SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2013

For
Cellular Phone with Bluetooth and WLAN Radios

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Revision History

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Table of Contents

1. Attestation of Test Results 8

2. Test Specification, Methods and Procedures 9

3. Facilities and Accreditation 10

4. SAR Measurement System & Test Equipment 11

4.1. SAR Measurement System 11

4.2. SAR Scan Procedures 12

4.3. Test Equipment 14

5. Measurement Uncertainty 18

6. Device Under Test (DUT) Information 19

6.1. DUT Description 19

6.2. Wireless Technologies 20

6.3. Maximum Output Power from Tune-up Procedure 21

6.3.1. WLAN SISO (P_{Cell_ON}) 23

6.3.2. WLAN MIMO (P_{Cell_ON}) 27

6.3.3. WLAN SISO (P_{Cell_OFF}) 31

6.3.4. WLAN MIMO (P_{Cell_OFF}) 35

6.4. General LTE SAR Test and Reporting Considerations 39

6.5. LTE (TDD) Considerations 42

7. RF Exposure Conditions (Test Configurations) 43

8. Dielectric Property Measurements & System Check 45

8.1. Dielectric Property Measurements 45

8.2. System Check 52

9. Conducted Output Power Measurements 55

9.1. GSM 55

9.2. W-CDMA 57

9.3. CDMA 63

9.4. LTE 65

9.5. LTE Rel. 11 Carrier Aggregation 90

9.6. WLAN SISO (P_{Cell_ON}) 103

9.7. WLAN MIMO (P_{Cell_ON}) 104

9.8. WLAN SISO (P_{Cell_OFF}) 105

9.9. WLAN MIMO (P_{Cell_OFF}) 106

9.10. Bluetooth 107

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10. Measured and Reported (Scaled) SAR Results 108
10.1. GSM850 110
10.2. GSM1900 111
10.3. W-CDMA Band V 112
10.4. W-CDMA Band IV 113
10.5. W-CDMA Band II 114
10.6. CDMA BC0 115
10.7. CDMA BC1 116
10.8. CDMA BC10 117
10.9. LTE Band 2 (20MHz Bandwidth) 118
10.10. LTE Band 4 (20MHz Bandwidth) 119
10.11. LTE Band 5 (10MHz Bandwidth) 121
10.12. LTE Band 7 (20MHz Bandwidth) 122
10.13. LTE Band 12 (10MHz Bandwidth) 123
10.14. LTE Band 13 (10MHz Bandwidth) 124
10.15. LTE Band 17 (10MHz Bandwidth) 125
10.16. LTE Band 25 (20MHz Bandwidth) 126
10.17. LTE Band 26 (10MHz Bandwidth) 128
10.18. LTE Band 27 (10MHz Bandwidth) 129
10.19. LTE Band 30 (10MHz Bandwidth) 130
10.20. LTE Band 41 (20MHz Bandwidth) 131
10.21. LTE-2CA Band 7 (20MHz + 20MHz BW) 133
10.22. LTE-2CA Band 41 (20MHz + 20MHz BW) 133
10.23. Wi-Fi (DTS Band) 134
10.24. Wi-Fi (U-NII-1 and U-NII-2A Band) 136
10.25. Wi-Fi (U-NII-2C Band) 138
10.26. Wi-Fi (U-NII-3 Band) 140
10.27. Wi-Fi Variant 2 Spot Check 142
10.28. Bluetooth 144

11. SAR Measurement Variability 145

12. Simultaneous Transmission SAR Analysis 146
12.1. Sum of the SAR for Wi-Fi (Cell Off) & BT(P_{high}) 147
12.2. Sum of the SAR for GSM850 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 148
12.3. Sum of the SAR for GSM850 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 148
12.4. Sum of the SAR for GSM1900 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 149
12.5. Sum of the SAR for GSM1900 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 149
12.6. Sum of the SAR for W-CDMA V (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 150

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12.7. Sum of the SAR for W-CDMA V (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 150
12.8. Sum of the SAR for W-CDMA IV (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 151
12.9. Sum of the SAR for W-CDMA IV (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 151
12.10. Sum of the SAR for W-CDMA II (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 152
12.11. Sum of the SAR for W-CDMA II (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 152
12.12. Sum of the SAR for CDMA BC0 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 153
12.13. Sum of the SAR for CDMA BC0 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 153
12.14. Sum of the SAR for CDMA BC1 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 154
12.15. Sum of the SAR for CDMA BC1 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 154
12.16. Sum of the SAR for CDMA BC10 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 155
12.17. Sum of the SAR for CDMA BC10 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 155
12.18. Sum of the SAR for LTE Band 2 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 156
12.19. Sum of the SAR for LTE Band 2 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 156
12.20. Sum of the SAR for LTE Band 4 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 157
12.21. Sum of the SAR for LTE Band 4 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 157
12.22. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 158
12.23. Sum of the SAR for LTE Band 5 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 158
12.24. Sum of the SAR for LTE Band 7 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 159
12.25. Sum of the SAR for LTE Band 7 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 159
12.26. Sum of the SAR for LTE Band 12 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 160
12.27. Sum of the SAR for LTE Band 12 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 160
12.28. Sum of the SAR for LTE Band 13 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 161
12.29. Sum of the SAR for LTE Band 13 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 161
12.30. Sum of the SAR for LTE Band 17 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 162
12.31. Sum of the SAR for LTE Band 17 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 162
12.32. Sum of the SAR for LTE Band 25 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 163
12.33. Sum of the SAR for LTE Band 25 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 163
12.34. Sum of the SAR for LTE Band 26 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 164
12.35. Sum of the SAR for LTE Band 26 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 164
12.36. Sum of the SAR for LTE Band 27 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 165
12.37. Sum of the SAR for LTE Band 27 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 165
12.38. Sum of the SAR for LTE Band 30 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 166
12.39. Sum of the SAR for LTE Band 30 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 166
12.40. Sum of the SAR for LTE Band 41 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 167
12.41. Sum of the SAR for LTE Band 41 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 167
12.42. Sum of the SAR for LTE-2CA Band 7 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 168
12.43. Sum of the SAR for LTE-2CA Band 41 (UAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 168

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12.44. Sum of the SAR for LTE-2CA Band 41 (LAT) & Wi-Fi DTS (Cell On) & BT(P_{low}) 168
12.45. Sum of the SAR for GSM850 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 169
12.46. Sum of the SAR for GSM850 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 169
12.47. Sum of the SAR for GSM1900 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 170
12.48. Sum of the SAR for GSM1900 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 170
12.49. Sum of the SAR for W-CDMA V (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 171
12.50. Sum of the SAR for W-CDMA V (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 171
12.51. Sum of the SAR for W-CDMA IV (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 172
12.52. Sum of the SAR for W-CDMA IV (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 172
12.53. Sum of the SAR for W-CDMA II (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 173
12.54. Sum of the SAR for W-CDMA II (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 173
12.55. Sum of the SAR for CDMA BC0 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 174
12.56. Sum of the SAR for CDMA BC0 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 174
12.57. Sum of the SAR for CDMA BC1 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 175
12.58. Sum of the SAR for CDMA BC1 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 175
12.59. Sum of the SAR for CDMA BC10 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 176
12.60. Sum of the SAR for CDMA BC10 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 176
12.61. Sum of the SAR for LTE Band 2 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 177
12.62. Sum of the SAR for LTE Band 2 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 177
12.63. Sum of the SAR for LTE Band 4 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 178
12.64. Sum of the SAR for LTE Band 4 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 178
12.65. Sum of the SAR for LTE Band 5 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 179
12.66. Sum of the SAR for LTE Band 5 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 179
12.67. Sum of the SAR for LTE Band 7 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 180
12.68. Sum of the SAR for LTE Band 7 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 180
12.69. Sum of the SAR for LTE Band 12 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 181
12.70. Sum of the SAR for LTE Band 12 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 181
12.71. Sum of the SAR for LTE Band 13 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 182
12.72. Sum of the SAR for LTE Band 13 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 182
12.73. Sum of the SAR for LTE Band 17 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 183
12.74. Sum of the SAR for LTE Band 17 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 183
12.75. Sum of the SAR for LTE Band 25 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 184
12.76. Sum of the SAR for LTE Band 25 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 184
12.77. Sum of the SAR for LTE Band 26 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 185
12.78. Sum of the SAR for LTE Band 26 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 185
12.79. Sum of the SAR for LTE Band 27 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})..... 186
12.80. Sum of the SAR for LTE Band 27 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 186

