	2467	16.0	18.5	18.5	18.5	
			13	2472	16.0	17.0	17.0	17.0	
	802.11g	1 Tx	1	2412	16.0	16.0	16.0	16.0	No
			2	2417	16.0	18.0	18.0	18.0	
			3	2422	16.0	19.0	19.0	19.0	
			6	2437	16.0	19.0	19.0	19.0	
			9	2452	16.0	19.0	19.0	19.0	
			10	2457	16.0	19.0	19.0	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	16.0	16.0	16.0	16.0	No
			2	2417	16.0	18.0	18.0	18.0	
			3	2422	16.0	19.0	19.0	19.0	
			6	2437	16.0	19.0	19.0	19.0	
			9	2452	16.0	19.0	19.0	19.0	
			10	2457	16.0	19.0	19.0	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 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	14.0	17.5	17.5	17.5	Yes
			40	5200	14.0	19.0	19.5	18.2	
			44	5220	14.0	19.0	19.5	18.2	
			48	5240	14.0	19.0	19.5	18.2	
	802.11n	1 Tx HT20	36	5180	14.0	17.5	17.5	17.5	No
			40	5200	14.0	19.0	19.5	18.2	
			44	5220	14.0	19.0	19.5	18.2	
			48	5240	14.0	19.0	19.5	18.2	
		1 Tx HT40	38	5190	14.0	16.5	16.5	16.5	Yes
			46	5230	14.0	19.0	19.0	18.2	
	802.11ac	1 Tx VHT20	36	5180	14.0	17.5	17.5	17.5	No
			40	5200	14.0	19.0	19.5	18.2	
			44	5220	14.0	19.0	19.5	18.2	
			48	5240	14.0	19.0	19.5	18.2	
		1 Tx VHT40	38	5190	14.0	16.5	16.5	16.5	No
			46	5230	14.0	19.0	19.0	18.2	
		1 Tx VHT80	42	5210	14.0	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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	1 Tx	52	5260	13.3	19.0	18.5	17.3	No
			56	5280	13.3	19.0	18.5	17.3	
			60	5300	13.3	19.0	18.5	17.3	
			64	5320	13.3	16.0	16.0	16.0	
	802.11n	1 Tx HT20	52	5260	13.3	19.0	18.5	17.3	No
			56	5280	13.3	19.0	18.5	17.3	
			60	5300	13.3	19.0	18.5	17.3	
			64	5320	13.3	16.0	16.0	16.0	
		1 Tx HT40	54	5270	13.3	19.0	18.5	17.3	Yes
			62	5310	13.3	15.0	15.0	15.0	
	802.11ac	1 Tx VHT20	52	5260	13.3	19.0	18.5	17.3	No
			56	5280	13.3	19.0	18.5	17.3	
			60	5300	13.3	19.0	18.5	17.3	
			64	5320	13.3	16.0	16.0	16.0	
		1 Tx VHT40	54	5270	13.3	19.0	18.5	17.3	No
			62	5310	13.3	15.0	15.0	15.0	
		1 Tx VHT80	58	5290	13.3	14.0	14.0	14.0	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	1 Tx	100	5500	11.8	16.0	16.0	15.8	No
			104	5520	11.8	19.0	16.0	15.8	
			108	5540	11.8	19.0	16.0	15.8	
			112	5560	11.8	19.0	16.0	15.8	
			116	5580	11.8	19.0	16.0	15.8	
			120	5600	11.8	19.0	16.0	15.8	
			124	5620	11.8	19.0	16.0	15.8	
			128	5640	11.8	19.0	16.0	15.8	
			132	5660	11.8	19.0	16.0	15.8	
			136	5680	11.8	19.0	16.0	15.8	
			140	5700	11.8	16.5	16.0	15.8	
			144	5720	11.8	19.0	16.0	15.8	
	802.11n	1 Tx HT20	100	5500	11.8	16.0	16.0	15.8	No
			104	5520	11.8	19.0	16.0	15.8	
			108	5540	11.8	19.0	16.0	15.8	
			112	5560	11.8	19.0	16.0	15.8	
			116	5580	11.8	19.0	16.0	15.8	
			120	5600	11.8	19.0	16.0	15.8	
			124	5620	11.8	19.0	16.0	15.8	
			128	5640	11.8	19.0	16.0	15.8	
			132	5660	11.8	19.0	16.0	15.8	
			136	5680	11.8	19.0	16.0	15.8	
			140	5700	11.8	16.5	16.0	15.8	
			144	5720	11.8	19.0	16.0	15.8	
		1 Tx HT40	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	15.8	
			118	5590	11.8	19.0	16.0	15.8	
			126	5630	11.8	19.0	16.0	15.8	
			134	5670	11.8	17.5	16.0	15.8	
			142	5710	11.8	19.0	16.0	15.8	
	802.11ac	1 Tx VHT20	100	5500	11.8	16.0	16.0	15.8	No
			104	5520	11.8	19.0	16.0	15.8	
			108	5540	11.8	19.0	16.0	15.8	
			112	5560	11.8	19.0	16.0	15.8	
			116	5580	11.8	19.0	16.0	15.8	
			120	5600	11.8	19.0	16.0	15.8	
			124	5620	11.8	19.0	16.0	15.8	
			128	5640	11.8	19.0	16.0	15.8	
			132	5660	11.8	19.0	16.0	15.8	
			136	5680	11.8	19.0	16.0	15.8	
			140	5700	11.8	16.5	16.0	15.8	
			144	5720	11.8	19.0	16.0	15.8	
		1 Tx VHT40	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	15.8	
			118	5590	11.8	19.0	16.0	15.8	
			126	5630	11.8	19.0	16.0	15.8	
			134	5670	11.8	17.5	16.0	15.8	
			142	5710	11.8	19.0	16.0	15.8	
		1 Tx VHT80	106	5530	11.8	15.0	15.0	15.0	Yes
			122	5610	11.8	19.0	16.0	15.8	
			138	5690	11.8	19.0	16.0	15.8	

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	12.8	19.0	17.0	17.8	No
			153	5765	12.8	19.0	17.0	17.8	
			157	5785	12.8	19.0	17.0	17.8	
			161	5805	12.8	19.0	17.0	17.8	
			165	5825	12.8	19.0	17.0	17.8	
	802.11n	1 Tx HT20	149	5745	12.8	19.0	17.0	17.8	No
			153	5765	12.8	19.0	17.0	17.8	
			157	5785	12.8	19.0	17.0	17.8	
			161	5805	12.8	19.0	17.0	17.8	
			165	5825	12.8	19.0	17.0	17.8	
		1 Tx HT40	151	5755	12.8	19.0	17.0	17.8	No
			159	5795	12.8	19.0	17.0	17.8	
	802.11ac	1 Tx VHT20	149	5745	12.8	19.0	17.0	17.8	No
			153	5765	12.8	19.0	17.0	17.8	
			157	5785	12.8	19.0	17.0	17.8	
			161	5805	12.8	19.0	17.0	17.8	
			165	5825	12.8	19.0	17.0	17.8	
		1 Tx VHT40	151	5755	12.8	19.0	17.0	17.8	No
			159	5795	12.8	19.0	17.0	17.8	
		1 Tx VHT80	155	5775	12.8	19.0	17.0	17.8	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 radio is ON from Manufacturer KDB inquiry – Cellular State Dependent Wi-Fi Power control.

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	16.0	18.0	18.0	18.0	
			3	2422	16.0	19.0	19.0	19.0	
			6	2437	16.0	19.0	19.0	19.0	
			9	2452	16.0	19.0	19.0	19.0	
			10	2457	16.0	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	16.0	18.0	18.0	18.0	
			3	2422	16.0	19.0	19.0	19.0	
			6	2437	16.0	19.0	19.0	19.0	
			9	2452	16.0	19.0	19.0	19.0	
			10	2457	16.0	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 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	14.0	17.0	17.0	17.0	No
			40	5200	14.0	17.0	17.0	17.0	
			44	5220	14.0	17.0	17.0	17.0	
			48	5240	14.0	17.0	17.0	17.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	14.0	17.0	17.0	17.0	No
			40	5200	14.0	17.0	17.0	17.0	
			44	5220	14.0	17.0	17.0	17.0	
			48	5240	14.0	17.0	17.0	17.0	
		2 Tx HT40 CDD/STBC/SDM	38	5190	14.0	14.5	14.5	14.5	Yes
			46	5230	14.0	19.0	19.0	18.2	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	14.0	17.0	17.0	17.0	No
			40	5200	14.0	17.0	17.0	17.0	
			44	5220	14.0	17.0	17.0	17.0	
			48	5240	14.0	17.0	17.0	17.0	
		2 Tx VHT40 CDD/STBC/SDM	38	5190	14.0	14.5	14.5	14.5	No
			46	5230	14.0	19.0	19.0	18.2	
		2 Tx VHT80 CDD/STBC/SDM	42	5210	14.0	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 RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	2 Tx CDD	52	5260	13.3	17.0	17.0	17.0	No
			56	5280	13.3	17.0	17.0	17.0	
			60	5300	13.3	17.0	17.0	17.0	
			64	5320	13.3	16.0	16.0	16.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	13.3	17.0	17.0	17.0	No
			56	5280	13.3	17.0	17.0	17.0	
			60	5300	13.3	17.0	17.0	17.0	
			64	5320	13.3	16.0	16.0	16.0	
		2 Tx HT40 CDD/STBC/SDM	54	5270	13.3	19.0	18.5	17.3	No
			62	5310	13.3	14.5	14.5	14.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	13.3	17.0	17.0	17.0	No
			56	5280	13.3	17.0	17.0	17.0	
			60	5300	13.3	17.0	17.0	17.0	
			64	5320	13.3	16.0	16.0	16.0	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	13.3	19.0	18.5	17.3	No
			62	5310	13.3	14.5	14.5	14.5	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	13.0	13.0	13.0	13.0	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	2 Tx CDD	100	5500	11.8	16.0	16.0	15.8	No
			104	5520	11.8	17.0	16.0	15.8	
			108	5540	11.8	17.0	16.0	15.8	
			112	5560	11.8	17.0	16.0	15.8	
			116	5580	11.8	17.0	16.0	15.8	
			120	5600	11.8	17.0	16.0	15.8	
			124	5620	11.8	17.0	16.0	15.8	
			128	5640	11.8	17.0	16.0	15.8	
			132	5660	11.8	17.0	16.0	15.8	
			136	5680	11.8	17.0	16.0	15.8	
			140	5700	11.8	16.5	16.0	15.8	
			144	5720	11.8	17.0	16.0	15.8	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	11.8	16.0	16.0	15.8	No
			104	5520	11.8	17.0	16.0	15.8	
			108	5540	11.8	17.0	16.0	15.8	
			112	5560	11.8	17.0	16.0	15.8	
			116	5580	11.8	17.0	16.0	15.8	
			120	5600	11.8	17.0	16.0	15.8	
			124	5620	11.8	17.0	16.0	15.8	
			128	5640	11.8	17.0	16.0	15.8	
			132	5660	11.8	17.0	16.0	15.8	
			136	5680	11.8	17.0	16.0	15.8	
			140	5700	11.8	16.5	16.0	15.8	
			144	5720	11.8	17.0	16.0	15.8	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	15.8	
			118	5590	11.8	19.0	16.0	15.8	
			126	5630	11.8	19.0	16.0	15.8	
			134	5670	11.8	17.5	16.0	15.8	
			142	5710	11.8	19.0	16.0	15.8	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	11.8	16.0	16.0	15.8	No
			104	5520	11.8	17.0	16.0	15.8	
			108	5540	11.8	17.0	16.0	15.8	
			112	5560	11.8	17.0	16.0	15.8	
			116	5580	11.8	17.0	16.0	15.8	
			120	5600	11.8	17.0	16.0	15.8	
			124	5620	11.8	17.0	16.0	15.8	
			128	5640	11.8	17.0	16.0	15.8	
			132	5660	11.8	17.0	16.0	15.8	
			136	5680	11.8	17.0	16.0	15.8	
			140	5700	11.8	16.5	16.0	15.8	
			144	5720	11.8	17.0	16.0	15.8	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	11.8	15.0	15.0	15.0	No
			110	5550	11.8	19.0	16.0	15.8	
			118	5590	11.8	19.0	16.0	15.8	
			126	5630	11.8	19.0	16.0	15.8	
			134	5670	11.8	17.5	16.0	15.8	
			142	5710	11.8	19.0	16.0	15.8	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	11.8	14.0	14.0	14.0	Yes
			122	5610	11.8	19.0	16.0	15.8	
			138	5690	11.8	19.0	16.0	15.8	

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max 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	12.8	19.0	17.0	17.8	No
			153	5765	12.8	19.0	17.0	17.8	
			157	5785	12.8	19.0	17.0	17.8	
			161	5805	12.8	19.0	17.0	17.8	
			165	5825	12.8	19.0	17.0	17.8	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	12.8	19.0	17.0	17.8	No
			153	5765	12.8	19.0	17.0	17.8	
			157	5785	12.8	19.0	17.0	17.8	
			161	5805	12.8	19.0	17.0	17.8	
			165	5825	12.8	19.0	17.0	17.8	
		2 Tx HT40 CDD/STBC/SDM	151	5755	12.8	19.0	17.0	17.8	Yes
			159	5795	12.8	19.0	17.0	17.8	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	12.8	19.0	17.0	17.8	No
			153	5765	12.8	19.0	17.0	17.8	
			157	5785	12.8	19.0	17.0	17.8	
			161	5805	12.8	19.0	17.0	17.8	
			165	5825	12.8	19.0	17.0	17.8	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	12.8	19.0	17.0	17.8	No
			159	5795	12.8	19.0	17.0	17.8	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	12.8	18.5	17.0	17.8	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	6/19/2016	1750	Head	1750	39.19	40.08	-2.23	1.34	1.37	-1.90
				1710	39.33	40.15	-2.03	1.31	1.35	-3.00
				1755	39.19	40.08	-2.21	1.35	1.37	-1.81
A	6/19/2016	1750	Body	1750	52.00	53.44	-2.70	1.48	1.49	-0.28
				1710	52.14	53.54	-2.62	1.44	1.46	-1.61
				1755	52.01	53.43	-2.65	1.49	1.49	-0.22
A	6/23/2016	1750	Head	1750	40.17	40.08	0.21	1.34	1.37	-2.34
				1710	40.33	40.15	0.46	1.30	1.35	-3.45
				1755	40.15	40.08	0.18	1.34	1.37	-2.24
A	6/23/2016	1750	Body	1750	53.38	53.44	-0.11	1.49	1.49	0.46
				1710	53.49	53.54	-0.10	1.45	1.46	-0.86
				1755	53.36	53.43	-0.13	1.50	1.49	0.52
A	6/26/2016	2300	Head	2300	39.23	39.47	-0.61	1.70	1.66	2.30
				2350	39.04	39.38	-0.88	1.76	1.71	2.83
				2400	38.84	39.30	-1.16	1.81	1.75	3.27
A	6/26/2016	2300	Body	2300	52.13	52.90	-1.46	1.85	1.80	2.74
				2350	51.99	52.84	-1.61	1.91	1.85	3.15
				2400	51.80	52.77	-1.84	1.97	1.90	3.63
B	6/19/2016	2600	Body	2600	52.85	52.51	0.65	2.21	2.16	2.05
				2495	53.11	52.64	0.89	2.07	2.01	2.97
				2690	52.57	52.40	0.33	2.32	2.29	1.30
B	6/23/2016	2600	Body	2600	52.50	52.51	-0.02	2.20	2.16	1.81
				2495	53.53	52.64	1.68	2.06	2.01	2.32
				2690	52.53	52.40	0.25	2.32	2.29	1.43
B	6/27/2016	2600	Body	2600	51.27	52.51	-2.36	2.20	2.16	1.58
				2495	51.56	52.64	-2.06	2.07	2.01	2.87
				2690	51.15	52.40	-2.38	2.31	2.29	0.99
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	6/27/2016	1900	Head	1900	39.91	40.00	-0.23	1.39	1.40	-0.57
				1850	40.02	40.00	0.05	1.35	1.40	-3.29
				1920	39.84	40.00	-0.40	1.41	1.40	0.71
C	6/27/2016	1900	Body	1900	52.71	53.30	-1.11	1.56	1.52	2.89
				1850	52.76	53.30	-1.01	1.53	1.52	0.46
				1920	52.66	53.30	-1.20	1.58	1.52	4.14
C	7/1/2016	1900	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

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
C	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	5600	Head	5600	36.72	35.53	3.34	5.10	5.06	0.77
				5500	36.84	35.65	3.34	4.95	4.96	-0.10
				5725	35.96	35.39	1.61	5.29	5.19	1.92
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
D	7/1/2016	2450	Head	2450	38.90	39.20	-0.77	1.86	1.80	3.5
				2400	39.04	39.30	-0.65	1.81	1.75	3.22
				2480	38.78	39.16	-0.98	1.89	1.83	3.25
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
D	7/7/2016	2450	Body	2450	50.89	52.70	-3.43	2.02	1.95	3.49
				2400	51.01	52.77	-3.34	1.96	1.90	3.27
				2480	50.79	52.66	-3.56	2.05	1.99	3.05
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

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
E	6/24/2016	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	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
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	6/16/2016	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	6/16/2016	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	6/20/2016	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

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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	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	6/16/2016	5200	Head	5200	35.56	35.99	-1.20	4.54	4.65	-2.39
				5150	35.62	36.05	-1.19	4.49	4.60	-2.34
				5350	35.35	35.82	-1.31	4.69	4.80	-2.36
H	6/16/2016	5200	Body	5200	47.54	49.02	-3.02	5.45	5.29	2.88
				5150	47.61	49.09	-3.01	5.38	5.24	2.76
				5350	47.30	48.82	-3.11	5.65	5.47	3.34
H	6/20/2016	5200	Head	5200	35.36	35.99	-1.75	4.53	4.65	-2.56
				5150	35.42	36.05	-1.74	4.50	4.60	-2.19
				5350	35.10	35.82	-2.01	4.70	4.80	-2.26
H	6/20/2016	5200	Body	5200	47.91	49.02	-2.26	5.25	5.29	-0.94
				5150	47.99	49.09	-2.24	5.18	5.24	-1.06
				5350	47.67	48.82	-2.35	5.43	5.47	-0.71
H	6/24/2016	5200	Head	5200	35.40	35.99	-1.64	4.52	4.65	-2.88
				5150	35.45	36.05	-1.66	4.47	4.60	-2.87
				5350	35.18	35.82	-1.78	4.66	4.80	-2.99
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

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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	6/28/2016	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
H	7/6/2016	5200	Head	5200	35.11	35.99	-2.45	4.48	4.65	-3.74
				5150	35.17	36.05	-2.43	4.42	4.60	-3.91
				5350	34.92	35.82	-2.51	4.63	4.80	-3.71
H	7/6/2016	5200	Body	5200	47.09	49.02	-3.94	5.23	5.29	-1.30
				5150	47.24	49.09	-3.76	5.18	5.24	-1.06
				5350	46.88	48.82	-3.97	5.39	5.47	-1.45
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	6/27/2016	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
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	6/12/2016	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

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
3	6/15/2016	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	Head	1900	40.34	40.00	0.85	1.41	1.40	0.57
				1850	40.49	40.00	1.23	1.36	1.40	-3.21
				1920	40.22	40.00	0.55	1.42	1.40	1.43
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
3	6/29/2016	1900	Body	1900	50.87	53.30	-4.56	1.55	1.52	2.24
				1850	51.03	53.30	-4.26	1.50	1.52	-1.64
				1920	50.80	53.30	-4.69	1.58	1.52	3.62
4	6/8/2016	835	Head	835	43.11	41.50	3.88	0.93	0.90	3.74
				805	43.47	41.68	4.30	0.90	0.90	0.53
				905	42.32	41.50	1.98	1.00	0.97	2.57
4	6/12/2016	835	Body	835	53.18	55.20	-3.66	1.01	0.97	3.92
				805	53.62	55.33	-3.10	0.98	0.97	1.36
				905	52.74	55.00	-4.11	1.09	1.05	3.94
4	6/22/2016	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	2600	Head	2600	40.16	39.01	2.95	2.02	1.96	3.00
				2495	40.49	39.14	3.44	1.90	1.85	2.72
				2690	39.76	38.90	2.22	2.13	2.06	3.38
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
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
5	6/22/2016	1900	Head	1900	40.43	40.00	1.08	1.44	1.40	3.00
				1850	40.60	40.00	1.50	1.39	1.40	-0.57
				1920	40.44	40.00	1.10	1.47	1.40	4.79

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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 %
5	6/22/2016	1900	Head	1900	40.43	40.00	1.08	1.44	1.40	3.00
				1850	40.60	40.00	1.50	1.39	1.40	-0.57
				1920	40.44	40.00	1.10	1.47	1.40	4.79
5	6/25/2016	1900	Head	1900	40.52	40.00	1.30	1.44	1.40	2.50
				1850	40.80	40.00	2.00	1.40	1.40	-0.14
				1920	40.54	40.00	1.35	1.44	1.40	2.50
5	7/1/2016	835	Head	835	41.19	41.50	-0.75	0.90	0.90	0.40
				805	41.63	41.68	-0.12	0.87	0.90	-2.52
				905	40.47	41.50	-2.48	0.97	0.97	0.06
5	7/1/2016	835	Body	835	55.11	55.20	-0.16	1.01	0.97	3.81
				805	55.35	55.33	0.03	0.97	0.97	0.57
				905	54.53	55.00	-0.85	1.07	1.05	1.66
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

Additional Bluetooth testing 8/24/2016:

SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
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
G	8/24/2016	2450	Body	2450	50.78	52.70	-3.64	1.92	1.95	-1.49
				2400	50.93	52.77	-3.49	1.86	1.90	-2.27
				2480	50.66	52.66	-3.80	1.96	1.99	-1.61

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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	6/19/2016	Head	D1750V2 SN:1077	9/22/2016	3.730	37.30	36.90	1.08	1.970	19.70	19.50	1.03	
A	6/19/2016	Body	D1750V2 SN:1077	9/22/2016	3.730	37.30	35.80	4.19	1.950	19.50	19.00	2.63	
A	6/23/2016	Head	D1750V2 SN:1077	9/22/2016	3.680	36.80	36.90	-0.27	1.940	19.40	19.50	-0.51	
A	6/23/2016	Body	D1750V2 SN:1077	9/22/2016	3.890	38.90	35.80	8.66	2.040	20.40	19.00	7.37	1,2
A	6/26/2016	Head	D2300V2 SN:1002	3/18/2017	5.520	55.20	50.50	9.31	2.610	26.10	24.20	7.85	3,4
A	6/26/2016	Body	D2300V2 SN:1002	3/18/2017	5.110	51.10	47.50	7.58	2.410	24.10	23.10	4.33	
B	6/19/2016	Body	D2600V2 SN:1006	9/21/2016	5.750	57.50	55.30	3.98	2.490	24.90	24.80	0.40	
B	6/23/2016	Body	D2600V2 SN:1006	9/21/2016	5.920	59.20	55.30	7.05	2.550	25.50	24.80	2.82	5,6
B	6/27/2016	Body	D2600V2 SN:1006	9/21/2016	5.910	59.10	55.30	6.87	2.550	25.50	24.80	2.82	
C	6/23/2016	Head	D1900V2 SN:5d140	4/12/2017	4.040	40.40	38.30	5.48	2.050	20.50	20.00	2.50	
C	6/27/2016	Head	D1900V2 SN:5d140	4/12/2017	3.950	39.50	38.30	3.13	1.990	19.90	20.00	-0.50	
C	6/27/2016	Body	D1900V2 SN:5d140	4/12/2017	4.000	40.00	39.30	1.78	2.010	20.10	20.80	-3.37	
C	7/1/2016	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	7,8
C	7/5/2016	Head	D5GHzV2 SN:1003 (5.6 GHz)	2/25/2017	8.430	84.30	81.70	3.18	2.420	24.20	23.40	3.42	9,10
D	6/19/2016	Head	D2600V2 SN:1036	3/18/2017	5.730	57.30	55.40	3.43	2.510	25.10	24.60	2.03	
D	6/19/2016	Body	D2600V2 SN:1036	3/18/2017	5.500	55.00	53.40	3.00	2.420	24.20	23.80	1.68	
D	6/23/2016	Head	D2600V2 SN:1036	3/18/2017	5.790	57.90	55.40	4.51	2.540	25.40	24.60	3.25	11,12
D	6/23/2016	Body	D2600V2 SN:1036	3/18/2017	5.240	52.40	53.40	-1.87	2.290	22.90	23.80	-3.78	
D	7/1/2016	Head	D2450V2 SN:706	5/10/2017	5.340	53.40	50.50	5.74	2.450	24.50	23.60	3.81	13,14
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	
D	7/7/2016	Body	D2450V2 SN:706	5/10/2017	5.290	52.90	51.30	3.12	2.430	24.30	24.00	1.25	
E	6/16/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.440	74.40	75.50	-1.46	2.090	20.90	21.00	-0.48	
E	6/16/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.410	74.10	77.10	-3.89	2.100	21.00	21.90	-4.11	
E	6/20/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.030	70.30	77.10	-8.82	1.990	19.90	21.90	-9.13	15,16
E	6/20/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.350	73.50	75.50	-2.65	2.060	20.60	21.00	-1.90	
E	6/24/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.900	79.00	77.10	2.46	2.220	22.20	21.90	1.37	
E	6/24/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.930	79.30	75.50	5.03	2.230	22.30	21.00	6.19	
E	6/28/2016	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	17,18
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	
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	6/16/2016	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	19,20
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	

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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 %	
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	6/20/2016	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	21,22
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	23,24
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	6/16/2016	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	Head	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.630	76.30	75.40	1.19	2.180	21.80	21.80	0.00	
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	25,26
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	27,28
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	
H	7/6/2016	Head	D5GHzV2 SN:1168 (5.2 GHz)	11/13/2016	7.530	75.30	78.40	-3.95	2.160	21.60	22.50	-4.00	
H	7/6/2016	Body	D5GHzV2 SN:1168 (5.2 GHz)	11/13/2016	7.450	74.50	75.00	-0.67	2.100	21.00	21.00	0.00	
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	29,30
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	6/27/2016	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	31,32
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	33,34
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	35,36
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	37,38
3	6/29/2016	Body	D1900V2 SN:5d043	11/17/2016	3.930	39.30	40.20	-2.24	2.070	20.70	21.10	-1.90	
4	6/8/2016	Head	D835V2 SN:4d142	9/23/2016	0.973	9.73	9.27	4.96	0.643	6.43	6.01	6.99	39,40
4	6/12/2016	Body	D835V2 SN:4d142	9/23/2016	0.962	9.62	9.41	2.23	0.633	6.33	6.18	2.43	
4	6/22/2016	Head	D2300V2 SN:1002	3/18/2017	5.240	52.40	50.50	3.76	2.470	24.70	24.20	2.07	41,42
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	43,44
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	45,46
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	
5	6/22/2016	Head	D1900V2 SN:5d043	11/17/2016	4.250	42.50	40.00	6.25	2.160	21.60	20.90	3.35	47,48
5	6/25/2016	Head	D1900V2 SN:5d043	11/17/2016	4.190	41.90	40.00	4.75	2.140	21.40	20.90	2.39	
5	7/1/2016	Head	D835V2 SN:4d002	11/12/2016	0.957	9.57	9.06	5.63	0.631	6.31	5.90	6.95	49,50
5	7/1/2016	Body	D835V2 SN:4d002	11/12/2016	0.984	9.84	9.47	3.91	0.652	6.52	6.21	4.99	
5	7/19/2016	Body	D750V3 SN:1071	11/12/2016	0.941	9.41	8.74	7.67	0.625	6.25	5.81	7.57	51,52

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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	53,54
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	55,56
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	57,58
C	8/15/2016	Body	D2600V2 SN:1006	9/21/2016	5.680	56.80	55.30	2.71	2.470	24.70	24.80	-0.40	

Additional Bluetooth testing 8/24/2016:

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 %	
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	
G	8/24/2016	Body	D2450V2 SN:706	5/10/2017	5.280	52.80	49.50	6.67	2.400	24.00	23.30	3.00	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	31.0	**29.0**	31.0	**29.0**	33.5	**32.2**	33.5	**32.2**
	190	836.6	31.0	**29.0**	31.0	**29.0**	33.5	**32.2**	33.5	**32.2**
	251	848.8	31.0	**29.0**	31.0	**29.0**	33.5	**32.1**	33.5	**32.1**
Frame Power (dBm)										
850	128	824.2	22.0	23.0	22.0	23.0	24.5	26.2	24.5	26.2
	190	836.6	22.0	23.0	22.0	23.0	24.5	26.2	24.5	26.2
	251	848.8	22.0	23.0	22.0	23.0	24.5	26.1	24.5	26.1

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	26.5	25.5	26.3	25.4	29.0	27.8	28.9	27.9
	190.0	836.6	26.3	25.3	26.4	25.3	28.9	28.0	29.0	28.0
	251.0	848.8	26.3	25.3	26.4	25.4	28.9	27.8	28.9	27.8
Frame Power (dBm)										
850.0	128.0	824.2	17.5	19.5	17.3	19.4	20.0	21.8	19.9	21.9
	190.0	836.6	17.3	19.3	17.4	19.3	19.9	22.0	20.0	22.0
	251.0	848.8	17.3	19.3	17.4	19.4	19.9	21.8	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	26.2	**23.2**	26.2	**24.9**	31.5	**30.5**	29.3	**26.2**
	661.0	1880.0	26.2	**23.2**	26.2	**24.9**	31.5	**30.5**	29.3	**26.2**
	810.0	1909.8	26.2	**23.2**	26.2	**24.9**	31.5	**30.5**	29.3	**26.2**
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	17.2	17.2	17.2	18.9	22.5	24.5	20.3	20.2
	661.0	1880.0	17.2	17.2	17.2	18.9	22.5	24.5	20.3	20.2
	810.0	1909.8	17.2	17.2	17.2	18.9	22.5	24.5	20.3	20.2

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	24.1	22.9	24.4	23.3	28.0	26.9	27.8	26.1
	661.0	1880.0	24.2	23.0	24.3	23.5	27.9	27.0	27.9	26.1
	810.0	1909.8	24.2	23.0	24.4	23.3	27.9	26.9	27.8	26.2
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	15.1	16.9	15.4	17.3	19.0	20.9	18.8	20.1
	661.0	1880.0	15.2	17.0	15.3	17.5	18.9	21.0	18.9	20.1
	810.0	1909.8	15.2	17.0	15.4	17.3	18.9	20.9	18.8	20.2

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.		

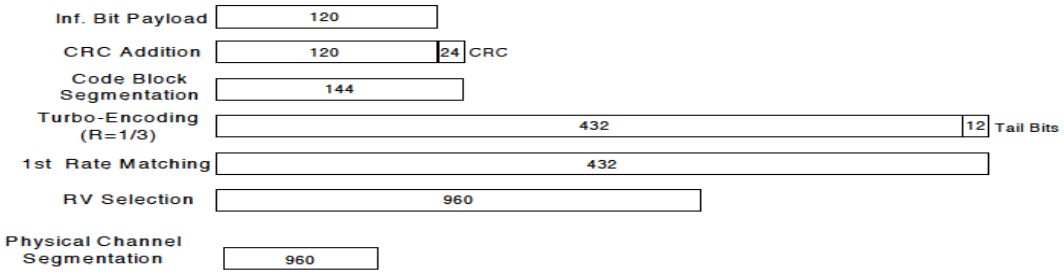

Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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	24.9	24.9
			4183	836.6	N/A	23.0	23.0	24.9	24.9
			4233	846.6	N/A	23.0	23.0	24.9	24.9
	HSDPA	Subtest 1	4132	826.4	0	22.9	22.8	24.7	24.8
			4183	836.6	0	22.8	23.0	24.7	24.8
			4233	846.6	0	22.8	22.9	24.8	24.7
		Subtest 2	4132	826.4	0	23.0	22.9	24.7	24.8
			4183	836.6	0	22.8	22.8	24.8	24.8
			4233	846.6	0	22.9	23.0	24.8	24.8
		Subtest 3	4132	826.4	0.5	22.3	22.3	24.4	24.3
			4183	836.6	0.5	22.4	22.3	24.4	24.3
			4233	846.6	0.5	22.5	22.4	24.2	24.2
		Subtest 4	4132	826.4	0.5	22.3	22.3	24.3	24.2
			4183	836.6	0.5	22.5	22.5	24.3	24.3
			4233	846.6	0.5	22.4	22.5	24.2	24.2
	HSUPA	Subtest 1	4132	826.4	0	22.9	22.9	24.9	24.7
			4183	836.6	0	22.9	22.9	24.8	24.8
			4233	846.6	0	22.9	22.8	24.7	24.7
		Subtest 2	4132	826.4	2	21.0	20.9	22.7	22.8
			4183	836.6	2	20.9	20.8	22.9	22.9
			4233	846.6	2	20.9	20.9	22.7	22.7
		Subtest 3	4132	826.4	1	22.0	21.8	23.7	23.8
			4183	836.6	1	22.0	21.8	23.8	23.8
			4233	846.6	1	21.9	21.9	23.7	23.8
		Subtest 4	4132	826.4	2	20.9	20.8	22.7	22.8
			4183	836.6	2	20.9	20.9	22.8	22.8
			4233	846.6	2	20.8	20.8	22.7	22.9
		Subtest 5	4132	826.4	0	22.9	22.9	24.8	24.8
			4183	836.6	0	22.9	22.9	24.9	24.7
			4233	846.6	0	22.9	22.9	24.8	24.8
	DC-HSDPA	Subtest 1	4132	826.4	0	22.9	22.8	24.8	24.7
			4183	836.6	0	23.0	23.0	24.8	24.7
			4233	846.6	0	23.0	22.8	24.8	24.7
		Subtest 2	4132	826.4	0	22.9	22.8	24.8	24.7
			4183	836.6	0	23.0	22.9	24.8	24.7
			4233	846.6	0	22.8	22.8	24.8	24.7
		Subtest 3	4132	826.4	0.5	22.4	22.3	24.2	24.4
			4183	836.6	0.5	22.4	22.4	24.2	24.3
			4233	846.6	0.5	22.3	22.5	24.3	24.4
		Subtest 4	4132	826.4	0.5	22.4	22.3	24.3	24.3
			4183	836.6	0.5	22.4	22.4	24.3	24.3
			4233	846.6	0.5	22.3	22.4	24.3	24.2

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W-CDMA Band IV Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band IV	Rel 99	RMC, 12.2 kbps	1312	1712.4	N/A	18.0	20.9	25.1	20.7
			1413	1732.6	N/A	18.0	21.0	25.2	20.7
			1513	1752.6	N/A	17.8	21.0	25.0	20.7
	HSDPA	Subtest 1	1312	1712.4	0	17.9	20.9	25.1	20.5
			1413	1732.6	0	18.0	21.0	25.0	20.6
			1513	1752.6	0	17.7	20.9	24.9	20.7
		Subtest 2	1312	1712.4	0	17.8	20.8	25.0	20.5
			1413	1732.6	0	17.9	21.0	25.0	20.7
			1513	1752.6	0	17.7	20.8	24.9	20.6
		Subtest 3	1312	1712.4	0.5	17.4	20.2	24.7	20.0
			1413	1732.6	0.5	17.4	20.4	24.6	20.0
			1513	1752.6	0.5	17.1	20.5	24.4	20.0
		Subtest 4	1312	1712.4	0.5	17.3	20.3	24.6	20.0
			1413	1732.6	0.5	17.5	20.4	24.6	20.0
			1513	1752.6	0.5	17.2	20.4	24.6	20.0
	HSUPA	Subtest 1	1312	1712.4	0	17.8	20.7	25.1	20.6
			1413	1732.6	0	17.9	21.0	25.1	20.7
			1513	1752.6	0	17.7	20.9	25.0	20.5
		Subtest 2	1312	1712.4	2	15.9	18.7	23.0	18.7
			1413	1732.6	2	15.8	18.9	23.1	18.5
			1513	1752.6	2	15.6	18.8	23.1	18.5
		Subtest 3	1312	1712.4	1	16.8	19.8	24.0	19.6
			1413	1732.6	1	16.8	20.0	24.1	19.6
			1513	1752.6	1	16.6	19.8	23.9	19.5
		Subtest 4	1312	1712.4	2	16.0	18.7	23.0	18.5
			1413	1732.6	2	16.0	18.9	23.0	18.5
			1513	1752.6	2	15.7	19.0	23.0	18.7
		Subtest 5	1312	1712.4	0	18.0	20.9	25.0	20.5
			1413	1732.6	0	17.8	20.8	25.1	20.7
			1513	1752.6	0	17.6	20.8	24.9	20.5
	DC-HSDPA	Subtest 1	1312	1712.4	0	17.9	20.8	25.2	20.5
			1413	1732.6	0	17.8	20.9	25.2	20.5
			1513	1752.6	0	17.6	20.9	24.9	20.5
		Subtest 2	1312	1712.4	0	17.9	20.7	25.1	20.7
			1413	1732.6	0	17.9	20.8	25.1	20.6
			1513	1752.6	0	17.6	20.9	25.0	20.6
		Subtest 3	1312	1712.4	0.5	17.4	20.4	24.7	20.2
			1413	1732.6	0.5	17.3	20.3	24.5	20.0
			1513	1752.6	0.5	17.3	20.3	24.5	20.2
		Subtest 4	1312	1712.4	0.5	17.5	20.3	24.6	20.2
			1413	1732.6	0.5	17.3	20.5	24.7	20.1
			1513	1752.6	0.5	17.3	20.3	24.5	20.1

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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	17.2	21.1	25.2	19.7
			9400	1880.0	N/A	17.2	21.3	25.2	19.7
			9538	1907.6	N/A	17.2	21.5	25.2	19.7
	HSDPA	Subtest 1	9262	1852.4	0	17.1	21.5	25.2	19.7
			9400	1880.0	0	17.2	21.4	25.2	19.7
			9538	1907.6	0	17.2	21.5	25.1	19.6
		Subtest 2	9262	1852.4	0	17.2	21.4	25.2	19.7
			9400	1880.0	0	17.2	21.5	25.2	19.6
			9538	1907.6	0	17.1	21.4	25.1	19.7
		Subtest 3	9262	1852.4	0.5	16.7	21.0	24.7	19.2
			9400	1880.0	0.5	16.7	20.9	24.6	19.1
			9538	1907.6	0.5	16.6	21.0	24.7	19.2
		Subtest 4	9262	1852.4	0.5	16.6	20.9	24.7	19.0
			9400	1880.0	0.5	16.7	21.0	24.6	19.2
			9538	1907.6	0.5	16.7	21.0	24.7	19.1
	HSUPA	Subtest 1	9262	1852.4	0	17.2	21.4	25.1	19.7
			9400	1880.0	0	17.1	21.4	25.2	19.6
			9538	1907.6	0	17.2	21.4	25.1	19.6
		Subtest 2	9262	1852.4	2	15.4	19.4	23.1	17.6
			9400	1880.0	2	15.5	19.5	23.1	17.5
			9538	1907.6	2	15.5	19.4	23.0	17.7
		Subtest 3	9262	1852.4	1	16.4	20.5	24.1	18.7
			9400	1880.0	1	16.4	20.4	24.1	18.7
			9538	1907.6	1	16.4	20.3	24.1	18.6
		Subtest 4	9262	1852.4	2	15.4	19.4	23.2	17.6
			9400	1880.0	2	15.5	19.4	23.1	17.6
			9538	1907.6	2	15.5	19.5	23.1	17.6
		Subtest 5	9262	1852.4	0	17.2	21.5	25.1	19.6
			9400	1880.0	0	17.1	21.4	25.1	19.7
			9538	1907.6	0	17.2	21.4	25.1	19.6
	DC-HSDPA	Subtest 1	9262	1852.4	0	17.2	21.5	25.2	19.6
			9400	1880.0	0	17.1	21.4	25.2	19.7
			9538	1907.6	0	17.2	21.4	25.1	19.6
		Subtest 2	9262	1852.4	0	17.1	21.4	25.2	19.7
			9400	1880.0	0	17.1	21.5	25.1	19.6
			9538	1907.6	0	17.2	21.3	25.1	19.6
		Subtest 3	9262	1852.4	0.5	16.7	21.0	24.7	19.2
			9400	1880.0	0.5	16.6	20.9	24.6	19.1
			9538	1907.6	0.5	16.6	21.0	24.6	19.1
		Subtest 4	9262	1852.4	0.5	16.6	20.9	24.7	19.0
			9400	1880.0	0.5	16.7	21.0	24.6	19.2
			9538	1907.6	0.5	16.7	21.0	24.7	19.1

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9.3. LTE

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

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

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

LAT Head was not considered for test exclusion due to higher power than LTE Band 25.