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12.81. Sum of the SAR for LTE Band 30 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 187
12.82. Sum of the SAR for LTE Band 30 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 187
12.83. Sum of the SAR for LTE Band 41 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 188
12.84. Sum of the SAR for LTE Band 41 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 188
12.85. Sum of the SAR for LTE-2CA Band 7 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 189
12.86. Sum of the SAR for LTE-2CA Band 41 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 189
12.87. Sum of the SAR for LTE-2CA Band 41 (LAT) & Wi-Fi UNII (Cell On) & BT(P_{low}) 189

Appendixes 190

16U23287-S1V1 SAR_App A Setup Photos (STC_180days) 190
16U23287-S1V3 SAR_App B System Check Plots 190
16U23287-S1V3 SAR_App C Highest Test Plots 190
16U23287-S1V1 SAR_App D Tissue Ingredients 190
16U23287-S1V1 SAR_App E Probe Cal. Certificates 190
16U23287-S1V1 SAR_App F Dipole Cal. Certificates 190

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1. Attestation of Test Results

Applicant Name		APPLE, INC.			
FCC ID		BCG-E3087A			
Model Name		A1661, A1786			
Applicable Standards		FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013			
Exposure Category		SAR Limits (W/Kg)			
		Peak spatial-average(1g of tissue)			
General population / Uncontrolled exposure		1.6			
RF Exposure Conditions		Equipment Class - Highest Reported SAR (W/kg)			
		PCE	DTS	NII	DSS
Head		1.09	1.19	1.18	0.59
Body-worn		1.10	0.69	1.17	0.34
Hotspot/Airplay		1.13	0.69	1.17	N/A
Simultaneous TX	Head	1.45	1.42	1.45	1.45
	Body-worn	1.52	1.47	1.52	1.52
	Hotspot/ Airplay	1.52	1.50	1.52	N/A
Date Tested		7/5/2016 to 7/27/2016; Additional LTE CA testing: 8/15/2016 to 8/17/2016 Additional Bluetooth testing: 8/23/2016 to 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.	Ray Su Laboratory Engineer UL Verification Services Inc.

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2. Test Specification, Methods and Procedures

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

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

In addition to the above, the following information was 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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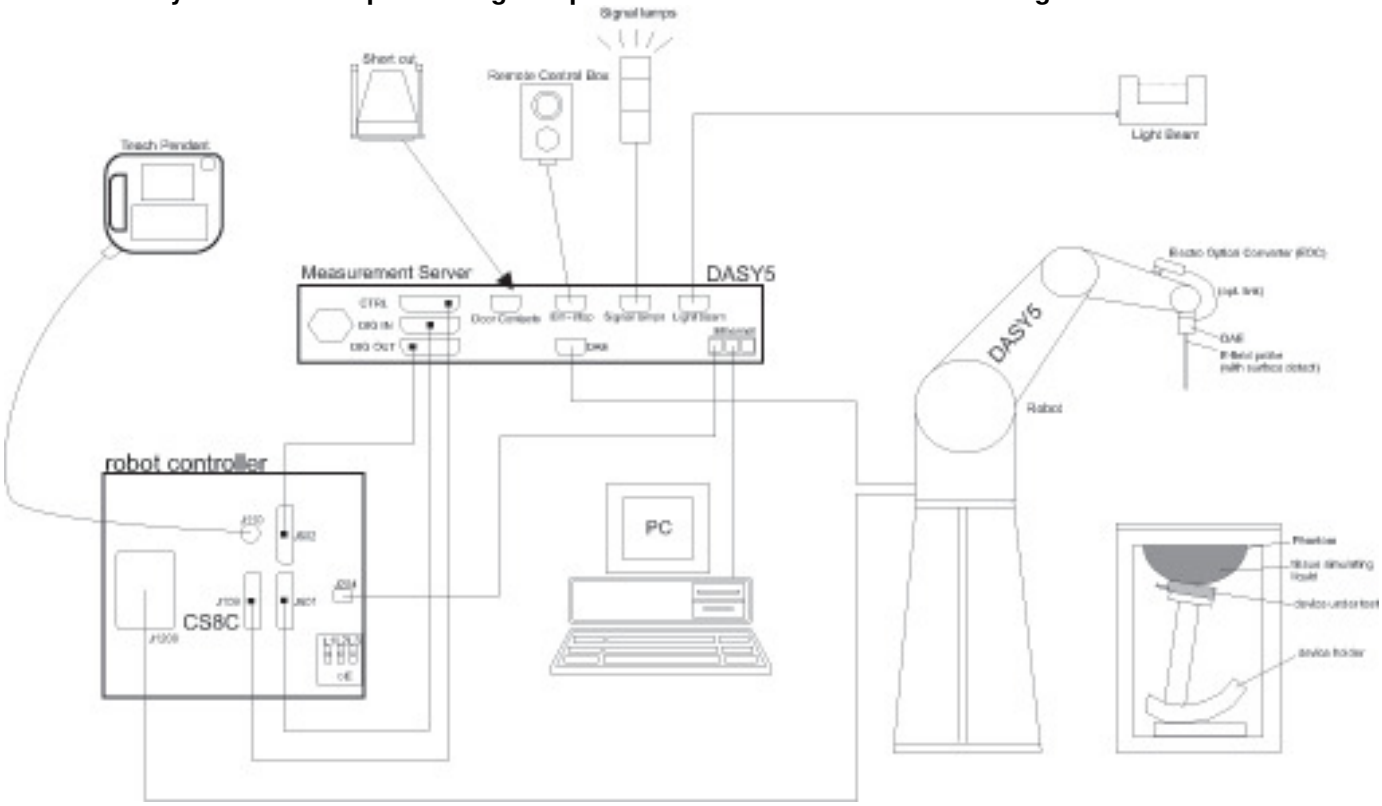
4. SAR Measurement System & Test Equipment

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

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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	500	5/19/2017
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

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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[1]	7/14/2016

Notes:

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

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

Dielectric Property Measurements

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

System Check

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

Lab Equipment

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

Dipoles

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

Other

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

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5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

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6. Device Under Test (DUT) Information

6.1. DUT Description

Model A1661 & A1786 is a mobile phone with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/CDMA2000 1x Advanced/EVDO Rev.A /WCDMA/HSPA+/DC-HSDPA/HSUPA, LTE FDD/TDD & Carrier Aggregation / TDSCDMA, VoLTE radio, IEEE 802.11a/b/g/n/ac radio 2x2 MIMO, Bluetooth radio and NFC. The rechargeable battery is not user accessible.

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

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

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

There are two vendors of the Wi-Fi/Bluetooth radio modules: Variant 1 and Variant 2 and they have the same mechanical outline, same on board antenna, matching circuit, antenna structure and same specification. Complete SAR evaluation is performed on Variant 1. 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): 158.2 mm x 77.9 mm Overall Diagonal: 166 mm Display Diagonal: 140 mm
Back Cover	☒ The rechargeable battery is not user accessible.
Battery Options	☒ The rechargeable battery is not user accessible.
Accessory	Headset
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz) ☐ Mobile Hotspot (Wi-Fi 5 GHz)
AirPlay	AirPlay mode enabled devices transfer data directly between each other ☒ AirPlay (Wi-Fi 2.4 GHz) ☒ AirPlay (Wi-Fi 5 GHz)

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6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: ☐ Class 8 - 1 Up, 4 Down ☒ Class 10 - 2 Up, 4 Down ☐ Class 12 - 4 Up, 4 Down ☐ Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
CDMA (CDMA2000)	BC0 BC1 BC10	1xRTT (Voice & Data) 1xEV-DO Rel. 0 1xEV-DO Rev. A 1xAdvanced		100%
	Does this device support SV-DO (1xRTT-1xEVDO)? ☐ Yes ☒ No			
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Rel. 5) HSUPA (Rel. 6) DC-HSDPA (Rel. 8) HSPA+ (Rel. 7)		100%
LTE	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 7 FDD Band 12 FDD Band 13 FDD Band 17 FDD Band 25 FDD Band 26 FDD Band 27 FDD Band 30 TDD Band 41	QPSK 16QAM ☒ Rel. 11 Carrier Aggregation (2 Uplinks and 3 Downlinks), UE Category 10		100% (FDD) 63.3% (TDD) This device supports uplink-downlink configuration 0-6. The configuration with the highest duty cycle was used (config. 0 at 63.3%).
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20)		100%
	5 GHz	802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (VHT20) 802.11ac (VHT40) 802.11ac (VHT80)		100%
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No			
	Does this device support Band gap channel(s)? ☒ Yes ☐ No			
Bluetooth	2.4 GHz	Version 4.2 LE		77.5% (DH5)[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. Avg. RF Output Pow er (dBm)							
		UAT				LAT			
		Head		Body		Head		Body	
		Burst	Frame	Burst	Frame	Burst	Frame	Burst	Frame
GSM850	Voice/GPRS (1 slot)	30.5	21.5	30.5	21.5	33.5	24.5	33.5	24.5
	GPRS 2 slots	29.5	23.5	29.5	23.5	32.5	26.5	32.5	26.5
	EGPRS 1 slot	24.7	15.7	24.7	15.7	29.0	20.0	29.0	20.0
	EGPRS 2 slots	23.7	17.7	23.7	17.7	28.0	22.0	28.0	22.0
GSM1900	Voice/GPRS (1 slot)	25.2	16.2	25.2	16.2	30.5	21.5	28.8	19.7
	GPRS 2 slots	24.0	18.0	24.2	18.2	29.5	23.5	25.8	19.7
	EGPRS 1 slot	22.5	13.5	22.5	13.5	28.0	19.0	27.8	18.7
	EGPRS 2 slots	21.5	15.5	21.5	15.5	27.0	21.0	24.8	18.7

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RF Air interface	Mode	Max. Avg. RF Output Power (dBm)			
		UAT		LAT	
		Head	Body	Head	Body
W-CDMA Band V	R99	23.0	23.0	25.0	25.0
	HSDPA	23.0	23.0	25.0	25.0
	HSUPA	23.0	23.0	25.0	25.0
	DC-HSDPA	23.0	23.0	25.0	25.0
	HSPA+	23.0	23.0	25.0	25.0
W-CDMA Band IV	R99	19.3	20.5	25.2	22.3
	HSDPA	19.3	20.5	25.2	22.3
	HSUPA	19.3	20.5	25.2	22.3
	DC-HSDPA	19.3	20.5	25.2	22.3
	HSPA+	19.3	20.5	25.2	22.3
W-CDMA Band II	R99	17.3	20.5	25.2	20.5
	HSDPA	17.3	20.5	25.2	20.5
	HSUPA	17.3	20.5	25.2	20.5
	DC-HSDPA	17.3	20.5	25.2	20.5
	HSPA+	17.3	20.5	25.2	20.5
CDMA BC0	1xRTT	23.5	23.5	25.0	25.0
	1xAdvanced	23.5	23.5	25.0	25.0
	1xEVDO Rel. 0	23.5	23.5	25.0	25.0
	1xEVDO Rev. A	23.5	23.5	25.0	25.0
CDMA BC1	1xRTT	17.3	20.5	25.2	20.5
	1xAdvanced	17.3	20.5	25.2	20.5
	1xEVDO Rel. 0	17.3	20.5	25.2	20.5
	1xEVDO Rev. A	17.3	20.5	25.2	20.5
CDMA BC10	1xRTT	23.5	23.5	25.0	25.0
	1xAdvanced	23.5	23.5	25.0	25.0
	1xEVDO Rel. 0	23.5	23.5	25.0	25.0
	1xEVDO Rev. A	23.5	23.5	25.0	25.0
LTE Band 2	QPSK	17.3	20.5	24.5	20.5
LTE Band 4	QPSK	19.3	20.5	24.5	22.3
LTE Band 5	QPSK	22.5	22.5	24.0	24.0
LTE Band 7	QPSK	16.3	19.3	24.0	17.8
LTE Band 12	QPSK	23.5	23.5	24.5	24.5
LTE Band 13	QPSK	23.5	23.5	24.5	24.5
LTE Band 17	QPSK	23.5	23.5	24.5	24.5
LTE Band 25	QPSK	17.3	20.5	24.5	20.5
LTE Band 26	QPSK	22.5	22.5	24.0	24.0
LTE Band 27	QPSK	22.5	22.5	24.0	24.0
LTE Band 30	QPSK	20.0	20.0	23.0	21.0
LTE Band 41	QPSK	18.3	21.0	22.5	20.3
LTE-2CA Band 7	QPSK	16.3	19.0	23.0	17.8
LTE-2CA Band 41	QPSK	18.0	18.0	22.5	20.3
RF Air interface	Mode	Max. Avg. RF Output Power (dBm)			
Bluetooth P_{high}		13.0			
Bluetooth P_{low}		10.0			
Bluetooth $P_{standalone}$		16.5			

Notes:

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

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6.3.1. WLAN SISO (P_{Cell_ON})

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11b	1 Tx	1	2412	13.0	19.0	16.5	14.5	Yes
			6	2437	13.0	19.0	16.5	14.5	
			11	2462	13.0	19.0	16.5	14.5	
			12	2467	13.0	17.5	16.5	14.5	
			13	2472	13.0	13.5	13.5	13.5	
	802.11g	1 Tx	1	2412	13.0	15.0	15.0	14.5	No
			2	2417	13.0	17.5	16.5	14.5	
			3	2422	13.0	19.0	16.5	14.5	
			6	2437	13.0	19.0	16.5	14.5	
			9	2452	13.0	19.0	16.5	14.5	
			10	2457	13.0	16.0	16.0	14.5	
			11	2462	13.0	14.5	14.5	14.5	
			12	2467	12.5	12.5	12.5	12.5	
			13	2472	2.5	2.5	2.5	2.5	
	802.11n	1 Tx HT20	1	2412	13.0	15.0	15.0	14.5	No
			2	2417	13.0	17.5	16.5	14.5	
			3	2422	13.0	19.0	16.5	14.5	
			6	2437	13.0	19.0	16.5	14.5	
			9	2452	13.0	19.0	16.5	14.5	
			10	2457	13.0	16.0	16.0	14.5	
			11	2462	13.0	14.5	14.5	14.5	
			12	2467	12.5	12.5	12.5	12.5	
			13	2472	2.5	2.5	2.5	2.5	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	1 Tx	36	5180	6.5	15.0	15.3	10.0	No
			40	5200	6.5	19.0	15.3	10.0	
			44	5220	6.5	20.5	15.3	10.0	
			48	5240	6.5	19.5	15.3	10.0	
	802.11n	1 Tx HT20	36	5180	6.5	15.0	15.3	10.0	No
			40	5200	6.5	19.0	15.3	10.0	
			44	5220	6.5	20.5	15.3	10.0	
			48	5240	6.5	19.5	15.3	10.0	
		1 Tx HT40	38	5190	6.5	15.5	15.3	10.0	Yes
			46	5230	6.5	18.5	15.3	10.0	
	802.11ac	1 Tx VHT20	36	5180	6.5	15.0	15.3	10.0	No
			40	5200	6.5	19.0	15.3	10.0	
			44	5220	6.5	20.5	15.3	10.0	
			48	5240	6.5	19.5	15.3	10.0	
		1 Tx VHT40	38	5190	6.5	15.5	15.3	10.0	No
			46	5230	6.5	18.5	15.3	10.0	
		1 Tx VHT80	42	5210	6.5	15.0	15.0	10.0	Yes