Other exposure conditions on LTE Band 2 (Frequency range: 1850 – 1910 MHz) is covered by the corresponding test results on LTE Band 25 (Frequency range: 1850 - 1915 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD				UAT / BODY				LAT / HEAD				LAT / BODY		
						1860 MHz	1880 MHz	1900 MHz		1860 MHz	1880 MHz	1900 MHz		1860 MHz	1880 MHz	1900 MHz		1860 MHz	1880 MHz	1900 MHz
LTE Band 2	20	QPSK	1	0	0	[redacted]							0	24.9	24.9	24.9	[redacted]			
			1	49	0								0	25.0	25.0	25.0				
			1	99	0								0	24.9	24.9	24.9				
			50	0	0								1	23.9	23.9	23.9				
			50	24	0								1	24.0	24.0	24.0				
			50	49	0								1	23.9	23.9	24.0				
			100	0	0								1	23.9	24.0	24.0				
		16QAM	1	0	0								1	23.9	23.9	23.9				
			1	49	0								1	24.0	24.0	23.9				
			1	99	0								1	23.9	23.9	23.9				
			50	0	0								2	22.9	23.0	22.9				
			50	24	0								2	23.0	22.9	22.9				
			50	49	0								2	23.0	22.9	22.9				
			100	0	0								2	22.9	22.8	23.0				

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1857.5 MHz	1880 MHz	1902.5 MHz		1857.5 MHz	1880 MHz	1902.5 MHz		1857.5 MHz	1880 MHz	1902.5 MHz		1857.5 MHz	1880 MHz	1902.5 MHz
LTE Band 2	15	QPSK	1	0	0	[redacted]							0	25.0	24.9	24.9	[redacted]			
			1	36	0								0	25.0	25.0	24.9				
			1	74	0								0	24.9	24.8	24.9				
			36	0	0								1	24.0	23.8	24.0				
			36	18	0								1	23.9	24.0	23.9				
			36	37	0								1	23.8	23.8	23.9				
			75	0	0								1	23.9	24.0	24.0				
		16QAM	1	0	0								1	23.9	24.0	23.9				
			1	36	0								1	23.9	23.9	24.0				
			1	74	0								1	23.9	23.9	24.0				
			36	0	0								2	23.0	22.9	22.9				
			36	18	0								2	22.9	23.0	22.9				
			36	37	0								2	23.0	22.9	22.9				
			75	0	0								2	23.0	23.0	22.9				

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1855 MHz	1880 MHz	1905 MHz		1855 MHz	1880 MHz	1905 MHz		1855 MHz	1880 MHz	1905 MHz		1855 MHz	1880 MHz	1905 MHz
LTE Band 2	10	QPSK	1	0	0	[redacted]							0	24.9	25.0	24.9	[redacted]			
			1	24	0								0	24.9	25.0	24.9				
			1	49	0								0	24.9	24.9	24.9				
			25	0	0								1	24.0	23.9	24.0				
			25	12	0								1	24.0	23.9	23.9				
			25	24	0								1	24.0	23.9	24.0				
			50	0	0								1	24.0	23.9	24.0				
		16QAM	1	0	0								1	23.9	23.9	24.0				
			1	24	0								1	24.0	24.0	23.9				
			1	49	0								1	23.9	23.9	23.9				
			25	0	0								2	22.8	22.9	22.9				
			25	12	0								2	23.0	22.9	23.0				
			25	24	0								2	23.0	22.9	22.9				
			50	0	0								2	22.8	22.9	22.9				

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

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1852.5 MHz	1880 MHz	1907.5 MHz		1852.5 MHz	1880 MHz	1907.5 MHz		1852.5 MHz	1880 MHz	1907.5 MHz		1852.5 MHz	1880 MHz	1907.5 MHz
LTE Band 2	5	QPSK	1	0	0								0	25.0	24.9	24.8				
			1	12	0								0	25.0	25.0	24.9				
			1	24	0								0	25.0	24.9	25.0				
			12	0	0								1	23.9	23.9	23.9				
			12	7	0								1	23.9	23.9	23.9				
			12	13	0								1	23.9	23.9	23.9				
			25	0	0								1	23.9	24.0	23.8				
		16QAM	1	0	0								1	24.0	24.0	23.9				
			1	12	0								1	24.0	23.9	23.9				
			1	24	0								1	24.0	24.0	23.9				
			12	0	0								2	23.0	22.9	22.8				
			12	7	0								2	22.9	22.8	22.9				
			12	13	0								2	22.9	23.0	23.0				
			25	0	0								2	23.0	23.0	22.9				

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1851.5 MHz	1880 MHz	1908.5 MHz		1851.5 MHz	1880 MHz	1908.5 MHz		1851.5 MHz	1880 MHz	1908.5 MHz		1851.5 MHz	1880 MHz	1908.5 MHz
LTE Band 2	3	QPSK	1	0	0								0	25.0	25.0	25.0				
			1	8	0								0	24.9	25.0	24.8				
			1	14	0								0	24.9	24.9	24.9				
			8	0	0								1	23.9	23.9	23.9				
			8	4	0								1	23.9	23.9	23.9				
			8	7	0								1	23.9	23.9	23.9				
			15	0	0								1	23.9	23.9	23.9				
		16QAM	1	0	0								1	24.0	24.0	24.0				
			1	8	0								1	23.8	23.9	23.9				
			1	14	0								1	23.8	23.9	23.9				
			8	0	0								2	23.0	23.0	23.0				
			8	4	0								2	22.9	22.9	22.9				
			8	7	0								2	22.9	23.0	22.9				
			15	0	0								2	22.9	22.9	22.9				

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1850.7 MHz	1880 MHz	1909.3 MHz		1850.7 MHz	1880 MHz	1909.3 MHz		1850.7 MHz	1880 MHz	1909.3 MHz		1850.7 MHz	1880 MHz	1909.3 MHz
LTE Band 2	1.4	QPSK	1	0	0								0	25.0	25.0	24.8				
			1	3	0								0	25.0	24.9	24.8				
			1	5	0								0	24.8	24.9	25.0				
			3	0	0								0	25.0	24.9	25.0				
			3	1	0								0	24.9	24.9	24.8				
			3	3	0								0	24.9	25.0	24.9				
			6	0	0								1	24.0	23.9	23.8				
		16QAM	1	0	0								1	24.0	23.9	24.0				
			1	3	0								1	23.9	23.9	24.0				
			1	5	0								1	23.9	23.9	24.0				
			3	0	0								1	23.8	23.9	24.0				
			3	1	0								1	23.9	23.9	24.0				
			3	3	0								1	23.9	23.9	23.8				
			6	0	0								2	22.9	22.9	22.9				

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LTE Band 4 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz
LTE Band 4	20	QPSK	1	0	0	18.2	18.3	18.2	0	20.9	21.0	21.0	0	24.9	24.9	24.9	0	20.6	20.6	20.6
			1	49	0	18.3	18.3	18.3	0	21.0	21.0	21.0	0	24.9	24.9	24.9	0	20.7	20.7	20.7
			1	99	0	18.2	18.2	18.3	0	20.9	20.9	20.9	0	24.8	24.8	24.9	0	20.7	20.6	20.5
			50	0	0	17.2	17.3	17.3	1	20.0	20.0	19.9	1	23.8	23.8	23.8	0	20.2	20.2	20.2
			50	24	0	17.3	17.3	17.2	1	20.0	20.0	19.9	1	23.8	23.8	23.8	0	20.2	20.2	20.2
			50	49	0	17.3	17.3	17.3	1	20.0	19.9	19.9	1	23.8	23.8	23.8	0	20.2	20.2	20.2
			100	0	0	17.2	17.3	17.3	1	19.9	19.9	19.9	1	23.9	23.9	23.9	0	20.2	20.2	20.2
		16QAM	1	0	0	17.2	17.3	17.3	1	19.9	19.9	19.9	1	23.9	23.9	23.9	0	20.6	20.6	20.6
			1	49	0	17.3	17.3	17.2	1	19.9	20.0	19.8	1	24.0	23.9	24.0	0	20.7	20.7	20.7
			1	99	0	17.3	17.3	17.3	1	20.0	20.0	20.0	1	23.9	23.9	23.9	0	20.7	20.6	20.5
			50	0	0	17.3	17.3	17.3	2	18.8	18.9	19.0	2	23.0	22.8	22.9	0	20.1	20.2	20.2
			50	24	0	17.2	17.3	17.3	2	18.9	19.0	18.8	2	23.0	23.0	23.0	0	20.1	20.2	20.2
			50	49	0	17.2	17.3	17.3	2	19.0	18.9	18.9	2	23.0	22.9	23.0	0	20.2	20.1	20.2
			100	0	0	17.3	17.3	17.2	2	18.9	19.0	19.0	2	22.9	22.9	22.9	0	20.1	20.2	20.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz
LTE Band 4	15	QPSK	1	0	0	18.2	18.3	18.2	0	21.0	20.9	20.9	0	24.9	25.0	24.9	0	20.6	20.6	20.6
			1	36	0	18.3	18.3	18.3	0	20.9	21.0	20.9	0	25.0	25.0	25.0	0	20.6	20.7	20.7
			1	74	0	18.2	18.2	18.3	0	21.0	20.9	20.9	0	24.9	25.0	24.9	0	20.7	20.6	20.6
			36	0	0	17.2	17.3	17.3	1	20.0	20.0	20.0	1	24.0	23.9	24.0	0	20.6	20.6	20.6
			36	18	0	17.3	17.3	17.2	1	19.9	19.9	20.0	1	23.9	23.9	23.9	0	20.7	20.7	20.6
			36	37	0	17.3	17.3	17.3	1	19.9	20.0	19.9	1	23.9	24.0	24.0	0	20.6	20.6	20.6
			75	0	0	17.2	17.3	17.3	1	19.9	19.9	19.9	1	23.9	23.9	24.0	0	20.6	20.7	20.6
		16QAM	1	0	0	17.2	17.3	17.3	1	19.9	20.0	19.9	1	23.9	23.9	23.9	0	20.6	20.6	20.6
			1	36	0	17.3	17.3	17.2	1	20.0	19.9	19.9	1	23.9	23.9	23.9	0	20.7	20.7	20.7
			1	74	0	17.3	17.3	17.3	1	19.8	19.9	19.9	1	24.0	24.0	23.9	0	20.7	20.6	20.5
			36	0	0	17.3	17.3	17.3	2	18.9	18.9	18.9	2	23.0	22.9	22.8	0	20.1	20.1	20.1
			36	18	0	17.2	17.3	17.3	2	18.9	18.9	18.9	2	22.9	22.9	22.9	0	20.1	20.1	20.1
			36	37	0	17.2	17.3	17.2	2	18.9	18.9	18.9	2	22.8	22.9	22.9	0	20.2	20.1	20.2
			75	0	0	17.2	17.3	17.2	2	18.9	18.9	19.0	2	22.9	22.9	22.9	0	20.1	20.2	20.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz		1715 MHz	1732.5 MHz	1750 MHz
LTE Band 4	10	QPSK	1	0	0	18.2	18.3	18.2	0	21.0	20.9	21.0	0	24.9	24.9	25.0	0	20.6	20.5	20.5
			1	24	0	18.3	18.3	18.3	0	21.0	20.9	20.9	0	25.0	25.0	25.0	0	20.6	20.6	20.6
			1	49	0	18.2	18.2	18.3	0	21.0	20.9	20.9	0	24.9	24.9	24.9	0	20.7	20.6	20.7
			25	0	0	17.2	17.3	17.3	1	19.9	20.0	19.8	1	24.0	23.9	23.9	0	20.7	20.6	20.7
			25	12	0	17.3	17.2	17.2	1	19.9	19.9	20.0	1	23.9	23.9	24.0	0	20.5	20.7	20.7
			25	24	0	17.3	17.3	17.3	1	20.0	20.0	20.0	1	24.0	23.9	23.9	0	20.6	20.6	20.6
			50	0	0	17.2	17.3	17.3	1	20.0	20.0	19.9	1	24.0	23.9	23.9	0	20.6	20.6	20.7
		16QAM	1	0	0	17.2	17.3	17.3	1	19.8	20.0	19.8	1	24.0	23.9	23.9	0	20.6	20.6	20.6
			1	24	0	17.3	17.2	17.2	1	19.9	20.0	19.9	1	23.9	24.0	23.9	0	20.7	20.7	20.7
			1	49	0	17.3	17.3	17.3	1	20.0	20.0	20.0	1	24.0	24.0	24.0	0	20.7	20.6	20.5
			25	0	0	17.3	17.3	17.3	2	18.9	18.9	19.0	2	22.9	22.8	22.9	0	20.1	20.1	20.1
			25	12	0	17.2	17.3	17.3	2	18.9	18.9	18.9	2	22.9	22.9	22.9	0	20.1	20.1	20.1
			25	24	0	17.2	17.3	17.3	2	18.9	18.8	18.8	2	23.0	22.9	23.0	0	20.1	20.1	20.1
			50	0	0	17.3	17.3	17.2	2	18.9	18.9	19.0	2	22.9	23.0	22.9	0	20.1	20.2	20.2

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

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz
LTE Band 4	5	QPSK	1	0	0	18.2	18.3	18.2	0	20.9	20.8	20.9	0	24.9	25.0	24.9	0	20.6	20.5	20.5
			1	12	0	18.3	18.3	18.3	0	21.0	21.0	21.0	0	25.0	25.0	25.0	0	20.6	20.6	20.6
			1	24	0	18.2	18.2	18.3	0	21.0	20.9	20.9	0	24.9	25.0	25.0	0	20.7	20.6	20.7
			12	0	0	17.2	17.3	17.3	1	20.0	19.9	19.8	1	24.0	23.9	24.0	0	20.7	20.6	20.7
			12	7	0	17.3	17.3	17.2	1	19.9	19.9	19.8	1	23.9	23.9	23.8	0	20.5	20.7	20.7
			12	13	0	17.3	17.3	17.3	1	20.0	20.0	19.9	1	23.8	23.9	24.0	0	20.6	20.6	20.6
			25	0	0	17.2	17.3	17.3	1	19.9	19.9	19.8	1	23.8	23.9	24.0	0	20.6	20.6	20.7
		16QAM	1	0	0	17.2	17.3	17.3	1	19.9	19.9	19.9	1	24.0	23.9	23.9	0	20.6	20.6	20.6
			1	12	0	17.3	17.3	17.2	1	20.0	20.0	19.9	1	24.0	23.9	23.9	0	20.6	20.6	20.7
			1	24	0	17.3	17.3	17.3	1	19.8	19.8	19.9	1	23.9	24.0	23.9	0	20.6	20.6	20.5
			12	0	0	17.3	17.3	17.3	2	18.9	19.0	18.9	2	23.0	23.0	23.0	0	20.1	20.1	20.1
			12	7	0	17.2	17.3	17.3	2	18.9	18.9	19.0	2	23.0	22.9	22.9	0	20.1	20.1	20.1
			12	13	0	17.2	17.3	17.2	2	19.0	19.0	18.9	2	23.0	22.8	22.9	0	20.1	20.1	20.1
			25	0	0	17.2	17.3	17.2	2	18.9	19.0	18.9	2	23.0	22.9	22.9	0	20.1	20.2	20.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz
LTE Band 4	3	QPSK	1	0	0	18.2	18.3	18.2	0	20.9	20.9	20.9	0	24.9	24.9	24.9	0	20.6	20.5	20.5
			1	8	0	18.3	18.3	18.3	0	20.9	20.9	21.0	0	24.9	24.9	24.9	0	20.6	20.6	20.6
			1	14	0	18.2	18.2	18.3	0	20.9	20.9	21.0	0	25.0	25.0	25.0	0	20.6	20.6	20.7
			8	0	0	17.2	17.3	17.3	1	20.0	20.0	19.9	1	24.0	23.9	23.9	0	20.7	20.6	20.7
			8	4	0	17.3	17.3	17.2	1	19.8	20.0	20.0	1	23.9	23.9	23.9	0	20.5	20.7	20.7
			8	7	0	17.3	17.3	17.3	1	20.0	20.0	19.9	1	23.9	23.9	24.0	0	20.6	20.6	20.6
			15	0	0	17.2	17.3	17.3	1	19.9	19.9	19.9	1	24.0	23.9	23.8	0	20.6	20.6	20.7
		16QAM	1	0	0	17.2	17.3	17.3	1	19.9	20.0	20.0	1	23.9	23.9	24.0	0	20.6	20.6	20.6
			1	8	0	17.3	17.3	17.2	1	19.9	19.9	19.9	1	23.9	23.9	24.0	0	20.5	20.6	20.7
			1	14	0	17.3	17.3	17.3	1	20.0	19.9	20.0	1	24.0	23.9	23.9	0	20.6	20.6	20.5
			8	0	0	17.3	17.3	17.3	2	18.9	18.9	19.0	2	22.9	23.0	23.0	0	20.1	20.1	20.1
			8	4	0	17.2	17.3	17.3	2	19.0	18.9	19.0	2	22.9	22.9	22.9	0	20.2	20.1	20.1
			8	7	0	17.2	17.3	17.2	2	18.9	18.9	18.9	2	22.9	23.0	22.9	0	20.1	20.1	20.1
			15	0	0	17.2	17.3	17.2	2	18.9	19.0	19.0	2	22.9	22.8	23.0	0	20.1	20.2	20.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz
LTE Band 4	1.4	QPSK	1	0	0	18.2	18.3	18.2	0	20.9	21.0	20.9	0	24.9	24.8	24.9	0	20.6	20.5	20.5
			1	3	0	18.3	18.3	18.3	0	20.9	20.9	20.9	0	24.9	24.9	24.9	0	20.6	20.6	20.6
			1	5	0	18.2	18.2	18.3	0	21.0	20.9	20.9	0	24.9	24.9	24.9	0	20.6	20.6	20.7
			3	0	0	18.3	18.3	18.3	0	20.9	20.9	20.9	0	24.9	24.8	25.0	0	20.7	20.6	20.7
			3	1	0	18.3	18.3	18.3	0	20.9	21.0	20.9	0	24.9	24.9	24.9	0	20.5	20.7	20.7
			3	3	0	18.3	18.3	18.3	0	20.9	20.9	21.0	0	24.9	25.0	24.8	0	20.6	20.6	20.6
			6	0	0	17.2	17.3	17.3	1	20.0	19.9	19.9	1	23.9	23.9	24.0	0	20.6	20.6	20.7
		16QAM	1	0	0	17.2	17.3	17.3	1	20.0	19.9	20.0	1	24.0	24.0	23.9	0	20.6	20.6	20.6
			1	3	0	17.3	17.3	17.2	1	19.9	19.9	20.0	1	23.8	23.9	23.9	0	20.5	20.6	20.6
			1	5	0	17.3	17.3	17.3	1	19.9	19.9	19.9	1	24.0	23.9	24.0	0	20.6	20.6	20.5
			3	0	0	17.3	17.3	17.3	1	19.9	19.9	19.9	1	23.9	23.9	23.9	0	20.1	20.1	20.1
			3	1	0	17.2	17.3	17.3	1	19.9	20.0	20.0	1	24.0	23.9	24.0	0	20.2	20.1	20.1
			3	3	0	17.2	17.3	17.2	1	19.9	19.9	19.9	1	24.0	23.9	23.8	0	20.1	20.1	20.1
			6	0	0	17.2	17.3	17.2	2	19.0	18.9	18.9	2	22.9	23.0	23.0	0	20.1	20.1	20.1

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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	16.0	16.1	15.8	0	18.8	19.0	18.8	0.0	24.6	24.6	24.5	0	17.3	17.5	17.5
			1	49	0	16.2	16.2	16.0	0	19.0	19.0	18.9	0.0	24.7	24.7	24.7	0	17.5	17.5	17.5
			1	99	0	16.1	16.1	15.9	0	18.9	18.9	18.7	0.0	24.7	24.5	24.5	0	17.4	17.5	17.3
			50	0	0	15.0	14.9	14.9	0	17.7	17.7	17.9	0.7	23.6	23.7	23.8	0	16.9	16.8	16.8
			50	24	0	15.1	15.1	15.0	0	17.8	17.8	17.9	0.7	23.7	23.8	23.8	0	17.0	17.0	17.0
			50	49	0	15.1	14.9	14.8	0	17.6	17.7	17.8	0.7	23.5	23.7	23.7	0	16.8	17.0	16.9
			100	0	0	14.9	15.1	15.0	0	17.8	17.8	17.7	0.7	23.6	23.8	23.8	0	16.7	16.8	16.6
		16QAM	1	0	0	15.9	16.0	15.7	0	18.8	18.9	18.7	0.7	23.8	23.9	23.8	0	17.3	17.4	17.4
			1	49	0	16.1	16.2	16.0	0	18.9	18.9	18.8	0.7	24.0	23.9	23.9	0	17.4	17.4	17.4
			1	99	0	16.0	16.0	15.8	0	18.8	18.8	18.6	0.7	24.0	23.7	23.7	0	17.3	17.4	17.2
			50	0	0	14.9	14.8	14.9	0	17.6	17.6	17.8	1.7	22.5	22.6	22.7	0	16.9	16.7	16.8
			50	24	0	15.0	15.0	14.9	0	17.7	17.7	17.8	1.7	22.7	22.7	22.7	0	17.0	16.9	16.9
			50	49	0	15.1	14.9	14.7	0	17.5	17.7	17.7	1.7	22.4	22.6	22.7	0	16.7	17.0	16.8
			100	0	0	14.9	15.1	15.0	0	17.7	17.7	17.7	1.7	22.5	22.7	22.7	0	16.7	16.7	16.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	16.1	16.0	16.0	0	18.8	18.8	18.7	0.0	24.5	24.7	24.7	0	17.3	17.4	17.4
			1	36	0	16.0	16.1	15.8	0	18.9	18.9	18.7	0.0	24.5	24.6	24.5	0	17.3	17.5	17.3
			1	74	0	16.0	16.1	15.8	0	18.9	18.9	18.7	0.0	24.6	24.5	24.7	0	17.3	17.3	17.5
			36	0	0	15.1	14.9	15.0	0	17.7	17.7	17.7	0.7	23.6	23.7	23.7	0	16.9	16.9	17.0
			36	18	0	15.1	14.9	14.8	0	17.8	17.7	17.7	0.7	23.6	23.6	23.8	0	16.9	16.9	16.8
			36	37	0	14.9	14.9	14.8	0	17.7	17.7	17.7	0.7	23.7	23.6	23.6	0	16.9	16.9	16.9
			75	0	0	14.9	15.1	15.0	0	17.6	17.6	17.6	0.7	23.5	23.7	23.5	0	16.7	16.7	16.7
		16QAM	1	0	0	16.1	15.9	16.0	0	18.7	18.7	18.6	0.7	23.7	24.0	23.9	0	17.2	17.4	17.3
			1	36	0	15.9	16.0	15.7	0	18.8	18.9	18.6	0.7	23.8	23.8	23.7	0	17.3	17.4	17.3
			1	74	0	15.9	16.0	15.8	0	18.9	18.9	18.6	0.7	23.9	23.7	23.9	0	17.2	17.3	17.4
			36	0	0	15.0	14.8	15.0	0	17.7	17.6	17.6	1.7	22.6	22.6	22.7	0	16.8	16.8	16.9
			36	18	0	15.1	14.8	14.7	0	17.8	17.6	17.7	1.7	22.6	22.5	22.8	0	16.8	16.9	16.8
			36	37	0	14.8	14.8	14.7	0	17.6	17.6	17.6	1.7	22.6	22.5	22.5	0	16.8	16.9	16.8
			75	0	0	14.8	15.1	14.9	0	17.5	17.5	17.5	1.7	22.4	22.7	22.5	0	16.6	16.6	16.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	16.0	16.0	15.9	0	18.8	18.9	18.7	0.0	24.6	24.6	24.5	0	17.4	17.5	17.4
			1	24	0	16.1	16.0	15.9	0	18.8	18.9	18.8	0.0	24.5	24.6	24.6	0	17.3	17.3	17.4
			1	49	0	16.1	16.1	15.9	0	18.8	18.9	18.8	0.0	24.5	24.5	24.5	0	17.4	17.4	17.3
			25	0	0	14.9	14.9	14.8	0	17.7	17.7	17.9	0.7	23.6	23.7	23.8	0	16.8	16.8	16.8
			25	12	0	15.0	15.0	14.9	0	17.7	17.6	17.8	0.7	23.5	23.7	23.6	0	17.0	16.8	16.8
			25	24	0	14.9	14.9	14.8	0	17.6	17.7	17.7	0.7	23.5	23.7	23.8	0	16.8	16.9	16.9
			50	0	0	14.8	15.0	14.7	0	17.5	17.8	17.7	0.7	23.4	23.6	23.7	0	16.4	16.6	16.6
		16QAM	1	0	0	16.0	16.0	15.8	0	18.7	18.9	18.7	0.7	23.9	23.8	23.7	0	17.4	17.4	17.3
			1	24	0	16.1	15.9	15.8	0	18.7	18.8	18.7	0.7	23.7	23.8	23.9	0	17.2	17.2	17.3
			1	49	0	16.1	16.0	15.8	0	18.7	18.9	18.7	0.7	23.7	23.7	23.7	0	17.3	17.3	17.2
			25	0	0	14.8	14.8	14.8	0	17.7	17.6	17.9	1.7	22.6	22.6	22.7	0	16.8	16.7	16.7
			25	12	0	14.9	14.9	14.8	0	17.6	17.5	17.8	1.7	22.5	22.7	22.5	0	16.9	16.7	16.7
			25	24	0	14.8	14.9	14.7	0	17.5	17.6	17.7	1.7	22.5	22.6	22.7	0	16.7	16.8	16.8
			50	0	0	14.7	14.9	14.6	0	17.4	17.7	17.6	1.7	22.4	22.5	22.7	0	16.3	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	16.2	16.0	16.0	0	19.0	18.9	18.7	0.0	24.6	24.5	24.5	0	17.4	17.5	17.5
			1	12	0	16.1	16.2	15.9	0	18.9	18.8	18.9	0.0	24.7	24.6	24.6	0	17.3	17.3	17.3
			1	24	0	16.0	16.1	15.9	0	18.8	18.8	18.9	0.0	24.6	24.5	24.6	0	17.4	17.4	17.4
			12	0	0	15.0	15.0	14.9	0	17.8	17.6	17.8	0.7	23.5	23.6	23.7	0	16.8	16.9	16.9
			12	7	0	14.9	14.9	15.0	0	17.8	17.6	17.8	0.7	23.5	23.6	23.7	0	16.8	16.8	16.8
			12	13	0	14.9	15.0	14.8	0	17.6	17.7	17.8	0.7	23.5	23.6	23.7	0	17.0	16.9	16.8
			25	0	0	14.8	15.0	14.9	0	17.6	17.7	17.5	0.7	23.5	23.7	23.6	0	16.5	16.7	16.7
		16QAM	1	0	0	16.2	16.0	15.9	0	19.0	18.8	18.6	0.7	23.9	23.7	23.7	0	17.4	17.4	17.4
			1	12	0	16.1	16.1	15.8	0	18.8	18.7	18.9	0.7	23.9	23.8	23.8	0	17.2	17.2	17.3
			1	24	0	15.9	16.0	15.9	0	18.8	18.8	18.8	0.7	23.8	23.7	23.8	0	17.3	17.4	17.3
			12	0	0	15.0	14.9	14.9	0	17.7	17.5	17.7	1.7	22.4	22.6	22.6	0	16.7	16.9	16.8
			12	7	0	14.8	14.8	15.0	0	17.7	17.5	17.8	1.7	22.4	22.6	22.6	0	16.7	16.7	16.8
			12	13	0	14.8	14.9	14.7	0	17.5	17.6	17.7	1.7	22.4	22.5	22.6	0	16.9	16.8	16.8
			25	0	0	14.8	14.9	14.8	0	17.5	17.6	17.4	1.7	22.4	22.6	22.6	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	24.8	24.3	24.5	0	24.8	24.3	24.5
			1	24	0	23.2	23.5	23.2	0	23.2	23.5	23.2	0	24.7	25.0	24.7	0	24.7	25.0	24.7
			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	23.7	24.0	23.7	1	23.7	24.0	23.7
			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	24.9	24.5	24.5	0	24.9	24.5	24.5
			1	12	0	22.8	22.9	23.0	0	22.8	22.9	23.0	0	24.3	24.4	24.5	0	24.3	24.4	24.5
			1	24	0	22.8	23.0	22.8	0	22.8	23.0	22.8	0	24.3	24.5	24.3	0	24.3	24.5	24.3
			12	0	1	21.9	21.8	21.8	1	21.9	21.8	21.8	1	23.4	23.3	23.3	1	23.4	23.3	23.3
			12	7	1	21.8	21.8	21.8	1	21.8	21.8	21.8	1	23.3	23.3	23.3	1	23.3	23.3	23.3
			12	13	1	21.8	21.8	21.7	1	21.8	21.8	21.7	1	23.3	23.3	23.2	1	23.3	23.3	23.2
			25	0	1	21.5	21.6	21.6	1	21.5	21.6	21.6	1	23.0	23.1	23.1	1	23.0	23.1	23.1
		16QAM	1	0	1	21.9	22.0	22.0	1	21.9	22.0	22.0	1	23.4	23.5	23.5	1	23.4	23.5	23.5
			1	12	1	21.7	21.8	22.0	1	21.7	21.8	22.0	1	23.2	23.3	23.5	1	23.2	23.3	23.5
			1	24	1	21.8	21.9	21.8	1	21.8	21.9	21.8	1	23.3	23.4	23.3	1	23.3	23.4	23.3
			12	0	2	20.8	20.7	20.8	2	20.8	20.7	20.8	2	22.3	22.2	22.3	2	22.3	22.2	22.3
			12	7	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
			12	13	2	20.7	20.7	20.6	2	20.7	20.7	20.6	2	22.2	22.2	22.1	2	22.2	22.2	22.1
			25	0	2	20.4	20.5	20.6	2	20.4	20.5	20.6	2	21.9	22.0	22.1	2	21.9	22.0	22.1

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	25.0	24.5	24.4	0	25.0	24.5	24.4
			1	8	0	22.9	22.8	22.8	0	22.9	22.8	22.8	0	24.4	24.3	24.3	0	24.4	24.3	24.3
			1	14	0	23.0	22.9	22.8	0	23.0	22.9	22.8	0	24.5	24.4	24.3	0	24.5	24.4	24.3
			8	0	1	21.9	21.9	21.9	1	21.9	21.9	21.9	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			8	4	1	21.8	21.8	21.7	1	21.8	21.8	21.7	1	23.3	23.3	23.2	1	23.3	23.3	23.2
			8	7	1	21.8	21.9	21.8	1	21.8	21.9	21.8	1	23.3	23.4	23.3	1	23.3	23.4	23.3
			15	0	1	21.4	21.6	21.4	1	21.4	21.6	21.4	1	22.9	23.1	22.9	1	22.9	23.1	22.9
		16QAM	1	0	1	21.9	21.9	21.9	1	21.9	21.9	21.9	1	23.4	23.4	23.4	1	23.4	23.4	23.4
			1	8	1	21.9	21.8	21.8	1	21.9	21.8	21.8	1	23.4	23.3	23.3	1	23.4	23.3	23.3
			1	14	1	21.9	21.9	21.7	1	21.9	21.9	21.7	1	23.4	23.4	23.2	1	23.4	23.4	23.2
			8	0	2	20.9	20.9	20.9	2	20.9	20.9	20.9	2	22.4	22.4	22.4	2	22.4	22.4	22.4
			8	4	2	20.8	20.8	20.6	2	20.8	20.8	20.6	2	22.3	22.3	22.1	2	22.3	22.3	22.1
			8	7	2	20.7	20.9	20.7	2	20.7	20.9	20.7	2	22.2	22.4	22.2	2	22.2	22.4	22.2
			15	0	2	20.3	20.5	20.3	2	20.3	20.5	20.3	2	21.8	22.0	21.8	2	21.8	22.0	21.8

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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	24.7	24.3	24.4	0	24.7	24.3	24.4
			1	2	0	22.8	23.0	22.7	0	22.8	23.0	22.7	0	24.3	24.5	24.2	0	24.3	24.5	24.2
			1	5	0	22.7	22.8	22.7	0	22.7	22.8	22.7	0	24.2	24.3	24.2	0	24.2	24.3	24.2
			3	0	0	22.8	22.8	22.7	0	22.8	22.8	22.7	0	24.3	24.3	24.2	0	24.3	24.3	24.2
			3	1	0	22.8	22.9	22.7	0	22.8	22.9	22.7	0	24.3	24.4	24.2	0	24.3	24.4	24.2
			3	2	0	22.8	22.8	22.8	0	22.8	22.8	22.8	0	24.3	24.3	24.3	0	24.3	24.3	24.3
			6	0	1	21.7	21.7	21.5	1	21.7	21.7	21.5	1	23.2	23.2	23.0	1	23.2	23.2	23.0
		16QAM	1	0	1	21.6	21.8	21.8	1	21.6	21.8	21.8	1	23.1	23.3	23.3	1	23.1	23.3	23.3
			1	2	1	21.8	21.9	21.6	1	21.8	21.9	21.6	1	23.3	23.4	23.1	1	23.3	23.4	23.1
			1	5	1	21.6	21.8	21.6	1	21.6	21.8	21.6	1	23.1	23.3	23.1	1	23.1	23.3	23.1
			3	0	1	21.8	21.7	21.6	1	21.8	21.7	21.6	1	23.3	23.2	23.1	1	23.3	23.2	23.1
			3	1	1	21.8	21.8	21.7	1	21.8	21.8	21.7	1	23.3	23.3	23.2	1	23.3	23.3	23.2
			3	2	1	21.7	21.8	21.7	1	21.7	21.8	21.7	1	23.2	23.3	23.2	1	23.2	23.3	23.2
			6	0	2	20.6	20.6	20.4	2	20.6	20.6	20.4	2	22.1	22.1	21.9	2	22.1	22.1	21.9

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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	23.3	0	23.3	0	25.0	0	25.0
			1	24	0	23.3	0	23.3	0	25.0	0	25.0
			1	49	0	23.3	0	23.3	0	24.9	0	24.9
			25	0	1	22.2	1	22.2	1	23.9	1	23.9
			25	12	1	22.2	1	22.2	1	24.0	1	24.0
			25	24	1	22.2	1	22.2	1	24.0	1	24.0
			50	0	1	22.2	1	22.2	1	23.9	1	23.9
		16QAM	1	0	1	22.4	1	22.4	1	23.9	1	24.0
			1	24	1	22.4	1	22.4	1	23.9	1	24.0
			1	49	1	22.4	1	22.4	1	23.9	1	23.9
			25	0	2	21.3	2	21.3	2	22.9	2	22.9
			25	12	2	21.4	2	21.4	2	22.9	2	23.0
			25	24	2	21.4	2	21.4	2	23.0	2	22.9
			50	0	2	21.4	2	21.4	2	22.9	2	22.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz
LTE Band 13	5	QPSK	1	0	0	23.3	23.3	23.3	0	23.4	23.4	23.4	0	25.0	25.0	24.9	0	24.9	24.9	25.0
			1	12	0	23.5	23.5	23.5	0	23.3	23.4	23.5	0	25.0	24.9	24.9	0	24.9	24.9	25.0
			1	24	0	23.3	23.4	23.4	0	23.4	23.4	23.5	0	25.0	24.9	25.0	0	25.0	24.9	25.0
			12	0	1	22.1	22.2	22.2	1	22.1	22.2	22.2	1	24.0	24.0	24.0	1	24.0	23.9	23.9
			12	7	1	22.1	22.2	22.2	1	22.1	22.2	22.2	1	24.0	24.0	24.0	1	24.0	23.9	23.9
			12	13	1	22.2	22.2	22.2	1	22.2	22.2	22.2	1	23.8	24.0	23.9	1	24.0	24.0	24.0
			25	0	1	22.2	22.2	22.2	1	22.2	22.2	22.2	1	23.9	23.9	23.9	1	23.9	23.9	23.9
		16QAM	1	0	1	22.5	22.5	22.4	1	22.5	22.4	22.4	1	24.0	24.0	23.9	1	23.9	23.9	24.0
			1	12	1	22.4	22.5	22.4	1	22.4	22.5	22.4	1	23.9	24.0	24.0	1	23.8	23.8	23.9
			1	24	1	22.4	22.4	22.5	1	22.4	22.4	22.4	1	24.0	24.0	23.9	1	24.0	23.9	23.9
			12	0	2	21.4	21.4	21.4	2	21.5	21.4	21.4	2	22.9	23.0	23.0	2	22.9	22.9	22.8
			12	7	2	21.4	21.5	21.5	2	21.5	21.3	21.5	2	23.0	22.9	23.0	2	23.0	22.9	22.9
			12	13	2	21.4	21.5	21.4	2	21.4	21.3	21.5	2	22.9	23.0	23.0	2	22.9	22.9	22.9
			25	0	2	21.3	21.4	21.4	2	21.5	21.5	21.5	2	22.9	22.9	22.9	2	23.0	23.0	22.9

Note(s):