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	1 Tx	52	5260	6.0	19.5	13.8	9.0	Yes
			56	5280	6.0	20.5	13.8	9.0	
			60	5300	6.0	19.0	13.8	9.0	
			64	5320	6.0	16.5	13.8	9.0	
	802.11n	1 Tx HT20	52	5260	6.0	19.5	13.8	9.0	No
			56	5280	6.0	20.5	13.8	9.0	
			60	5300	6.0	19.0	13.8	9.0	
			64	5320	6.0	16.5	13.8	9.0	
		1 Tx HT40	54	5270	6.0	18.5	13.8	9.0	No
			62	5310	6.0	14.5	13.8	9.0	
	802.11ac	1 Tx VHT20	52	5260	6.0	19.5	13.8	9.0	No
			56	5280	6.0	20.5	13.8	9.0	
			60	5300	6.0	19.0	13.8	9.0	
			64	5320	6.0	16.5	13.8	9.0	
		1 Tx VHT40	54	5270	6.0	18.5	13.8	9.0	No
			62	5310	6.0	14.5	13.8	9.0	
		1 Tx VHT80	58	5290	6.0	14.5	13.8	9.0	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	1 Tx	100	5500	5.0	16.5	11.5	8.5	No
			104	5520	5.0	19.0	11.5	8.5	
			108	5540	5.0	19.5	11.5	8.5	
			112	5560	5.0	19.5	11.5	8.5	
			116	5580	5.0	19.5	11.5	8.5	
			120	5600	5.0	19.5	11.5	8.5	
			124	5620	5.0	19.5	11.5	8.5	
			128	5640	5.0	19.5	11.5	8.5	
			132	5660	5.0	19.5	11.5	8.5	
			136	5680	5.0	19.0	11.5	8.5	
			140	5700	5.0	16.5	11.5	8.5	
			144	5720	5.0	19.0	11.5	8.5	
	802.11n	1 Tx HT20	100	5500	5.0	16.5	11.5	8.5	No
			104	5520	5.0	19.0	11.5	8.5	
			108	5540	5.0	19.5	11.5	8.5	
			112	5560	5.0	19.5	11.5	8.5	
			116	5580	5.0	19.5	11.5	8.5	
			120	5600	5.0	19.5	11.5	8.5	
			124	5620	5.0	19.5	11.5	8.5	
			128	5640	5.0	19.5	11.5	8.5	
			132	5660	5.0	19.5	11.5	8.5	
			136	5680	5.0	19.0	11.5	8.5	
			140	5700	5.0	16.5	11.5	8.5	
			144	5720	5.0	19.0	11.5	8.5	
		1 Tx HT40	102	5510	5.0	15.5	11.5	8.5	Yes
			110	5550	5.0	18.5	11.5	8.5	
			118	5590	5.0	19.5	11.5	8.5	
			126	5630	5.0	18.5	11.5	8.5	
			134	5670	5.0	17.5	11.5	8.5	
			142	5710	5.0	19.0	11.5	8.5	
	802.11ac	1 Tx VHT20	100	5500	5.0	16.5	11.5	8.5	No
			104	5520	5.0	19.0	11.5	8.5	
			108	5540	5.0	19.5	11.5	8.5	
			112	5560	5.0	19.5	11.5	8.5	
			116	5580	5.0	19.5	11.5	8.5	
			120	5600	5.0	19.5	11.5	8.5	
			124	5620	5.0	19.5	11.5	8.5	
			128	5640	5.0	19.5	11.5	8.5	
			132	5660	5.0	19.5	11.5	8.5	
			136	5680	5.0	19.0	11.5	8.5	
			140	5700	5.0	16.5	11.5	8.5	
			144	5720	5.0	19.0	11.5	8.5	
		1 Tx VHT40	102	5510	5.0	15.5	11.5	8.5	No
			110	5550	5.0	18.5	11.5	8.5	
			118	5590	5.0	19.5	11.5	8.5	
			126	5630	5.0	18.5	11.5	8.5	
			134	5670	5.0	17.5	11.5	8.5	
			142	5710	5.0	19.0	11.5	8.5	
		1 Tx VHT80	106	5530	5.0	14.0	11.5	8.5	Yes
			122	5610	5.0	19.0	11.5	8.5	
			138	5690	5.0	19.0	11.5	8.5	

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	1 Tx	149	5745	5.0	19.5	11.3	13.0	Yes
			153	5765	5.0	20.5	11.3	13.0	
			157	5785	5.0	20.5	11.3	13.0	
			161	5805	5.0	20.5	11.3	13.0	
			165	5825	5.0	19.5	11.3	13.0	
	802.11n	1 Tx HT20	149	5745	5.0	19.5	11.3	13.0	No
			153	5765	5.0	20.5	11.3	13.0	
			157	5785	5.0	20.5	11.3	13.0	
			161	5805	5.0	20.5	11.3	13.0	
			165	5825	5.0	19.5	11.3	13.0	
		1 Tx HT40	151	5755	5.0	19.0	11.3	13.0	No
			159	5795	5.0	19.0	11.3	13.0	
	802.11ac	1 Tx VHT20	149	5745	5.0	19.5	11.3	13.0	No
			153	5765	5.0	20.5	11.3	13.0	
			157	5785	5.0	20.5	11.3	13.0	
			161	5805	5.0	20.5	11.3	13.0	
			165	5825	5.0	19.5	11.3	13.0	
		1 Tx VHT40	151	5755	5.0	19.0	11.3	13.0	No
			159	5795	5.0	19.0	11.3	13.0	
		1 Tx VHT80	155	5775	5.0	19.0	11.3	13.0	Yes

Notes:

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

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6.3.2. WLAN MIMO (P_{Cell_ON})

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max.Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11g	2 Tx CDD	1	2412	13.0	15.0	15.0	14.5	Yes
			2	2417	13.0	17.5	16.5	14.5	
			3	2422	13.0	19.0	16.5	14.5	
			6	2437	13.0	19.0	16.5	14.5	
			9	2452	13.0	19.0	16.5	14.5	
			10	2457	13.0	16.0	16.0	14.5	
			11	2462	13.0	14.5	14.5	14.5	
			12	2467	12.5	12.5	12.5	12.5	
			13	2472	2.5	2.5	2.5	2.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	1	2412	13.0	14.5	14.5	14.5	No
			2	2417	13.0	17.5	16.5	14.5	
			3	2422	13.0	19.0	16.5	14.5	
			6	2437	13.0	19.0	16.5	14.5	
			9	2452	13.0	19.0	16.5	14.5	
			10	2457	13.0	16.0	16.0	14.5	
			11	2462	13.0	14.0	14.0	14.0	
			12	2467	12.0	12.0	12.0	12.0	
			13	2472	2.5	2.5	2.5	2.5	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	2 Tx CDD	36	5180	6.5	17.0	15.3	10.0	No
			40	5200	6.5	18.0	15.3	10.0	
			44	5220	6.5	18.0	15.3	10.0	
			48	5240	6.5	18.0	15.3	10.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	6.5	17.0	15.3	10.0	No
			40	5200	6.5	18.0	15.3	10.0	
			44	5220	6.5	18.0	15.3	10.0	
			48	5240	6.5	18.0	15.3	10.0	
		2 Tx HT40 CDD/STBC/SDM	38	5190	6.5	13.5	13.5	10.0	Yes
			46	5230	6.5	17.5	15.3	10.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	6.5	17.0	15.3	10.0	No
			40	5200	6.5	18.0	15.3	10.0	
			44	5220	6.5	18.0	15.3	10.0	
			48	5240	6.5	18.0	15.3	10.0	
		2 Tx VHT40 CDD/STBC/SDM	38	5190	6.5	13.5	13.5	10.0	No
			46	5230	6.5	17.5	15.3	10.0	
		2 Tx VHT80 CDD/STBC/SDM	42	5210	6.5	13.0	13.0	10.0	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	2 Tx CDD	52	5260	6.0	18.0	13.8	9.0	No
			56	5280	6.0	18.0	13.8	9.0	
			60	5300	6.0	18.0	13.8	9.0	
			64	5320	6.0	16.5	13.8	9.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	6.0	18.0	13.8	9.0	No
			56	5280	6.0	18.0	13.8	9.0	
			60	5300	6.0	18.0	13.8	9.0	
			64	5320	6.0	16.5	13.8	9.0	
		2 Tx HT40 CDD/STBC/SDM	54	5270	6.0	18.5	13.8	9.0	Yes
			62	5310	6.0	14.0	13.8	9.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	6.0	18.0	13.8	9.0	No
			56	5280	6.0	18.0	13.8	9.0	
			60	5300	6.0	18.0	13.8	9.0	
			64	5320	6.0	16.5	13.8	9.0	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	6.0	18.5	13.8	9.0	No
			62	5310	6.0	14.0	13.8	9.0	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	6.0	14.0	13.8	9.0	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	2 Tx CDD	100	5500	5.0	16.5	11.5	8.5	No
			104	5520	5.0	18.0	11.5	8.5	
			108	5540	5.0	18.0	11.5	8.5	
			112	5560	5.0	18.0	11.5	8.5	
			116	5580	5.0	18.0	11.5	8.5	
			120	5600	5.0	18.0	11.5	8.5	
			124	5620	5.0	18.0	11.5	8.5	
			128	5640	5.0	18.0	11.5	8.5	
			132	5660	5.0	18.0	11.5	8.5	
			136	5680	5.0	18.0	11.5	8.5	
			140	5700	5.0	15.5	11.5	8.5	
			144	5720	5.0	18.0	11.5	8.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	5.0	16.5	11.5	8.5	No
			104	5520	5.0	18.0	11.5	8.5	
			108	5540	5.0	18.0	11.5	8.5	
			112	5560	5.0	18.0	11.5	8.5	
			116	5580	5.0	18.0	11.5	8.5	
			120	5600	5.0	18.0	11.5	8.5	
			124	5620	5.0	18.0	11.5	8.5	
			128	5640	5.0	18.0	11.5	8.5	
			132	5660	5.0	18.0	11.5	8.5	
			136	5680	5.0	18.0	11.5	8.5	
			140	5700	5.0	15.5	11.5	8.5	
			144	5720	5.0	18.0	11.5	8.5	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	5.0	14.0	11.5	8.5	Yes
			110	5550	5.0	18.5	11.5	8.5	
			118	5590	5.0	19.5	11.5	8.5	
			126	5630	5.0	18.5	11.5	8.5	
			134	5670	5.0	15.5	11.5	8.5	
			142	5710	5.0	19.0	11.5	8.5	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	5.0	16.5	11.5	8.5	No
			104	5520	5.0	18.0	11.5	8.5	
			108	5540	5.0	18.0	11.5	8.5	
			112	5560	5.0	18.0	11.5	8.5	
			116	5580	5.0	18.0	11.5	8.5	
			120	5600	5.0	18.0	11.5	8.5	
			124	5620	5.0	18.0	11.5	8.5	
			128	5640	5.0	18.0	11.5	8.5	
			132	5660	5.0	18.0	11.5	8.5	
			136	5680	5.0	18.0	11.5	8.5	
			140	5700	5.0	15.5	11.5	8.5	
			144	5720	5.0	18.0	11.5	8.5	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	5.0	14.0	11.5	8.5	No
			110	5550	5.0	18.5	11.5	8.5	
			118	5590	5.0	19.5	11.5	8.5	
			126	5630	5.0	18.5	11.5	8.5	
			134	5670	5.0	15.5	11.5	8.5	
			142	5710	5.0	19.0	11.5	8.5	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	5.0	14.0	11.5	8.5	Yes
			122	5610	5.0	19.0	11.5	8.5	
			138	5690	5.0	19.0	11.5	8.5	

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	2 Tx CDD	149	5745	5.0	19.5	11.3	13.0	Yes
			153	5765	5.0	20.5	11.3	13.0	
			157	5785	5.0	20.5	11.3	13.0	
			161	5805	5.0	20.5	11.3	13.0	
			165	5825	5.0	19.5	11.3	13.0	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	5.0	19.5	11.3	13.0	No
			153	5765	5.0	20.5	11.3	13.0	
			157	5785	5.0	20.5	11.3	13.0	
			161	5805	5.0	20.5	11.3	13.0	
			165	5825	5.0	19.5	11.3	13.0	
		2 Tx HT40 CDD/STBC/SDM	151	5755	5.0	19.0	11.3	13.0	No
			159	5795	5.0	19.0	11.3	13.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	5.0	19.5	11.3	13.0	No
			153	5765	5.0	20.5	11.3	13.0	
			157	5785	5.0	20.5	11.3	13.0	
			161	5805	5.0	20.5	11.3	13.0	
			165	5825	5.0	19.5	11.3	13.0	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	5.0	19.0	11.3	13.0	No
			159	5795	5.0	19.0	11.3	13.0	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	5.0	17.0	11.3	13.0	Yes

Notes:

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

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6.3.3. WLAN SISO (P_{Cell_OFF})