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

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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	17.2	17.2	17.2	0	20.9	20.9	21.0	0	23.9	23.9	23.9	0	19.6	19.6	19.7
			1	49	0	17.3	17.3	17.2	0	21.0	21.0	21.0	0	24.0	24.0	24.0	0	19.6	19.7	19.7
			1	99	0	17.2	17.2	17.2	0	20.9	20.9	20.9	0	23.9	23.9	23.9	0	19.6	19.6	19.7
			50	0	0	16.5	16.5	16.5	1	20.0	20.0	19.9	1	22.9	22.9	22.9	0	19.5	19.6	19.7
			50	24	0	16.5	16.5	16.6	1	19.9	20.0	19.9	1	23.0	23.0	23.0	0	19.6	19.7	19.7
			50	49	0	16.5	16.5	16.5	1	19.9	20.0	19.9	1	22.9	22.9	22.9	0	19.6	19.6	19.7
			100	0	0	16.6	16.6	16.6	1	19.9	19.9	20.0	1	23.0	23.0	22.9	0	19.6	19.7	19.5
		16QAM	1	0	0	17.1	17.2	17.2	1	20.0	19.9	19.9	1	22.9	22.9	22.9	0	19.5	19.7	19.6
			1	49	0	17.2	17.2	17.2	1	19.9	19.8	19.9	1	22.9	22.8	23.0	0	19.6	19.6	19.5
			1	99	0	17.2	17.2	17.1	1	19.9	19.9	19.9	1	23.0	23.0	22.9	0	19.6	19.7	19.7
			50	0	0	16.5	16.5	16.5	2	18.9	18.9	19.0	2	21.9	21.9	21.9	0	19.6	19.6	19.7
			50	24	0	16.5	16.5	16.6	2	19.0	18.9	19.0	2	21.9	21.9	21.9	0	19.6	19.7	19.6
			50	49	0	16.5	16.5	16.5	2	19.0	18.9	18.8	2	22.0	21.9	21.9	0	19.7	19.6	19.6
			100	0	0	16.5	16.5	16.5	2	19.0	18.9	19.0	2	22.0	22.0	22.0	0	19.6	19.5	19.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz		1857.5 MHz	1882.5 MHz	1907.5 MHz
LTE Band 25	15	QPSK	1	0	0	17.3	17.3	17.2	0	20.9	20.9	20.9	0	23.9	24.0	23.9	0	19.6	19.7	19.6
			1	36	0	17.1	17.3	17.2	0	20.9	20.9	20.9	0	24.0	23.9	23.9	0	19.6	19.6	19.6
			1	74	0	17.2	17.2	17.2	0	21.0	20.9	20.9	0	23.8	23.9	24.0	0	19.6	19.7	19.7
			36	0	0	16.5	16.5	16.5	1	20.0	20.0	20.0	1	22.9	22.9	22.9	0	19.6	19.6	19.7
			36	18	0	16.5	16.5	16.6	1	20.0	20.0	20.0	1	22.9	22.9	23.0	0	19.6	19.7	19.6
			36	37	0	16.5	16.5	16.5	1	19.9	20.0	20.0	1	23.0	22.9	23.0	0	19.6	19.6	19.7
			75	0	0	16.6	16.6	16.6	1	19.9	20.0	19.9	1	22.9	23.0	23.0	0	19.7	19.6	19.7
		16QAM	1	0	0	17.1	17.1	17.2	1	20.0	19.9	20.0	1	22.9	22.9	22.9	0	19.6	19.6	19.6
			1	36	0	17.2	17.2	17.2	1	19.9	19.9	19.8	1	22.9	22.9	22.9	0	19.6	19.6	19.6
			1	74	0	17.2	17.1	17.1	1	19.9	19.9	19.9	1	22.9	23.0	22.9	0	19.6	19.6	19.7
			36	0	0	16.5	16.5	16.5	2	19.0	18.9	19.0	2	21.9	21.9	22.0	0	19.6	19.6	19.6
			36	18	0	16.5	16.6	16.6	2	18.9	18.9	18.9	2	21.9	21.9	22.0	0	19.7	19.6	19.7
			36	37	0	16.5	16.5	16.5	2	19.0	19.0	18.9	2	22.0	22.0	21.9	0	19.6	19.6	19.7
			75	0	0	16.5	16.5	16.5	2	19.0	18.9	18.9	2	21.9	22.0	21.9	0	19.7	19.6	19.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz		1855 MHz	1882.5 MHz	1910 MHz
LTE Band 25	10	QPSK	1	0	0	17.2	17.2	17.2	0	20.9	21.0	20.9	0	24.0	24.0	24.0	0	19.6	19.6	19.6
			1	24	0	17.1	17.3	17.2	0	21.0	20.9	20.9	0	23.9	24.0	23.9	0	19.6	19.6	19.7
			1	49	0	17.2	17.2	17.2	0	20.9	21.0	20.9	0	23.8	23.9	23.9	0	19.6	19.6	19.6
			25	0	0	16.5	16.5	16.5	1	19.9	20.0	19.8	1	22.9	22.9	22.9	0	19.6	19.7	19.6
			25	12	0	16.5	16.5	16.6	1	20.0	19.8	19.9	1	23.0	22.9	23.0	0	19.6	19.5	19.6
			25	24	0	16.5	16.5	16.5	1	19.9	19.9	19.9	1	22.9	22.9	22.8	0	19.7	19.6	19.7
			50	0	0	16.6	16.6	16.6	1	19.8	19.9	19.9	1	22.9	22.9	22.9	0	19.6	19.7	19.6
		16QAM	1	0	0	17.1	17.1	17.2	1	19.9	19.9	19.9	1	23.0	23.0	23.0	0	19.6	19.6	19.6
			1	24	0	17.2	17.2	17.2	1	19.9	20.0	19.9	1	22.9	23.0	23.0	0	19.6	19.5	19.7
			1	49	0	17.1	17.2	17.1	1	20.0	19.9	19.9	1	23.0	22.9	22.9	0	19.6	19.6	19.6
			25	0	0	16.5	16.5	16.5	2	18.9	18.9	19.0	2	21.9	21.9	21.9	0	19.6	19.6	19.6
			25	12	0	16.5	16.6	16.6	2	18.9	18.9	19.0	2	21.9	21.9	22.0	0	19.7	19.7	19.6
			25	24	0	16.5	16.5	16.5	2	19.0	18.9	18.9	2	21.9	21.9	22.0	0	19.5	19.6	19.6
			50	0	0	16.5	16.5	16.5	2	18.9	18.9	18.9	2	21.9	21.9	21.9	0	19.6	19.6	19.7

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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	17.2	17.2	17.2	0	20.8	20.9	20.8	0	23.9	23.9	23.9	0	19.7	19.5	19.7
			1	12	0	17.2	17.3	17.2	0	20.9	20.9	21.0	0	23.9	23.9	24.0	0	19.6	19.6	19.6
			1	24	0	17.2	17.2	17.2	0	21.0	21.0	21.0	0	23.9	24.0	24.0	0	19.6	19.6	19.7
			12	0	0	16.5	16.5	16.5	1	20.0	19.9	19.9	1	22.9	22.9	22.9	0	19.6	19.6	19.6
			12	7	0	16.5	16.5	16.6	1	20.0	19.9	20.0	1	22.9	23.0	23.0	0	19.6	19.5	19.6
			12	13	0	16.5	16.5	16.5	1	19.9	20.0	20.0	1	22.9	22.9	22.8	0	19.6	19.6	19.6
			25	0	0	16.6	16.6	16.6	1	19.9	19.9	19.9	1	22.9	22.9	22.8	0	19.7	19.6	19.6
		16QAM	1	0	0	17.2	17.2	17.2	1	19.9	19.9	20.0	1	23.0	23.0	22.9	0	19.6	19.6	19.5
			1	12	0	17.2	17.2	17.2	1	19.9	19.9	19.9	1	22.9	23.0	22.9	0	19.6	19.6	19.7
			1	24	0	17.2	17.1	17.2	1	19.9	19.8	19.9	1	22.9	22.9	22.9	0	19.6	19.6	19.6
			12	0	0	16.5	16.5	16.5	2	18.9	18.9	19.0	2	21.9	21.8	22.0	0	19.5	19.6	19.6
			12	7	0	16.5	16.6	16.6	2	18.8	18.9	18.9	2	21.9	22.0	21.9	0	19.6	19.6	19.7
			12	13	0	16.5	16.5	16.5	2	19.0	18.9	18.9	2	21.8	21.9	21.9	0	19.7	19.5	19.6
			25	0	0	16.4	16.5	16.5	2	18.9	18.9	18.9	2	22.0	21.9	22.0	0	19.6	19.6	19.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1851.5 MHz	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	17.2	17.2	17.2	0	20.9	20.9	20.9	0	23.9	23.9	24.0	0	19.6	19.5	19.5
			1	8	0	17.2	17.2	17.2	0	20.9	21.0	20.9	0	23.9	23.9	23.9	0	19.6	19.6	19.6
			1	14	0	17.2	17.1	17.2	0	20.9	20.9	20.9	0	24.0	24.0	23.9	0	19.6	19.6	19.7
			8	0	0	16.5	16.5	16.5	1	20.0	19.9	19.9	1	22.8	22.9	23.0	0	19.7	19.7	19.6
			8	4	0	16.5	16.5	16.6	1	19.8	19.9	20.0	1	23.0	22.9	22.9	0	19.6	19.5	19.7
			8	7	0	16.5	16.5	16.5	1	20.0	20.0	20.0	1	22.9	22.9	22.9	0	19.6	19.7	19.7
			15	0	0	16.6	16.6	16.6	1	19.9	19.9	20.0	1	22.9	22.8	22.9	0	19.6	19.6	19.6
		16QAM	1	0	0	17.2	17.2	17.2	1	19.9	20.0	19.9	1	23.0	22.9	23.0	0	19.7	19.6	19.7
			1	8	0	17.3	17.2	17.2	1	19.9	19.9	20.0	1	23.0	23.0	22.9	0	19.6	19.6	19.6
			1	14	0	17.2	17.1	17.2	1	19.9	19.9	19.9	1	22.9	22.9	22.8	0	19.6	19.6	19.5
			8	0	0	16.5	16.5	16.5	2	19.0	18.9	18.9	2	21.9	21.9	22.0	0	19.7	19.6	19.7
			8	4	0	16.5	16.6	16.6	2	19.0	19.0	18.9	2	22.0	21.9	21.9	0	19.6	19.7	19.6
			8	7	0	16.5	16.5	16.5	2	18.9	18.9	18.9	2	21.9	22.0	22.0	0	19.6	19.7	19.6
			15	0	0	16.4	16.5	16.5	2	18.9	18.9	18.9	2	22.0	22.0	21.9	0	19.6	19.6	19.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz		1850.7 MHz	1882.5 MHz	1914.3 MHz
LTE Band 25	1.4	QPSK	1	0	0	17.2	17.2	17.2	0	20.9	20.9	20.9	0	23.9	23.9	24.0	0	19.7	19.6	19.6
			1	3	0	17.3	17.3	17.2	0	20.9	21.0	21.0	0	23.9	24.0	23.9	0	19.7	19.5	19.6
			1	5	0	17.2	17.1	17.2	0	20.9	21.0	20.9	0	24.0	23.9	23.9	0	19.6	19.7	19.7
			3	0	0	17.3	17.3	17.2	0	20.9	20.8	20.9	0	24.0	23.9	23.9	0	19.6	19.7	19.7
			3	1	0	17.2	17.2	17.2	0	20.9	20.9	20.9	0	23.9	23.8	23.9	0	19.7	19.6	19.7
			3	3	0	17.2	17.1	17.2	0	20.9	20.9	21.0	0	23.9	23.9	24.0	0	19.6	19.6	19.6
			6	0	0	16.6	16.6	16.6	1	19.9	19.9	19.9	1	22.9	22.9	23.0	0	19.6	19.7	19.6
		16QAM	1	0	0	17.2	17.2	17.2	1	19.9	19.9	19.9	1	23.0	22.9	22.9	0	19.6	19.6	19.5
			1	3	0	17.3	17.2	17.2	1	19.9	20.0	19.9	1	22.9	23.0	22.9	0	19.5	19.6	19.6
			1	5	0	17.2	17.1	17.2	1	19.9	20.0	19.9	1	22.9	22.9	22.9	0	19.6	19.6	19.6
			3	0	0	17.2	17.2	17.2	1	19.9	20.0	19.8	1	22.9	22.9	23.0	0	19.6	19.6	19.7
			3	1	0	17.2	17.2	17.2	1	20.0	19.9	19.9	1	22.9	22.9	23.0	0	19.6	19.6	19.7
			3	3	0	17.2	17.2	17.2	1	20.0	20.0	20.0	1	22.8	23.0	22.8	0	19.6	19.6	19.6
			6	0	0	16.4	16.5	16.5	2	18.9	19.0	18.9	2	21.9	22.0	21.9	0	19.5	19.6	19.6

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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	22.5	22.4	0	22.4	22.5	22.4	0	23.9	23.8	24.0	0	23.9	23.8	24.0
			1	24	0	22.4	22.5	22.3	0	22.4	22.5	22.3	0	24.0	24.0	24.0	0	24.0	24.0	24.0
			1	49	0	22.4	22.4	22.5	0	22.4	22.4	22.5	0	24.0	23.9	23.9	0	24.0	23.9	23.9
			25	0	1	21.3	21.3	21.4	1	21.3	21.3	21.4	1	23.0	22.9	23.0	1	23.0	22.9	23.0
			25	12	1	21.5	21.5	21.4	1	21.5	21.5	21.4	1	23.0	23.0	23.0	1	23.0	23.0	23.0
			25	24	1	21.4	21.4	21.4	1	21.4	21.4	21.4	1	22.9	22.9	23.0	1	22.9	22.9	23.0
			50	0	1	21.5	21.4	21.5	1	21.5	21.4	21.5	1	22.9	22.9	23.0	1	22.9	22.9	23.0
		16QAM	1	0	1	21.4	21.5	21.4	1	21.4	21.5	21.4	1	23.0	22.9	23.0	1	23.0	22.9	23.0
			1	24	1	21.4	21.4	21.5	1	21.4	21.4	21.5	1	22.9	23.0	22.9	1	22.9	23.0	22.9
			1	49	1	21.5	21.5	21.4	1	21.5	21.5	21.4	1	22.9	23.0	22.9	1	22.9	23.0	22.9
			25	0	2	20.5	20.5	20.3	2	20.5	20.5	20.3	2	22.0	22.0	21.9	2	22.0	22.0	21.9
			25	12	2	20.4	20.4	20.4	2	20.4	20.4	20.4	2	21.9	21.9	22.0	2	21.9	21.9	22.0
			25	24	2	20.5	20.4	20.4	2	20.5	20.4	20.4	2	21.8	21.9	21.9	2	21.8	21.9	21.9
			50	0	2	20.5	20.4	20.4	2	20.5	20.4	20.4	2	21.9	21.9	22.0	2	21.9	21.9	22.0

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

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

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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	22.4	22.4	22.4	0	22.4	22.5	22.5	0	24.0	24.0	23.9	0	24.0	23.9	24.0
			1	3	0	22.4	22.4	22.4	0	22.4	22.5	22.3	0	23.9	23.9	24.0	0	23.9	23.9	23.9
			1	5	0	22.4	22.4	22.4	0	22.4	22.4	22.4	0	23.9	23.9	23.9	0	24.0	23.9	24.0
			3	0	0	22.4	22.4	22.3	0	22.4	22.4	22.4	0	24.0	23.9	23.9	0	24.0	24.0	24.0
			3	1	0	22.5	22.5	22.5	0	22.5	22.5	22.4	0	23.9	23.9	24.0	0	23.9	23.9	24.0
			3	3	0	22.4	22.5	22.4	0	22.5	22.4	22.4	0	23.9	23.9	23.8	0	23.9	23.9	23.8
			6	0	1	21.5	21.4	21.4	1	21.4	21.4	21.4	1	22.9	23.0	22.9	1	22.9	23.0	22.9
		16QAM	1	0	1	21.4	21.5	21.5	1	21.3	21.4	21.4	1	22.9	22.9	22.9	1	22.9	23.0	22.9
			1	3	1	21.5	21.4	21.4	1	21.3	21.4	21.5	1	22.9	22.9	22.9	1	23.0	23.0	23.0
			1	5	1	21.4	21.5	21.4	1	21.4	21.4	21.3	1	22.9	22.9	22.8	1	22.9	22.8	23.0
			3	0	1	21.4	21.4	21.5	1	21.4	21.5	21.4	1	22.9	23.0	22.9	1	22.9	22.9	22.9
			3	1	1	21.4	21.4	21.3	1	21.4	21.4	21.4	1	22.9	22.9	22.9	1	22.9	22.9	22.9
			3	3	1	21.5	21.4	21.3	1	21.4	21.5	21.4	1	23.0	22.9	23.0	1	22.9	22.9	22.9
			6	0	2	20.4	20.4	20.3	2	20.4	20.4	20.3	2	21.9	21.9	21.8	2	21.9	21.9	21.8

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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	17.5	0	19.6	0.0	22.1	0	18.0
			1	24	0	17.5	0	19.7	0.0	22.3	0	18.2
			1	49	0	17.3	0	19.6	0.0	22.1	0	18.2
			25	0	0	16.6	1	18.7	0.0	22.1	0	17.6
			25	12	0	16.7	1	18.8	0.0	22.3	0	17.7
			25	24	0	16.5	1	18.7	0.0	22.1	0	17.5
			50	0	0	16.7	1	18.9	0.0	22.2	0	17.7
		16QAM	1	0	0	17.4	1	18.5	0.0	22.0	0	17.9
			1	24	0	17.5	1	18.6	0.0	22.2	0	18.1
			1	49	0	17.2	1	18.5	0.0	22.1	0	18.1
			25	0	0	16.6	2	17.6	0.3	21.7	0	17.6
			25	12	0	16.6	2	17.7	0.3	21.9	0	17.6
			25	24	0	16.4	2	17.6	0.3	21.8	0	17.5
			50	0	0	16.7	2	17.8	0.3	21.8	0	17.6

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	17.2	17.4	17.3	0	19.8	19.6	19.9	0.0	22.0	22.2	22.1	0	18.4	18.1	18.4
			1	12	0	17.4	17.4	17.3	0	19.9	19.7	19.9	0.0	22.0	22.2	22.0	0	18.4	18.1	18.6
			1	24	0	17.2	17.4	17.3	0	19.9	19.6	19.9	0.0	22.1	22.1	22.1	0	18.4	18.1	18.6
			12	0	0	17.3	16.7	17.1	1	19.8	18.8	19.8	0.0	22.1	22.3	22.2	0	18.5	17.7	18.6
			12	7	0	17.2	16.5	17.3	1	19.9	18.6	19.7	0.0	22.0	22.3	22.0	0	18.4	17.6	18.5
			12	13	0	17.3	16.6	17.2	1	19.8	18.8	19.8	0.0	22.0	22.1	22.0	0	18.4	17.6	18.6
			25	0	0	16.7	16.5	16.6	1	18.7	18.8	18.8	0.0	22.0	22.1	21.9	0	17.4	17.6	17.6
		16QAM	1	0	0	17.1	17.3	17.3	1	18.7	18.6	18.9	0.0	21.9	22.1	22.1	0	18.3	18.1	18.3
			1	12	0	17.3	17.4	17.2	1	18.8	18.7	18.8	0.0	21.9	22.2	21.9	0	18.3	18.1	18.6
			1	24	0	17.1	17.4	17.2	1	18.9	18.6	18.8	0.0	22.1	22.1	22.0	0	18.4	18.0	18.5
			12	0	0	17.2	16.6	17.0	2	18.7	17.7	18.7	0.3	21.7	22.0	21.9	0	18.4	17.6	18.5
			12	7	0	17.1	16.4	17.2	2	18.8	17.5	18.7	0.3	21.6	21.9	21.7	0	18.3	17.5	18.4
			12	13	0	17.2	16.6	17.1	2	18.7	17.7	18.8	0.3	21.6	21.7	21.6	0	18.4	17.5	18.5
			25	0	0	16.6	16.4	16.5	2	17.6	17.7	17.7	0.3	21.6	21.7	21.5	0	17.3	17.6	17.5

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						2306.5 MHz	2310 MHz	2313.5 MHz		2306.5 MHz	2310 MHz	2313.5 MHz		2306.5 MHz	2310 MHz	2313.5 MHz		2306.5 MHz	2310 MHz	2313.5 MHz
LTE Band 30	3	QPSK	1	0	0	17.4	17.5	17.2	0	19.9	19.6	19.9	0.0	22.2	22.3	22.1	0	18.4	18.1	18.4
			1	8	0	17.4	17.3	17.3	0	20.0	19.6	19.8	0.0	22.0	22.3	22.0	0	18.4	18.0	18.5
			1	14	0	17.2	17.3	17.2	0	19.9	19.5	20.0	0.0	22.0	22.2	22.0	0	18.4	18.0	18.4
			8	0	0	17.3	16.6	17.2	1	19.9	18.7	19.7	0.0	22.1	22.1	22.1	0	18.5	17.6	18.5
			8	4	0	17.2	16.6	17.2	1	19.9	18.6	19.7	0.0	22.1	22.2	22.1	0	18.5	17.6	18.7
			8	7	0	17.2	16.6	17.2	1	19.9	18.6	19.7	0.0	22.0	22.2	22.0	0	18.4	17.5	18.5
			15	0	0	16.6	16.5	16.5	1	18.8	18.7	18.5	0.0	21.9	22.1	22.0	0	17.4	17.6	17.6
		16QAM	1	0	0	17.3	17.4	17.1	1	18.9	18.6	18.8	0.0	22.2	22.2	22.0	0	18.3	18.0	18.4
			1	8	0	17.3	17.2	17.3	1	18.9	18.6	18.8	0.0	21.9	22.2	21.9	0	18.4	17.9	18.4
			1	14	0	17.2	17.2	17.1	1	18.9	18.4	18.9	0.0	21.9	22.1	21.9	0	18.3	18.0	18.4
			8	0	0	17.2	16.5	17.2	2	18.9	17.6	18.7	0.3	21.8	21.8	21.8	0	18.5	17.6	18.4
			8	4	0	17.1	16.5	17.1	2	18.8	17.5	18.6	0.3	21.8	21.9	21.8	0	18.4	17.5	18.7
			8	7	0	17.2	16.6	17.1	2	18.8	17.5	18.6	0.3	21.6	21.9	21.6	0	18.4	17.4	18.4
			15	0	0	16.6	16.4	16.5	2	17.7	17.6	17.4	0.3	21.6	21.7	21.7	0	17.4	17.6	17.5

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LTE Band 30 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		
						2305.7 MHz	2310 MHz	2314.3 MHz		2305.7 MHz	2310 MHz	2314.3 MHz		2305.7 MHz	2310 MHz	2314.3 MHz		2305.7 MHz	2310 MHz	2314.3 MHz
LTE Band 30	1.4	QPSK	1	0	0	17.2	17.5	17.2	0	20.0	19.7	20.0	0.0	22.0	22.1	22.1	0	18.5	18.1	18.4
			1	2	0	17.4	17.5	17.3	0	20.0	19.6	20.0	0.0	22.1	22.1	22.0	0	18.6	18.1	18.4
			1	5	0	17.2	17.4	17.2	0	19.8	19.5	19.9	0.0	22.1	22.2	22.0	0	18.5	18.2	18.4
			3	0	0	17.2	16.7	17.2	0	19.8	19.7	19.9	0.0	22.0	22.2	22.1	0	18.4	17.5	18.5
			3	1	0	17.2	16.6	17.2	0	19.9	19.8	19.8	0.0	22.2	22.2	22.0	0	18.6	17.5	18.6
			3	2	0	17.3	16.6	17.2	0	19.9	19.7	19.7	0.0	22.1	22.2	22.2	0	18.4	17.5	18.7
			6	0	0	16.5	16.6	16.5	1	18.7	18.8	18.7	0.0	21.9	22.1	21.8	0	17.3	17.5	17.5
		16QAM	1	0	0	17.2	17.5	17.1	1	18.9	18.6	18.9	0.0	21.9	22.0	22.1	0	18.5	18.0	18.3
			1	2	0	17.3	17.5	17.2	1	19.0	18.6	18.9	0.0	22.0	22.0	21.9	0	18.5	18.0	18.3
			1	5	0	17.2	17.3	17.1	1	18.7	18.4	18.8	0.0	22.0	22.1	22.0	0	18.5	18.2	18.4
			3	0	0	17.2	16.6	17.1	1	19.7	18.7	19.8	0.0	21.9	22.1	22.1	0	18.4	17.4	18.4
			3	1	0	17.2	16.5	17.2	1	19.8	18.7	19.7	0.0	22.1	22.2	21.9	0	18.5	17.5	18.6
			3	2	0	17.2	16.5	17.2	1	19.8	18.7	19.6	0.0	22.1	22.1	22.2	0	18.3	17.4	18.7
			6	0	0	16.4	16.5	16.4	2	17.6	17.7	17.6	0.3	21.6	21.7	21.4	0	17.3	17.4	17.5

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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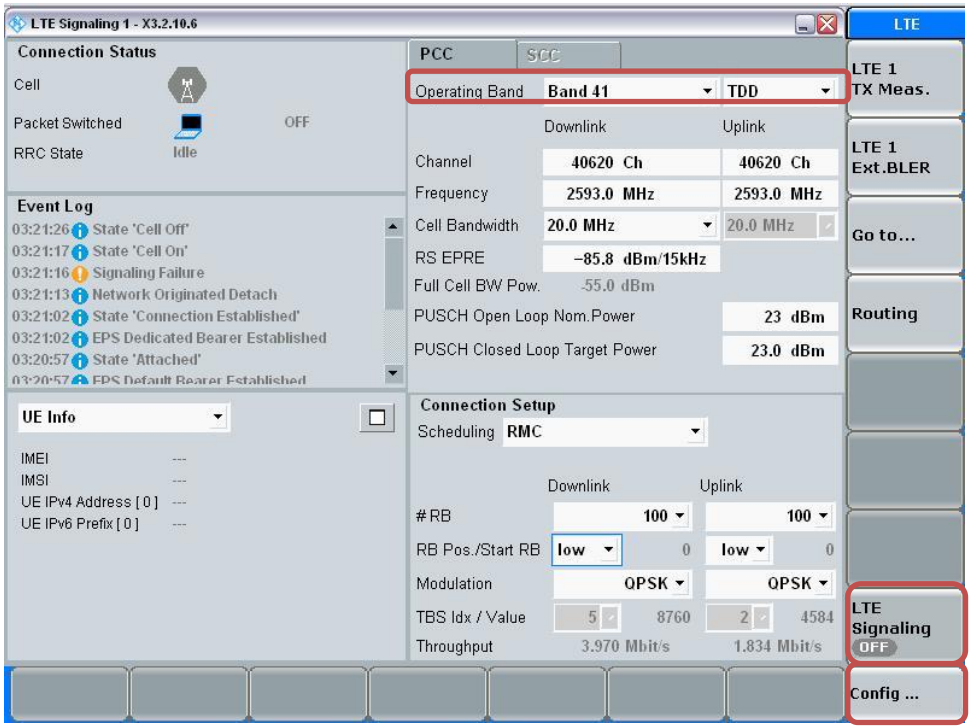
LTE TDD Band Measured Results

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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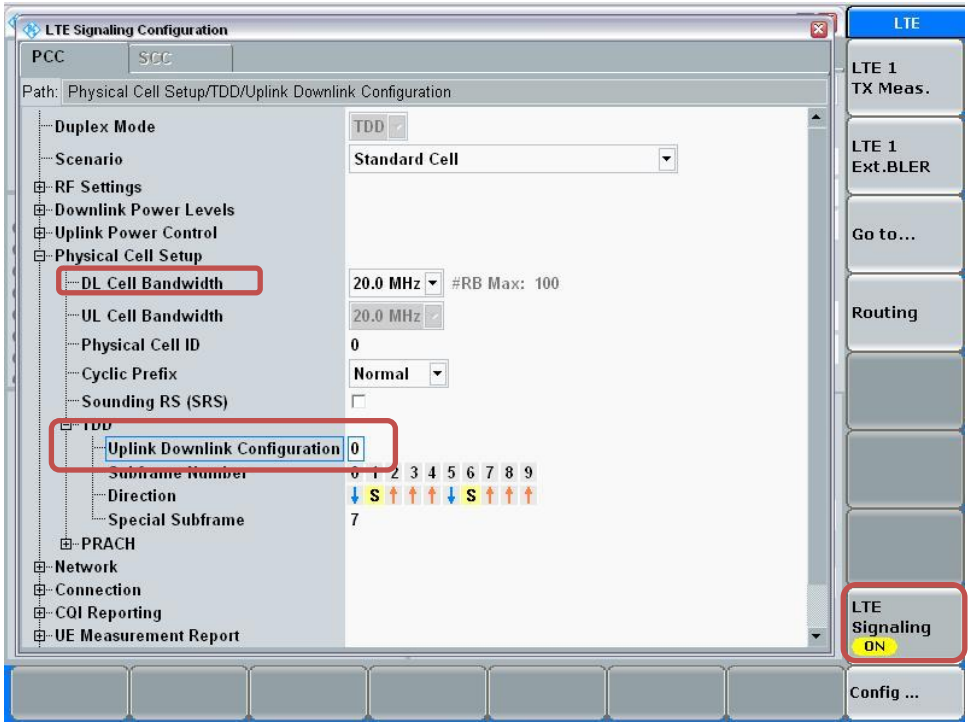

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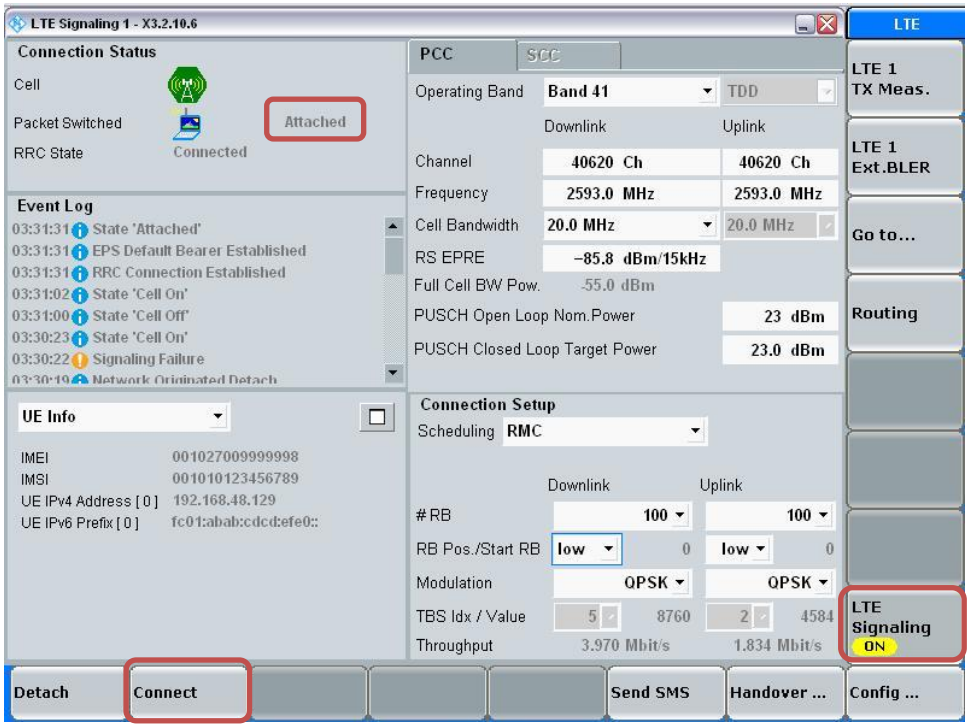
Connect to EUT

- 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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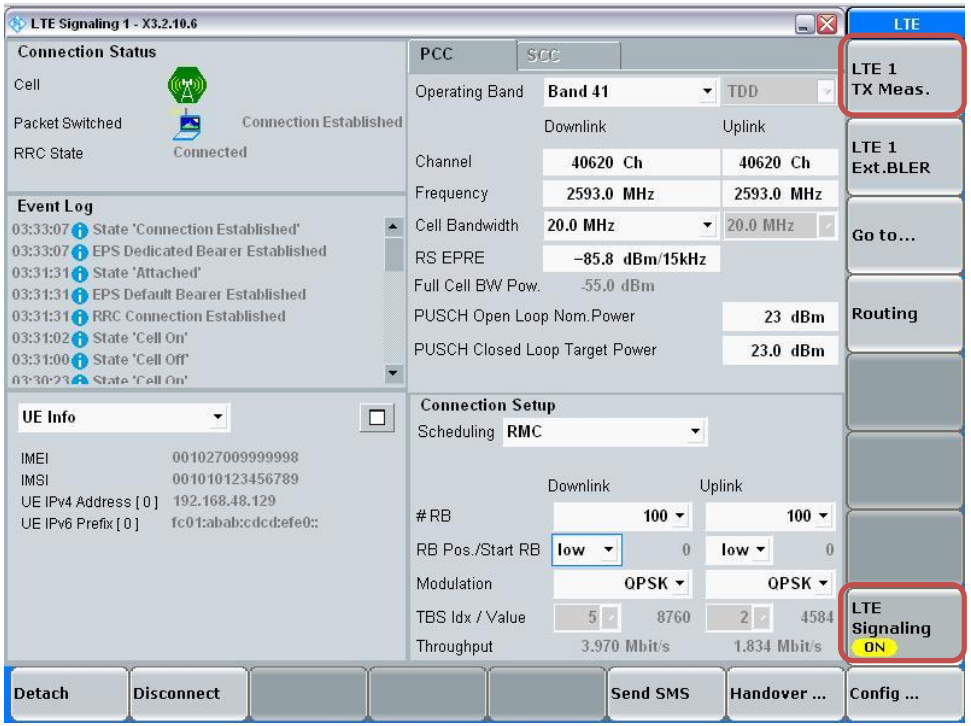

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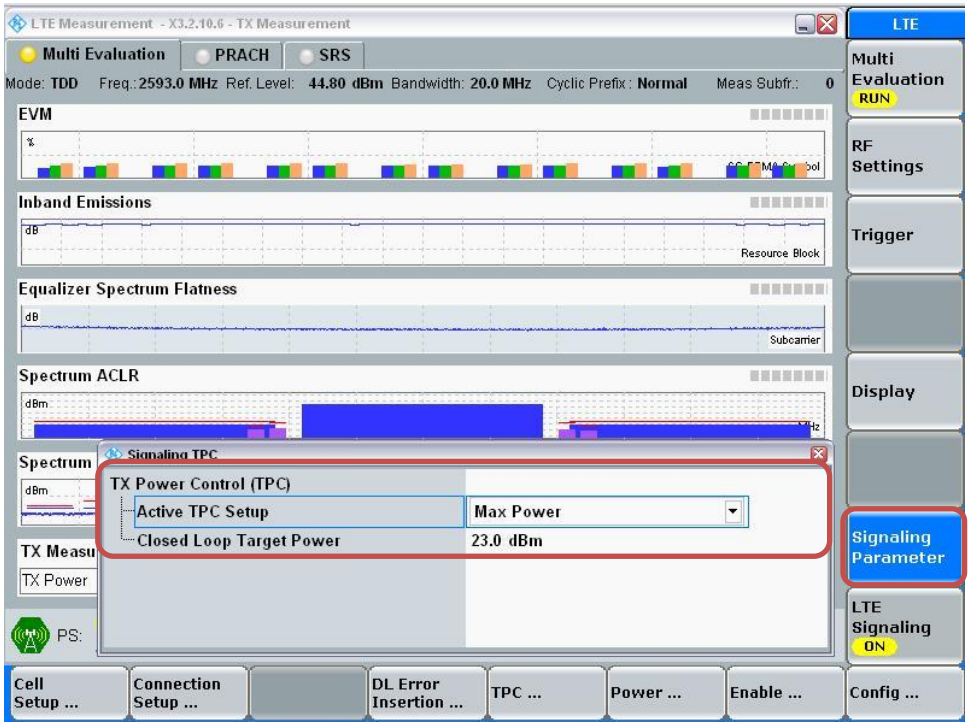
- Select “Signaling Parameter”
- Select “TX Power Control (TPC)” > Select “Active TPC Setup” to “Max Power” > Set “Closed Loop Target Power” to “23 dBm”



View TX Power

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

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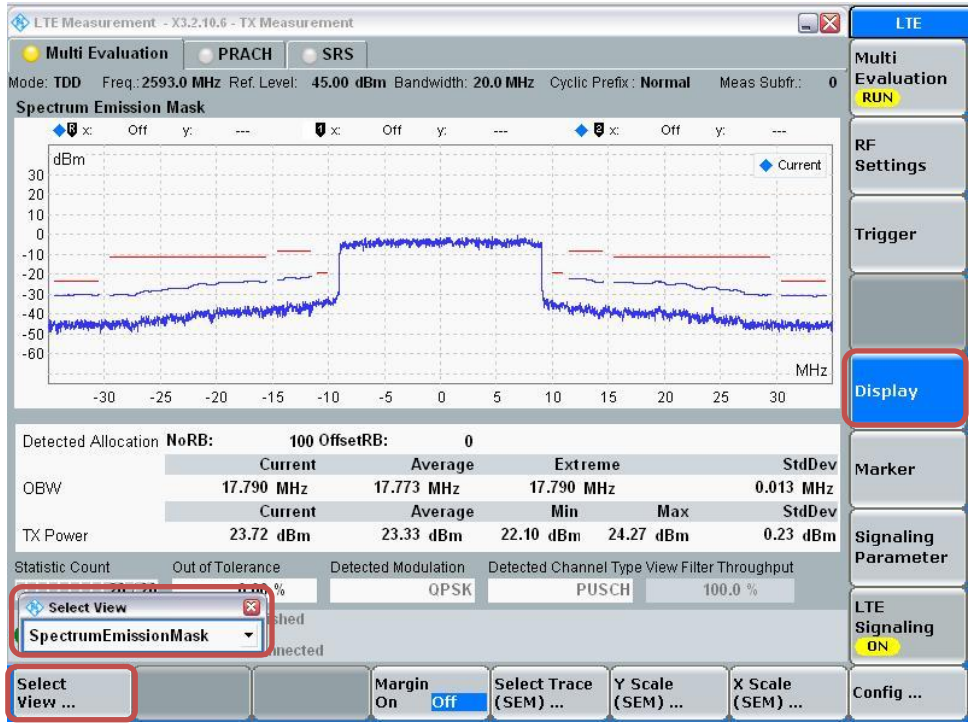

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LTE Band 41 Measured Results