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11b	1 Tx	1	2412	18.5	19.0	19.0	19.0	Yes
			6	2437	18.5	19.0	19.0	19.0	
			11	2462	18.5	19.0	19.0	19.0	
			12	2467	17.5	17.5	17.5	17.5	
			13	2472	13.5	13.5	13.5	13.5	
	802.11g	1 Tx	1	2412	15.0	15.0	15.0	15.0	No
			2	2417	17.5	17.5	17.5	17.5	
			3	2422	18.5	19.0	19.0	19.0	
			6	2437	18.5	19.0	19.0	19.0	
			9	2452	18.5	19.0	19.0	19.0	
			10	2457	16.0	16.0	16.0	16.0	
			11	2462	14.5	14.5	14.5	14.5	
			12	2467	12.5	12.5	12.5	12.5	
			13	2472	2.5	2.5	2.5	2.5	
	802.11n	1 Tx HT20	1	2412	15.0	15.0	15.0	15.0	No
			2	2417	17.5	17.5	17.5	17.5	
			3	2422	18.5	19.0	19.0	19.0	
			6	2437	18.5	19.0	19.0	19.0	
			9	2452	18.5	19.0	19.0	19.0	
			10	2457	16.0	16.0	16.0	16.0	
			11	2462	14.5	14.5	14.5	14.5	
			12	2467	12.5	12.5	12.5	12.5	
			13	2472	2.5	2.5	2.5	2.5	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	1 Tx	36	5180	14.3	17.5	17.5	16.8	Yes
			40	5200	14.3	19.0	19.0	16.8	
			44	5220	14.3	20.5	20.5	16.8	
			48	5240	14.3	19.5	19.5	16.8	
	802.11n	1 Tx HT20	36	5180	14.3	17.5	17.5	16.8	No
			40	5200	14.3	19.0	19.0	16.8	
			44	5220	14.3	20.5	20.5	16.8	
			48	5240	14.3	19.5	19.5	16.8	
		1 Tx HT40	38	5190	14.3	15.5	15.5	15.5	Yes
			46	5230	14.3	18.5	18.5	16.8	
	802.11ac	1 Tx VHT20	36	5180	14.3	17.5	17.5	16.8	No
			40	5200	14.3	19.0	19.0	16.8	
			44	5220	14.3	20.5	20.5	16.8	
			48	5240	14.3	19.5	19.5	16.8	
		1 Tx VHT40	38	5190	14.3	15.5	15.5	15.5	No
			46	5230	14.3	18.5	18.5	16.8	
		1 Tx VHT80	42	5210	14.3	15.0	15.0	15.0	Yes

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	1 Tx	52	5260	13.8	19.5	19.3	15.8	Yes
			56	5280	13.8	20.5	19.3	15.8	
			60	5300	13.8	19.0	19.0	15.8	
			64	5320	13.8	16.5	16.5	15.8	
	802.11n	1 Tx HT20	52	5260	13.8	19.5	19.3	15.8	No
			56	5280	13.8	20.5	19.3	15.8	
			60	5300	13.8	19.0	19.0	15.8	
			64	5320	13.8	16.5	16.5	15.8	
		1 Tx HT40	54	5270	13.8	18.5	18.5	15.8	No
			62	5310	13.8	14.5	14.5	14.5	
	802.11ac	1 Tx VHT20	52	5260	13.8	19.5	19.3	15.8	No
			56	5280	13.8	20.5	19.3	15.8	
			60	5300	13.8	19.0	19.0	15.8	
			64	5320	13.8	16.5	16.5	15.8	
		1 Tx VHT40	54	5270	13.8	18.5	18.5	15.8	No
			62	5310	13.8	14.5	14.5	14.5	
		1 Tx VHT80	58	5290	13.8	14.5	14.5	14.5	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	1 Tx	100	5500	12.8	16.5	16.5	15.3	Yes
			104	5520	12.8	19.0	17.0	15.3	
			108	5540	12.8	20.5	17.0	15.3	
			112	5560	12.8	20.5	17.0	15.3	
			116	5580	12.8	20.5	17.0	15.3	
			120	5600	12.8	20.5	17.0	15.3	
			124	5620	12.8	20.5	17.0	15.3	
			128	5640	12.8	20.5	17.0	15.3	
			132	5660	12.8	20.5	17.0	15.3	
			136	5680	12.8	19.0	17.0	15.3	
			140	5700	12.8	16.5	16.5	15.3	
			144	5720	12.8	19.0	17.0	15.3	
	802.11n	1 Tx HT20	100	5500	12.8	16.5	16.5	15.3	No
			104	5520	12.8	19.0	17.0	15.3	
			108	5540	12.8	20.5	17.0	15.3	
			112	5560	12.8	20.5	17.0	15.3	
			116	5580	12.8	20.5	17.0	15.3	
			120	5600	12.8	20.5	17.0	15.3	
			124	5620	12.8	20.5	17.0	15.3	
			128	5640	12.8	20.5	17.0	15.3	
			132	5660	12.8	20.5	17.0	15.3	
			136	5680	12.8	19.0	17.0	15.3	
			140	5700	12.8	16.5	16.5	15.3	
			144	5720	12.8	19.0	17.0	15.3	
		1 Tx HT40	102	5510	12.8	15.5	15.5	15.3	No
			110	5550	12.8	18.5	17.0	15.3	
			118	5590	12.8	19.5	17.0	15.3	
			126	5630	12.8	18.5	17.0	15.3	
			134	5670	12.8	17.5	17.0	15.3	
			142	5710	12.8	19.0	17.0	15.3	
	802.11ac	1 Tx VHT20	100	5500	12.8	16.5	16.5	15.3	No
			104	5520	12.8	19.0	17.0	15.3	
			108	5540	12.8	20.5	17.0	15.3	
			112	5560	12.8	20.5	17.0	15.3	
			116	5580	12.8	20.5	17.0	15.3	
			120	5600	12.8	20.5	17.0	15.3	
			124	5620	12.8	20.5	17.0	15.3	
			128	5640	12.8	20.5	17.0	15.3	
			132	5660	12.8	20.5	17.0	15.3	
			136	5680	12.8	19.0	17.0	15.3	
			140	5700	12.8	16.5	16.5	15.3	
			144	5720	12.8	19.0	17.0	15.3	
		1 Tx VHT40	102	5510	12.8	15.5	15.5	15.3	No
			110	5550	12.8	18.5	17.0	15.3	
			118	5590	12.8	19.5	17.0	15.3	
			126	5630	12.8	18.5	17.0	15.3	
			134	5670	12.8	17.5	17.0	15.3	
			142	5710	12.8	19.0	17.0	15.3	
		1 Tx VHT80	106	5530	12.8	14.0	14.0	14.0	Yes
			122	5610	12.8	19.0	17.0	15.3	
			138	5690	12.8	19.0	17.0	15.3	

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	1 Tx	149	5745	13.0	19.5	16.5	19.5	Yes
			153	5765	13.0	20.5	16.5	19.8	
			157	5785	13.0	20.5	16.5	19.8	
			161	5805	13.0	20.5	16.5	19.8	
			165	5825	13.0	19.5	16.5	19.5	
	802.11n	1 Tx HT20	149	5745	13.0	19.5	16.5	19.5	No
			153	5765	13.0	20.5	16.5	19.8	
			157	5785	13.0	20.5	16.5	19.8	
			161	5805	13.0	20.5	16.5	19.8	
			165	5825	13.0	19.5	16.5	19.5	
		1 Tx HT40	151	5755	13.0	19.0	16.5	19.0	No
			159	5795	13.0	19.0	16.5	19.0	
	802.11ac	1 Tx VHT20	149	5745	13.0	19.5	16.5	19.5	No
			153	5765	13.0	20.5	16.5	19.8	
			157	5785	13.0	20.5	16.5	19.8	
			161	5805	13.0	20.5	16.5	19.8	
			165	5825	13.0	19.5	16.5	19.5	
		1 Tx VHT40	151	5755	13.0	19.0	16.5	19.0	No
			159	5795	13.0	19.0	16.5	19.0	
		1 Tx VHT80	155	5775	13.0	19.0	16.5	19.0	Yes

Notes:

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

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6.3.4. WLAN MIMO (P_{Cell_OFF})