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	17.7	17.7	17.9	17.8	18.0	0	19.9	19.7	20.0	19.9	19.9	0	24.2	24.3	24.4	24.1	24.2	0	20.3	20.3	20.3	20.4	20.3
			1	49	0	17.9	17.9	18.0	18.0	18.0	0	20.0	19.9	20.0	19.9	20.0	0	24.3	24.3	24.5	24.3	24.3	0	20.5	20.5	20.5	20.5	20.5
			1	99	0	17.8	17.7	17.9	17.9	17.8	0	20.0	19.7	19.8	19.8	20.0	0	24.2	24.1	24.4	24.1	24.3	0	20.3	20.3	20.3	20.4	20.3
			50	0	0	16.7	16.7	16.9	16.9	16.9	1	18.6	18.9	18.9	18.8	18.7	0.5	22.8	22.8	23.0	22.9	22.9	0	20.4	20.5	20.4	20.3	20.5
			50	24	0	16.9	16.9	17.0	17.0	17.0	1	18.8	19.0	19.0	18.9	18.9	0.5	23.0	23.0	23.0	23.0	23.0	0	20.5	20.5	20.5	20.5	20.5
			50	49	0	16.7	16.7	16.9	16.8	17.0	1	18.6	19.0	19.0	18.7	18.7	0.5	22.9	23.0	22.9	22.9	22.8	0	20.5	20.3	20.3	20.3	20.3
			100	0	0	17.0	16.9	17.0	17.0	16.8	1	19.0	19.0	19.0	18.9	18.8	0.5	22.9	23.0	23.0	23.0	22.8	0	20.4	20.4	20.5	20.4	20.3
		16QAM	1	0	0	17.6	17.6	17.8	17.7	18.0	1	18.8	18.6	19.0	18.9	18.8	0.5	23.6	23.7	23.9	23.5	23.7	0	20.3	20.2	20.2	20.4	20.3
			1	49	0	17.8	17.8	18.0	17.9	18.0	1	19.0	18.9	18.9	18.9	19.0	0.5	23.7	23.7	23.9	23.7	23.7	0	20.5	20.5	20.4	20.5	20.4
			1	99	0	17.8	17.6	17.9	17.8	17.7	1	18.9	18.6	18.7	18.7	18.9	0.5	23.7	23.6	23.8	23.5	23.7	0	20.3	20.2	20.3	20.3	20.3
			50	0	0	16.6	16.6	16.9	16.8	16.8	2	17.6	17.9	17.9	17.8	17.6	1.5	21.7	21.8	21.9	21.8	21.9	0	20.4	20.4	20.3	20.2	20.4
			50	24	0	16.8	16.8	16.9	16.9	17.0	2	17.7	17.9	18.0	17.9	17.8	1.5	22.0	21.9	21.9	21.9	21.9	0	20.4	20.4	20.5	20.4	20.4
			50	49	0	16.6	16.6	16.8	16.8	16.9	2	17.5	18.0	18.0	17.6	17.6	1.5	21.8	21.9	21.9	21.8	21.7	0	20.5	20.2	20.2	20.2	20.3
			100	0	0	16.9	16.8	16.9	16.9	16.7	2	17.9	17.9	17.9	17.8	17.7	1.5	21.9	22.0	21.9	22.0	21.8	0	20.4	20.4	20.4	20.3	20.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
LTE Band 41	15	QPSK	1	0	0	17.8	17.7	17.8	17.8	17.8	0	19.8	19.9	19.8	19.7	19.8	0	24.2	24.3	24.5	24.3	24.2	0	20.3	20.4	20.3	20.3	20.3
			1	36	0	17.8	17.7	17.9	17.9	17.9	0	19.8	19.8	20.0	19.7	19.8	0	24.2	24.2	24.4	24.1	24.2	0	20.4	20.3	20.4	20.5	20.4
			1	74	0	17.8	17.8	17.9	17.9	17.8	0	19.9	19.8	19.9	19.7	19.8	0	24.1	24.2	24.3	24.2	24.1	0	20.4	20.4	20.3	20.3	20.3
			36	0	0	16.9	16.8	16.9	16.8	17.0	1	18.7	18.9	19.0	18.8	18.8	0.5	22.9	22.8	22.9	23.0	22.9	0	20.3	20.3	20.5	20.4	20.3
			36	18	0	16.9	16.7	16.8	16.9	16.8	1	18.7	18.8	19.0	18.9	18.8	0.5	22.9	22.9	22.8	22.9	22.9	0	20.3	20.4	20.4	20.3	20.4
			36	37	0	16.8	16.9	17.0	16.9	16.9	1	18.6	18.9	18.8	18.9	18.8	0.5	22.9	22.8	22.9	22.9	22.8	0	20.3	20.4	20.4	20.4	20.3
			75	0	0	16.6	16.7	16.9	16.8	16.8	1	18.7	18.8	18.9	18.8	18.9	0.5	22.8	22.9	22.9	22.8	22.6	0	20.1	20.3	20.4	20.3	20.4
		16QAM	1	0	0	17.7	17.6	17.8	17.7	17.7	1	18.7	18.9	18.8	18.6	18.7	0.5	23.6	23.7	24.0	23.7	23.7	0	20.2	20.3	20.2	20.2	20.3
			1	36	0	17.7	17.7	17.8	17.8	17.9	1	18.8	18.8	18.9	18.6	18.7	0.5	23.6	23.6	23.9	23.5	23.7	0	20.3	20.2	20.3	20.5	20.4
			1	74	0	17.8	17.7	17.8	17.8	17.7	1	18.9	18.7	18.8	18.6	18.8	0.5	23.6	23.6	23.7	23.6	23.5	0	20.3	20.4	20.2	20.2	20.2
			36	0	0	16.8	16.7	16.9	16.7	17.0	2	17.6	17.8	18.0	17.8	17.7	1.5	21.9	21.8	21.8	21.9	21.8	0	20.3	20.3	20.4	20.4	20.2
			36	18	0	16.8	16.6	16.7	16.8	16.8	2	17.6	17.7	17.9	17.8	17.7	1.5	21.8	21.8	21.7	21.9	21.9	0	20.3	20.3	20.4	20.2	20.4
			36	37	0	16.8	16.8	16.9	16.8	16.8	2	17.5	17.9	17.7	17.9	17.8	1.5	21.9	21.7	21.8	21.8	21.7	0	20.2	20.3	20.3	20.3	20.2
			75	0	0	16.6	16.6	16.8	16.8	16.8	2	17.6	17.8	17.9	17.7	17.9	1.5	21.8	21.8	21.8	21.8	21.5	0	20.0	20.3	20.4	20.2	20.3

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	17.8	17.7	18.0	17.8	18.0	0	19.9	19.8	19.8	19.7	19.9	0.0	24.2	24.1	24.4	24.1	24.2	0	20.5	20.3	20.5	20.4	20.5
			1	24	0	17.8	17.7	17.9	17.8	17.8	0	19.8	19.8	19.9	19.9	19.9	0.0	24.1	24.3	24.4	24.1	24.3	0	20.4	20.4	20.3	20.4	20.4
			1	49	0	17.7	17.8	17.8	18.0	17.9	0	19.8	19.8	19.9	19.7	19.8	0.0	24.2	24.1	24.4	24.2	24.1	0	20.5	20.4	20.4	20.3	20.3
			25	0	0	16.8	16.8	16.8	16.8	16.9	1	18.6	18.9	18.8	18.9	18.9	0.5	22.9	23.0	22.9	22.9	22.9	0	20.4	20.4	20.3	20.3	20.4
			25	12	0	16.9	16.7	16.8	16.9	16.8	1	18.6	18.9	18.8	18.9	18.7	0.5	22.8	22.9	22.9	23.0	22.9	0	20.3	20.3	20.4	20.5	20.5
			25	24	0	16.8	16.8	16.8	16.8	16.9	1	18.7	18.8	18.9	18.7	18.8	0.5	22.8	23.0	22.9	22.9	23.0	0	20.4	20.4	20.4	20.3	20.3
			50	0	0	16.8	16.9	16.8	17.0	16.8	1	18.7	18.9	19.0	18.7	18.8	0.5	22.7	22.8	22.9	22.8	22.9	0	20.4	20.3	20.4	20.3	20.2
		16QAM	1	0	0	17.8	17.7	18.0	17.7	17.9	1	18.8	18.7	18.8	18.6	18.9	0.5	23.7	23.6	23.8	23.5	23.6	0	20.4	20.2	20.5	20.3	20.4
			1	24	0	17.8	17.7	17.8	17.7	17.8	1	18.7	18.8	18.9	18.8	18.8	0.5	23.5	23.7	23.8	23.6	23.7	0	20.3	20.3	20.2	20.3	20.3
			1	49	0	17.6	17.7	17.7	18.0	17.8	1	18.7	18.7	18.9	18.6	18.8	0.5	23.6	23.5	23.8	23.6	23.6	0	20.5	20.3	20.3	20.2	20.2
			25	0	0	16.7	16.7	16.8	16.8	16.8	2	17.5	17.8	17.7	17.8	17.8	1.5	21.9	22.0	21.9	21.9	21.8	0	20.3	20.3	20.2	20.3	20.4
			25	12	0	16.8	16.6	16.8	16.8	16.7	2	17.5	17.8	17.8	17.8	17.7	1.5	21.7	21.8	21.8	21.9	21.8	0	20.3	20.3	20.3	20.4	20.4
			25	24	0	16.7	16.7	16.7	16.7	16.8	2	17.6	17.7	17.9	17.7	17.7	1.5	21.7	21.9	21.8	21.9	22.0	0	20.4	20.3	20.4	20.2	20.2
			50	0	0	16.7	16.9	16.7	17.0	16.7	2	17.7	17.9	17.9	17.6	17.7	1.5	21.6	21.7	21.9	21.8	21.9	0	20.3	20.2	20.4	20.2	20.1

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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	17.8	17.8	17.9	18.0	17.8	0	19.9	19.9	19.8	19.8	19.9	0	24.2	24.1	24.3	24.2	24.2	0	20.3	20.3	20.3	20.5	20.4
			1	12	0	17.7	17.7	17.9	17.8	17.9	0	19.8	19.8	20.0	19.7	20.0	0	24.3	24.2	24.3	24.3	24.1	0	20.4	20.4	20.5	20.4	20.3
			1	24	0	17.7	17.7	17.9	17.8	17.9	0	20.0	19.8	19.9	19.8	19.9	0	24.2	24.2	24.4	24.2	24.1	0	20.3	20.4	20.5	20.3	20.5
			12	0	0	16.7	16.8	16.8	16.8	16.8	1	18.6	19.0	18.8	18.8	18.8	0.5	23.0	22.8	22.9	22.8	22.9	0	20.3	20.4	20.3	20.5	20.3
			12	7	0	16.7	16.8	16.9	16.8	16.9	1	18.8	18.8	18.9	18.7	18.9	0.5	22.9	22.8	22.9	22.8	23.0	0	20.5	20.5	20.5	20.5	20.5
			12	13	0	16.7	16.8	16.8	16.8	16.9	1	18.8	18.9	18.9	18.8	18.8	0.5	22.9	22.9	22.9	22.8	22.8	0	20.5	20.5	20.5	20.4	20.3
			25	0	0	16.9	16.8	17.0	16.9	16.8	1	18.8	19.0	18.9	18.8	18.8	0.5	22.6	22.8	23.0	23.0	22.6	0	20.1	20.4	20.3	20.2	20.3
		16QAM	1	0	0	17.7	17.7	17.8	17.9	17.7	1	18.8	18.8	18.8	18.7	18.8	0.5	23.6	23.5	23.8	23.6	23.6	0	20.2	20.3	20.2	20.5	20.3
			1	12	0	17.6	17.7	17.8	17.7	17.8	1	18.7	18.7	19.0	18.6	19.0	0.5	23.7	23.6	23.8	23.7	23.5	0	20.3	20.4	20.5	20.3	20.3
			1	24	0	17.6	17.6	17.8	17.7	17.9	1	18.9	18.7	18.8	18.7	18.9	0.5	23.6	23.6	23.9	23.6	23.5	0	20.3	20.4	20.4	20.2	20.4
			12	0	0	16.6	16.8	16.8	16.8	16.8	2	17.5	17.9	17.7	17.7	17.7	1.5	22.0	21.8	21.9	21.7	21.8	0	20.2	20.3	20.2	20.4	20.2
			12	7	0	16.7	16.7	16.8	16.8	16.9	2	17.7	17.7	17.9	17.6	17.8	1.5	21.9	21.7	21.9	21.8	21.9	0	20.4	20.5	20.4	20.4	20.5
			12	13	0	16.6	16.7	16.7	16.8	16.8	2	17.7	17.8	17.8	17.7	17.7	1.5	21.8	21.9	21.8	21.8	21.7	0	20.4	20.4	20.4	20.3	20.3
			25	0	0	16.9	16.8	17.0	16.9	16.7	2	17.7	18.0	17.8	17.8	17.7	1.5	21.5	21.7	21.9	21.9	21.6	0	20.1	20.4	20.3	20.1	20.3

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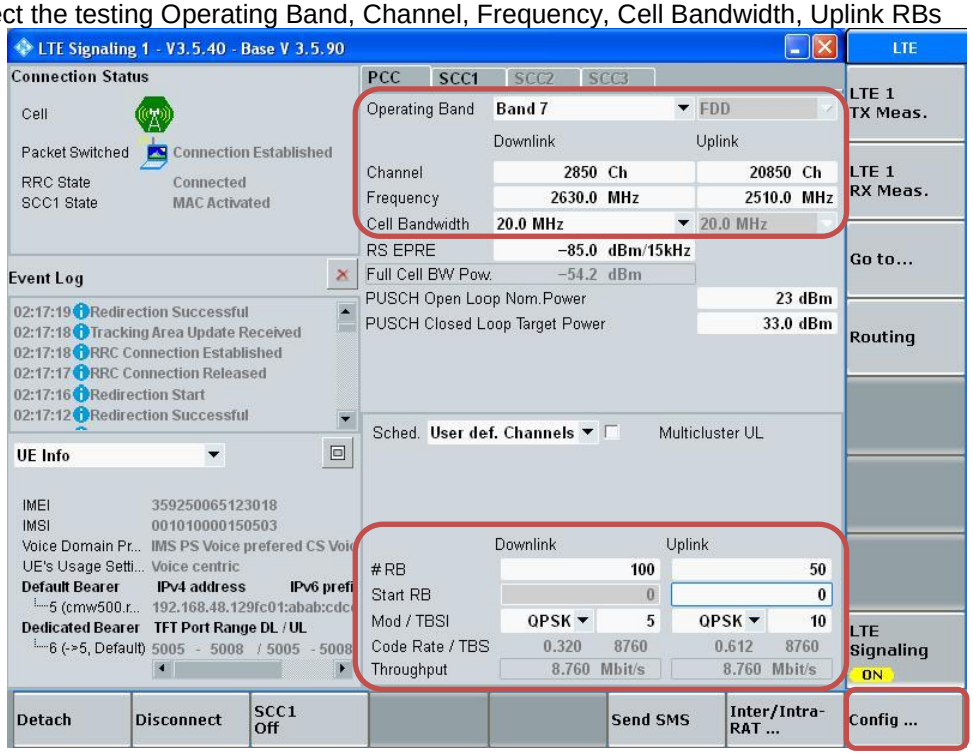
9.4. LTE Rel. 11 Carrier Aggregation

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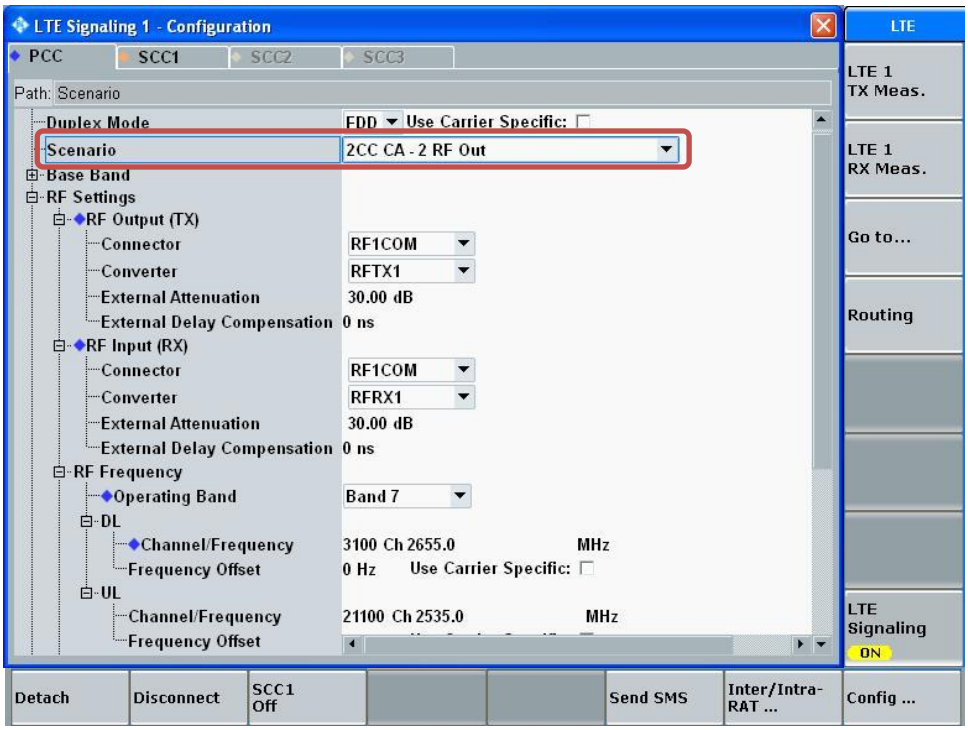
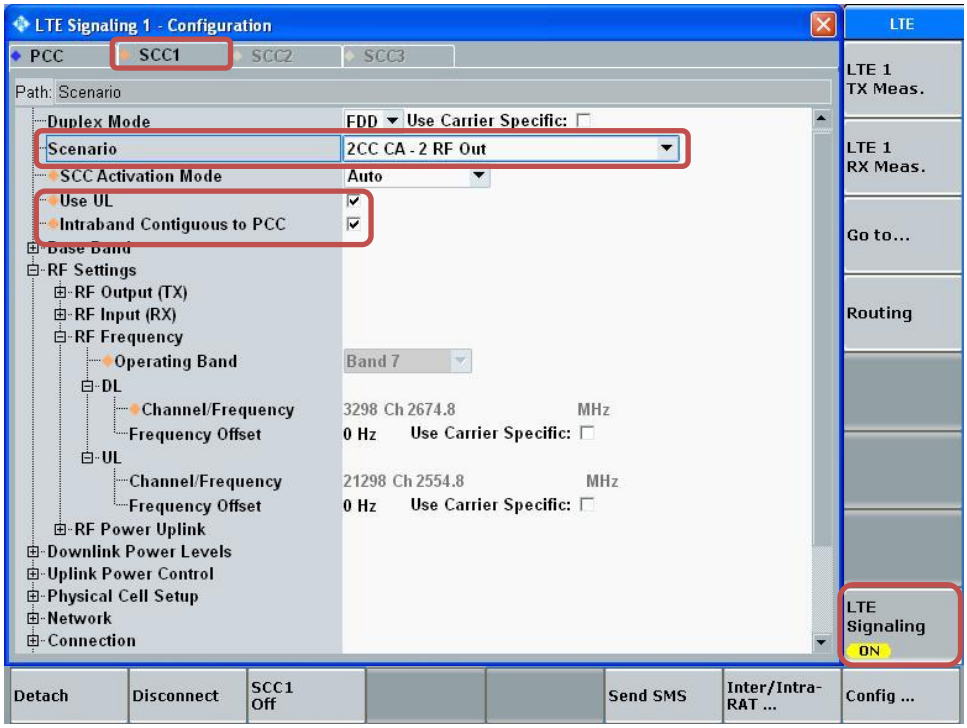
- Go to “Scenario”
- Set to “2CC CA – 2 RF Out”



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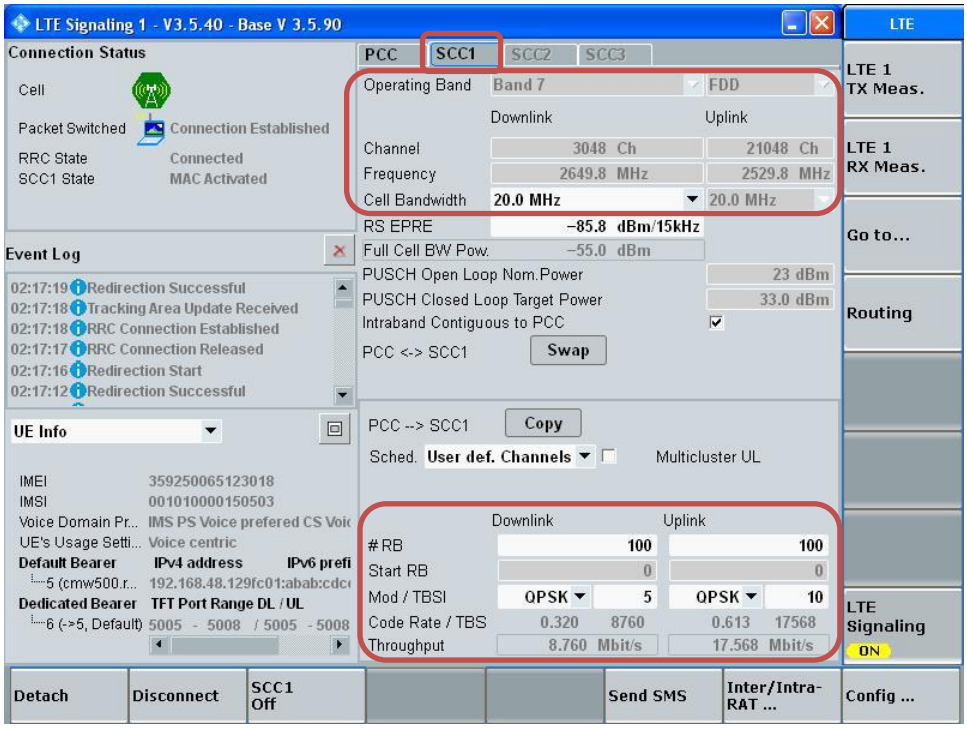
- Select “SCC1” tab
  - Select the testing Cell Bandwidth, Uplink RBs



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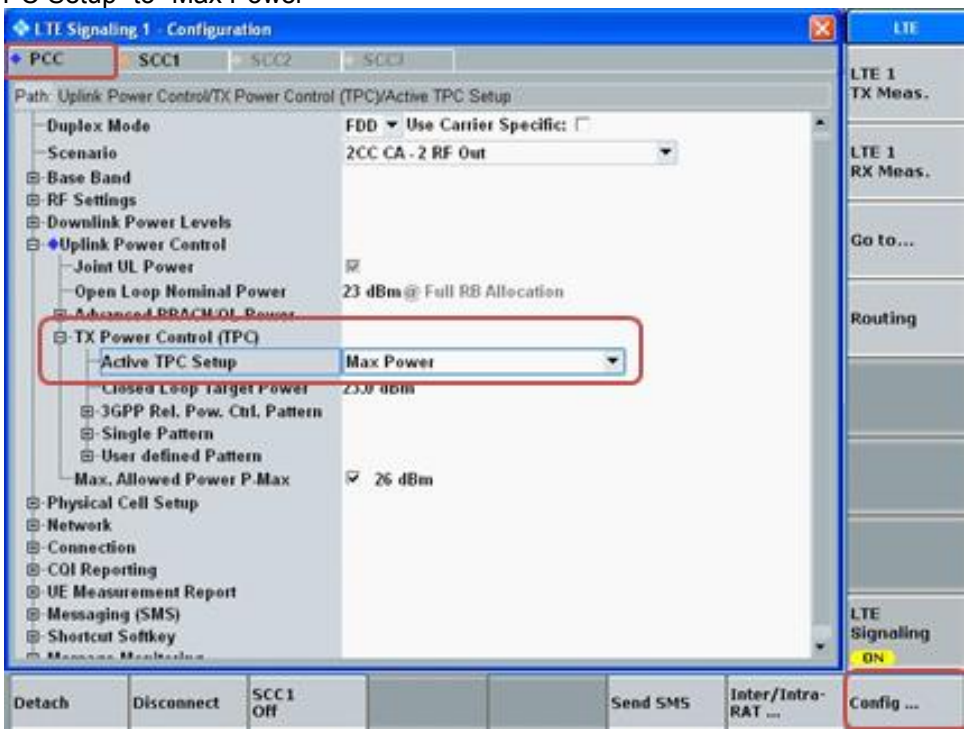
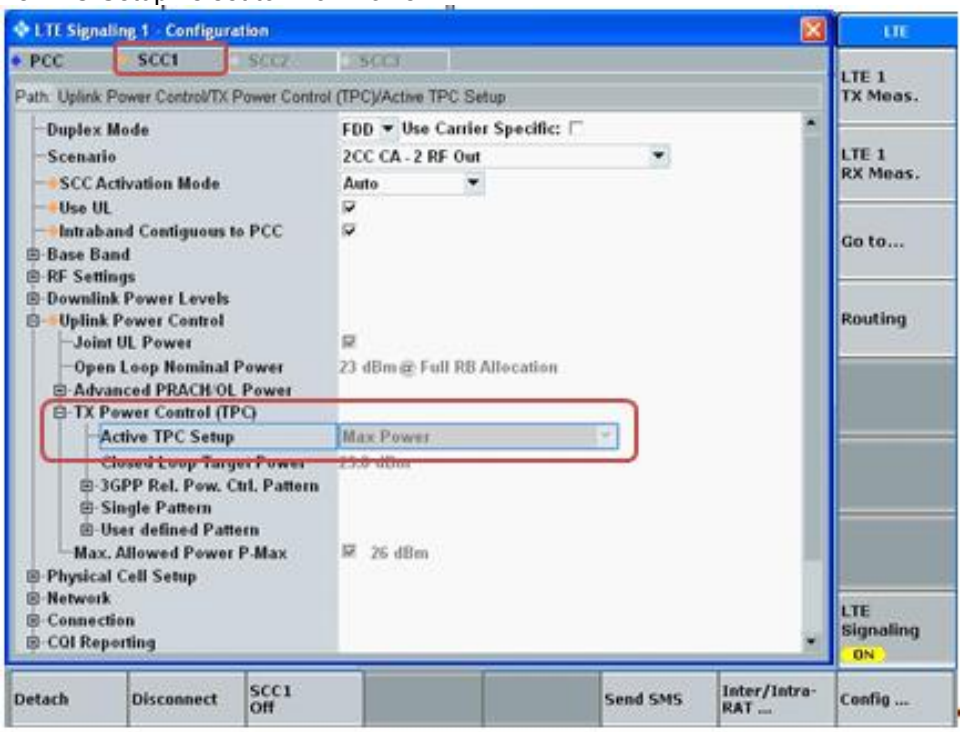
Max Power Setting

- 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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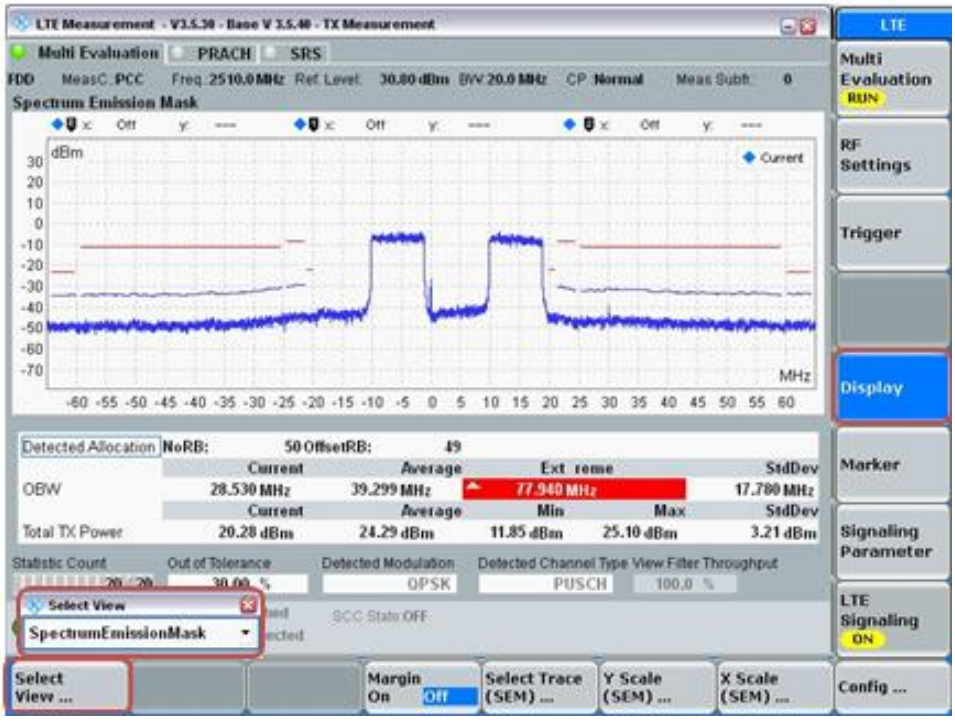
View TX Power

- 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	24.9	24.8	-0.1							
2	4		3	1960	20	2132.5			QPSK	1	8	1880	0	25.0	24.9	-0.1							
2	4		5	1960	20	2132.5			QPSK	1	12	1880	0	25.0	24.9	-0.1							
2	4		10	1960	20	2132.5			QPSK	1	24	1880	0	25.0	25.0	0							
2	4		15	1960	20	2132.5			QPSK	1	36	1880	0	25.0	24.9	-0.1							
2	4		20	1960	20	2132.5			QPSK	1	49	1880	0	25.0	24.9	-0.1							
2	5		5	1960	10	881.5			QPSK	1	12	1880	0	25.0	25.0	0							
2	5		10	1960	10	881.5			QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	5		15	1960	10	881.5			QPSK	1	36	1880	0	25.0	24.9	-0.1							
2	5		20	1960	10	881.5			QPSK	1	49	1880	0	25.0	25.0	0							
2	12		5	1960	10	737.5			QPSK	1	12	1880	0	25.0	25.0	0							
2	12		10	1960	10	737.5			QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	12		15	1960	10	737.5			QPSK	1	36	1880	0	25.0	25.0	0							
2	12		20	1960	10	737.5			QPSK	1	49	1880	0	25.0	24.9	-0.1							
2	13		5	1960	10	751			QPSK	1	12	1880	0	25.0	25.0	0							
2	13		10	1960	10	751			QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	13		15	1960	10	751			QPSK	1	36	1880	0	25.0	25.0	0							
2	13		20	1960	10	751			QPSK	1	49	1880	0	25.0	25.0	0							
2	17		5	1960	10	740			QPSK	1	12	1880	0	25.0	25.0	0							
2	17		10	1960	10	740			QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	29		5	1960	10	722.5			QPSK	1	12	1880	0	25.0	24.9	-0.1							
2	29		10	1960	10	722.5			QPSK	1	24	1880	0	25.0	25.0	0							
2	29		15	1960	10	722.5			QPSK	1	36	1880	0	25.0	24.9	-0.1							
2	29		20	1960	10	722.5			QPSK	1	49	1880	0	25.0	24.9	-0.1							
2	30		5	1960	10	2355			QPSK	1	12	1880	0	25.0	24.9	-0.1							
2	30		10	1960	10	2355			QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	30		15	1960	10	2355			QPSK	1	36	1880	0	25.0	24.9	-0.1							
2	30		20	1960	10	2355			QPSK	1	49	1880	0	25.0	24.9	-0.1							
4	2		5	2132.5	20	1960			QPSK	1	12	1732.5	0	25.0	25.0	0							
4	2		10	2132.5	20	1960			QPSK	1	24	1732.5	0	25.0	24.9	-0.1							
4	2		15	2132.5	20	1960			QPSK	1	36	1732.5	0	25.0	25.0	0							
4	2		20	2132.5	20	1960			QPSK	1	49	1732.5	0	25.0	24.9	-0.1							
5	2		5	881.5	20	1960			QPSK	1	12	836.5	0	23.9	23.9	0							
5	2		10	881.5	20	1960			QPSK	1	24	836.5	0	24.0	24.0	0							
7	4		5	2655	10	2132.5			QPSK	1	12	2535	0	24.6	24.6	0							
7	4		10	2655	10	2132.5			QPSK	1	24	2535	0	24.6	24.5	-0.1							
7	4		15	2655	10	2132.5			QPSK	1	36	2535	0	24.5	24.5	0							
7	4		20	2655	10	2132.5			QPSK	1	49	2535	0	24.7	24.7	0							
12	2		3	737.5	20	1960			QPSK	1	8	707.5	0	25.0	25.0	0							
12	2		5	737.5	20	1960			QPSK	1	12	707.5	0	24.9	24.8	-0.1							
12	2		10	737.5	20	1960			QPSK	1	24	707.5	0	25.0	24.9	-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	25.0	25.0	0							
17	2		5	740	20	1960			QPSK	1	12	710	0	24.9	24.8	-0.1							
17	2		10	740	20	1960			QPSK	1	24	710	0	25.0	24.9	-0.1							
25	26		3	1962.5	15	876.5			QPSK	1	8	1882.5	0	23.9	23.8	-0.1							
25	26		5	1962.5	15	876.5			QPSK	1	12	1882.5	0	23.9	23.9	0							
25	26		10	1962.5	15	876.5			QPSK	1	24	1882.5	0	24.0	24.0	0							
25	26		15	1962.5	15	876.5			QPSK	1	36	1882.5	0	23.9	23.9	0							
25	26		20	1962.5	15	876.5			QPSK	1	49	1882.5	0	24.0	24.0	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	23.9	23.9	0							
26	25		10	876.5	20	1962.5			QPSK	1	24	831.5	0	24.0	24.0	0							
26	25		15	876.5	20	1962.5			QPSK	1	36	831.5	0	24.0	24.0	0							
30	2		5	2355	20	1960			QPSK	1	12	2310	0	22.2	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	25.0	25.0	0							
2	4	12	10	1960	20	2132.5	10	737.5	QPSK	1	24	1880	0	25.0	25.0	0							
2	4	12	15	1960	20	2132.5	10	737.5	QPSK	1	36	1880	0	25.0	25.0	0							
2	4	12	20	1960	20	2132.5	10	737.5	QPSK	1	49	1880	0	25.0	25.0	0							
2	4	13	5	1960	20	2132.5	10	751	QPSK	1	12	1880	0	25.0	24.9	-0.1							
2	4	13	10	1960	20	2132.5	10	751	QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	4	13	15	1960	20	2132.5	10	751	QPSK	1	36	1880	0	25.0	25.0	0							
2	4	13	20	1960	20	2132.5	10	751	QPSK	1	49	1880	0	25.0	24.9	-0.1							
2	5	30	5	1960	10	881.5	10	2355	QPSK	1	12	1880	0	25.0	24.9	-0.1							
2	5	30	10	1960	10	881.5	10	2355	QPSK	1	24	1880	0	25.0	25.0	0							
2	5	30	15	1960	10	881.5	10	2355	QPSK	1	36	1880	0	25.0	24.9	-0.1							
2	5	30	20	1960	10	881.5	10	2355	QPSK	1	49	1880	0	25.0	25.0	0							
2	12	30	5	1960	10	737.5	10	2355	QPSK	1	12	1880	0	25.0	25.0	0							
2	12	30	10	1960	10	737.5	10	2355	QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	12	30	15	1960	10	737.5	10	2355	QPSK	1	36	1880	0	25.0	25.0	0							
2	12	30	20	1960	10	737.5	10	2355	QPSK	1	49	1880	0	25.0	25.0	0							
2	29	30	5	1960	10	722.5	10	2355	QPSK	1	12	1880	0	25.0	25.0	0							
2	29	30	10	1960	10	722.5	10	2355	QPSK	1	24	1880	0	25.0	24.9	-0.1							
2	29	30	15	1960	10	722.5	10	2355	QPSK	1	36	1880	0	25.0	24.9	-0.1							
2	29	30	20	1960	10	722.5	10	2355	QPSK	1	49	1880	0	25.0	25.0	0							
4	2	12	5	2132.5	20	1960	10	737.5	QPSK	1	12	1732.5	0	25.0	24.9	-0.1							
4	2	12	10	2132.5	20	1960	10	737.5	QPSK	1	24	1732.5	0	25.0	24.9	-0.1							
4	2	12	15	2132.5	20	1960	10	737.5	QPSK	1	36	1732.5	0	25.0	25.0	0							
4	2	12	20	2132.5	20	1960	10	737.5	QPSK	1	49	1732.5	0	25.0	24.9	-0.1							
5	2	30	5	881.5	20	1960	10	2355	QPSK	1	12	836.5	0	23.9	23.9	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	24.9	24.8	-0.1							
12	2	4	10	737.5	20	1960	20	2132.5	QPSK	1	24	707.5	0	25.0	24.9	-0.1							
13	2	4	10	751	20	1960	20	2132.5	QPSK	1	24	782	0	25.0	25.0	0							
30	2	5	5	2355	20	1960	10	881.5	QPSK	1	12	2310	0	22.2	22.2	0							
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	24.9	24.8	-0.1							
12A	2A	2A	10	737.5	20	1960	20	1960	QPSK	1	24	707.5	0	25.0	24.9	-0.1							
12B	2A	12B	5	737.5	20	1960	10	737.5	QPSK	1	12	707.5	0	24.9	24.8	-0.1							
12B	2A	12B	10	737.5	20	1960	5	737.5	QPSK	1	24	707.5	0	25.0	24.9	-0.1							
13A	2A	2A	10	751	20	1960	20	1960	QPSK	1	24	782	0	25.0	25.0	0							
2A	12B	12B	5	1960	5	737.5	10	737.5	QPSK	1	12	1880	0	25.0	24.9	-0.1							
2A	12B	12B	10	1960	5	737.5	10	737.5	QPSK	1	24	1880	0	25.0	25.0	0							
2A	12B	12B	15	1960	5	737.5	10	737.5	QPSK	1	36	1880	0	25.0	25.0	0							
2A	12B	12B	20	1960	5	737.5	10	737.5	QPSK	1	49	1880	0	25.0	24.9	-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
2C	2C	12A	5	1960	20	1960	10	737.5	QPSK	1	12	1880	0	25.0	24.9	-0.1							
2C	2C	12A	10	1960	20	1960	10	737.5	QPSK	1	24	1880	0	25.0	25.0	0							
2C	2C	12A	15	1960	20	1960	10	737.5	QPSK	1	36	1880	0	25.0	25.0	0							
2C	2C	12A	20	1960	20	1960	10	737.5	QPSK	1	49	1880	0	25.0	25.0	0							
4A	12B	12B	5	2132.5	5	737.5	10	737.5	QPSK	1	12	1732.5	0	25.0	24.9	-0.1							
4A	12B	12B	10	2132.5	5	737.5	10	737.5	QPSK	1	24	1732.5	0	25.0	25.0	0							
4A	12B	12B	15	2132.5	5	737.5	10	737.5	QPSK	1	36	1732.5	0	25.0	24.9	-0.1							
4A	12B	12B	20	2132.5	5	737.5	10	737.5	QPSK	1	49	1732.5	0	25.0	24.9	-0.1							
4C	4C	12A	5	2132.5	20	2132.5	10	737.5	QPSK	1	12	1732.5	0	25.0	25.0	0							
4C	4C	12A	10	2132.5	20	2132.5	10	737.5	QPSK	1	24	1732.5	0	25.0	24.9	-0.1							
4C	4C	12A	15	2132.5	20	2132.5	10	737.5	QPSK	1	36	1732.5	0	25.0	25.0	0							
4C	4C	12A	20	2132.5	20	2132.5	10	737.5	QPSK	1	49	1732.5	0	25.0	24.9	-0.1							
7A	4A	4A	5	2655	20	2132.5	20	2132.5	QPSK	1	12	2535	0	24.6	24.6	0							
7A	4A	4A	10	2655	20	2132.5	20	2132.5	QPSK	1	24	2535	0	24.6	24.5	-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	25.0	25.0	0							
2	2		10	1935	20	1980			QPSK	1	24	1855	0	24.9	24.8	-0.1							
2	2		15	1937.5	20	1980			QPSK	1	36	1857.5	0	25.0	24.9	-0.1							
2	2		20	1940	20	1980			QPSK	1	49	1860	0	25.0	25.0	0							
4	4		5	2112.5	20	2145			QPSK	1	12	1712.5	0	25.0	24.9	-0.1							
4	4		10	2115	20	2145			QPSK	1	24	1715	0	25.0	24.9	-0.1							
4	4		15	2117.5	20	2145			QPSK	1	36	1717.5	0	25.0	24.9	-0.1							
4	4		20	2120	20	2145			QPSK	1	49	1720	0	25.0	24.9	-0.1							
7	7		5	2622.5	15	2682.5			QPSK	1	12	2502.5	0	24.6	24.6	0							
7	7		10	2625	10	2685			QPSK	1	24	2505	0	24.6	24.5	-0.1							
7	7		10	2625	15	2682.5			QPSK	1	24	2505	0	24.6	24.6	0							
7	7		15	2627.5	15	2682.5			QPSK	1	36	2507.5	0	24.6	24.5	-0.1							
7	7		15	2627.5	20	2680			QPSK	1	36	2507.5	0	24.6	24.5	-0.1							
7	7		20	2630	20	2680			QPSK	1	49	2510	0	24.7	24.7	0							
25	25		5	1932.5	20	1985			QPSK	1	12	1852.5	0	23.9	23.9	0							
25	25		10	1935	20	1985			QPSK	1	24	1855	0	23.9	23.8	-0.1							
25	25		15	1937.5	20	1985			QPSK	1	36	1857.5	0	24.0	23.9	-0.1							
25	25		20	1940	20	1985			QPSK	1	49	1860	0	24.0	24.0	0							
41	41		5	2498.5	20	2680			QPSK	1	12	2498.5	0	24.4	24.3	-0.1							
41	41		10	2501	20	2680			QPSK	1	24	2501	0	24.4	24.4	0							
41	41		15	2503.5	20	2680			QPSK	1	36	2503.5	0	24.4	24.4	0							
41	41		20	2506	20	2680			QPSK	1	49	2506	0	24.3	24.3	0							
41A	41C	41C	5	2498.5	20	2593	20	2680	QPSK	1	12	2498.5	0	24.4	24.4	0							
41A	41C	41C	10	2501	20	2593	20	2680	QPSK	1	24	2501	0	24.4	24.3	-0.1							
41A	41C	41C	15	2503.5	20	2593	20	2680	QPSK	1	36	2503.5	0	24.4	24.3	-0.1							
41A	41C	41C	20	2506	20	2593	20	2680	QPSK	1	49	2506	0	24.3	24.3	0							
41C	41C	41A	5	2498.5	20	2593	20	2680	QPSK	1	12	2498.5	0	24.4	24.3	-0.1							
41C	41C	41A	10	2501	20	2593	20	2680	QPSK	1	24	2501	0	24.4	24.3	-0.1							
41C	41C	41A	15	2503.5	20	2593	20	2680	QPSK	1	36	2503.5	0	24.4	24.4	0							
41C	41C	41A	20	2506	20	2593	20	2680	QPSK	1	49	2506	0	24.3	24.3	0							

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Intra-Band Contiguous

DL									UL															
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC							
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
2C	2C		5	1960	20	1972.5			QPSK	1	12	1880	0	25.0	25.0	0							
2C	2C		10	1960	20	1975			QPSK	1	24	1880	0	25.0	24.9	-0.1							
2C	2C		15	1960	20	1977.5			QPSK	1	36	1880	0	25.0	24.9	-0.1							
2C	2C		20	1960	20	1980			QPSK	1	49	1880	0	25.0	25.0	0							
7B	7B		5	2655	15	2665			QPSK	1	12	2535	0	24.6	24.5	-0.1							
7B	7B		15	2655	5	2665			QPSK	1	36	2535	0	24.5	24.4	-0.1							
7C	7C		10	2655	20	2670			QPSK	1	24	2535	0	24.6	24.6	0							
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	24.5	24.4	-0.1							
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	24.7	24.6	-0.1							
12B	12B		5	737.5	5	742.5			QPSK	1	12	707.5	0	24.9	24.8	-0.1							
12B	12B		5	737.5	10	745			QPSK	1	12	707.5	0	24.9	24.9	0							
12B	12B		10	737.5	5	745			QPSK	1	24	707.5	0	25.0	24.9	-0.1							
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	24.4	24.4	0							
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	24.5	24.4	-0.1							
41C	41C		15	2593	20	2610.5			QPSK	1	36	2593	0	24.4	24.4	0							
41C	41C		20	2593	20	2613			QPSK	1	49	2593	0	24.5	24.5	0							
7C	7C		10	2655	20	2670			QPSK	1	24	2535	0	24.6	23.9	-0.7	1	49	2550	0	24.6	23.9	-0.7
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	24.5	24.0	-0.5	1	49	2552.5	0	24.6	24.0	-0.6
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	24.7	23.9	-0.8	1	49	2555	0	24.7	23.9	-0.8
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	24.4	24.0	-0.4	1	49	2605.5	0	24.4	24.0	-0.4
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	24.5	24.0	-0.5	1	49	2608	0	24.5	23.9	-0.6
41C	41C		15	2593	20	2610.5			QPSK	1	36	2593	0	24.4	24.0	-0.4	1	49	2610.5	0	24.5	24.0	-0.5
41C	41C		20	2593	20	2613			QPSK	1	49	2593	0	24.5	23.9	-0.6	1	49	2613	0	24.5	24.0	-0.5
41D	41D	41D	10	2593	20	2608	20	2628	QPSK	1	24	2593	0	24.5	24.0	-0.5							
41D	41D	41D	15	2593	20	2610.5	20	2630.5	QPSK	1	36	2593	0	24.4	23.9	-0.5							
41D	41D	41D	20	2593	20	2613	20	2633	QPSK	1	49	2593	0	24.5	24.0	-0.5							

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

LTE-2CA Band 7

Antenna	RF Exposure Conditions	Mode	PCC					SCC					Power (dBm)	
			Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.
UAT	Head	QPSK	20	20850	2510.0	50	24	20	21048	2529.8	50	24	16.3	16.3
LAT	Body & Hotspot	QPSK	20	21350	2560.0	1	49	20	21152	2540.2	1	49	18.0	18.0

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.
LAT	Head	QPSK	20	41055	2636.5	1	49	20	40857	2616.7	1	49	24.0	24.0

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9.5. WLAN SISO (PCell_ON)

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

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

Measured Results

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	10.5	17.5	15.0	12.8
			6	2437	10.5	17.5	14.8	12.8
			11	2462	10.5	17.5	14.8	12.8
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11ac	1 Tx VHT80	42	5210	6.3	Not required	14.8	11.5
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11n	1 Tx HT40	54	5270	Not required	18.9	Not required	
			62	5310		15.0		
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	1 Tx VHT80	106	5530	3.9	15.0	10.7	9.0
			122	5610	3.9	19.0	10.7	9.0
			138	5690	3.9	19.0	10.7	9.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11ac	1 Tx VHT80	155	5775	4.3	19.0	11.3	11.0

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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9.6. WLAN MIMO (PCell_ON)

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

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11g	2 Tx CDD	1	2412	10.4	15.5	15.0	13.0
			2	2417	10.4	18.0	15.0	13.0
			3	2422	10.4	18.0	15.0	13.0
			6	2437	10.4	18.0	15.0	13.0
			9	2452	10.4	18.0	15.0	13.0
			10	2457	10.4	17.5	15.0	13.0
			11	2462	10.4	14.5	14.5	13.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11n	2 Tx HT40 CDD/STBC/SDM	38	5190	6.2	14.5	Not required	
			46	5230	6.2	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	42	5210	Not required		14.8	11.5
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	2 Tx VHT80 CDD/STBC/SDM	106	5530	4.0	14.0	10.8	9.0
			122	5610	4.0	19.0	10.8	9.0
			138	5690	4.0	19.0	10.8	9.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11n	2 Tx HT40 CDD/STBC/SDM	151	5755	4.8	19.0	Not required	
			159	5795	4.8	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	155	5775	Not required		11.8	11.0

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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9.7. WLAN SISO (PCell_OFF)

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

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	15.8	19.0	18.0	18.0
			6	2437	15.8	19.0	18.0	18.0
			11	2462	15.8	19.0	18.0	18.0

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11a	1 Tx	40	5200	Not required	19.4	Not required	
			44	5220		19.5		
			48	5240		19.4		
	802.11n	1 Tx HT40	38	5190	Not required		Not required	16.5
			46	5230				18.2
	802.11ac	1 Tx VHT80	42	5210	14.0	Not required	Not required	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11n	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. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	1 Tx VHT80	106	5530	11.8	15.0	15.0	15.0
			122	5610	11.5	15.8	19.0	15.7
			138	5690	11.8	15.9	19.0	15.8

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11ac	1 Tx VHT80	155	5775	12.8	17.0	19.0	17.8

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 MIMO (PCell_OFF)

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

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11g	2 Tx CDD	1	2412	15.5	15.5	15.5	15.5
			2	2417	16.0	18.0	18.0	18.0
			3	2422	16.0	19.0	18.4	19.0
			6	2437	16.0	18.0	18.0	19.0
			9	2452	16.0	19.0	18.8	19.0
			10	2457	16.0	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. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.2	802.11n	2 Tx HT40 CDD/STBC/SDM	38	5190	14.0	14.5	14.5	14.5
			46	5230	13.8	19.0	19.0	17.7

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11ac	2 Tx VHT80 CDD/STBC/SDM	106	5530	11.8	14.0	14.0	14.0
			122	5610	11.8	18.9	16.0	15.8
			138	5690	11.8	19.0	16.0	15.8

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11n	2 Tx HT40 CDD/STBC/SDM	151	5755	12.8	19.0	Not required	
			159	5795	12.8	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	155	5775	Not required		17.0	16.8

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. Bluetooth

P_{High}

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	V3.0 + EDR, GFSK	0	2402	12.0
		39	2441	12.0
		78	2480	12.0

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 antenna is active or Wi-Fi antenna 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 enquiry 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	30.0	29.0	0.507	0.638	0.368	0.463	
			Left Tilt	190	836.6	30.0	29.0	0.385	0.485	0.231	0.291	
			Right Touch	190	836.6	30.0	29.0	0.555	0.699	0.326	0.410	1
			Right Tilt	190	836.6	30.0	29.0	0.428	0.539	0.230	0.290	
Body-worn & Hotspot	GPRS 2 Slots	5	Rear	190	836.6	30.0	29.0	0.194	0.244	0.112	0.141	
			Front	190	836.6	30.0	29.0	0.141	0.178	0.105	0.132	
Hotspot			Edge 1	190	836.6	30.0	29.0	0.188	0.237	0.085	0.107	
			Edge 2	190	836.6	30.0	29.0	0.185	0.233	0.122	0.154	
			Edge 4	190	836.6	30.0	29.0	0.230	0.290	0.148	0.186	

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	32.2	0.571	0.612	0.433	0.464	
			Left Tilt	190	836.6	32.5	32.2	0.312	0.334	0.243	0.260	
			Right Touch	190	836.6	32.5	32.2	0.455	0.488	0.349	0.374	
			Right Tilt	190	836.6	32.5	32.2	0.332	0.356	0.258	0.276	
Body-worn & Hotspot	GPRS 2 Slots	5	Rear	190	836.6	32.5	32.2	0.661	0.708	0.460	0.493	
			Front	190	836.6	32.5	32.2	0.709	0.760	0.398	0.426	2
Hotspot			Edge 2	190	836.6	32.5	32.2	0.485	0.520	0.317	0.340	
			Edge 3	190	836.6	32.5	32.2	0.570	0.611	0.265	0.284	
			Edge 4	128	824.2	32.5	32.2	0.908	0.973	0.598	0.641	
				190	836.6	32.5	32.2	0.978	1.048	0.647	0.693	
				251	848.8	32.5	32.1	0.968	1.061	0.638	0.700	3

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10.2. GSM1900

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head VoIP	GPRS 2 Slots	0	Left Touch	661	1880.0	23.7	23.2	0.356	0.399	0.211	0.237	
			Left Tilt	661	1880.0	23.7	23.2	0.316	0.355	0.191	0.214	
			Right Touch	512	1850.2	23.7	23.2	0.840	0.942	0.442	0.496	
				661	1880.0	23.7	23.2	0.894	1.003	0.468	0.525	
				810	1909.8	23.7	23.2	0.924	1.037	0.475	0.533	4
			Right Tilt	661	1880.0	23.7	23.2	0.640	0.718	0.333	0.374	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	661	1880.0	25.2	24.9	0.366	0.392	0.207	0.222	
			Front	661	1880.0	25.2	24.9	0.393	0.421	0.212	0.227	
Hotspot			Edge 1	661	1880.0	25.2	24.9	0.435	0.466	0.211	0.226	
			Edge 2	661	1880.0	25.2	24.9	0.033	0.035	0.018	0.019	
			Edge 4	661	1880.0	25.2	24.9	0.496	0.531	0.264	0.283	

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	30.5	30.5	0.514	0.514	0.337	0.337	
			Left Tilt	661	1880.0	30.5	30.5	0.241	0.241	0.156	0.156	
			Right Touch	512	1850.2	30.5	30.5	0.881	0.881	0.545	0.545	
				661	1880.0	30.5	30.5	0.906	0.906	0.559	0.559	
				810	1909.8	30.5	30.5	0.934	0.934	0.565	0.565	
			Right Tilt	661	1880.0	30.5	30.5	0.251	0.251	0.161	0.161	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	512	1850.2	26.3	26.2	0.844	0.864	0.439	0.449	
				661	1880.0	26.3	26.2	0.906	0.927	0.467	0.478	5
				810	1909.8	26.3	26.2	0.906	0.927	0.463	0.474	
			Front	512	1850.2	26.3	26.2	0.861	0.881	0.432	0.442	
				661	1880.0	26.3	26.2	0.861	0.881	0.432	0.442	
				810	1909.8	26.3	26.2	0.871	0.891	0.432	0.442	
Hotspot			Edge 2	661	1880.0	26.3	26.2	0.641	0.656	0.354	0.362	
			Edge 3	512	1850.2	26.3	26.2	0.929	0.951	0.412	0.422	
				661	1880.0	26.3	26.2	1.010	1.034	0.439	0.449	
				810	1909.8	26.3	26.2	1.030	1.054	0.445	0.455	6
			Edge 4	661	1880.0	26.3	26.2	0.088	0.090	0.048	0.049	

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10.3. 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	17.7	17.2	0.388	0.435	0.231	0.259	
			Left Tilt	9400	1880.0	17.7	17.2	0.320	0.359	0.186	0.209	
			Right Touch	9262	1852.4	17.7	17.2	0.831	0.932	0.437	0.490	
				9400	1880.0	17.7	17.2	0.867	0.973	0.458	0.514	
				9538	1907.6	17.7	17.2	0.944	1.059	0.490	0.550	7
			Right Tilt	9400	1880.0	17.7	17.2	0.561	0.629	0.302	0.339	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9400	1880.0	21.5	21.3	0.628	0.658	0.362	0.379	
			Front	9400	1880.0	21.5	21.3	0.722	0.756	0.393	0.412	
Hotspot	Rel 99 RMC	5	Edge 1	9262	1852.4	21.5	21.1	0.890	0.976	0.435	0.477	
				9400	1880.0	21.5	21.3	0.837	0.876	0.406	0.425	
				9538	1907.6	21.5	21.5	0.833	0.833	0.385	0.385	
			Edge 2	9400	1880.0	21.5	21.3	0.028	0.029	0.016	0.017	
			Edge 4	9262	1852.4	21.5	21.1	0.871	0.955	0.468	0.513	
				9400	1880.0	21.5	21.3	0.819	0.858	0.441	0.462	
				9538	1907.6	21.5	21.5	0.933	0.933	0.501	0.501	

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	0.510	0.510	0.326	0.326	
			Left Tilt	9400	1880.0	25.2	25.2	0.309	0.309	0.194	0.194	
			Right Touch	9262	1852.4	25.2	25.2	0.826	0.826	0.505	0.505	
				9400	1880.0	25.2	25.2	0.934	0.934	0.569	0.569	
				9538	1907.6	25.2	25.2	0.987	0.987	0.595	0.595	
			Right Tilt	9400	1880.0	25.2	25.2	0.288	0.288	0.187	0.187	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9262	1852.4	19.7	19.7	0.845	0.845	0.437	0.437	
				9400	1880.0	19.7	19.7	0.914	0.914	0.470	0.470	8
				9538	1907.6	19.7	19.7	0.899	0.899	0.458	0.458	
			Front	9262	1852.4	19.7	19.7	0.809	0.809	0.408	0.408	
				9400	1880.0	19.7	19.7	0.844	0.844	0.420	0.420	
				9538	1907.6	19.7	19.7	0.814	0.814	0.403	0.403	
Hotspot	Rel 99 RMC	5	Edge 2	9400	1880.0	19.7	19.7	0.668	0.668	0.367	0.367	
			Edge 3	9262	1852.4	19.7	19.7	1.010	1.010	0.443	0.443	
				9400	1880.0	19.7	19.7	1.090	1.090	0.472	0.472	9
				9538	1907.6	19.7	19.7	1.090	1.090	0.468	0.468	
			Edge 4	9400	1880.0	19.7	19.7	0.080	0.080	0.043	0.043	

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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	18.3	18.0	0.345	0.370	0.219	0.235	
			Left Tilt	1413	1732.6	18.3	18.0	0.372	0.399	0.233	0.250	
			Right Touch	1312	1712.4	18.3	18.0	0.854	0.915	0.482	0.516	
				1413	1732.6	18.3	18.0	0.926	0.992	0.521	0.558	
				1513	1752.6	18.3	17.8	0.909	1.020	0.508	0.570	10
			Right Tilt	1413	1732.6	18.3	18.0	0.714	0.765	0.388	0.416	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	21.0	21.0	0.771	0.771	0.426	0.426	
			Front	1312	1712.4	21.0	20.9	0.897	0.918	0.470	0.481	
				1413	1732.6	21.0	21.0	0.951	0.951	0.488	0.488	
				1513	1752.6	21.0	21.0	0.931	0.931	0.477	0.477	
Hotspot	Rel 99 RMC	5	Edge 1	1312	1712.4	21.0	20.9	0.876	0.896	0.414	0.424	
				1413	1732.6	21.0	21.0	0.966	0.966	0.459	0.459	
				1513	1752.6	21.0	21.0	0.969	0.969	0.466	0.466	
			Edge 2	1413	1732.6	21.0	21.0	0.083	0.083	0.045	0.045	
			Edge 4	1312	1712.4	21.0	20.9	0.758	0.776	0.414	0.424	
				1413	1732.6	21.0	21.0	0.904	0.904	0.489	0.489	
				1513	1752.6	21.0	21.0	0.937	0.937	0.505	0.505	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	1413	1732.6	25.2	25.2	0.413	0.413	0.281	0.281	
			Left Tilt	1413	1732.6	25.2	25.2	0.272	0.272	0.171	0.171	
			Right Touch	1312	1712.4	25.2	25.1	0.745	0.762	0.475	0.486	
				1413	1732.6	25.2	25.2	0.849	0.849	0.539	0.539	
				1513	1752.6	25.2	25.0	0.857	0.897	0.543	0.569	
			Right Tilt	1413	1732.6	25.2	25.2	0.225	0.225	0.152	0.152	
Body-worn & Hotspot	Rel. 99 RMC	5	Rear	1312	1712.4	20.7	20.7	0.811	0.811	0.434	0.434	
				1413	1732.6	20.7	20.7	0.884	0.884	0.470	0.470	
				1513	1752.6	20.7	20.7	0.894	0.894	0.470	0.470	
			Front	1312	1712.4	20.7	20.7	0.956	0.956	0.490	0.490	
				1413	1732.6	20.7	20.7	1.090	1.090	0.548	0.548	11
				1513	1752.6	20.7	20.7	0.930	0.930	0.470	0.470	
Hotspot	Rel 99 RMC	5	Edge 2	1413	1732.6	20.7	20.7	0.754	0.754	0.410	0.410	
			Edge 3	1312	1712.4	20.7	20.7	1.090	1.090	0.517	0.517	
				1413	1732.6	20.7	20.7	1.130	1.130	0.548	0.548	
				1513	1752.6	20.7	20.7	1.140	1.140	0.537	0.537	12
			Edge 4	1413	1732.6	20.7	20.7	0.058	0.058	0.032	0.032	

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10.5. W-CDMA Band V

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	4183	836.6	23.0	23.0	0.745	0.745	0.550	0.550	
			Left Tilt	4183	836.6	23.0	23.0	0.495	0.495	0.304	0.304	
			Right Touch	4132	826.4	23.0	23.0	0.719	0.719	0.482	0.482	
				4183	836.6	23.0	23.0	0.829	0.829	0.546	0.546	13
				4233	846.6	23.0	23.0	0.753	0.753	0.485	0.485	
			Right Tilt	4183	836.6	23.0	23.0	0.544	0.544	0.304	0.304	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	23.0	23.0	0.391	0.391	0.246	0.246	
			Front	4183	836.6	23.0	23.0	0.385	0.385	0.239	0.239	
Hotspot	Rel 99 RMC	5	Edge 1	4183	836.6	23.0	23.0	0.172	0.172	0.078	0.078	
			Edge 2	4183	836.6	23.0	23.0	0.546	0.546	0.360	0.360	
			Edge 4	4183	836.6	23.0	23.0	0.196	0.196	0.127	0.127	

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	24.9	0.505	0.517	0.385	0.394	
			Left Tilt	4183	836.6	25.0	24.9	0.196	0.201	0.155	0.159	
			Right Touch	4183	836.6	25.0	24.9	0.412	0.422	0.311	0.318	
			Right Tilt	4183	836.6	25.0	24.9	0.223	0.228	0.173	0.177	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	25.0	24.9	0.407	0.416	0.244	0.250	
			Front	4183	836.6	25.0	24.9	0.499	0.511	0.285	0.292	14
Hotspot	Rel 99 RMC	5	Edge 2	4183	836.6	25.0	24.9	0.275	0.281	0.179	0.183	
			Edge 3	4183	836.6	25.0	24.9	0.428	0.438	0.195	0.200	
			Edge 4	4183	836.6	25.0	24.9	0.687	0.703	0.447	0.457	15

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10.6. LTE Band 2 (20MHz Bandwidth)

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	18900	1880.0	1	49	25.0	25.0	0.600	0.600	0.398	0.398	
						50	24	24.0	24.0	0.456	0.456	0.300	0.300	
			Left Tilt	18900	1880.0	1	49	25.0	25.0	0.306	0.306	0.206	0.206	
						50	24	24.0	24.0	0.249	0.249	0.166	0.166	
			Right Touch	18700	1860.0	1	49	25.0	25.0	1.070	1.070	0.672	0.672	
						50	24	24.0	24.0	0.874	0.874	0.544	0.544	
				18900	1880.0	1	49	25.0	25.0	1.180	1.180	0.728	0.728	16
						50	24	24.0	24.0	0.938	0.938	0.579	0.579	
						100	0	24.0	24.0	0.968	0.968	0.597	0.597	
				19100	1900.0	1	49	25.0	25.0	1.150	1.150	0.704	0.704	
						50	24	24.0	24.0	0.920	0.920	0.563	0.563	
			Right Tilt	18900	1880.0	1	49	25.0	25.0	0.327	0.327	0.213	0.213	
						50	24	24.0	24.0	0.262	0.262	0.171	0.171	

With the exception of LAT Head, SAR for other exposure conditions on LTE Band 2 is covered by the corresponding test results on LTE Band 25 due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

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10.7. 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	18.3	18.3	0.399	0.399	0.257	0.257	
						50	24	18.3	17.3	0.301	0.379	0.194	0.244	
			Left Tilt	20175	1732.5	1	49	18.3	18.3	0.423	0.423	0.263	0.263	
						50	24	18.3	17.3	0.332	0.418	0.207	0.261	
			Right Touch	20050	1720.0	1	49	18.3	18.3	0.856	0.856	0.471	0.471	
						50	24	18.3	17.3	0.749	0.943	0.417	0.525	
				20175	1732.5	1	49	18.3	18.3	0.872	0.872	0.479	0.479	
						50	24	18.3	17.3	0.670	0.843	0.367	0.462	
						100	0	18.3	17.3	0.746	0.939	0.415	0.522	
				20300	1745.0	1	49	18.3	18.3	0.850	0.850	0.465	0.465	
						50	24	18.3	17.3	0.758	0.954	0.420	0.529	17
			Right Tilt	20175	1732.5	1	49	18.3	18.3	0.627	0.627	0.362	0.362	
						50	24	18.3	17.3	0.489	0.616	0.282	0.355	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	21.0	21.0	0.687	0.687	0.393	0.393	
						50	24	20.0	20.0	0.533	0.533	0.306	0.306	
			Front	20050	1720.0	1	49	21.0	21.0	0.820	0.820	0.430	0.430	
				20175	1732.5	1	49	21.0	21.0	0.821	0.821	0.425	0.425	
						50	24	20.0	20.0	0.650	0.650	0.337	0.337	
				20300	1745.0	1	49	21.0	21.0	0.804	0.804	0.417	0.417	
Hotspot	QPSK	5	Edge 1	20050	1720.0	1	49	21.0	21.0	0.932	0.932	0.446	0.446	
				20175	1732.5	1	49	21.0	21.0	0.939	0.939	0.448	0.448	
						50	24	20.0	20.0	0.795	0.795	0.375	0.375	
				20300	1745.0	1	49	21.0	21.0	0.989	0.989	0.481	0.481	
			Edge 2	20175	1732.5	1	49	21.0	21.0	0.069	0.069	0.038	0.038	
						50	24	20.0	20.0	0.053	0.053	0.029	0.029	
			Edge 4	20175	1732.5	1	49	21.0	21.0	0.798	0.798	0.434	0.434	
						50	24	20.0	20.0	0.628	0.628	0.341	0.341	

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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	25.0	24.9	0.298	0.305	0.202	0.207	
						50	24	24.0	23.8	0.287	0.301	0.194	0.203	
			Left Tilt	20175	1732.5	1	49	25.0	24.9	0.195	0.200	0.122	0.125	
						50	24	24.0	23.8	0.188	0.197	0.118	0.124	
			Right Touch	20175	1732.5	1	49	25.0	24.9	0.678	0.694	0.427	0.437	
						50	24	24.0	23.8	0.614	0.643	0.393	0.412	
			Right Tilt	20175	1732.5	1	49	25.0	24.9	0.209	0.214	0.136	0.139	
						50	24	24.0	23.8	0.207	0.217	0.135	0.141	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	20.7	20.7	0.716	0.716	0.381	0.381	
						50	24	20.7	20.2	0.691	0.775	0.368	0.413	
			Front	20050	1720.0	1	49	20.7	20.7	0.791	0.791	0.405	0.405	
						50	24	20.7	20.2	0.709	0.796	0.368	0.413	
				20175	1732.5	1	49	20.7	20.7	0.831	0.831	0.418	0.418	
						50	24	20.7	20.2	0.830	0.931	0.423	0.475	18
						100	0	20.7	20.2	0.760	0.853	0.388	0.435	
				20300	1745.0	1	49	20.7	20.7	0.835	0.835	0.423	0.423	
						50	24	20.7	20.2	0.780	0.875	0.397	0.445	
Hotspot	QPSK	5	Edge 2	20175	1732.5	1	49	20.7	20.7	0.620	0.620	0.340	0.340	
						50	24	20.7	20.2	0.613	0.688	0.335	0.376	
			Edge 3	20175	1732.5	1	49	20.7	20.7	1.010	1.010	0.471	0.471	
						50	24	20.7	20.2	0.781	0.876	0.364	0.408	
				20175	1732.5	1	49	20.7	20.7	0.970	0.970	0.450	0.450	
						50	24	20.7	20.2	0.905	1.015	0.422	0.473	19
						100	0	20.7	20.2	0.830	0.931	0.385	0.432	
				20175	1732.5	1	49	20.7	20.7	1.000	1.000	0.461	0.461	
						50	24	20.7	20.2	0.867	0.973	0.402	0.451	
			Edge 4	20175	1732.5	1	49	20.7	20.7	0.046	0.046	0.025	0.025	
						50	24	20.7	20.2	0.045	0.050	0.025	0.028	

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10.8. 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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10.9. 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	16.3	16.2	0.916	0.937	0.354	0.362	
						50	24	16.3	15.1	0.816	1.076	0.310	0.409	
				21100	2535.0	1	49	16.3	16.2	0.806	0.825	0.315	0.322	
						50	24	16.3	15.1	0.622	0.820	0.241	0.318	
						100	0	16.3	15.1	0.715	0.943	0.271	0.357	
				21350	2560.0	1	49	16.3	16.0	0.705	0.755	0.280	0.300	
						50	24	16.3	15.0	0.637	0.859	0.244	0.329	
			Left Tilt	20850	2510.0	1	49	16.3	16.2	1.040	1.064	0.370	0.379	
						50	24	16.3	15.1	0.820	1.081	0.291	0.384	20
				21100	2535.0	1	49	16.3	16.2	0.865	0.885	0.307	0.314	
						50	24	16.3	15.1	0.687	0.906	0.246	0.324	
						100	24	16.3	15.1	0.707	0.932	0.250	0.330	
				21350	2560.0	1	49	16.3	16.0	0.691	0.740	0.245	0.263	
						50	24	16.3	15.0	0.617	0.832	0.220	0.297	
			Right Touch	21100	2535.0	1	49	16.3	16.2	0.400	0.409	0.149	0.152	
						50	24	16.3	15.1	0.312	0.411	0.115	0.152	
			Right Tilt	21100	2535.0	1	49	16.3	16.2	0.449	0.459	0.165	0.169	
						50	24	16.3	15.1	0.345	0.455	0.125	0.165	
Body-worn & Hotspot	QPSK	5	Rear	21100	2535.0	1	49	19.0	19.0	0.773	0.773	0.331	0.331	
						50	24	19.0	17.8	0.594	0.783	0.253	0.334	
			Front	20850	2510.0	1	49	19.0	19.0	0.915	0.915	0.355	0.355	
						50	24	19.0	17.8	0.679	0.895	0.266	0.351	
				21100	2535.0	1	49	19.0	19.0	0.897	0.897	0.358	0.358	
						50	24	19.0	17.8	0.700	0.923	0.277	0.365	
						100	0	19.0	17.8	0.671	0.885	0.267	0.352	
				21350	2560.0	1	49	19.0	18.9	0.945	0.967	0.367	0.376	
						50	24	19.0	17.9	0.571	0.736	0.237	0.305	
Hotspot	QPSK	5	Edge 1	21100	2535.0	1	49	19.0	19.0	0.508	0.508	0.174	0.174	
						50	24	19.0	17.8	0.480	0.633	0.137	0.181	
			Edge 2	21100	2535.0	1	49	19.0	19.0	0.497	0.497	0.236	0.236	
						50	24	19.0	17.8	0.382	0.504	0.180	0.237	
			Edge 4	21100	2535.0	1	49	19.0	19.0	0.030	0.030	0.010	0.010	
						50	24	19.0	17.8	0.020	0.026	0.006	0.008	

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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	21350	2560.0	1	49	24.7	24.7	0.744	0.744	0.395	0.395	
						50	24	24.0	23.8	0.747	0.782	0.396	0.415	
			Left Tilt	21100	2535.0	1	49	24.7	24.7	0.181	0.181	0.094	0.094	
						50	24	24.0	23.8	0.181	0.190	0.094	0.098	
			Right Touch	21100	2535.0	1	49	24.7	24.7	0.416	0.416	0.226	0.226	
						50	24	24.0	23.8	0.401	0.420	0.218	0.228	
			Right Tilt	21100	2535.0	1	49	24.7	24.7	0.229	0.229	0.120	0.120	
						50	24	24.0	23.8	0.230	0.241	0.121	0.127	
Body-worn & Hotspot	QPSK	5	Rear	21100	2535.0	1	49	18.0	17.5	0.647	0.726	0.283	0.318	
						50	24	18.0	17.0	0.570	0.718	0.251	0.316	
			Front	20850	2510.0	1	49	18.0	17.5	0.825	0.926	0.325	0.365	
						50	24	18.0	17.0	0.657	0.827	0.249	0.313	
				21100	2535.0	1	49	18.0	17.5	0.891	1.000	0.354	0.397	
						50	24	18.0	17.0	0.696	0.876	0.276	0.347	
						100	0	18.0	16.8	0.614	0.809	0.247	0.326	
				21350	2560.0	1	49	18.0	17.5	0.955	1.072	0.389	0.436	21
						50	24	18.0	17.0	0.668	0.841	0.273	0.344	
Hotspot	QPSK	5	Edge 2	21100	2535.0	1	49	18.0	17.5	0.069	0.077	0.032	0.036	
						50	24	18.0	17.0	0.064	0.081	0.030	0.038	
			Edge 3	21100	2535.0	1	49	18.0	17.5	0.619	0.695	0.205	0.230	
						50	24	18.0	17.0	0.557	0.701	0.184	0.232	
			Edge 4	21100	2535.0	1	49	18.0	17.5	0.540	0.606	0.251	0.282	
						50	24	18.0	17.0	0.483	0.608	0.226	0.285	

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10.10. LTE Band 12 (10MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24	23.5	23.5	0.567	0.567	0.370	0.370	
						25	12	22.5	22.0	0.499	0.560	0.321	0.360	
			Left Tilt	23095	707.5	1	24	23.5	23.5	0.627	0.627	0.346	0.346	
						25	12	22.5	22.0	0.504	0.565	0.278	0.312	
			Right Touch	23060	704.0	1	24	23.5	23.2	0.847	0.908	0.474	0.508	22
				23095	707.5	1	24	23.5	23.5	0.837	0.837	0.467	0.467	
						25	12	22.5	22.0	0.676	0.758	0.375	0.421	
				23130	711.0	1	24	23.5	23.2	0.754	0.808	0.418	0.448	
			Right Tilt	23095	707.5	1	24	23.5	23.5	0.638	0.638	0.344	0.344	
						25	12	22.5	22.0	0.533	0.598	0.290	0.325	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	23.5	23.5	0.379	0.379	0.226	0.226	
						25	12	22.5	22.0	0.290	0.325	0.172	0.193	
			Front	23095	707.5	1	24	23.5	23.5	0.292	0.292	0.177	0.177	
						25	12	22.5	22.0	0.243	0.273	0.141	0.158	
Hotspot	QPSK	5	Edge 1	23095	707.5	1	24	23.5	23.5	0.238	0.238	0.106	0.106	
						25	12	22.5	22.0	0.180	0.202	0.082	0.092	
			Edge 2	23095	707.5	1	24	23.5	23.5	0.351	0.351	0.237	0.237	
						25	12	22.5	22.0	0.251	0.282	0.172	0.193	
			Edge 4	23095	707.5	1	24	23.5	23.5	0.262	0.262	0.174	0.174	
						25	12	22.5	22.0	0.210	0.236	0.140	0.157	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24	25.0	25.0	0.307	0.307	0.239	0.239	
						25	12	24.0	24.0	0.245	0.245	0.191	0.191	
			Left Tilt	23095	707.5	1	24	25.0	25.0	0.120	0.120	0.096	0.096	
						25	12	24.0	24.0	0.102	0.102	0.081	0.081	
			Right Touch	23095	707.5	1	24	25.0	25.0	0.265	0.265	0.204	0.204	
						25	12	24.0	24.0	0.219	0.219	0.168	0.168	
			Right Tilt	23095	707.5	1	24	25.0	25.0	0.124	0.124	0.099	0.099	
						25	12	24.0	24.0	0.113	0.113	0.089	0.089	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	25.0	25.0	0.430	0.430	0.275	0.275	
						25	12	24.0	24.0	0.363	0.363	0.207	0.207	
			Front	23095	707.5	1	24	25.0	25.0	0.478	0.478	0.284	0.284	23
						25	12	24.0	24.0	0.393	0.393	0.215	0.215	
Hotspot	QPSK	5	Edge 2	23095	707.5	1	24	25.0	25.0	0.287	0.287	0.197	0.197	
						25	12	24.0	24.0	0.195	0.195	0.130	0.130	
			Edge 3	23095	707.5	1	24	25.0	25.0	0.331	0.331	0.164	0.164	
						25	12	24.0	24.0	0.261	0.261	0.125	0.125	
			Edge 4	23095	707.5	1	24	25.0	25.0	0.470	0.470	0.323	0.323	
						25	12	24.0	24.0	0.375	0.375	0.253	0.253	

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10.11. 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	23.3	0.434	0.454	0.296	0.310	
						25	12	22.5	22.2	0.351	0.376	0.242	0.259	
			Left Tilt	23230	782.0	1	24	23.5	23.3	0.402	0.421	0.233	0.244	
						25	12	22.5	22.2	0.328	0.351	0.188	0.201	
			Right Touch	23230	782.0	1	24	23.5	23.3	0.579	0.606	0.335	0.351	24
						25	12	22.5	22.2	0.464	0.497	0.268	0.287	
			Right Tilt	23230	782.0	1	24	23.5	23.3	0.416	0.436	0.227	0.238	
						25	12	22.5	22.2	0.335	0.359	0.182	0.195	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	23.5	23.3	0.336	0.352	0.195	0.204	
						25	12	22.5	22.2	0.270	0.289	0.156	0.167	
			Front	23230	782.0	1	24	23.5	23.3	0.335	0.351	0.190	0.199	
						25	12	22.5	22.2	0.267	0.286	0.152	0.163	
Hotspot	QPSK	5	Edge 1	23230	782.0	1	24	23.5	23.3	0.231	0.242	0.103	0.108	
						25	12	22.5	22.2	0.197	0.211	0.087	0.093	
			Edge 2	23230	782.0	1	24	23.5	23.3	0.449	0.470	0.299	0.313	
						25	12	22.5	22.2	0.355	0.380	0.236	0.253	
			Edge 4	23230	782.0	1	24	23.5	23.3	0.204	0.214	0.132	0.138	
						25	12	22.5	22.2	0.166	0.178	0.108	0.116	

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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	25.0	25.0	0.287	0.287	0.221	0.221	
						25	12	24.0	24.0	0.233	0.233	0.179	0.179	
			Left Tilt	23230	782.0	1	24	25.0	25.0	0.175	0.175	0.135	0.135	
						25	12	24.0	24.0	0.144	0.144	0.111	0.111	
			Right Touch	23230	782.0	1	24	25.0	25.0	0.260	0.260	0.195	0.195	
						25	12	24.0	24.0	0.210	0.210	0.158	0.158	
			Right Tilt	23230	782.0	1	24	25.0	25.0	0.158	0.158	0.123	0.123	
						25	12	24.0	24.0	0.141	0.141	0.109	0.109	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	25.0	25.0	0.562	0.562	0.316	0.316	
						25	12	24.0	24.0	0.451	0.451	0.253	0.253	
			Front	23230	782.0	1	24	25.0	25.0	0.650	0.650	0.360	0.360	25
						25	12	24.0	24.0	0.520	0.520	0.287	0.287	
Hotspot	QPSK	5	Edge 2	23230	782.0	1	24	25.0	25.0	0.360	0.360	0.235	0.235	
						25	12	24.0	24.0	0.292	0.292	0.190	0.190	
			Edge 3	23230	782.0	1	24	25.0	25.0	0.488	0.488	0.223	0.223	
						25	12	24.0	24.0	0.397	0.397	0.182	0.182	
			Edge 4	23230	782.0	1	24	25.0	25.0	0.701	0.701	0.465	0.465	26
						25	12	24.0	24.0	0.566	0.566	0.374	0.374	

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10.12. 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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10.13. 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	17.7	17.3	0.398	0.436	0.235	0.258	
						50	24	17.7	16.5	0.346	0.456	0.203	0.268	
			Left Tilt	26365	1882.5	1	49	17.7	17.3	0.337	0.370	0.203	0.223	
						50	24	17.7	16.5	0.261	0.344	0.157	0.207	
			Right Touch	26140	1860.0	1	49	17.7	17.3	0.881	0.966	0.464	0.509	
						50	24	17.7	16.5	0.692	0.912	0.364	0.480	
				26365	1882.5	1	49	17.7	17.3	0.808	0.886	0.432	0.474	
						50	24	17.7	16.5	0.631	0.832	0.337	0.444	
						100	0	17.7	16.6	0.749	0.965	0.392	0.505	
				26590	1905.0	1	49	17.7	17.2	0.953	1.069	0.494	0.554	
						50	24	17.7	16.6	0.757	0.975	0.392	0.505	
			Right Tilt	26365	1882.5	1	49	17.7	17.3	0.700	0.768	0.372	0.408	
						50	24	17.7	16.5	0.546	0.720	0.291	0.384	
Body-worn & Hotspot	QPSK	5	Rear	26365	1882.5	1	49	21.0	21.0	0.645	0.645	0.365	0.365	
						50	24	20.0	20.0	0.691	0.691	0.384	0.384	
			Front	26140	1860.0	1	49	21.0	21.0	0.712	0.712	0.378	0.378	
				26365	1882.5	1	49	21.0	21.0	0.822	0.822	0.445	0.445	
						50	24	20.0	20.0	0.697	0.697	0.384	0.384	
				26590	1905.0	1	49	21.0	21.0	0.670	0.670	0.360	0.360	
Hotspot	QPSK	5	Edge 1	26365	1882.5	1	49	21.0	21.0	0.657	0.657	0.308	0.308	
						50	24	20.0	20.0	0.474	0.474	0.223	0.223	
			Edge 2	26365	1882.5	1	49	21.0	21.0	0.040	0.040	0.021	0.021	
						50	24	20.0	20.0	0.031	0.031	0.021	0.021	
			Edge 4	26140	1860.0	1	49	21.0	21.0	0.845	0.845	0.445	0.445	
				26365	1882.5	1	49	21.0	21.0	0.922	0.922	0.485	0.485	
						50	24	20.0	20.0	0.628	0.628	0.336	0.336	
				26590	1905.0	1	49	21.0	21.0	0.914	0.914	0.479	0.479	

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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	24.0	24.0	0.721	0.721	0.473	0.473	
						50	24	23.0	23.0	0.526	0.526	0.370	0.370	
			Left Tilt	26365	1882.5	1	49	24.0	24.0	0.299	0.299	0.193	0.193	
						50	24	23.0	23.0	0.240	0.240	0.157	0.157	
			Right Touch	26140	1860.0	1	49	24.0	24.0	1.140	1.140	0.695	0.695	
						50	24	23.0	23.0	0.902	0.902	0.549	0.549	
				26365	1882.5	1	49	24.0	24.0	1.190	1.190	0.722	0.722	27
						50	24	23.0	23.0	0.954	0.954	0.576	0.576	
						100	0	23.0	23.0	0.957	0.957	0.581	0.581	
				26590	1905.0	1	49	24.0	24.0	1.140	1.140	0.685	0.685	
						50	24	23.0	23.0	0.960	0.960	0.580	0.580	
			Right Tilt	26365	1882.5	1	49	24.0	24.0	0.329	0.329	0.211	0.211	
						50	24	23.0	23.0	0.285	0.285	0.180	0.180	
Body-worn & Hotspot	QPSK	5	Rear	26140	1860.0	1	49	19.7	19.6	0.904	0.925	0.476	0.487	
						50	24	19.7	19.6	0.905	0.926	0.476	0.487	
				26365	1882.5	1	49	19.7	19.7	1.000	1.000	0.522	0.522	28
						50	24	19.7	19.7	0.989	0.989	0.516	0.516	
						100	0	19.7	19.7	0.996	0.996	0.519	0.519	
				26590	1905.0	1	49	19.7	19.7	0.956	0.956	0.496	0.496	
						50	24	19.7	19.7	0.981	0.981	0.509	0.509	
			Front	26140	1860.0	1	49	19.7	19.6	0.898	0.919	0.453	0.464	
						50	24	19.7	19.6	0.900	0.921	0.452	0.463	
				26365	1882.5	1	49	19.7	19.7	0.957	0.957	0.478	0.478	
						50	24	19.7	19.7	0.952	0.952	0.474	0.474	
						100	0	19.7	19.7	0.960	0.960	0.478	0.478	
				26590	1905.0	1	49	19.7	19.7	0.917	0.917	0.453	0.453	
						50	24	19.7	19.7	0.919	0.919	0.454	0.454	
Hotspot	QPSK	5	Edge 2	26365	1882.5	1	49	19.7	19.7	0.678	0.678	0.376	0.376	
						50	24	19.7	19.7	0.685	0.685	0.379	0.379	
			Edge 3	26140	1860.0	1	49	19.7	19.6	1.110	1.136	0.496	0.508	
						50	24	19.7	19.6	1.100	1.126	0.492	0.503	
				26365	1882.5	1	49	19.7	19.7	1.140	1.140	0.510	0.510	29
						50	24	19.7	19.7	1.120	1.120	0.501	0.501	
						100	0	19.7	19.7	1.140	1.140	0.506	0.506	
				26590	1905.0	1	49	19.7	19.7	1.120	1.120	0.495	0.495	
						50	24	19.7	19.7	1.140	1.140	0.503	0.503	
			Edge 4	26365	1882.5	1	49	19.7	19.7	0.087	0.087	0.047	0.047	
						50	24	19.7	19.7	0.083	0.083	0.045	0.045	

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10.14. 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	0.408	0.408	0.277	0.277	
						25	12	21.5	21.5	0.344	0.344	0.230	0.230	
			Left Tilt	26865	831.5	1	24	22.5	22.5	0.405	0.405	0.232	0.232	
						25	12	21.5	21.5	0.321	0.321	0.183	0.183	
			Right Touch	26865	831.5	1	24	22.5	22.5	0.588	0.588	0.335	0.335	30
						25	12	21.5	21.5	0.437	0.437	0.249	0.249	
			Right Tilt	26865	831.5	1	24	22.5	22.5	0.461	0.461	0.240	0.240	
						25	12	21.5	21.5	0.377	0.377	0.197	0.197	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	22.5	22.5	0.365	0.365	0.205	0.205	
						25	12	21.5	21.5	0.327	0.327	0.182	0.182	
			Front	26865	831.5	1	24	22.5	22.5	0.429	0.429	0.231	0.231	
						25	12	21.5	21.5	0.346	0.346	0.187	0.187	
Hotspot	QPSK	5	Edge 1	26865	831.5	1	24	22.5	22.5	0.294	0.294	0.130	0.130	
						25	12	21.5	21.5	0.216	0.216	0.096	0.096	
			Edge 2	26865	831.5	1	24	22.5	22.5	0.390	0.390	0.256	0.256	
						25	12	21.5	21.5	0.270	0.270	0.179	0.179	
			Edge 4	26865	831.5	1	24	22.5	22.5	0.149	0.149	0.096	0.096	
						25	12	21.5	21.5	0.083	0.083	0.054	0.054	

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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	0.349	0.349	0.269	0.269	
						25	12	23.0	23.0	0.264	0.264	0.203	0.203	
			Left Tilt	26865	831.5	1	24	24.0	24.0	0.193	0.193	0.152	0.152	
						25	12	23.0	23.0	0.141	0.141	0.111	0.111	
			Right Touch	26865	831.5	1	24	24.0	24.0	0.325	0.325	0.249	0.249	
						25	12	23.0	23.0	0.209	0.209	0.159	0.159	
			Right Tilt	26865	831.5	1	24	24.0	24.0	0.192	0.192	0.153	0.153	
						25	12	23.0	23.0	0.130	0.130	0.102	0.102	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	24.0	24.0	0.522	0.522	0.329	0.329	
						25	12	23.0	23.0	0.396	0.396	0.262	0.262	
			Front	26865	831.5	1	24	24.0	24.0	0.588	0.588	0.333	0.333	31
						25	12	23.0	23.0	0.486	0.486	0.276	0.276	
Hotspot	QPSK	5	Edge 2	26865	831.5	1	24	24.0	24.0	0.302	0.302	0.198	0.198	
						25	12	23.0	23.0	0.259	0.259	0.170	0.170	
			Edge 3	26865	831.5	1	24	24.0	24.0	0.465	0.465	0.214	0.214	
						25	12	23.0	23.0	0.407	0.407	0.189	0.189	
			Edge 4	26865	831.5	1	24	24.0	24.0	0.668	0.668	0.443	0.443	32
						25	12	23.0	23.0	0.582	0.582	0.386	0.386	

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10.15. 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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10.16. 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	17.5	17.5	0.391	0.391	0.178	0.178	
						25	12	17.5	16.7	0.310	0.373	0.143	0.172	
			Left Tilt	27710	2310.0	1	24	17.5	17.5	0.442	0.442	0.191	0.191	
						25	12	17.5	16.7	0.354	0.426	0.153	0.184	
			Right Touch	27710	2310.0	1	24	17.5	17.5	0.984	0.984	0.417	0.417	
						25	12	17.5	16.7	0.890	1.070	0.389	0.468	
						50	0	17.5	16.6	0.777	0.956	0.330	0.406	
			Right Tilt	27710	2310.0	1	24	17.5	17.5	1.040	1.040	0.396	0.396	
						25	12	17.5	16.7	0.833	1.001	0.334	0.402	
						50	0	17.5	16.6	0.871	1.072	0.325	0.400	33
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	20.0	19.7	0.846	0.907	0.370	0.396	
						25	12	19.0	18.8	0.636	0.666	0.278	0.291	
						50	0	19.0	18.9	0.751	0.768	0.326	0.334	
			Front	27710	2310.0	1	24	20.0	19.7	0.904	0.969	0.390	0.418	
						25	12	19.0	18.8	0.727	0.761	0.312	0.327	
						50	0	19.0	18.9	0.748	0.765	0.323	0.331	
Hotspot	QPSK	5	Edge 1	27710	2310.0	1	24	20.0	19.7	0.778	0.834	0.268	0.287	
						25	12	19.0	18.8	0.714	0.748	0.240	0.251	
						50	0	19.0	18.9	0.680	0.696	0.227	0.232	
			Edge 2	27710	2310.0	1	24	20.0	19.7	0.140	0.150	0.068	0.073	
						25	12	19.0	18.8	0.111	0.116	0.053	0.055	
			Edge 4	27710	2310.0	1	24	20.0	19.7	0.529	0.567	0.251	0.269	
						25	12	19.0	18.8	0.420	0.440	0.209	0.219	

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	27710	2310.0	1	24	22.3	22.3	0.341	0.341	0.206	0.206	
						25	12	22.3	22.3	0.347	0.347	0.198	0.198	
			Left Tilt	27710	2310.0	1	24	22.3	22.3	0.279	0.279	0.153	0.153	
						25	12	22.3	22.3	0.285	0.285	0.156	0.156	
			Right Touch	27710	2310.0	1	24	22.3	22.3	0.784	0.784	0.444	0.444	
						25	12	22.3	22.3	0.776	0.776	0.433	0.433	
			Right Tilt	27710	2310.0	1	24	22.3	22.3	0.304	0.304	0.180	0.180	
						25	12	22.3	22.3	0.301	0.301	0.178	0.178	
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	18.7	18.2	0.646	0.725	0.289	0.324	
						25	12	18.7	17.7	0.474	0.597	0.216	0.272	
			Front	27710	2310.0	1	24	18.7	18.2	0.920	1.032	0.381	0.427	34
						25	12	18.7	17.7	0.740	0.932	0.306	0.385	
						50	0	18.7	17.7	0.781	0.983	0.322	0.405	
Hotspot	QPSK	5	Edge 2	27710	2310.0	1	24	18.7	18.2	0.476	0.534	0.225	0.252	
						25	12	18.7	17.7	0.364	0.458	0.172	0.217	
			Edge 3	27710	2310.0	1	24	18.7	18.2	0.755	0.847	0.266	0.298	
						25	12	18.7	17.7	0.599	0.754	0.210	0.264	
			Edge 4	27710	2310.0	1	24	18.7	18.2	0.170	0.191	0.082	0.092	
						25	12	18.7	17.7	0.138	0.174	0.066	0.083	

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10.17. LTE Band 41 (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	40620	2593.0	1	49	18.0	18.0	0.596	0.596	0.243	0.243	
						50	24	18.0	17.0	0.473	0.595	0.191	0.240	
			Left Tilt	40620	2593.0	1	49	18.0	18.0	0.567	0.567	0.208	0.208	
						50	24	18.0	17.0	0.444	0.559	0.162	0.204	
			Right Touch	40620	2593.0	1	49	18.0	18.0	0.266	0.266	0.100	0.100	
						50	24	18.0	17.0	0.213	0.268	0.078	0.098	
			Right Tilt	40620	2593.0	1	49	18.0	18.0	0.281	0.281	0.105	0.105	
						50	24	18.0	17.0	0.217	0.273	0.080	0.101	
Body-worn & Hotspot	QPSK	5	Rear	40620	2593.0	1	49	20.0	20.0	0.565	0.565	0.253	0.253	
						50	24	19.0	19.0	0.447	0.447	0.199	0.199	
			Front	40620	2593.0	1	49	20.0	20.0	0.348	0.348	0.162	0.162	
						50	24	19.0	19.0	0.251	0.251	0.117	0.117	
Hotspot	QPSK	5	Edge 1	40620	2593.0	1	49	20.0	20.0	0.243	0.243	0.067	0.067	
						50	24	19.0	19.0	0.190	0.190	0.050	0.050	
			Edge 2	40620	2593.0	1	49	20.0	20.0	0.318	0.318	0.145	0.145	
						50	24	19.0	19.0	0.248	0.248	0.112	0.112	
			Edge 4	40620	2593.0	1	49	20.0	20.0	0.091	0.091	0.036	0.036	
						50	24	19.0	19.0	0.064	0.064	0.023	0.023	

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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	39750	2506.0	1	49	24.5	24.3	0.721	0.755	0.381	0.399	
						50	24	24.0	23.0	0.577	0.726	0.307	0.386	
				40185	2549.5	1	49	24.5	24.3	0.953	0.998	0.500	0.524	
						50	24	24.0	23.0	0.719	0.905	0.375	0.472	
				40620	2593.0	1	49	24.5	24.5	1.130	1.130	0.586	0.586	
						50	24	24.0	23.0	0.895	1.127	0.464	0.584	
						100	0	24.0	23.0	0.871	1.097	0.452	0.569	
				41055	2636.5	1	49	24.5	24.3	1.090	1.141	0.558	0.584	35
						50	24	24.0	23.0	0.888	1.118	0.451	0.568	
				41490	2680.0	1	49	24.5	24.3	1.030	1.079	0.517	0.541	
						50	24	24.0	23.0	0.822	1.035	0.414	0.521	
			Left Tilt	40620	2593.0	1	49	24.5	24.3	0.183	0.192	0.096	0.101	
						50	24	24.0	23.0	0.144	0.181	0.075	0.094	
			Right Touch	40620	2593.0	1	49	24.5	24.3	0.549	0.575	0.297	0.311	
						50	24	24.0	23.0	0.434	0.546	0.233	0.293	
			Right Tilt	40620	2593.0	1	49	24.5	24.3	0.299	0.313	0.159	0.166	
						50	24	24.0	23.0	0.229	0.288	0.122	0.154	
Body-worn & Hotspot	QPSK	5	Rear	39750	2506.0	1	49	20.5	20.5	0.564	0.564	0.246	0.246	
						50	24	20.5	20.5	0.562	0.562	0.239	0.239	
				40185	2549.5	1	49	20.5	20.5	0.941	0.941	0.423	0.423	
						50	24	20.5	20.5	0.726	0.726	0.325	0.325	
				40620	2593.0	1	49	20.5	20.5	0.866	0.866	0.410	0.410	
						50	24	20.5	20.5	0.669	0.669	0.319	0.319	
						100	0	20.5	20.5	0.645	0.645	0.305	0.305	
				41055	2636.5	1	49	20.5	20.5	1.050	1.050	0.485	0.485	
						50	24	20.5	20.5	0.832	0.832	0.382	0.382	
				41490	2680.0	1	49	20.5	20.5	1.060	1.060	0.463	0.463	36
						50	24	20.5	20.5	0.831	0.831	0.362	0.362	
			Front	39750	2506.0	1	49	20.5	20.5	0.885	0.885	0.335	0.335	
						50	24	20.5	20.5	0.720	0.720	0.269	0.269	
				40185	2549.5	1	49	20.5	20.5	1.050	1.050	0.420	0.420	
						50	24	20.5	20.5	0.730	0.730	0.294	0.294	
				40620	2593.0	1	49	20.5	20.5	0.934	0.934	0.400	0.400	
						50	24	20.5	20.5	0.618	0.618	0.267	0.267	
						100	0	20.5	20.5	0.706	0.706	0.299	0.299	
				41055	2636.5	1	49	20.5	20.5	0.753	0.753	0.345	0.345	
						50	24	20.5	20.5	0.687	0.687	0.304	0.304	
				41490	2680.0	1	49	20.5	20.5	0.651	0.651	0.301	0.301	
						50	24	20.5	20.5	0.617	0.617	0.245	0.245	
Hotspot	QPSK	5	Edge 2	40620	2593.0	1	49	20.5	20.5	0.044	0.044	0.019	0.019	
						50	24	20.5	20.5	0.034	0.034	0.020	0.020	
			Edge 3	40620	2593.0	1	49	20.5	20.5	0.722	0.722	0.230	0.230	
						50	24	20.5	20.5	0.582	0.582	0.232	0.232	
			Edge 4	39750	2506.0	1	49	20.5	20.5	0.523	0.523	0.246	0.246	
				40185	2549.5	1	49	20.5	20.5	0.713	0.713	0.329	0.329	
				40620	2593.0	1	49	20.5	20.5	0.810	0.810	0.337	0.337	
						50	24	20.5	20.5	0.543	0.543	0.231	0.231	
				41055	2636.5	1	49	20.5	20.5	0.694	0.694	0.293	0.293	
				41490	2680.0	1	49	20.5	20.5	0.618	0.618	0.260	0.260	

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10.18. 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 Tilt	20850	2510.0	50	24	21048	2529.8	50	24	16.3	16.3	0.836	0.836	0.298	0.298	

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	18.0	18.0	0.898	0.898	0.368	0.368	37

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.

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

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	
Head	QPSK	0	Left Touch	41055	2636.5	1	49	40857	2616.7	1	49	24.0	24.0	0.890	0.890	0.469	0.469	38

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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10.20. 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	10.5	10.5			0.232									
					Left Tilt	6	2437	10.5	10.5			0.372									
					Right Touch	6	2437	10.5	10.5			0.371									
					Right Tilt	6	2437	10.5	10.5			0.402	0.295	0.114	0.295	0.114					
					Left Touch	6	2437			18.0	17.5	0.074									
					Left Tilt	6	2437			18.0	17.5	0.059									
					Right Touch	6	2437			18.0	17.5	0.137					0.202	0.064	0.227	0.072	
					Right Tilt	6	2437			18.0	17.5	0.038									
		802.11g 20MHz	0	2 Tx	Left Touch	6	2437	10.5	10.4	18.0	18.0	0.236									
					Left Tilt	6	2437	10.5	10.4	18.0	18.0	0.540	0.321	0.120	0.328	0.123	-	-	-	-	
					Right Touch	6	2437	10.5	10.4	18.0	18.0	0.311									
					Right Tilt	6	2437	10.5	10.4	18.0	18.0	0.319									
	Body-worn, Hotspot and Airplay	802.11b 20MHz	5	1 Tx	Rear	1	2412	15.0	15.0			0.650	0.443	0.176	0.443	0.176					
					Front	1	2412	15.0	15.0			0.323	0.422	0.172	0.422	0.172					
					Edge 1	1	2412	15.0	15.0			0.256									
					Edge 2	1	2412	15.0	15.0			0.098									
					Edge 4	1	2412	15.0	15.0			0.185									
					Rear	6	2437			13.0	12.8	0.056									
					Front	6	2437			13.0	12.8	0.220					0.213	0.063	0.223	0.066	
					Edge 2	6	2437			13.0	12.8	0.066									
					Edge 3	6	2437			13.0	12.8	0.047									
					Edge 4	6	2437			13.0	12.8	0.005									
		802.11g 20MHz	5	2 Tx	Rear	6	2437	15.0	15.0	13.0	13.0	0.686	0.423	0.163	0.423	0.163	-	-	-	-	
					Front	6	2437	15.0	15.0	13.0	13.0	0.359	0.343	0.137	0.343	0.137	-	-	-	-	
					Edge 1	6	2437	15.0	15.0	13.0	13.0	0.334									
					Edge 2	6	2437	15.0	15.0	13.0	13.0	0.165									
					Edge 3	6	2437	15.0	15.0	13.0	13.0	0.037									
					Edge 4	6	2437	15.0	15.0	13.0	13.0	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) Chain 0 Tune-up Limit	Power (dBm) Chain 0 Measured	Power (dBm) Chain 1 Tune-up Limit	Power (dBm) Chain 1 Measured	Area Scan Measured Peak	SAR (W/kg) Chain 0 Measured 1-g	SAR Chain 0 Measured 10-g	SAR Chain 0 Scaled 1-g	SAR Chain 0 Scaled 10-g	SAR Chain 1 Measured 1-g	SAR Chain 1 Measured 10-g	SAR Chain 1 Scaled 1-g	SAR Chain 1 Scaled 10-g	Plots
2.4 GHz	Head	802.11b 20MHz	0	1 Tx	Left Touch	1	2412	16.0	15.8				0.670	0.259	0.702	0.271					
						6	2437	16.0	15.8			1.220	1.040	0.401	1.089	0.420					
					Left Tilt	1	2412	16.0	15.8				0.825	0.296	0.864	0.310					
						6	2437	16.0	15.8			1.610	1.090	0.388	1.141	0.406					
					Right Touch	1	2412	16.0	15.8				0.945	0.373	0.990	0.391					
						6	2437	16.0	15.8			1.420	1.030	0.401	1.079	0.420					
					Right Tilt	1	2412	16.0	15.8				1.060	0.406	1.110	0.425					
						6	2437	16.0	15.8			1.610	1.080	0.409	1.131	0.428					
					Left Touch	6	2437			19.0	18.0	0.118									
					Left Tilt	6	2437			19.0	18.0	0.098									
					Right Touch	6	2437			19.0	18.0	0.274					0.206	0.112	0.259	0.141	
					Right Tilt	6	2437			19.0	18.0	0.056									
		802.11g 20MHz	0	2 Tx	Left Touch	9	2452	16.0	16.0	19.0	19.0	0.830	0.786	0.310	0.786	0.310	-	-	-	-	
					Left Tilt	3	2422	16.0	16.0	19.0	19.0		0.733	0.269	0.733	0.269	-	-	-	-	
						9	2452	16.0	16.0	19.0	19.0	1.130	1.090	0.393	1.090	0.393	-	-	-	-	
					Right Touch	3	2422	16.0	16.0	19.0	19.0		0.886	0.354	0.886	0.354	0.129	0.071	0.129	0.071	
						9	2452	16.0	16.0	19.0	19.0	1.200	0.923	0.365	0.923	0.365	0.147	0.080	0.147	0.080	
					Right Tilt	3	2422	16.0	16.0	19.0	19.0		1.020	0.394	1.020	0.394	-	-	-	-	
						6	2437	16.0	16.0	19.0	18.0		1.180	0.455	1.180	0.455	-	-	-	-	39
						9	2452	16.0	16.0	19.0	19.0	1.390	0.999	0.381	0.999	0.381	-	-	-	-	
	Body-worn & Airplay	802.11b 20MHz	5	1 Tx	Rear	1	2412	19.0	19.0				0.607	0.243	0.607	0.243					
						6	2437	19.0	19.0			1.150	0.827	0.331	0.827	0.331					
					Front	1	2412	19.0	19.0				0.767	0.305	0.767	0.305					
						6	2437	19.0	19.0			1.750	1.080	0.421	1.080	0.421					
					Edge 1	1	2412	19.0	19.0				0.657	0.217	0.657	0.217					
						6	2437	19.0	19.0			1.450	1.070	0.350	1.070	0.350					
					Edge 2	6	2437	19.0	19.0			0.591	0.423	0.206	0.423	0.206					
					Edge 4	6	2437	19.0	19.0			0.482									
					Rear	6	2437			19.0	18.0	0.373									
					Front	6	2437			19.0	18.0	1.140					0.877	0.406	1.104	0.511	
						11	2462			19.0	18.0						0.859	0.402	1.081	0.506	
					Edge 2	6	2437			19.0	18.0	0.388					0.377	0.179	0.475	0.225	
					Edge 3	6	2437			19.0	18.0	0.255									
					Edge 4	6	2437			19.0	18.0	0.019									
		802.11g 20MHz	5	2 Tx	Rear	9	2452	19.0	18.8	19.0	19.0	0.859	0.655	0.261	0.686	0.273	0.178	0.091	0.178	0.091	
					Front	3	2422	19.0	18.4	19.0	19.0		0.889	0.350	1.021	0.402	0.506	0.242	0.506	0.242	
						9	2452	19.0	18.8	19.0	19.0	1.510	1.080	0.423	1.131	0.443	0.493	0.238	0.493	0.238	40
					Edge 1	9	2452	19.0	18.8	19.0	19.0	0.628									
					Edge 2	9	2452	19.0	18.8	19.0	19.0	0.639									
					Edge 3	9	2452	19.0	18.8	19.0	19.0	0.139									
					Edge 4	9	2452	19.0	18.8	19.0	19.0	0.379									

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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10.21. 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 CDD	0	1 Tx	Left Touch	42	5210	6.3	6.3			0.186									
					Left Tilt	42	5210	6.3	6.3			0.163									
					Right Touch	42	5210	6.3	6.3			0.356	0.186	0.057	0.186	0.057					
					Right Tilt	42	5210	6.3	6.3			0.280									
5.3 GHz		802.11a	0	1 Tx	Left Touch	54	5270			19.0	18.9	0.052									
					Left Tilt	54	5270			19.0	18.9	0.016									
					Right Touch	54	5270			19.0	18.9	0.152					0.074	0.030	0.076	0.031	
					Right Tilt	54	5270			19.0	18.9	0.023									
5.2 GHz		802.11n HT40 CDD	0	2 Tx	Left Touch	46	5230	6.3	6.2	19.0	19.0	0.189									
					Left Tilt	46	5230	6.3	6.2	19.0	19.0	0.165									
					Right Touch	46	5230	6.3	6.2	19.0	19.0	0.365	0.176	0.051	0.180	0.052	0.081	0.032	0.081	0.032	
					Right Tilt	46	5230	6.3	6.2	19.0	19.0	0.293									
5.2 GHz	Bodyworn & Hotspot	802.11ac VHT80 CDD	5	1 Tx	Rear	42	5210	14.8	14.8			0.127									
					Front	42	5210	14.8	14.8			0.679	0.335	0.113	0.335	0.113					
					Edge 1	42	5210	14.8	14.8			0.204									
					Edge 2	42	5210	14.8	14.8			0.045									
					Edge 4	42	5210	14.8	14.8			0.281									
5.2 GHz		802.11ac VHT80 CDD	5	1 Tx	Rear	42	5210			11.5	11.5	0.028									
					Front	42	5210			11.5	11.5	0.517					0.209	0.047	0.209	0.047	
					Edge 2	42	5210			11.5	11.5	0.034									
					Edge 3	42	5210			11.5	11.5	0.058									
					Edge 4	42	5210			11.5	11.5	0.025									
5.2 GHz		802.11ac VHT80 CDD	5	2 Tx	Rear	42	5210	14.8	14.8	11.5	11.5	0.132									
					Front	42	5210	14.8	14.8	11.5	11.5	0.499	0.308	0.098	0.308	0.098	0.236	0.055	0.236	0.055	
					Edge 1	42	5210	14.8	14.8	11.5	11.5	0.186									
					Edge 2	42	5210	14.8	14.8	11.5	11.5	0.136									
					Edge 3	42	5210	14.8	14.8	11.5	11.5	0.135									
					Edge 4	42	5210	14.8	14.8	11.5	11.5	0.436									

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	
5.2 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	42	5210	14.0	14.0			1.070									
					Left Tilt	42	5210	14.0	14.0			1.000									
					Right Touch	42	5210	14.0	14.0			2.370	1.130	0.355	1.130	0.355					
					Right Tilt	42	5210	14.0	14.0			1.460	0.719	0.240	0.719	0.240					
5.3 GHz		802.11n HT40	0	1 Tx	Left Touch	54	5270			19.0	18.8	0.024									
					Left Tilt	54	5270			19.0	18.8	0.040									
					Right Touch	54	5270			19.0	18.8	0.121					0.075	0.027	0.079	0.028	
					Right Tilt	54	5270			19.0	18.8	0.044									
5.2 GHz		802.11n HT40 CDD	0	2 Tx	Left Touch	46	5230	14.0	13.8	19.0	19.0	1.040	0.570	0.202	0.597	0.212	-	-	-	-	
					Left Tilt	46	5230	14.0	13.8	19.0	19.0	0.952									
					Right Touch	38	5190	14.0	14.0	14.5	14.5		1.100	0.340	1.100	0.340	-	-	-	-	
						46	5230	14.0	13.8	19.0	19.0	1.720	1.110	0.338	1.162	0.354	-	-	-	-	41
					Right Tilt	38	5190	14.0	14.0	14.5	14.5	1.600	0.968	0.305	0.968	0.305	-	-	-	-	
						46	5230	14.0	13.8	19.0	19.0	1.480	0.956	0.281	1.001	0.294	-	-	-	-	
5.2 GHz	Body-worn & Airplay	802.11a	5	1 Tx	Rear	44	5220	19.5	19.5			0.437									
					Front	44	5220	19.5	19.5				1.030	0.359	1.030	0.359					
						48	5240	19.5	19.4			2.410	1.140	0.401	1.167	0.410					42
					Edge 1	44	5220	19.5	19.5			0.528									
					Edge 2	44	5220	19.5	19.5			0.687									
					Edge 4	44	5220	19.5	19.5			1.020	0.546	0.187	0.546	0.187					
5.2 GHz		802.11n HT40 CDD	5	1 Tx	Rear	46	5230			18.2	18.2	0.094									
					Front	38	5190			16.5	16.5						0.845	0.173	0.845	0.173	
						46	5230			18.2	18.2	1.900					1.030	0.220	1.030	0.220	
					Edge 2	46	5230			18.2	18.2	0.164									
					Edge 3	46	5230			18.2	18.2	0.301					0.114	0.041	0.114	0.041	
					Edge 4	46	5230			18.2	18.2	0.029									
5.2 GHz		802.11n HT40 CDD	5	2 Tx	Rear	46	5230	19.0	19.0	18.2	18.2	0.360									
					Front	38	5190	14.5	14.5	14.5	14.5		0.265	0.092	0.265	0.092	0.390	0.082	0.390	0.082	
						46	5230	19.0	19.0	18.2	17.7	2.450	1.030	0.357	1.030	0.357	0.791	0.196	0.888	0.220	
					Edge 1	46	5230	19.0	19.0	18.2	17.7	0.627	0.310	0.104	0.310	0.104	-	-	-	-	
					Edge 2	46	5230	19.0	19.0	18.2	17.7	0.056									
					Edge 3	46	5230	19.0	19.0	18.2	17.7	0.447									
					Edge 4	46	5230	19.0	19.0	18.2	17.7	0.025									

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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10.22. 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	4.0	3.9			0.206									
					Left Tilt	138	5690	4.0	3.9			0.178									
					Right Touch	138	5690	4.0	3.9			0.335	0.175	0.042	0.179	0.043					
					Right Tilt	138	5690	4.0	3.9			0.263									
		802.11ac VHT80	0	1 Tx	Left Touch	138	5690			19.0	19.0	0.396									
					Left Tilt	138	5690			19.0	19.0	0.301									
					Right Touch	138	5690			19.0	19.0	0.412					0.239	0.100	0.239	0.100	
					Right Tilt	138	5690			19.0	19.0	0.297									
		802.11ac VHT80 CDD	0	2 Tx	Left Touch	138	5690	4.0	4.0	19.0	19.0	0.001									
					Left Tilt	138	5690	4.0	4.0	19.0	19.0	0.224									
					Right Touch	138	5690	4.0	4.0	19.0	19.0	0.318	0.152	0.038	0.152	0.038	0.169	0.070	0.169	0.070	
					Right Tilt	138	5690	4.0	4.0	19.0	19.0	0.200									
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	138	5690	10.8	10.7			0.106									
					Front	138	5690	10.8	10.7			0.631	0.287	0.077	0.294	0.079					
					Edge 1	138	5690	10.8	10.7			0.139									
					Edge 2	138	5690	10.8	10.7			0.010									
					Edge 4	138	5690	10.8	10.7			0.087									
		802.11ac VHT80	5	1 Tx	Rear	138	5690			9.0	9.0	0.050									
					Front	138	5690			9.0	9.0	0.377					0.203	0.054	0.203	0.054	
					Edge 2	138	5690			9.0	9.0	0.076									
					Edge 3	138	5690			9.0	9.0	0.113									
					Edge 4	138	5690			9.0	9.0	0.015									
		802.11ac VHT80 CDD	5	2 Tx	Rear	138	5690	10.8	10.8	9.0	9.0	0.077									
					Front	138	5690	10.8	10.8	9.0	9.0	0.338	0.317	0.086	0.317	0.086	0.230	0.059	0.230	0.059	
					Edge 1	138	5690	10.8	10.8	9.0	9.0	0.115									
					Edge 2	138	5690	10.8	10.8	9.0	9.0	0.059									
					Edge 3	138	5690	10.8	10.8	9.0	9.0	0.079									
					Edge 4	138	5690	10.8	10.8	9.0	9.0	0.120									

Notes:

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Cell Off

Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm) Chain 0 Tune-up Limit	Power (dBm) Chain 0 Measured	Power (dBm) Chain 1 Tune-up Limit	Power (dBm) Chain 1 Measured	Area Scan Measured Peak	SAR (W/kg) Chain 0 Measured 1-g	SAR Chain 0 Measured 10-g	SAR Chain 0 Scaled 1-g	SAR Chain 0 Scaled 10-g	SAR Chain 1 Measured 1-g	SAR Chain 1 Measured 10-g	SAR Chain 1 Scaled 1-g	SAR Chain 1 Scaled 10-g	Plots
5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	138	5690	11.8	11.8			1.030	0.555	0.182	0.555	0.182					
					Left Tilt	138	5690	11.8	11.8			0.821									
					Right Touch	106	5530	11.8	11.8				0.846	0.230	0.846	0.230					
						138	5690	11.8	11.8			2.050	1.190	0.308	1.190	0.308					43
					Right Tilt	106	5530	11.8	11.8				0.763	0.204	0.763	0.204					
						138	5690	11.8	11.8			1.600	0.886	0.223	0.886	0.223					
		802.11ac VHT80	0	1 Tx	Left Touch	138	5690			19.0	19.0	0.396									
					Left Tilt	138	5690			19.0	19.0	0.301									
					Right Touch	138	5690			19.0	19.0	0.412					0.239	0.100	0.239	0.100	
					Right Tilt	138	5690			19.0	19.0	0.297									
		802.11ac VHT80 CDD	0	2 Tx	Left Touch	138	5690	11.8	11.8	19.0	19.0	0.822									
					Left Tilt	138	5690	11.8	11.8	19.0	19.0	0.603									
					Right Touch	122	5610	11.8	11.8	19.0	18.9		1.030	0.274	1.030	0.274	-	-	-	-	
						138	5690	11.8	11.8	19.0	19.0	1.590	1.050	0.273	1.050	0.273	-	-	-	-	
					Right Tilt	122	5610	11.8	11.8	19.0	18.9										
						138	5690	11.8	11.8	19.0	19.0	1.290	0.740	0.206	0.740	0.206	-	-	-	-	
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	138	5690	16.0	15.9			0.484	0.266	0.069	0.272	0.071					
					Front	122	5610	16.0	15.8				1.050	0.304	1.099	0.318					
						138	5690	16.0	15.9			2.110	1.160	0.331	1.187	0.339					
					Edge 1	138	5690	16.0	15.9			0.395									
					Edge 2	138	5690	16.0	15.9			0.069									
					Edge 4	138	5690	16.0	15.9			0.414									
		802.11ac VHT80	5	1 Tx	Rear	138	5690			15.8	15.8	0.205					0.105	0.031	0.105	0.031	
					Front	122	5610			15.8	15.7						1.110	0.298	1.136	0.305	
						138	5690			15.8	15.8	2.630					1.180	0.323	1.180	0.323	
					Edge 2	138	5690			15.8	15.8	0.019									
					Edge 3	138	5690			15.8	15.8	0.022									
					Edge 4	138	5690			15.8	15.8	0.000									
		802.11ac VHT80	5	2 Tx	Rear	138	5690	16.0	16.0	15.8	15.8	0.384									
					Front	122	5610	16.0	16.0	15.8	15.8		0.570	0.173	0.570	0.173	0.901	0.242	0.901	0.242	
						138	5690	16.0	16.0	15.8	15.8	1.590	1.070	0.318	1.070	0.318	1.190	0.334	1.190	0.334	44
					Edge 1	138	5690	16.0	16.0	15.8	15.8	0.518	0.299	0.090	0.299	0.090	-	-	-	-	
					Edge 2	138	5690	16.0	16.0	15.8	15.8	0.146									
					Edge 3	138	5690	16.0	16.0	15.8	15.8	0.389									
					Edge 4	138	5690	16.0	16.0	15.8	15.8	0.318									

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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10.23. 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	4.8	4.3			0.140									
					Left Tilt	155	5775	4.8	4.3			0.129									
					Right Touch	155	5775	4.8	4.3			0.302	0.140	0.038	0.157	0.043					
					Right Tilt	155	5775	4.8	4.3			0.223									
		802.11ac VHT80	0	1 Tx	Left Touch	155	5775			19.0	19.0	0.001									
					Left Tilt	155	5775			19.0	19.0	0.216									
					Right Touch	155	5775			19.0	19.0	0.379					0.243	0.103	0.243	0.103	
					Right Tilt	155	5775			19.0	19.0	0.202									
		802.11n HT40	0	2 Tx	Left Touch	159	5795	4.8	4.8	19.0	19.0	0.129									
					Left Tilt	159	5795	4.8	4.8	19.0	19.0	0.136									
					Right Touch	159	5795	4.8	4.8	19.0	19.0	0.258	0.147	0.045	0.147	0.045	-	-	-	-	
					Right Tilt	159	5795	4.8	4.8	19.0	19.0	0.185									
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	11.8	11.3			0.186									
					Front	155	5775	11.8	11.3			0.498	0.263	0.076	0.295	0.085					
					Edge 1	155	5775	11.8	11.3			0.243									
					Edge 2	155	5775	11.8	11.3			0.027									
					Edge 4	155	5775	11.8	11.3			0.165									
		802.11ac VHT80	5	1 Tx	Rear	155	5775			11.0	11.0	0.035									
					Front	155	5775			11.0	11.0	0.441					0.204	0.068	0.204	0.068	
					Edge 2	155	5775			11.0	11.0	0.080									
					Edge 3	155	5775			11.0	11.0	0.128									
					Edge 4	155	5775			11.0	11.0	0.019									
		802.11ac VHT80	5	2 Tx	Rear	155	5775	11.8	11.8	11.0	11.0	0.185									
					Front	155	5775	11.8	11.8	11.0	11.0	0.423	0.289	0.089	0.289	0.089	0.083	0.171	0.083	0.171	
					Edge 1	155	5775	11.8	11.8	11.0	11.0	0.251									
					Edge 2	155	5775	11.8	11.8	11.0	11.0	0.029									
					Edge 3	155	5775	11.8	11.8	11.0	11.0	0.031									
					Edge 4	155	5775	11.8	11.8	11.0	11.0	0.106									

Notes:

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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	12.8	12.7			1.180	0.646	0.219	0.661	0.224					
					Left Tilt	155	5775	12.8	12.7			0.911									
					Right Touch	155	5775	12.8	12.7			2.660	1.150	0.315	1.177	0.322					45
					Right Tilt	155	5775	12.8	12.7			2.400	1.030	0.278	1.054	0.284					
		802.11ac VHT80	0	1 Tx	Left Touch	155	5775			19.0	19.0	0.001									
					Left Tilt	155	5775			19.0	19.0	0.216									
					Right Touch	155	5775			19.0	19.0	0.379					0.243	0.103	0.243	0.103	
					Right Tilt	155	5775			19.0	19.0	0.202									
		802.11n HT40	0	2 Tx	Left Touch	159	5795	12.8	12.8	19.0	19.0	0.748									
					Left Tilt	159	5795	12.8	12.8	19.0	19.0	0.727									
					Right Touch	151	5755	12.8	12.8	19.0	19.0		1.140	0.308	1.140	0.308	-	-	-	-	
						159	5795	12.8	12.8	19.0	19.0	1.300	0.943	0.255	0.943	0.255	-	-	-	-	
					Right Tilt	151	5755	12.8	12.8	19.0	19.0										
						159	5795	12.8	12.8	19.0	19.0	0.971	0.693	0.147	0.693	0.147	-	-	-	-	
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	17.0	16.8			0.468									
					Front	155	5775	17.0	16.8			2.000	1.010	0.321	1.058	0.336					
					Edge 1	155	5775	17.0	16.8			0.755	0.447	0.146	0.468	0.153					
					Edge 2	155	5775	17.0	16.8			0.088									
					Edge 4	155	5775	17.0	16.8			0.555									
		802.11ac VHT80	5	1 Tx	Rear	155	5775			17.8	17.8	0.260									
					Front	155	5775			17.8	17.8	2.250					1.180	0.367	1.180	0.367	46
					Edge 2	155	5775			17.8	17.8	0.351									
					Edge 3	155	5775			17.8	17.8	0.750					0.431	0.181	0.431	0.181	
					Edge 4	155	5775			17.8	17.8	0.068									
		802.11ac VHT80	5	2 Tx	Rear	155	5775	17.0	17.0	17.8	16.8	0.585									
					Front	155	5775	17.0	17.0	17.8	16.8	1.950	1.100	0.338	1.100	0.338	0.746	0.246	0.939	0.310	
					Edge 1	155	5775	17.0	17.0	17.8	16.8	0.711	0.393	0.113	0.393	0.113	-	-	-	-	
					Edge 2	155	5775	17.0	17.0	17.8	16.8	0.237									
					Edge 3	155	5775	17.0	17.0	17.8	16.8	0.531									
					Edge 4	155	5775	17.0	17.0	17.8	16.8	0.428									

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 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	2 Tx	Right Tilt	6	2437	16.0	16.0	19.0	18.0	1.180	0.455	1.180	0.455	-	-	-	-
		Body-worn & Airplay	802.11g 20MHz	5	2 Tx	Front	9	2452	19.0	18.8	19.0	19.0	1.080	0.423	1.131	0.443	0.493	0.238	0.493	0.238
Variant 2 Spot Check	2.4 GHz	Head	802.11g 20MHz	0	2 Tx	Right Tilt	6	2437	16.0	16.0	19.0	19.0	1.130	0.431	1.130	0.431	-	-	-	-
		Body-worn & Airplay	802.11g 20MHz	5	2 Tx	Front	9	2452	19.0	19.0	19.0	19.0	1.030	0.399	1.030	0.399	0.945	0.423	0.945	0.423

Notes:

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

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

Vendor	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	5.2 & 5.3 GHz	Head	802.11n HT40 CDD	0	2 Tx	Right Touch	46	5230	14.0	13.8	19.0	19.0	1.110	0.338	1.162	0.354	-	-	-	-
		Body-worn & Airplay	802.11a	5	1 Tx	Front	48	5240	19.5	19.4			1.140	0.401	1.167	0.410				
Variant 2 Spot Check	5.2 & 5.3 GHz	Head	802.11n HT40 CDD	0	2 Tx	Right Touch	46	5230	14.0	14.0	19.0	19.0	1.100	0.343	1.100	0.343	-	-	-	-
		Body-worn & Airplay	802.11a	5	1 Tx	Front	48	5240	19.5	19.5			1.000	0.345	1.000	0.345				

Notes:

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

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

Vendor	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Right Touch	138	5690	11.8	11.8			1.190	0.308	1.190	0.308				
		Body-worn & Airplay	802.11ac VHT80	5	2 Tx	Front	138	5690	16.0	16.0	15.8	15.8	1.070	0.318	1.070	0.318	1.190	0.334	1.190	0.334
Variant 2 Spot Check	5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Right Touch	138	5690	11.8	11.8			1.030	0.297	1.030	0.297				
		Body-worn & Airplay	802.11ac VHT80	5	2 Tx	Front	138	5690	16.0	16.0	15.8	15.8	0.983	0.294	0.983	0.294	1.090	0.308	1.090	0.308

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	802.11ac VHT80	0	1 Tx	Right Touch	155	5775	12.8	12.7			1.150	0.315	1.177	0.322				
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	155	5775			17.8	17.8					1.180	0.367	1.180	0.367
Variant 2 Spot Check	5.8 GHz	Head	802.11ac VHT80	0	1 Tx	Right Touch	155	5775	12.8	12.8			1.120	0.295	1.120	0.295				
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	155	5775			17.8	17.8					1.160	0.331	1.160	0.331

Notes:

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

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10.25. 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	12.0	0.200	0.200	0.068	0.068	
				Left Tilt	39	2441.0	12.0	12.0	0.194	0.194	0.070	0.070	
				Right Touch	39	2441.0	12.0	12.0	0.243	0.243	0.090	0.090	47
				Right Tilt	39	2441.0	12.0	12.0	0.224	0.224	0.079	0.079	
	Body-worn	GFSK	5	Rear	39	2441.0	12.0	12.0	0.187	0.187	0.069	0.069	
				Front	39	2441.0	12.0	12.0	0.228	0.228	0.084	0.084	48

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	0.142	0.145	0.050	0.051	
				Left Tilt	39	2441.0	10.0	9.9	0.136	0.139	0.052	0.053	
				Right Touch	39	2441.0	10.0	9.9	0.144	0.147	0.054	0.055	
				Right Tilt	39	2441.0	10.0	9.9	0.142	0.145	0.056	0.057	
	Body-worn	GFSK	5	Rear	39	2441.0	10.0	9.9	0.060	0.061	0.019	0.019	
				Front	39	2441.0	10.0	9.9	0.075	0.077	0.025	0.026	

$P_{Standalone}$

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	0.564	0.564	0.213	0.213	
				Left Tilt	39	2441.0	16.5	16.5	0.588	0.588	0.208	0.208	49
				Right Touch	39	2441.0	16.5	16.5	0.470	0.470	0.187	0.187	
				Right Tilt	39	2441.0	16.5	16.5	0.494	0.494	0.188	0.188	
	Body-worn	GFSK	5	Rear	39	2441.0	16.5	16.5	0.218	0.218	0.083	0.083	
				Front	39	2441.0	16.5	16.5	0.290	0.290	0.109	0.109	50

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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)
750	LTE Band 12	Head	Right Touch	Yes	0.847	0.843	1.00	N/A	N/A	
	LTE Band 13	Hotspot	Edge 4	No	0.665	N/A	N/A	N/A	N/A	N/A
850	GSM 850	Body	Edge 4	Yes	0.978	0.971	1.01	N/A	N/A	
	WCDMA Band V	Head	Right Touch	No	0.829	N/A	N/A			
	LTE Band 26	Hotspot	Edge 4	No	0.668	N/A	N/A	N/A	N/A	N/A
1900	GSM 1900	Hotspot	Edge 3	No	1.030	N/A	N/A			
	WCDMA Band II	Hotspot	Edge 3	No	1.090	N/A	N/A			
	LTE Band 2	Head	Right Touch	No	1.180	N/A	N/A			
	LTE Band 25	Head	Right Touch	Yes	1.190	1.130	1.05	N/A	N/A	
1700	LTE Band 4	Hotspot	Edge 3	No	1.010	N/A	N/A			
	WCDMA Band IV	Hotspot	Edge 3	Yes	1.140	1.130	1.01	N/A	N/A	
2300	LTE Band 30	Head	Right Tilt	Yes	1.040	1.030	1.01	N/A	N/A	
2400	Wi-Fi 802.11b/g/n	Head	Right Tilt	Yes	1.180	1.150	1.03	N/A	N/A	
	BT	Head	Left Tilt	No	0.588	N/A	N/A	N/A	N/A	N/A
2600	LTE Band 7	Head	Left Tilt	No	1.040	N/A	N/A			
	LTE Band 41	Head	Left Touch	Yes	1.130	1.120	1.01	N/A	N/A	
5200	Wi-Fi 802.11a/n/ac	Body	Front	Yes	1.140	1.130	1.01	N/A	N/A	
5500	Wi-Fi 802.11a/n/ac	Body	Front	Yes	1.19	1.19	1.00	N/A	N/A	
5800	Wi-Fi 802.11a/n/ac	Body	Front	Yes	1.180	1.160	1.02	N/A	N/A	

Note(s):

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

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12. Simultaneous Transmission SAR Analysis

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

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

Where:

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

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

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

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

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

Simultaneous Transmission Condition

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

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

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

RF Exposure Conditions	Test Position	① Wi-Fi 2.4GHz (Chain 1)	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{high})	①+⑤		②+⑤		③+⑤		④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.259	0.661	0.243	0.597	0.200	0.459	No	0.861	No	0.443	No	0.797	No
	Left Tilt	0.259	1.190	0.243	1.162	0.194	0.453	No	1.384	No	0.437	No	1.356	No
	Right Touch	0.259	1.190	0.243	1.162	0.243	0.502	No	1.433	No	0.486	No	1.405	No
	Right Tilt	0.259	1.054	0.243	1.001	0.224	0.483	No	1.278	No	0.467	No	1.225	No
Body-worn Accessory & Hotspot	Rear	1.104	0.272	1.180	1.190	0.187	1.291	No	0.459	No	1.367	No	1.377	No
	Front	1.104	1.187	1.180	1.190	0.228	1.332	No	1.415	No	1.408	No	1.418	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	0.638	0.295	0.227	0.328	0.145	0.933	No	0.865	No	0.966	No	0.783	No	1.010	No
	Left Tilt	0.485	0.295	0.227	0.328	0.139	0.780	No	0.712	No	0.813	No	0.624	No	0.851	No
	Right Touch	0.699	0.295	0.227	0.328	0.147	0.994	No	0.926	No	1.027	No	0.846	No	1.073	No
	Right Tilt	0.539	0.295	0.227	0.328	0.145	0.834	No	0.766	No	0.867	No	0.684	No	0.911	No
Body-worn & Hotspot & Airplay	Rear	0.244	0.443	0.223	0.423	0.061	0.687	No	0.467	No	0.667	No	0.305	No	0.528	No
	Front	0.178	0.422	0.223	0.343	0.077	0.600	No	0.401	No	0.521	No	0.255	No	0.478	No
Hotspot & Airplay	Edge 1	0.237	0.443	0.223	0.423		0.680	No	0.460	No	0.660	No				
	Edge 2	0.233	0.443	0.223	0.423		0.676	No	0.456	No	0.656	No				
	Edge 4	0.290	0.443	0.223	0.423		0.733	No	0.513	No	0.713	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	0.612	0.295	0.227	0.328	0.145	0.907	No	0.839	No	0.940	No	0.757	No	0.984	No
	Left Tilt	0.334	0.295	0.227	0.328	0.139	0.629	No	0.561	No	0.662	No	0.473	No	0.700	No
	Right Touch	0.488	0.295	0.227	0.328	0.147	0.783	No	0.715	No	0.816	No	0.635	No	0.862	No
	Right Tilt	0.356	0.295	0.227	0.328	0.145	0.651	No	0.583	No	0.684	No	0.501	No	0.728	No
Body-worn & Hotspot & Airplay	Rear	0.708	0.443	0.223	0.423	0.061	1.151	No	0.931	No	1.131	No	0.769	No	0.992	No
	Front	0.760	0.422	0.223	0.343	0.077	1.182	No	0.983	No	1.103	No	0.837	No	1.060	No
Hotspot & Airplay	Edge 2	0.520	0.443	0.223	0.423		0.963	No	0.743	No	0.943	No				
	Edge 3	0.611	0.443	0.223	0.423		1.054	No	0.834	No	1.034	No				
	Edge 4	1.061	0.443	0.223	0.423		1.504	No	1.284	No	1.484	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	0.399	0.295	0.227	0.328	0.145	0.694	No	0.626	No	0.727	No	0.544	No	0.771	No
	Left Tilt	0.355	0.295	0.227	0.328	0.139	0.650	No	0.582	No	0.683	No	0.494	No	0.721	No
	Right Touch	1.037	0.295	0.227	0.328	0.147	1.332	No	1.264	No	1.365	No	1.184	No	1.411	No
	Right Tilt	0.718	0.295	0.227	0.328	0.145	1.013	No	0.945	No	1.046	No	0.863	No	1.090	No
Body-worn & Hotspot & Airplay	Rear	0.392	0.443	0.223	0.423	0.061	0.835	No	0.615	No	0.815	No	0.453	No	0.676	No
	Front	0.421	0.422	0.223	0.343	0.077	0.843	No	0.644	No	0.764	No	0.498	No	0.721	No
Hotspot & Airplay	Edge 1	0.466	0.443	0.223	0.423		0.909	No	0.689	No	0.889	No				
	Edge 2	0.035	0.443	0.223	0.423		0.478	No	0.258	No	0.458	No				
	Edge 4	0.531	0.443	0.223	0.423		0.974	No	0.754	No	0.954	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	0.514	0.295	0.227	0.328	0.145	0.809	No	0.741	No	0.842	No	0.659	No	0.886	No
	Left Tilt	0.241	0.295	0.227	0.328	0.139	0.536	No	0.468	No	0.569	No	0.380	No	0.607	No
	Right Touch	0.934	0.295	0.227	0.328	0.147	1.229	No	1.161	No	1.262	No	1.081	No	1.308	No
	Right Tilt	0.251	0.295	0.227	0.328	0.145	0.546	No	0.478	No	0.579	No	0.396	No	0.623	No
Body-worn & Hotspot & Airplay	Rear	0.927	0.443	0.223	0.423	0.061	1.370	No	1.150	No	1.350	No	0.988	No	1.211	No
	Front	0.891	0.422	0.223	0.343	0.077	1.313	No	1.114	No	1.234	No	0.968	No	1.191	No
Hotspot & Airplay	Edge 2	0.656	0.443	0.223	0.423		1.099	No	0.879	No	1.079	No				
	Edge 3	1.054	0.443	0.223	0.423		1.497	No	1.277	No	1.477	No				
	Edge 4	0.090	0.443	0.223	0.423		0.533	No	0.313	No	0.513	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	0.745	0.295	0.227	0.328	0.145	1.040	No	0.972	No	1.073	No	0.890	No	1.117	No
	Left Tilt	0.495	0.295	0.227	0.328	0.139	0.790	No	0.722	No	0.823	No	0.634	No	0.861	No
	Right Touch	0.829	0.295	0.227	0.328	0.147	1.124	No	1.056	No	1.157	No	0.976	No	1.203	No
	Right Tilt	0.544	0.295	0.227	0.328	0.145	0.839	No	0.771	No	0.872	No	0.689	No	0.916	No
Body-worn & Hotspot & Airplay	Rear	0.391	0.443	0.223	0.423	0.061	0.834	No	0.614	No	0.814	No	0.452	No	0.675	No
	Front	0.385	0.422	0.223	0.343	0.077	0.807	No	0.608	No	0.728	No	0.462	No	0.685	No
Hotspot & Airplay	Edge 1	0.172	0.443	0.223	0.423		0.615	No	0.395	No	0.595	No				
	Edge 2	0.546	0.443	0.223	0.423		0.989	No	0.769	No	0.969	No				
	Edge 4	0.196	0.443	0.223	0.423		0.639	No	0.419	No	0.619	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	0.517	0.295	0.227	0.328	0.145	0.812	No	0.744	No	0.845	No	0.662	No	0.889	No
	Left Tilt	0.201	0.295	0.227	0.328	0.139	0.496	No	0.428	No	0.529	No	0.340	No	0.567	No
	Right Touch	0.422	0.295	0.227	0.328	0.147	0.717	No	0.649	No	0.750	No	0.569	No	0.796	No
	Right Tilt	0.228	0.295	0.227	0.328	0.145	0.523	No	0.455	No	0.556	No	0.373	No	0.600	No
Body-worn & Hotspot & Airplay	Rear	0.416	0.443	0.223	0.423	0.061	0.859	No	0.639	No	0.839	No	0.477	No	0.700	No
	Front	0.511	0.422	0.223	0.343	0.077	0.933	No	0.734	No	0.854	No	0.588	No	0.811	No
Hotspot & Airplay	Edge 2	0.281	0.443	0.223	0.423		0.724	No	0.504	No	0.704	No				
	Edge 3	0.438	0.443	0.223	0.423		0.881	No	0.661	No	0.861	No				
	Edge 4	0.703	0.443	0.223	0.423		1.146	No	0.926	No	1.126	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	0.370	0.295	0.227	0.328	0.145	0.665	No	0.597	No	0.698	No	0.515	No	0.742	No
	Left Tilt	0.399	0.295	0.227	0.328	0.139	0.694	No	0.626	No	0.727	No	0.538	No	0.765	No
	Right Touch	1.020	0.295	0.227	0.328	0.147	1.315	No	1.247	No	1.348	No	1.167	No	1.394	No
	Right Tilt	0.765	0.295	0.227	0.328	0.145	1.060	No	0.992	No	1.093	No	0.910	No	1.137	No
Body-worn & Hotspot & Airplay	Rear	0.771	0.443	0.223	0.423	0.061	1.214	No	0.994	No	1.194	No	0.832	No	1.055	No
	Front	0.951	0.422	0.223	0.343	0.077	1.373	No	1.174	No	1.294	No	1.028	No	1.251	No
Hotspot & Airplay	Edge 1	0.969	0.443	0.223	0.423		1.412	No	1.192	No	1.392	No				
	Edge 2	0.083	0.443	0.223	0.423		0.526	No	0.306	No	0.506	No				
	Edge 4	0.937	0.443	0.223	0.423		1.380	No	1.160	No	1.360	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	0.413	0.295	0.227	0.328	0.145	0.708	No	0.640	No	0.741	No	0.558	No	0.785	No
	Left Tilt	0.272	0.295	0.227	0.328	0.139	0.567	No	0.499	No	0.600	No	0.411	No	0.638	No
	Right Touch	0.897	0.295	0.227	0.328	0.147	1.192	No	1.124	No	1.225	No	1.044	No	1.271	No
	Right Tilt	0.225	0.295	0.227	0.328	0.145	0.520	No	0.452	No	0.553	No	0.370	No	0.597	No
Body-worn & Hotspot & Airplay	Rear	0.894	0.443	0.223	0.423	0.061	1.337	No	1.117	No	1.317	No	0.955	No	1.178	No
	Front	1.090	0.422	0.223	0.343	0.077	1.512	No	1.313	No	1.433	No	1.167	No	1.390	No
Hotspot & Airplay	Edge 2	0.754	0.443	0.223	0.423		1.197	No	0.977	No	1.177	No				
	Edge 3	1.140	0.443	0.223	0.423		1.583	No	1.363	No	1.563	No				
	Edge 4	0.058	0.443	0.223	0.423		0.501	No	0.281	No	0.481	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	0.435	0.295	0.227	0.328	0.145	0.730	No	0.662	No	0.763	No	0.580	No	0.807	No
	Left Tilt	0.359	0.295	0.227	0.328	0.139	0.654	No	0.586	No	0.687	No	0.498	No	0.725	No
	Right Touch	1.059	0.295	0.227	0.328	0.147	1.354	No	1.286	No	1.387	No	1.206	No	1.433	No
	Right Tilt	0.629	0.295	0.227	0.328	0.145	0.924	No	0.856	No	0.957	No	0.774	No	1.001	No
Body-worn & Hotspot & Airplay	Rear	0.658	0.443	0.223	0.423	0.061	1.101	No	0.881	No	1.081	No	0.719	No	0.942	No
	Front	0.756	0.422	0.223	0.343	0.077	1.178	No	0.979	No	1.099	No	0.833	No	1.056	No
Hotspot & Airplay	Edge 1	0.976	0.443	0.223	0.423		1.419	No	1.199	No	1.399	No				
	Edge 2	0.029	0.443	0.223	0.423		0.472	No	0.252	No	0.452	No				
	Edge 4	0.955	0.443	0.223	0.423		1.398	No	1.178	No	1.378	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	0.510	0.295	0.227	0.328	0.145	0.805	No	0.737	No	0.838	No	0.655	No	0.882	No
	Left Tilt	0.309	0.295	0.227	0.328	0.139	0.604	No	0.536	No	0.637	No	0.448	No	0.675	No
	Right Touch	0.987	0.295	0.227	0.328	0.147	1.282	No	1.214	No	1.315	No	1.134	No	1.361	No
	Right Tilt	0.288	0.295	0.227	0.328	0.145	0.583	No	0.515	No	0.616	No	0.433	No	0.660	No
Body-worn & Hotspot & Airplay	Rear	0.914	0.443	0.223	0.423	0.061	1.357	No	1.137	No	1.337	No	0.975	No	1.198	No
	Front	0.844	0.422	0.223	0.343	0.077	1.266	No	1.067	No	1.187	No	0.921	No	1.144	No
Hotspot & Airplay	Edge 2	0.668	0.443	0.223	0.423		1.111	No	0.891	No	1.091	No				
	Edge 3	1.090	0.443	0.223	0.423		1.533	No	1.313	No	1.513	No				
	Edge 4	0.080	0.443	0.223	0.423		0.523	No	0.303	No	0.503	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 LTE Band 2 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

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

12.13. Sum of the SAR for LTE Band 2 (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	0.600	0.295	0.227	0.328	0.145	0.895	No	0.827	No	0.928	No	0.745	No	0.972	No
	Left Tilt	0.306	0.295	0.227	0.328	0.139	0.601	No	0.533	No	0.634	No	0.445	No	0.672	No
	Right Touch	1.180	0.295	0.227	0.328	0.147	1.475	No	1.407	No	1.508	No	1.327	No	1.554	No
	Right Tilt	0.327	0.295	0.227	0.328	0.145	0.622	No	0.554	No	0.655	No	0.472	No	0.699	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 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	0.399	0.295	0.227	0.328	0.145	0.694	No	0.626	No	0.727	No	0.544	No	0.771	No
	Left Tilt	0.423	0.295	0.227	0.328	0.139	0.718	No	0.650	No	0.751	No	0.562	No	0.789	No
	Right Touch	0.954	0.295	0.227	0.328	0.147	1.249	No	1.181	No	1.282	No	1.101	No	1.328	No
	Right Tilt	0.627	0.295	0.227	0.328	0.145	0.922	No	0.854	No	0.955	No	0.772	No	0.999	No
Body-worn & Hotspot & Airplay	Rear	0.687	0.443	0.223	0.423	0.061	1.130	No	0.910	No	1.110	No	0.748	No	0.971	No
	Front	0.821	0.422	0.223	0.343	0.077	1.243	No	1.044	No	1.164	No	0.898	No	1.121	No
Hotspot & Airplay	Edge 1	0.989	0.443	0.223	0.423		1.432	No	1.212	No	1.412	No				
	Edge 2	0.069	0.443	0.223	0.423		0.512	No	0.292	No	0.492	No				
	Edge 4	0.798	0.443	0.223	0.423		1.241	No	1.021	No	1.221	No				

12.15. 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	0.305	0.295	0.227	0.328	0.145	0.600	No	0.532	No	0.633	No	0.450	No	0.677	No
	Left Tilt	0.200	0.295	0.227	0.328	0.139	0.495	No	0.427	No	0.528	No	0.339	No	0.566	No
	Right Touch	0.694	0.295	0.227	0.328	0.147	0.989	No	0.921	No	1.022	No	0.841	No	1.068	No
	Right Tilt	0.217	0.295	0.227	0.328	0.145	0.512	No	0.444	No	0.545	No	0.362	No	0.589	No
Body-worn & Hotspot & Airplay	Rear	0.775	0.443	0.223	0.423	0.061	1.218	No	0.998	No	1.198	No	0.836	No	1.059	No
	Front	0.931	0.422	0.223	0.343	0.077	1.353	No	1.154	No	1.274	No	1.008	No	1.231	No
Hotspot & Airplay	Edge 2	0.688	0.443	0.223	0.423		1.131	No	0.911	No	1.111	No				
	Edge 3	1.015	0.443	0.223	0.423		1.458	No	1.238	No	1.438	No				
	Edge 4	0.050	0.443	0.223	0.423		0.493	No	0.273	No	0.473	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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12.16. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi DTS (Cell On) & BT(Plow)

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

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

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

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12.18. 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	1.076	0.295	0.227	0.328	0.145	1.371	No	1.303	No	1.404	No	1.221	No	1.448	No
	Left Tilt	1.081	0.295	0.227	0.328	0.139	1.376	No	1.308	No	1.409	No	1.220	No	1.447	No
	Right Touch	0.411	0.295	0.227	0.328	0.147	0.706	No	0.638	No	0.739	No	0.558	No	0.785	No
	Right Tilt	0.459	0.295	0.227	0.328	0.145	0.754	No	0.686	No	0.787	No	0.604	No	0.831	No
Body-worn & Hotspot & Airplay	Rear	0.783	0.443	0.223	0.423	0.061	1.226	No	1.006	No	1.206	No	0.844	No	1.067	No
	Front	0.967	0.422	0.223	0.343	0.077	1.389	No	1.190	No	1.310	No	1.044	No	1.267	No
Hotspot & Airplay	Edge 1	0.633	0.443	0.223	0.423		1.076	No	0.856	No	1.056	No				
	Edge 2	0.504	0.443	0.223	0.423		0.947	No	0.727	No	0.927	No				
	Edge 4	0.030	0.443	0.223	0.423		0.473	No	0.253	No	0.453	No				

12.19. 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	0.782	0.295	0.227	0.328	0.145	1.077	No	1.009	No	1.110	No	0.927	No	1.154	No
	Left Tilt	0.190	0.295	0.227	0.328	0.139	0.485	No	0.417	No	0.518	No	0.329	No	0.556	No
	Right Touch	0.420	0.295	0.227	0.328	0.147	0.715	No	0.647	No	0.748	No	0.567	No	0.794	No
	Right Tilt	0.241	0.295	0.227	0.328	0.145	0.536	No	0.468	No	0.569	No	0.386	No	0.613	No
Body-worn & Hotspot & Airplay	Rear	0.726	0.443	0.223	0.423	0.061	1.169	No	0.949	No	1.149	No	0.787	No	1.010	No
	Front	1.072	0.422	0.223	0.343	0.077	1.494	No	1.295	No	1.415	No	1.149	No	1.372	No
Hotspot & Airplay	Edge 2	0.081	0.443	0.223	0.423		0.524	No	0.304	No	0.504	No				
	Edge 3	0.701	0.443	0.223	0.423		1.144	No	0.924	No	1.124	No				
	Edge 4	0.608	0.443	0.223	0.423		1.051	No	0.831	No	1.031	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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12.20. 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	0.567	0.295	0.227	0.328	0.145	0.862	No	0.794	No	0.895	No	0.712	No	0.939	No
	Left Tilt	0.627	0.295	0.227	0.328	0.139	0.922	No	0.854	No	0.955	No	0.766	No	0.993	No
	Right Touch	0.908	0.295	0.227	0.328	0.147	1.203	No	1.135	No	1.236	No	1.055	No	1.282	No
	Right Tilt	0.638	0.295	0.227	0.328	0.145	0.933	No	0.865	No	0.966	No	0.783	No	1.010	No
Body-worn & Hotspot & Airplay	Rear	0.379	0.443	0.223	0.423	0.061	0.822	No	0.602	No	0.802	No	0.440	No	0.663	No
	Front	0.292	0.422	0.223	0.343	0.077	0.714	No	0.515	No	0.635	No	0.369	No	0.592	No
Hotspot & Airplay	Edge 1	0.238	0.443	0.223	0.423		0.681	No	0.461	No	0.661	No				
	Edge 2	0.351	0.443	0.223	0.423		0.794	No	0.574	No	0.774	No				
	Edge 4	0.262	0.443	0.223	0.423		0.705	No	0.485	No	0.685	No				

12.21. 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	0.307	0.295	0.227	0.328	0.145	0.602	No	0.534	No	0.635	No	0.452	No	0.679	No
	Left Tilt	0.120	0.295	0.227	0.328	0.139	0.415	No	0.347	No	0.448	No	0.259	No	0.486	No
	Right Touch	0.265	0.295	0.227	0.328	0.147	0.560	No	0.492	No	0.593	No	0.412	No	0.639	No
	Right Tilt	0.124	0.295	0.227	0.328	0.145	0.419	No	0.351	No	0.452	No	0.269	No	0.496	No
Body-worn & Hotspot & Airplay	Rear	0.430	0.443	0.223	0.423	0.061	0.873	No	0.653	No	0.853	No	0.491	No	0.714	No
	Front	0.478	0.422	0.223	0.343	0.077	0.900	No	0.701	No	0.821	No	0.555	No	0.778	No
Hotspot & Airplay	Edge 2	0.287	0.443	0.223	0.423		0.730	No	0.510	No	0.710	No				
	Edge 3	0.331	0.443	0.223	0.423		0.774	No	0.554	No	0.754	No				
	Edge 4	0.470	0.443	0.223	0.423		0.913	No	0.693	No	0.893	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 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	0.454	0.295	0.227	0.328	0.145	0.749	No	0.681	No	0.782	No	0.599	No	0.826	No
	Left Tilt	0.421	0.295	0.227	0.328	0.139	0.716	No	0.648	No	0.749	No	0.560	No	0.787	No
	Right Touch	0.606	0.295	0.227	0.328	0.147	0.901	No	0.833	No	0.934	No	0.753	No	0.980	No
	Right Tilt	0.436	0.295	0.227	0.328	0.145	0.731	No	0.663	No	0.764	No	0.581	No	0.808	No
Body-worn & Hotspot & Airplay	Rear	0.352	0.443	0.223	0.423	0.061	0.795	No	0.575	No	0.775	No	0.413	No	0.636	No
	Front	0.351	0.422	0.223	0.343	0.077	0.773	No	0.574	No	0.694	No	0.428	No	0.651	No
Hotspot & Airplay	Edge 1	0.242	0.443	0.223	0.423		0.685	No	0.465	No	0.665	No				
	Edge 2	0.470	0.443	0.223	0.423		0.913	No	0.693	No	0.893	No				
	Edge 4	0.214	0.443	0.223	0.423		0.657	No	0.437	No	0.637	No				

12.23. 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	0.287	0.295	0.227	0.328	0.145	0.582	No	0.514	No	0.615	No	0.432	No	0.659	No
	Left Tilt	0.175	0.295	0.227	0.328	0.139	0.470	No	0.402	No	0.503	No	0.314	No	0.541	No
	Right Touch	0.260	0.295	0.227	0.328	0.147	0.555	No	0.487	No	0.588	No	0.407	No	0.634	No
	Right Tilt	0.158	0.295	0.227	0.328	0.145	0.453	No	0.385	No	0.486	No	0.303	No	0.530	No
Body-worn & Hotspot & Airplay	Rear	0.562	0.443	0.223	0.423	0.061	1.005	No	0.785	No	0.985	No	0.623	No	0.846	No
	Front	0.650	0.422	0.223	0.343	0.077	1.072	No	0.873	No	0.993	No	0.727	No	0.950	No
Hotspot & Airplay	Edge 2	0.360	0.443	0.223	0.423		0.803	No	0.583	No	0.783	No				
	Edge 3	0.488	0.443	0.223	0.423		0.931	No	0.711	No	0.911	No				
	Edge 4	0.701	0.443	0.223	0.423		1.144	No	0.924	No	1.124	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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12.24. Sum of the SAR for LTE Band 17 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

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

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

Covered by LTE Band12 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

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 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	0.456	0.295	0.227	0.328	0.145	0.751	No	0.683	No	0.784	No	0.601	No	0.828	No
	Left Tilt	0.370	0.295	0.227	0.328	0.139	0.665	No	0.597	No	0.698	No	0.509	No	0.736	No
	Right Touch	1.069	0.295	0.227	0.328	0.147	1.364	No	1.296	No	1.397	No	1.216	No	1.443	No
	Right Tilt	0.768	0.295	0.227	0.328	0.145	1.063	No	0.995	No	1.096	No	0.913	No	1.140	No
Body-worn & Hotspot & Airplay	Rear	0.691	0.443	0.223	0.423	0.061	1.134	No	0.914	No	1.114	No	0.752	No	0.975	No
	Front	0.822	0.422	0.223	0.343	0.077	1.244	No	1.045	No	1.165	No	0.899	No	1.122	No
Hotspot & Airplay	Edge 1	0.657	0.443	0.223	0.423		1.100	No	0.880	No	1.080	No				
	Edge 2	0.040	0.443	0.223	0.423		0.483	No	0.263	No	0.463	No				
	Edge 4	0.922	0.443	0.223	0.423		1.365	No	1.145	No	1.345	No				

12.27. 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	0.721	0.295	0.227	0.328	0.145	1.016	No	0.948	No	1.049	No	0.866	No	1.093	No
	Left Tilt	0.299	0.295	0.227	0.328	0.139	0.594	No	0.526	No	0.627	No	0.438	No	0.665	No
	Right Touch	1.190	0.295	0.227	0.328	0.147	1.485	No	1.417	No	1.518	No	1.337	No	1.564	No
	Right Tilt	0.329	0.295	0.227	0.328	0.145	0.624	No	0.556	No	0.657	No	0.474	No	0.701	No
Body-worn & Hotspot & Airplay	Rear	1.000	0.443	0.223	0.423	0.061	1.443	No	1.223	No	1.423	No	1.061	No	1.284	No
	Front	0.960	0.422	0.223	0.343	0.077	1.382	No	1.183	No	1.303	No	1.037	No	1.260	No
Hotspot & Airplay	Edge 2	0.685	0.443	0.223	0.423		1.128	No	0.908	No	1.108	No				
	Edge 3	1.140	0.443	0.223	0.423		1.583	No	1.363	No	1.563	No				
	Edge 4	0.087	0.443	0.223	0.423		0.530	No	0.310	No	0.510	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 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	0.408	0.295	0.227	0.328	0.145	0.703	No	0.635	No	0.736	No	0.553	No	0.780	No
	Left Tilt	0.050	0.295	0.227	0.328	0.139	0.345	No	0.277	No	0.378	No	0.189	No	0.416	No
	Right Touch	0.588	0.295	0.227	0.328	0.147	0.883	No	0.815	No	0.916	No	0.735	No	0.962	No
	Right Tilt	0.461	0.295	0.227	0.328	0.145	0.756	No	0.688	No	0.789	No	0.606	No	0.833	No
Body-worn & Hotspot & Airplay	Rear	0.365	0.443	0.223	0.423	0.061	0.808	No	0.588	No	0.788	No	0.426	No	0.649	No
	Front	0.429	0.422	0.223	0.343	0.077	0.851	No	0.652	No	0.772	No	0.506	No	0.729	No
Hotspot & Airplay	Edge 1	0.294	0.443	0.223	0.423		0.737	No	0.517	No	0.717	No				
	Edge 2	0.390	0.443	0.223	0.423		0.833	No	0.613	No	0.813	No				
	Edge 4	0.149	0.443	0.223	0.423		0.592	No	0.372	No	0.572	No				

12.29. 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	0.349	0.295	0.227	0.328	0.145	0.644	No	0.576	No	0.677	No	0.494	No	0.721	No
	Left Tilt	0.193	0.295	0.227	0.328	0.139	0.488	No	0.420	No	0.521	No	0.332	No	0.559	No
	Right Touch	0.325	0.295	0.227	0.328	0.147	0.620	No	0.552	No	0.653	No	0.472	No	0.699	No
	Right Tilt	0.192	0.295	0.227	0.328	0.145	0.487	No	0.419	No	0.520	No	0.337	No	0.564	No
Body-worn & Hotspot & Airplay	Rear	0.522	0.443	0.223	0.423	0.061	0.965	No	0.745	No	0.945	No	0.583	No	0.806	No
	Front	0.588	0.422	0.223	0.343	0.077	1.010	No	0.811	No	0.931	No	0.665	No	0.888	No
Hotspot & Airplay	Edge 2	0.302	0.443	0.223	0.423		0.745	No	0.525	No	0.725	No				
	Edge 3	0.465	0.443	0.223	0.423		0.908	No	0.688	No	0.888	No				
	Edge 4	0.668	0.443	0.223	0.423		1.111	No	0.891	No	1.091	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 27 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low})

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

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

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

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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12.32. 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	0.391	0.295	0.227	0.328	0.145	0.686	No	0.618	No	0.719	No	0.536	No	0.763	No
	Left Tilt	0.442	0.295	0.227	0.328	0.139	0.737	No	0.669	No	0.770	No	0.581	No	0.808	No
	Right Touch	1.070	0.295	0.227	0.328	0.147	1.365	No	1.297	No	1.398	No	1.217	No	1.444	No
	Right Tilt	1.072	0.295	0.227	0.328	0.145	1.367	No	1.299	No	1.400	No	1.217	No	1.444	No
Body-worn & Hotspot & Airplay	Rear	0.907	0.443	0.223	0.423	0.061	1.350	No	1.130	No	1.330	No	0.968	No	1.191	No
	Front	0.969	0.422	0.223	0.343	0.077	1.391	No	1.192	No	1.312	No	1.046	No	1.269	No
Hotspot & Airplay	Edge 1	0.834	0.443	0.223	0.423		1.277	No	1.057	No	1.257	No				
	Edge 2	0.150	0.443	0.223	0.423		0.593	No	0.373	No	0.573	No				
	Edge 4	0.567	0.443	0.223	0.423		1.010	No	0.790	No	0.990	No				

12.33. 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	0.347	0.295	0.227	0.328	0.145	0.642	No	0.574	No	0.675	No	0.492	No	0.719	No
	Left Tilt	0.285	0.295	0.227	0.328	0.139	0.580	No	0.512	No	0.613	No	0.424	No	0.651	No
	Right Touch	0.784	0.295	0.227	0.328	0.147	1.079	No	1.011	No	1.112	No	0.931	No	1.158	No
	Right Tilt	0.304	0.295	0.227	0.328	0.145	0.599	No	0.531	No	0.632	No	0.449	No	0.676	No
Body-worn & Hotspot & Airplay	Rear	0.725	0.443	0.223	0.423	0.061	1.168	No	0.948	No	1.148	No	0.786	No	1.009	No
	Front	1.032	0.422	0.223	0.343	0.077	1.454	No	1.255	No	1.375	No	1.109	No	1.332	No
Hotspot & Airplay	Edge 2	0.534	0.443	0.223	0.423		0.977	No	0.757	No	0.957	No				
	Edge 3	0.847	0.443	0.223	0.423		1.290	No	1.070	No	1.270	No				
	Edge 4	0.191	0.443	0.223	0.423		0.634	No	0.414	No	0.614	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 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	0.596	0.295	0.227	0.328	0.145	0.891	No	0.823	No	0.924	No	0.741	No	0.968	No
	Left Tilt	0.567	0.295	0.227	0.328	0.139	0.862	No	0.794	No	0.895	No	0.706	No	0.933	No
	Right Touch	0.268	0.295	0.227	0.328	0.147	0.563	No	0.495	No	0.596	No	0.415	No	0.642	No
	Right Tilt	0.281	0.295	0.227	0.328	0.145	0.576	No	0.508	No	0.609	No	0.426	No	0.653	No
Body-worn & Hotspot & Airplay	Rear	0.565	0.443	0.223	0.423	0.061	1.008	No	0.788	No	0.988	No	0.626	No	0.849	No
	Front	0.348	0.422	0.223	0.343	0.077	0.770	No	0.571	No	0.691	No	0.425	No	0.648	No
Hotspot & Airplay	Edge 1	0.243	0.443	0.223	0.423		0.686	No	0.466	No	0.666	No				
	Edge 2	0.318	0.443	0.223	0.423		0.761	No	0.541	No	0.741	No				
	Edge 4	0.091	0.443	0.223	0.423		0.534	No	0.314	No	0.514	No				

12.35. 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	1.141	0.295	0.227	0.328	0.145	1.436	No	1.368	No	1.469	No	1.286	No	1.513	No
	Left Tilt	0.192	0.295	0.227	0.328	0.139	0.487	No	0.419	No	0.520	No	0.331	No	0.558	No
	Right Touch	0.575	0.295	0.227	0.328	0.147	0.870	No	0.802	No	0.903	No	0.722	No	0.949	No
	Right Tilt	0.313	0.295	0.227	0.328	0.145	0.608	No	0.540	No	0.641	No	0.458	No	0.685	No
Body-worn & Hotspot & Airplay	Rear	1.060	0.443	0.223	0.423	0.061	1.503	No	1.283	No	1.483	No	1.121	No	1.344	No
	Front	1.050	0.422	0.223	0.343	0.077	1.472	No	1.273	No	1.393	No	1.127	No	1.350	No
Hotspot & Airplay	Edge 2	0.044	0.443	0.223	0.423		0.487	No	0.267	No	0.467	No				
	Edge 3	0.722	0.443	0.223	0.423		1.165	No	0.945	No	1.145	No				
	Edge 4	0.810	0.443	0.223	0.423		1.253	No	1.033	No	1.233	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-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 Tilt	0.836	0.295	0.227	0.328	0.139	0.975	No	0.434	No	0.366	No	0.467	No	1.202	No

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	0.898	0.422	0.223	0.343	0.077	0.975	No	0.499	No	0.300	No	0.420	No	1.198	No

12.38. 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)
Head	Left Touch	0.890	0.295	0.227	0.328	0.145	1.035	No	0.440	No	0.372	No	0.473	No	1.262	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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12.39. 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	0.638	0.186	0.243	0.180	0.145	0.824	No	0.881	No	0.818	No	0.969	No	1.026	No	0.963	No
	Left Tilt	0.485	0.186	0.243	0.180	0.139	0.671	No	0.728	No	0.665	No	0.810	No	0.867	No	0.804	No
	Right Touch	0.699	0.186	0.243	0.180	0.147	0.885	No	0.942	No	0.879	No	1.032	No	1.089	No	1.026	No
	Right Tilt	0.539	0.186	0.243	0.180	0.145	0.725	No	0.782	No	0.719	No	0.870	No	0.927	No	0.864	No
Body-worn Accessory & Airplay	Rear	0.244	0.335	0.209	0.317	0.061	0.579	No	0.453	No	0.561	No	0.640	No	0.514	No	0.622	No
	Front	0.178	0.335	0.209	0.317	0.077	0.513	No	0.387	No	0.495	No	0.590	No	0.464	No	0.572	No
Airplay	Edge 1	0.237	0.335	0.209	0.317		0.572	No	0.446	No	0.554	No						
	Edge 2	0.233	0.335	0.209	0.317		0.568	No	0.442	No	0.550	No						
	Edge 4	0.290	0.335	0.209	0.317		0.625	No	0.499	No	0.607	No						

12.40. 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	0.612	0.186	0.243	0.180	0.145	0.798	No	0.855	No	0.792	No	0.943	No	1.000	No	0.937	No
	Left Tilt	0.334	0.186	0.243	0.180	0.139	0.520	No	0.577	No	0.514	No	0.659	No	0.716	No	0.653	No
	Right Touch	0.488	0.186	0.243	0.180	0.147	0.674	No	0.731	No	0.668	No	0.821	No	0.878	No	0.815	No
	Right Tilt	0.356	0.186	0.243	0.180	0.145	0.542	No	0.599	No	0.536	No	0.687	No	0.744	No	0.681	No
Body-worn Accessory & Airplay	Rear	0.708	0.335	0.209	0.317	0.061	1.043	No	0.917	No	1.025	No	1.104	No	0.978	No	1.086	No
	Front	0.760	0.335	0.209	0.317	0.077	1.095	No	0.969	No	1.077	No	1.172	No	1.046	No	1.154	No
Airplay	Edge 2	0.520	0.335	0.209	0.317		0.855	No	0.729	No	0.837	No						
	Edge 3	0.611	0.335	0.209	0.317		0.946	No	0.820	No	0.928	No						
	Edge 4	1.061	0.335	0.209	0.317		1.396	No	1.270	No	1.378	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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12.41. 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	0.399	0.186	0.243	0.180	0.145	0.585	No	0.642	No	0.579	No	0.730	No	0.787	No	0.724	No
	Left Tilt	0.355	0.186	0.243	0.180	0.139	0.541	No	0.598	No	0.535	No	0.680	No	0.737	No	0.674	No
	Right Touch	1.037	0.186	0.243	0.180	0.147	1.223	No	1.280	No	1.217	No	1.370	No	1.427	No	1.364	No
	Right Tilt	0.718	0.186	0.243	0.180	0.145	0.904	No	0.961	No	0.898	No	1.049	No	1.106	No	1.043	No
Body-worn Accessory & Airplay	Rear	0.392	0.335	0.209	0.317	0.061	0.727	No	0.601	No	0.709	No	0.788	No	0.662	No	0.770	No
	Front	0.421	0.335	0.209	0.317	0.077	0.756	No	0.630	No	0.738	No	0.833	No	0.707	No	0.815	No
Airplay	Edge 1	0.466	0.335	0.209	0.317		0.801	No	0.675	No	0.783	No						
	Edge 2	0.035	0.335	0.209	0.317		0.370	No	0.244	No	0.352	No						
	Edge 4	0.531	0.335	0.209	0.317		0.866	No	0.740	No	0.848	No						

12.42. 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	0.514	0.186	0.243	0.180	0.145	0.700	No	0.757	No	0.694	No	0.845	No	0.902	No	0.839	No
	Left Tilt	0.241	0.186	0.243	0.180	0.139	0.427	No	0.484	No	0.421	No	0.566	No	0.623	No	0.560	No
	Right Touch	0.934	0.186	0.243	0.180	0.147	1.120	No	1.177	No	1.114	No	1.267	No	1.324	No	1.261	No
	Right Tilt	0.251	0.186	0.243	0.180	0.145	0.437	No	0.494	No	0.431	No	0.582	No	0.639	No	0.576	No
Body-worn Accessory & Airplay	Rear	0.927	0.335	0.209	0.317	0.061	1.262	No	1.136	No	1.244	No	1.323	No	1.197	No	1.305	No
	Front	0.891	0.335	0.209	0.317	0.077	1.226	No	1.100	No	1.208	No	1.303	No	1.177	No	1.285	No
Airplay	Edge 2	0.656	0.335	0.209	0.317		0.991	No	0.865	No	0.973	No						
	Edge 3	1.054	0.335	0.209	0.317		1.389	No	1.263	No	1.371	No						
	Edge 4	0.090	0.335	0.209	0.317		0.425	No	0.299	No	0.407	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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12.43. 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	0.745	0.186	0.243	0.180	0.145	0.931	No	0.988	No	0.925	No	1.076	No	1.133	No	1.070	No
	Left Tilt	0.495	0.186	0.243	0.180	0.139	0.681	No	0.738	No	0.675	No	0.820	No	0.877	No	0.814	No
	Right Touch	0.829	0.186	0.243	0.180	0.147	1.015	No	1.072	No	1.009	No	1.162	No	1.219	No	1.156	No
	Right Tilt	0.544	0.186	0.243	0.180	0.145	0.730	No	0.787	No	0.724	No	0.875	No	0.932	No	0.869	No
Body-worn Accessory & Airplay	Rear	0.391	0.335	0.209	0.317	0.061	0.726	No	0.600	No	0.708	No	0.787	No	0.661	No	0.769	No
	Front	0.385	0.335	0.209	0.317	0.077	0.720	No	0.594	No	0.702	No	0.797	No	0.671	No	0.779	No
Airplay	Edge 1	0.172	0.335	0.209	0.317		0.507	No	0.381	No	0.489	No						
	Edge 2	0.546	0.335	0.209	0.317		0.881	No	0.755	No	0.863	No						
	Edge 4	0.196	0.335	0.209	0.317		0.531	No	0.405	No	0.513	No						

12.44. 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	0.517	0.186	0.243	0.180	0.145	0.703	No	0.760	No	0.697	No	0.848	No	0.905	No	0.842	No
	Left Tilt	0.201	0.186	0.243	0.180	0.139	0.387	No	0.444	No	0.381	No	0.526	No	0.583	No	0.520	No
	Right Touch	0.422	0.186	0.243	0.180	0.147	0.608	No	0.665	No	0.602	No	0.755	No	0.812	No	0.749	No
	Right Tilt	0.228	0.186	0.243	0.180	0.145	0.414	No	0.471	No	0.408	No	0.559	No	0.616	No	0.553	No
Body-worn Accessory & Airplay	Rear	0.416	0.335	0.209	0.317	0.061	0.751	No	0.625	No	0.733	No	0.812	No	0.686	No	0.794	No
	Front	0.511	0.335	0.209	0.317	0.077	0.846	No	0.720	No	0.828	No	0.923	No	0.797	No	0.905	No
Airplay	Edge 2	0.281	0.335	0.209	0.317		0.616	No	0.490	No	0.598	No						
	Edge 3	0.438	0.335	0.209	0.317		0.773	No	0.647	No	0.755	No						
	Edge 4	0.703	0.335	0.209	0.317		1.038	No	0.912	No	1.020	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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12.45. 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	0.370	0.186	0.243	0.180	0.145	0.556	No	0.613	No	0.550	No	0.701	No	0.758	No	0.695	No
	Left Tilt	0.399	0.186	0.243	0.180	0.139	0.585	No	0.642	No	0.579	No	0.724	No	0.781	No	0.718	No
	Right Touch	1.020	0.186	0.243	0.180	0.147	1.206	No	1.263	No	1.200	No	1.353	No	1.410	No	1.347	No
	Right Tilt	0.765	0.186	0.243	0.180	0.145	0.951	No	1.008	No	0.945	No	1.096	No	1.153	No	1.090	No
Body-worn Accessory & Airplay	Rear	0.771	0.335	0.209	0.317	0.061	1.106	No	0.980	No	1.088	No	1.167	No	1.041	No	1.149	No
	Front	0.951	0.335	0.209	0.317	0.077	1.286	No	1.160	No	1.268	No	1.363	No	1.237	No	1.345	No
Airplay	Edge 1	0.969	0.335	0.209	0.317		1.304	No	1.178	No	1.286	No						
	Edge 2	0.083	0.335	0.209	0.317		0.418	No	0.292	No	0.400	No						
	Edge 4	0.937	0.335	0.209	0.317		1.272	No	1.146	No	1.254	No						

12.46. 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	0.413	0.186	0.243	0.180	0.145	0.599	No	0.656	No	0.593	No	0.744	No	0.801	No	0.738	No
	Left Tilt	0.272	0.186	0.243	0.180	0.139	0.458	No	0.515	No	0.452	No	0.597	No	0.654	No	0.591	No
	Right Touch	0.897	0.186	0.243	0.180	0.147	1.083	No	1.140	No	1.077	No	1.230	No	1.287	No	1.224	No
	Right Tilt	0.225	0.186	0.243	0.180	0.145	0.411	No	0.468	No	0.405	No	0.556	No	0.613	No	0.550	No
Body-worn Accessory & Airplay	Rear	0.894	0.335	0.209	0.317	0.061	1.229	No	1.103	No	1.211	No	1.290	No	1.164	No	1.272	No
	Front	1.090	0.335	0.209	0.317	0.077	1.425	No	1.299	No	1.407	No	1.502	No	1.376	No	1.484	No
Airplay	Edge 2	0.754	0.335	0.209	0.317		1.089	No	0.963	No	1.071	No						
	Edge 3	1.140	0.335	0.209	0.317		1.475	No	1.349	No	1.457	No						
	Edge 4	0.058	0.335	0.209	0.317		0.393	No	0.267	No	0.375	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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12.47. 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	0.435	0.186	0.243	0.180	0.145	0.621	No	0.678	No	0.615	No	0.766	No	0.823	No	0.760	No
	Left Tilt	0.359	0.186	0.243	0.180	0.139	0.545	No	0.602	No	0.539	No	0.684	No	0.741	No	0.678	No
	Right Touch	1.059	0.186	0.243	0.180	0.147	1.245	No	1.302	No	1.239	No	1.392	No	1.449	No	1.386	No
	Right Tilt	0.629	0.186	0.243	0.180	0.145	0.815	No	0.872	No	0.809	No	0.960	No	1.017	No	0.954	No
Body-worn Accessory & Airplay	Rear	0.658	0.335	0.209	0.317	0.061	0.993	No	0.867	No	0.975	No	1.054	No	0.928	No	1.036	No
	Front	0.756	0.335	0.209	0.317	0.077	1.091	No	0.965	No	1.073	No	1.168	No	1.042	No	1.150	No
Airplay	Edge 1	0.976	0.335	0.209	0.317		1.311	No	1.185	No	1.293	No						
	Edge 2	0.029	0.335	0.209	0.317		0.364	No	0.238	No	0.346	No						
	Edge 4	0.955	0.335	0.209	0.317		1.290	No	1.164	No	1.272	No						

12.48. 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	0.510	0.186	0.221	0.180	0.145	0.696	No	0.731	No	0.690	No	0.841	No	0.876	No	0.835	No
	Left Tilt	0.309	0.186	0.221	0.180	0.139	0.495	No	0.530	No	0.489	No	0.634	No	0.669	No	0.628	No
	Right Touch	0.987	0.186	0.221	0.180	0.147	1.173	No	1.208	No	1.167	No	1.320	No	1.355	No	1.314	No
	Right Tilt	0.288	0.186	0.221	0.180	0.145	0.474	No	0.509	No	0.468	No	0.619	No	0.654	No	0.613	No
Body-worn Accessory & Airplay	Rear	0.914	0.335	0.248	0.317	0.061	1.249	No	1.162	No	1.231	No	1.310	No	1.223	No	1.292	No
	Front	0.844	0.335	0.248	0.317	0.077	1.179	No	1.092	No	1.161	No	1.256	No	1.169	No	1.238	No
Airplay	Edge 2	0.668	0.335	0.248	0.317		1.003	No	0.916	No	0.985	No						
	Edge 3	1.090	0.335	0.248	0.317		1.425	No	1.338	No	1.407	No						
	Edge 4	0.080	0.335	0.248	0.317		0.415	No	0.328	No	0.397	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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12.49. Sum of the SAR for LTE Band 2 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

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

12.50. Sum of the SAR for LTE Band 2 (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	0.600	0.186	0.221	0.180	0.145	0.786	No	0.821	No	0.780	No	0.931	No	0.966	No	0.925	No
	Left Tilt	0.306	0.186	0.221	0.180	0.139	0.492	No	0.527	No	0.486	No	0.631	No	0.666	No	0.625	No
	Right Touch	1.180	0.186	0.221	0.180	0.147	1.366	No	1.401	No	1.360	No	1.513	No	1.548	No	1.507	No
	Right Tilt	0.327	0.186	0.221	0.180	0.145	0.513	No	0.548	No	0.507	No	0.658	No	0.693	No	0.652	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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12.51. 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	0.399	0.186	0.243	0.180	0.145	0.585	No	0.642	No	0.579	No	0.730	No	0.787	No	0.724	No
	Left Tilt	0.423	0.186	0.243	0.180	0.139	0.609	No	0.666	No	0.603	No	0.748	No	0.805	No	0.742	No
	Right Touch	0.954	0.186	0.243	0.180	0.147	1.140	No	1.197	No	1.134	No	1.287	No	1.344	No	1.281	No
	Right Tilt	0.627	0.186	0.243	0.180	0.145	0.813	No	0.870	No	0.807	No	0.958	No	1.015	No	0.952	No
Body-worn Accessory & Airplay	Rear	0.687	0.335	0.209	0.317	0.061	1.022	No	0.896	No	1.004	No	1.083	No	0.957	No	1.065	No
	Front	0.821	0.335	0.209	0.317	0.077	1.156	No	1.030	No	1.138	No	1.233	No	1.107	No	1.215	No
Airplay	Edge 1	0.989	0.335	0.209	0.317		1.324	No	1.198	No	1.306	No						
	Edge 2	0.069	0.335	0.209	0.317		0.404	No	0.278	No	0.386	No						
	Edge 4	0.798	0.335	0.209	0.317		1.133	No	1.007	No	1.115	No						

12.52. 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	0.305	0.186	0.221	0.180	0.145	0.491	No	0.526	No	0.485	No	0.636	No	0.671	No	0.630	No
	Left Tilt	0.200	0.186	0.221	0.180	0.139	0.386	No	0.421	No	0.380	No	0.525	No	0.560	No	0.519	No
	Right Touch	0.694	0.186	0.221	0.180	0.147	0.880	No	0.915	No	0.874	No	1.027	No	1.062	No	1.021	No
	Right Tilt	0.217	0.186	0.221	0.180	0.145	0.403	No	0.438	No	0.397	No	0.548	No	0.583	No	0.542	No
Body-worn Accessory & Airplay	Rear	0.775	0.335	0.248	0.317	0.061	1.110	No	1.023	No	1.092	No	1.171	No	1.084	No	1.153	No
	Front	0.931	0.335	0.248	0.317	0.077	1.266	No	1.179	No	1.248	No	1.343	No	1.256	No	1.325	No
Airplay	Edge 2	0.688	0.335	0.248	0.317		1.023	No	0.936	No	1.005	No						
	Edge 3	1.015	0.335	0.248	0.317		1.350	No	1.263	No	1.332	No						
	Edge 4	0.050	0.335	0.248	0.317		0.385	No	0.298	No	0.367	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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12.53. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi UNII (Cell On) & BT(Plow)

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

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

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

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12.55. 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	1.076	0.186	0.243	0.180	0.145	1.262	No	1.319	No	1.256	No	1.407	No	1.464	No	1.401	No
	Left Tilt	1.081	0.186	0.243	0.180	0.139	1.267	No	1.324	No	1.261	No	1.406	No	1.463	No	1.400	No
	Right Touch	0.411	0.186	0.243	0.180	0.147	0.597	No	0.654	No	0.591	No	0.744	No	0.801	No	0.738	No
	Right Tilt	0.459	0.186	0.243	0.180	0.145	0.645	No	0.702	No	0.639	No	0.790	No	0.847	No	0.784	No
Body-worn Accessory & Airplay	Rear	0.783	0.335	0.209	0.317	0.061	1.118	No	0.992	No	1.100	No	1.179	No	1.053	No	1.161	No
	Front	0.967	0.335	0.209	0.317	0.077	1.302	No	1.176	No	1.284	No	1.379	No	1.253	No	1.361	No
Airplay	Edge 1	0.633	0.335	0.209	0.317		0.968	No	0.842	No	0.950	No						
	Edge 2	0.504	0.335	0.209	0.317		0.839	No	0.713	No	0.821	No						
	Edge 4	0.030	0.335	0.209	0.317		0.365	No	0.239	No	0.347	No						

12.56. 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	0.782	0.186	0.221	0.180	0.145	0.968	No	1.003	No	0.962	No	1.113	No	1.148	No	1.107	No
	Left Tilt	0.190	0.186	0.221	0.180	0.139	0.376	No	0.411	No	0.370	No	0.515	No	0.550	No	0.509	No
	Right Touch	0.420	0.186	0.221	0.180	0.147	0.606	No	0.641	No	0.600	No	0.753	No	0.788	No	0.747	No
	Right Tilt	0.241	0.186	0.221	0.180	0.145	0.427	No	0.462	No	0.421	No	0.572	No	0.607	No	0.566	No
Body-worn Accessory & Airplay	Rear	0.726	0.335	0.248	0.317	0.061	1.061	No	0.974	No	1.043	No	1.122	No	1.035	No	1.104	No
	Front	1.072	0.335	0.248	0.317	0.077	1.407	No	1.320	No	1.389	No	1.484	No	1.397	No	1.466	No
Airplay	Edge 2	0.081	0.335	0.248	0.317		0.416	No	0.329	No	0.398	No						
	Edge 3	0.701	0.335	0.248	0.317		1.036	No	0.949	No	1.018	No						
	Edge 4	0.608	0.335	0.248	0.317		0.943	No	0.856	No	0.925	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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12.57. 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	0.567	0.186	0.243	0.180	0.145	0.753	No	0.810	No	0.747	No	0.898	No	0.955	No	0.892	No
	Left Tilt	0.627	0.186	0.243	0.180	0.139	0.813	No	0.870	No	0.807	No	0.952	No	1.009	No	0.946	No
	Right Touch	0.908	0.186	0.243	0.180	0.147	1.094	No	1.151	No	1.088	No	1.241	No	1.298	No	1.235	No
	Right Tilt	0.638	0.186	0.243	0.180	0.145	0.824	No	0.881	No	0.818	No	0.969	No	1.026	No	0.963	No
Body-worn Accessory & Airplay	Rear	0.379	0.335	0.209	0.317	0.061	0.714	No	0.588	No	0.696	No	0.775	No	0.649	No	0.757	No
	Front	0.292	0.335	0.209	0.317	0.077	0.627	No	0.501	No	0.609	No	0.704	No	0.578	No	0.686	No
Airplay	Edge 1	0.238	0.335	0.209	0.317		0.573	No	0.447	No	0.555	No						
	Edge 2	0.351	0.335	0.209	0.317		0.686	No	0.560	No	0.668	No						
	Edge 4	0.262	0.335	0.209	0.317		0.597	No	0.471	No	0.579	No						

12.58. 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	0.307	0.186	0.221	0.180	0.145	0.493	No	0.528	No	0.487	No	0.638	No	0.673	No	0.632	No
	Left Tilt	0.120	0.186	0.221	0.180	0.139	0.306	No	0.341	No	0.300	No	0.445	No	0.480	No	0.439	No
	Right Touch	0.265	0.186	0.221	0.180	0.147	0.451	No	0.486	No	0.445	No	0.598	No	0.633	No	0.592	No
	Right Tilt	0.124	0.186	0.221	0.180	0.145	0.310	No	0.345	No	0.304	No	0.455	No	0.490	No	0.449	No
Body-worn Accessory & Airplay	Rear	0.430	0.335	0.248	0.317	0.061	0.765	No	0.678	No	0.747	No	0.826	No	0.739	No	0.808	No
	Front	0.478	0.335	0.248	0.317	0.077	0.813	No	0.726	No	0.795	No	0.890	No	0.803	No	0.872	No
Airplay	Edge 2	0.287	0.335	0.248	0.317		0.622	No	0.535	No	0.604	No						
	Edge 3	0.331	0.335	0.248	0.317		0.666	No	0.579	No	0.648	No						
	Edge 4	0.470	0.335	0.248	0.317		0.805	No	0.718	No	0.787	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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12.59. 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	0.454	0.186	0.243	0.180	0.145	0.640	No	0.697	No	0.634	No	0.785	No	0.842	No	0.779	No
	Left Tilt	0.421	0.186	0.243	0.180	0.139	0.607	No	0.664	No	0.601	No	0.746	No	0.803	No	0.740	No
	Right Touch	0.606	0.186	0.243	0.180	0.147	0.792	No	0.849	No	0.786	No	0.939	No	0.996	No	0.933	No
	Right Tilt	0.436	0.186	0.243	0.180	0.145	0.622	No	0.679	No	0.616	No	0.767	No	0.824	No	0.761	No
Body-worn Accessory & Airplay	Rear	0.352	0.335	0.209	0.317	0.061	0.687	No	0.561	No	0.669	No	0.748	No	0.622	No	0.730	No
	Front	0.351	0.335	0.209	0.317	0.077	0.686	No	0.560	No	0.668	No	0.763	No	0.637	No	0.745	No
Airplay	Edge 1	0.242	0.335	0.209	0.317		0.577	No	0.451	No	0.559	No						
	Edge 2	0.470	0.335	0.209	0.317		0.805	No	0.679	No	0.787	No						
	Edge 4	0.214	0.335	0.209	0.317		0.549	No	0.423	No	0.531	No						

12.60. 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	0.287	0.186	0.221	0.180	0.145	0.473	No	0.508	No	0.467	No	0.618	No	0.653	No	0.612	No
	Left Tilt	0.175	0.186	0.221	0.180	0.139	0.361	No	0.396	No	0.355	No	0.500	No	0.535	No	0.494	No
	Right Touch	0.260	0.186	0.221	0.180	0.147	0.446	No	0.481	No	0.440	No	0.593	No	0.628	No	0.587	No
	Right Tilt	0.158	0.186	0.221	0.180	0.145	0.344	No	0.379	No	0.338	No	0.489	No	0.524	No	0.483	No
Body-worn Accessory & Airplay	Rear	0.562	0.335	0.248	0.317	0.061	0.897	No	0.810	No	0.879	No	0.958	No	0.871	No	0.940	No
	Front	0.650	0.335	0.248	0.317	0.077	0.985	No	0.898	No	0.967	No	1.062	No	0.975	No	1.044	No
Airplay	Edge 2	0.360	0.335	0.248	0.317		0.695	No	0.608	No	0.677	No						
	Edge 3	0.488	0.335	0.248	0.317		0.823	No	0.736	No	0.805	No						
	Edge 4	0.701	0.335	0.248	0.317		1.036	No	0.949	No	1.018	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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12.61. Sum of the SAR for LTE Band 17 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

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

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

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

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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12.63. 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	0.456	0.186	0.243	0.180	0.145	0.642	No	0.699	No	0.636	No	0.787	No	0.844	No	0.781	No
	Left Tilt	0.370	0.186	0.243	0.180	0.139	0.556	No	0.613	No	0.550	No	0.695	No	0.752	No	0.689	No
	Right Touch	1.069	0.186	0.243	0.180	0.147	1.255	No	1.312	No	1.249	No	1.402	No	1.459	No	1.396	No
	Right Tilt	0.768	0.186	0.243	0.180	0.145	0.954	No	1.011	No	0.948	No	1.099	No	1.156	No	1.093	No
Body-worn Accessory & Airplay	Rear	0.691	0.335	0.209	0.317	0.061	1.026	No	0.900	No	1.008	No	1.087	No	0.961	No	1.069	No
	Front	0.822	0.335	0.209	0.317	0.077	1.157	No	1.031	No	1.139	No	1.234	No	1.108	No	1.216	No
Airplay	Edge 1	0.657	0.335	0.209	0.317		0.992	No	0.866	No	0.974	No						
	Edge 2	0.040	0.335	0.209	0.317		0.375	No	0.249	No	0.357	No						
	Edge 4	0.922	0.335	0.209	0.317		1.257	No	1.131	No	1.239	No						

12.64. 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	0.721	0.186	0.221	0.180	0.145	0.907	No	0.942	No	0.901	No	1.052	No	1.087	No	1.046	No
	Left Tilt	0.299	0.186	0.221	0.180	0.139	0.485	No	0.520	No	0.479	No	0.624	No	0.659	No	0.618	No
	Right Touch	1.190	0.186	0.221	0.180	0.147	1.376	No	1.411	No	1.370	No	1.523	No	1.558	No	1.517	No
	Right Tilt	0.329	0.186	0.221	0.180	0.145	0.515	No	0.550	No	0.509	No	0.660	No	0.695	No	0.654	No
Body-worn Accessory & Airplay	Rear	1.000	0.335	0.248	0.317	0.061	1.335	No	1.248	No	1.317	No	1.396	No	1.309	No	1.378	No
	Front	0.960	0.335	0.248	0.317	0.077	1.295	No	1.208	No	1.277	No	1.372	No	1.285	No	1.354	No
Airplay	Edge 2	0.685	0.335	0.248	0.317		1.020	No	0.933	No	1.002	No						
	Edge 3	1.140	0.335	0.248	0.317		1.475	No	1.388	No	1.457	No						
	Edge 4	0.087	0.335	0.248	0.317		0.422	No	0.335	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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12.65. 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	0.408	0.186	0.243	0.180	0.145	0.594	No	0.651	No	0.588	No	0.739	No	0.796	No	0.733	No
	Left Tilt	0.050	0.186	0.243	0.180	0.139	0.236	No	0.293	No	0.230	No	0.375	No	0.432	No	0.369	No
	Right Touch	0.588	0.186	0.243	0.180	0.147	0.774	No	0.831	No	0.768	No	0.921	No	0.978	No	0.915	No
	Right Tilt	0.461	0.186	0.243	0.180	0.145	0.647	No	0.704	No	0.641	No	0.792	No	0.849	No	0.786	No
Body-worn Accessory & Airplay	Rear	0.365	0.335	0.209	0.317	0.061	0.700	No	0.574	No	0.682	No	0.761	No	0.635	No	0.743	No
	Front	0.429	0.335	0.209	0.317	0.077	0.764	No	0.638	No	0.746	No	0.841	No	0.715	No	0.823	No
Airplay	Edge 1	0.294	0.335	0.209	0.317		0.629	No	0.503	No	0.611	No						
	Edge 2	0.390	0.335	0.209	0.317		0.725	No	0.599	No	0.707	No						
	Edge 4	0.149	0.335	0.209	0.317		0.484	No	0.358	No	0.466	No						

12.66. 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	0.349	0.186	0.221	0.180	0.145	0.535	No	0.570	No	0.529	No	0.680	No	0.715	No	0.674	No
	Left Tilt	0.193	0.186	0.221	0.180	0.139	0.379	No	0.414	No	0.373	No	0.518	No	0.553	No	0.512	No
	Right Touch	0.325	0.186	0.221	0.180	0.147	0.511	No	0.546	No	0.505	No	0.658	No	0.693	No	0.652	No
	Right Tilt	0.192	0.186	0.221	0.180	0.145	0.378	No	0.413	No	0.372	No	0.523	No	0.558	No	0.517	No
Body-worn Accessory & Airplay	Rear	0.522	0.335	0.248	0.317	0.061	0.857	No	0.770	No	0.839	No	0.918	No	0.831	No	0.900	No
	Front	0.588	0.335	0.248	0.317	0.077	0.923	No	0.836	No	0.905	No	1.000	No	0.913	No	0.982	No
Airplay	Edge 2	0.302	0.335	0.248	0.317		0.637	No	0.550	No	0.619	No						
	Edge 3	0.465	0.335	0.248	0.317		0.800	No	0.713	No	0.782	No						
	Edge 4	0.668	0.335	0.248	0.317		1.003	No	0.916	No	0.985	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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12.67. Sum of the SAR for LTE Band 27 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

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

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

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

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12.69. 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	0.391	0.186	0.243	0.180	0.145	0.577	No	0.634	No	0.571	No	0.722	No	0.779	No	0.716	No
	Left Tilt	0.442	0.186	0.243	0.180	0.139	0.628	No	0.685	No	0.622	No	0.767	No	0.824	No	0.761	No
	Right Touch	1.070	0.186	0.243	0.180	0.147	1.256	No	1.313	No	1.250	No	1.403	No	1.460	No	1.397	No
	Right Tilt	1.072	0.186	0.243	0.180	0.145	1.258	No	1.315	No	1.252	No	1.403	No	1.460	No	1.397	No
Body-worn Accessory & Airplay	Rear	0.907	0.335	0.209	0.317	0.061	1.242	No	1.116	No	1.224	No	1.303	No	1.177	No	1.285	No
	Front	0.969	0.335	0.209	0.317	0.077	1.304	No	1.178	No	1.286	No	1.381	No	1.255	No	1.363	No
Airplay	Edge 1	0.834	0.335	0.209	0.317		1.169	No	1.043	No	1.151	No						
	Edge 2	0.150	0.335	0.209	0.317		0.485	No	0.359	No	0.467	No						
	Edge 4	0.567	0.335	0.209	0.317		0.902	No	0.776	No	0.884	No						

12.70. 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	0.347	0.186	0.221	0.180	0.145	0.533	No	0.568	No	0.527	No	0.678	No	0.713	No	0.672	No
	Left Tilt	0.285	0.186	0.221	0.180	0.139	0.471	No	0.506	No	0.465	No	0.610	No	0.645	No	0.604	No
	Right Touch	0.784	0.186	0.221	0.180	0.147	0.970	No	1.005	No	0.964	No	1.117	No	1.152	No	1.111	No
	Right Tilt	0.304	0.186	0.221	0.180	0.145	0.490	No	0.525	No	0.484	No	0.635	No	0.670	No	0.629	No
Body-worn Accessory & Airplay	Rear	0.725	0.335	0.248	0.317	0.061	1.060	No	0.973	No	1.042	No	1.121	No	1.034	No	1.103	No
	Front	1.032	0.335	0.248	0.317	0.077	1.367	No	1.280	No	1.349	No	1.444	No	1.357	No	1.426	No
Airplay	Edge 2	0.534	0.335	0.248	0.317		0.869	No	0.782	No	0.851	No						
	Edge 3	0.847	0.335	0.248	0.317		1.182	No	1.095	No	1.164	No						
	Edge 4	0.191	0.335	0.248	0.317		0.526	No	0.439	No	0.508	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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12.71. Sum of the SAR for LTE Band 41 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.596	0.186	0.243	0.180	0.145	0.782	No	0.839	No	0.776	No	0.927	No	0.984	No	0.921	No
	Left Tilt	0.567	0.186	0.243	0.180	0.139	0.753	No	0.810	No	0.747	No	0.892	No	0.949	No	0.886	No
	Right Touch	0.268	0.186	0.243	0.180	0.147	0.454	No	0.511	No	0.448	No	0.601	No	0.658	No	0.595	No
	Right Tilt	0.281	0.186	0.243	0.180	0.145	0.467	No	0.524	No	0.461	No	0.612	No	0.669	No	0.606	No
Body-worn Accessory & Airplay	Rear	0.565	0.335	0.209	0.317	0.061	0.900	No	0.774	No	0.882	No	0.961	No	0.835	No	0.943	No
	Front	0.348	0.335	0.209	0.317	0.077	0.683	No	0.557	No	0.665	No	0.760	No	0.634	No	0.742	No
Airplay	Edge 1	0.243	0.335	0.209	0.317		0.578	No	0.452	No	0.560	No						
	Edge 2	0.318	0.335	0.209	0.317		0.653	No	0.527	No	0.635	No						
	Edge 4	0.091	0.335	0.209	0.317		0.426	No	0.300	No	0.408	No						

12.72. 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	1.141	0.186	0.221	0.180	0.145	1.327	No	1.362	No	1.321	No	1.472	No	1.507	No	1.466	No
	Left Tilt	0.192	0.186	0.221	0.180	0.139	0.378	No	0.413	No	0.372	No	0.517	No	0.552	No	0.511	No
	Right Touch	0.575	0.186	0.221	0.180	0.147	0.761	No	0.796	No	0.755	No	0.908	No	0.943	No	0.902	No
	Right Tilt	0.313	0.186	0.221	0.180	0.145	0.499	No	0.534	No	0.493	No	0.644	No	0.679	No	0.638	No
Body-worn Accessory & Airplay	Rear	1.060	0.335	0.248	0.317	0.061	1.395	No	1.308	No	1.377	No	1.456	No	1.369	No	1.438	No
	Front	1.050	0.335	0.248	0.317	0.077	1.385	No	1.298	No	1.367	No	1.462	No	1.375	No	1.444	No
Airplay	Edge 2	0.044	0.335	0.248	0.317		0.379	No	0.292	No	0.361	No						
	Edge 3	0.722	0.335	0.248	0.317		1.057	No	0.970	No	1.039	No						
	Edge 4	0.810	0.335	0.248	0.317		1.145	No	1.058	No	1.127	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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12.73. 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 Tilt	0.836	0.186	0.243	0.180	0.139	0.975	No	0.325	No	0.382	No	0.319	No	1.218	No	1.155	No

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	0.898	0.335	0.209	0.317	0.077	0.975	No	0.412	No	0.286	No	0.394	No	1.184	No	1.292	No

12.75. 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)
Head	Left Touch	0.890	0.186	0.243	0.180	0.145	1.035	No	0.331	No	0.388	No	0.325	No	1.278	No	1.215	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.

16U23328-S1V2 SAR_App A Setup Photos (STC_180days)

16U23328-S1V4 SAR_App B System Check Plots

16U23328-S1V4 SAR_App C Highest Test Plots

16U23328-S1V1 SAR_App D Tissue Ingredients

16U23328-S1V1 SAR_App E Probe Cal. Certificates

16U23328-S1V1 SAR_App F Dipole Cal. Certificates

END OF REPORT

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