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
2.4	802.11g	2 Tx CDD	1	2412	14.5	14.5	14.5	14.5	Yes
			2	2417	17.5	17.5	17.5	17.5	
			3	2422	18.5	19.0	19.0	19.0	
			6	2437	18.5	19.0	19.0	19.0	
			9	2452	18.5	19.0	19.0	19.0	
			10	2457	16.0	16.0	16.0	16.0	
			11	2462	14.0	14.0	14.0	14.0	
			12	2467	12.5	12.5	12.5	12.5	
			13	2472	2.5	2.5	2.5	2.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	1	2412	14.5	14.5	14.5	14.5	No
			2	2417	17.5	17.5	17.5	17.5	
			3	2422	18.5	19.0	19.0	19.0	
			6	2437	18.5	19.0	19.0	19.0	
			9	2452	18.5	19.0	19.0	19.0	
			10	2457	16.0	16.0	16.0	16.0	
			11	2462	14.0	14.0	14.0	14.0	
			12	2467	12.0	12.0	12.0	12.0	
			13	2472	2.5	2.5	2.5	2.5	

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.2	802.11a	2 Tx CDD	36	5180	14.3	17.0	17.0	16.8	No
			40	5200	14.3	18.0	18.0	16.8	
			44	5220	14.3	18.0	18.0	16.8	
			48	5240	14.3	18.0	18.0	16.8	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	36	5180	14.3	17.0	17.0	16.8	No
			40	5200	14.3	18.0	18.0	16.8	
			44	5220	14.3	18.0	18.0	16.8	
			48	5240	14.3	18.0	18.0	16.8	
		2 Tx HT40 CDD/STBC/SDM	38	5190	13.5	13.5	13.5	13.5	No
			46	5230	14.3	17.5	17.5	16.8	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	36	5180	14.3	17.0	17.0	16.8	No
			40	5200	14.3	18.0	18.0	16.8	
			44	5220	14.3	18.0	18.0	16.8	
			48	5240	14.3	18.0	18.0	16.8	
		2 Tx VHT40 CDD/STBC/SDM	38	5190	13.5	13.5	13.5	13.5	No
			46	5230	14.3	17.5	17.5	16.8	
		2 Tx VHT80 CDD/STBC/SDM	42	5210	13.0	13.0	13.0	13.0	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.3	802.11a	2 Tx CDD	52	5260	13.8	18.0	18.0	15.8	No
			56	5280	13.8	18.0	18.0	15.8	
			60	5300	13.8	18.0	18.0	15.8	
			64	5320	13.8	16.5	16.5	15.8	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	52	5260	13.8	18.0	18.0	15.8	No
			56	5280	13.8	18.0	18.0	15.8	
			60	5300	13.8	18.0	18.0	15.8	
			64	5320	13.8	16.5	16.5	15.8	
		2 Tx HT40 CDD/STBC/SDM	54	5270	13.8	18.5	18.5	15.8	Yes
			62	5310	13.8	14.0	14.0	14.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	52	5260	13.8	18.0	18.0	15.8	No
			56	5280	13.8	18.0	18.0	15.8	
			60	5300	13.8	18.0	18.0	15.8	
			64	5320	13.8	16.5	16.5	15.8	
		2 Tx VHT40 CDD/STBC/SDM	54	5270	13.8	18.5	18.5	15.8	No
			62	5310	13.8	14.0	14.0	14.0	
		2 Tx VHT80 CDD/STBC/SDM	58	5290	13.8	14.0	14.0	14.0	No

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.5	802.11a	2 Tx CDD	100	5500	12.8	16.5	16.5	15.3	No
			104	5520	12.8	18.0	17.0	15.3	
			108	5540	12.8	18.0	17.0	15.3	
			112	5560	12.8	18.0	17.0	15.3	
			116	5580	12.8	18.0	17.0	15.3	
			120	5600	12.8	18.0	17.0	15.3	
			124	5620	12.8	18.0	17.0	15.3	
			128	5640	12.8	18.0	17.0	15.3	
			132	5660	12.8	18.0	17.0	15.3	
			136	5680	12.8	18.0	17.0	15.3	
			140	5700	12.8	15.5	15.5	15.3	
			144	5720	12.8	18.0	17.0	15.3	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	100	5500	12.8	16.5	16.5	15.3	No
			104	5520	12.8	18.0	17.0	15.3	
			108	5540	12.8	18.0	17.0	15.3	
			112	5560	12.8	18.0	17.0	15.3	
			116	5580	12.8	18.0	17.0	15.3	
			120	5600	12.8	18.0	17.0	15.3	
			124	5620	12.8	18.0	17.0	15.3	
			128	5640	12.8	18.0	17.0	15.3	
			132	5660	12.8	18.0	17.0	15.3	
			136	5680	12.8	18.0	17.0	15.3	
			140	5700	12.8	15.5	15.5	15.3	
			144	5720	12.8	18.0	17.0	15.3	
		2 Tx HT40 CDD/STBC/ SDM	102	5510	12.8	14.0	14.0	14.0	Yes
			110	5550	12.8	18.5	17.0	15.3	
			118	5590	12.8	19.5	17.0	15.3	
			126	5630	12.8	18.5	17.0	15.3	
			134	5670	12.8	15.5	15.5	15.3	
			142	5710	12.8	19.0	17.0	15.3	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	100	5500	12.8	16.5	16.5	15.3	No
			104	5520	12.8	18.0	17.0	15.3	
			108	5540	12.8	18.0	17.0	15.3	
			112	5560	12.8	18.0	17.0	15.3	
			116	5580	12.8	18.0	17.0	15.3	
			120	5600	12.8	18.0	17.0	15.3	
			124	5620	12.8	18.0	17.0	15.3	
			128	5640	12.8	18.0	17.0	15.3	
			132	5660	12.8	18.0	17.0	15.3	
			136	5680	12.8	18.0	17.0	15.3	
			140	5700	12.8	15.5	15.5	15.3	
			144	5720	12.8	18.0	17.0	15.3	
		2 Tx VHT40 CDD/STBC/ SDM	102	5510	12.8	14.0	14.0	14.0	No
			110	5550	12.8	18.5	17.0	15.3	
			118	5590	12.8	19.5	17.0	15.3	
			126	5630	12.8	18.5	17.0	15.3	
			134	5670	12.8	15.5	15.5	15.3	
			142	5710	12.8	19.0	17.0	15.3	
		2 Tx VHT80 CDD/STBC/ SDM	106	5530	12.8	14.0	14.0	14.0	Yes
			122	5610	12.8	19.0	17.0	15.3	
			138	5690	12.8	19.0	17.0	15.3	

Notes:

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

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Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)				SAR Test (Yes/No)
					HEAD		BODY		
					Chain 0	Chain 1	Chain 0	Chain 1	
5.8	802.11a	2 Tx CDD	149	5745	13.0	19.5	16.5	19.5	Yes
			153	5765	13.0	20.5	16.5	19.8	
			157	5785	13.0	20.5	16.5	19.8	
			161	5805	13.0	20.5	16.5	19.8	
			165	5825	13.0	19.5	16.5	19.5	
	802.11n	2 Tx HT20 CDD/STBC/ SDM	149	5745	13.0	19.5	16.5	19.5	No
			153	5765	13.0	20.5	16.5	19.8	
			157	5785	13.0	20.5	16.5	19.8	
			161	5805	13.0	20.5	16.5	19.8	
			165	5825	13.0	19.5	16.5	19.5	
		2 Tx HT40 CDD/STBC/SDM	151	5755	13.0	19.0	16.5	19.0	No
			159	5795	13.0	19.0	16.5	19.0	
	802.11ac	2 Tx VHT20 CDD/STBC/ SDM	149	5745	13.0	19.5	16.5	19.5	No
			153	5765	13.0	20.5	16.5	19.8	
			157	5785	13.0	20.5	16.5	19.8	
			161	5805	13.0	20.5	16.5	19.8	
			165	5825	13.0	19.5	16.5	19.5	
		2 Tx VHT40 CDD/STBC/SDM	151	5755	13.0	19.0	16.5	19.0	No
			159	5795	13.0	19.0	16.5	19.0	
		2 Tx VHT80 CDD/STBC/SDM	155	5775	13.0	17.0	16.5	17.0	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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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	7/16/2016	1750	Head	1750	41.97	40.08	4.70	1.34	1.37	-2.04
				1710	42.10	40.15	4.87	1.30	1.35	-3.30
				1755	41.94	40.08	4.65	1.35	1.37	-1.81
A	7/16/2016	1750	Body	1750	51.59	53.44	-3.46	1.51	1.49	1.67
				1710	51.71	53.54	-3.42	1.47	1.46	0.31
				1755	51.56	53.43	-3.50	1.52	1.49	1.86
A	7/20/2016	1750	Head	1750	40.78	40.08	1.73	1.35	1.37	-1.17
				1710	40.87	40.15	1.80	1.32	1.35	-1.96
				1755	40.77	40.08	1.73	1.36	1.37	-1.01
A	7/20/2016	2300	Body	2300	54.22	52.90	2.49	1.85	1.80	2.63
				2350	54.07	52.84	2.33	1.91	1.85	3.25
				2400	53.91	52.77	2.16	1.97	1.90	3.79
A	7/20/2016	2300	Head	2300	38.37	39.47	-2.79	1.70	1.66	2.06
				2350	38.19	39.38	-3.03	1.75	1.71	2.54
				2400	38.48	39.30	-2.08	1.83	1.75	4.47
A	7/22/2016	5200	Body	5200	49.55	49.02	1.08	5.27	5.29	-0.39
				5150	49.65	49.09	1.15	5.23	5.24	-0.08
				5350	49.28	48.82	0.95	5.47	5.47	-0.05
A	7/24/2016	1750	Head	1750	39.11	40.08	-2.43	1.35	1.37	-1.61
				1710	39.28	40.15	-2.16	1.31	1.35	-2.41
				1755	39.12	40.08	-2.39	1.35	1.37	-1.59
B	7/16/2016	2600	Head	2600	38.26	39.01	-1.92	2.04	1.96	4.02
				2495	38.66	39.14	-1.23	1.92	1.85	4.02
				2690	37.90	38.90	-2.56	2.13	2.06	3.57
B	7/16/2016	2600	Body	2600	50.39	52.51	-4.04	2.17	2.16	0.56
				2495	50.69	52.64	-3.71	2.05	2.01	1.63
				2690	50.10	52.40	-4.38	2.28	2.29	-0.14
B	7/20/2016	2600	Head	2600	40.00	39.01	2.54	1.95	1.96	-0.42
				2495	40.33	39.14	3.03	1.84	1.85	-0.47
				2690	39.72	38.90	2.12	2.05	2.06	-0.51
B	7/20/2016	2600	Body	2600	52.93	52.51	0.80	2.16	2.16	0.15
				2495	53.23	52.64	1.11	2.04	2.01	1.23
				2690	52.66	52.40	0.50	2.27	2.29	-0.84
C	7/13/2016	1900	Head	1900	39.63	40.00	-0.92	1.45	1.40	3.36
				1850	39.84	40.00	-0.40	1.41	1.40	0.43
				1920	39.58	40.00	-1.05	1.46	1.40	4.50
C	7/13/2016	1900	Body	1900	52.47	53.30	-1.56	1.58	1.52	3.82
				1850	52.65	53.30	-1.22	1.54	1.52	1.18
				1920	52.43	53.30	-1.63	1.59	1.52	4.67
C	7/16/2016	1900	Head	1900	39.49	40.00	-1.28	1.43	1.40	2.07
				1850	39.71	40.00	-0.72	1.39	1.40	-0.86
				1920	39.44	40.00	-1.40	1.45	1.40	3.29
C	7/16/2016	1900	Body	1900	55.75	53.30	4.60	1.55	1.52	2.17
				1850	55.93	53.30	4.93	1.51	1.52	-0.72
				1920	55.72	53.30	4.54	1.57	1.52	3.36

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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	7/19/2016	1900	Head	1900	41.02	40.00	2.55	1.45	1.40	3.36
				1850	41.22	40.00	3.05	1.40	1.40	-0.21
				1920	40.96	40.00	2.40	1.47	1.40	4.79
C	7/20/2016	1900	Body	1900	52.14	53.30	-2.18	1.51	1.52	-0.46
				1850	52.24	53.30	-1.99	1.47	1.52	-3.29
				1920	52.13	53.30	-2.20	1.53	1.52	0.72
C	7/22/2016	5600	Head	5600	35.69	35.53	0.44	4.86	5.06	-4.00
				5500	35.84	35.65	0.54	4.75	4.96	-4.19
				5725	35.50	35.39	0.31	4.98	5.19	-4.07
C	7/23/2016	1900	Body	1900	53.90	53.30	1.13	1.52	1.52	0.26
				1850	54.14	53.30	1.58	1.48	1.52	-2.63
				1920	53.52	53.30	0.41	1.57	1.52	2.96
C	7/24/2016	1900	Head	1900	41.29	40.00	3.23	1.40	1.40	-0.14
				1850	41.47	40.00	3.68	1.35	1.40	-3.43
				1920	41.15	40.00	2.88	1.44	1.40	3.00
D	7/12/2016	2600	Body	2600	52.82	52.51	0.59	2.19	2.16	1.54
				2495	53.11	52.64	0.89	2.07	2.01	2.72
				2690	52.57	52.40	0.33	2.30	2.29	0.51
D	7/16/2016	2600	Head	2600	38.86	39.01	-0.39	2.00	1.96	1.72
				2495	39.25	39.14	0.27	1.88	1.85	1.86
				2690	38.52	38.90	-0.97	2.09	2.06	1.39
D	7/16/2016	2600	Body	2600	51.73	52.51	-1.49	2.19	2.16	1.12
				2495	52.04	52.64	-1.15	2.06	2.01	2.22
				2690	51.44	52.40	-1.83	2.29	2.29	-0.01
D	7/19/2016	2600	Head	2600	39.43	39.01	1.07	2.03	1.96	3.61
				2495	39.78	39.14	1.63	1.92	1.85	3.70
				2690	39.13	38.90	0.60	2.13	2.06	3.33
D	7/19/2016	2600	Body	2600	52.29	52.51	-0.42	2.21	2.16	2.42
				2495	52.59	52.64	-0.10	2.09	2.01	3.66
				2690	52.02	52.40	-0.72	2.32	2.29	1.25
E	7/11/2016	5800	Head	5800	35.75	35.30	1.27	5.16	5.27	-2.16
				5700	35.93	35.42	1.44	5.05	5.16	-2.18
				5850	35.71	35.30	1.16	5.20	5.27	-1.40
E	7/11/2016	5600	Head	5600	36.07	35.53	1.51	4.95	5.06	-2.16
				5500	36.19	35.65	1.52	4.85	4.96	-2.22
				5725	35.88	35.39	1.38	5.07	5.19	-2.28
E	7/14/2016	5800	Head	5800	36.27	35.30	2.75	5.14	5.27	-2.47
				5700	36.42	35.42	2.82	5.04	5.16	-2.30
				5850	36.23	35.30	2.63	5.20	5.27	-1.35
E	7/17/2016	5800	Head	5800	36.74	35.30	4.08	5.19	5.27	-1.44
				5700	36.88	35.42	4.12	5.09	5.16	-1.48
				5850	36.68	35.30	3.91	5.24	5.27	-0.53
E	7/21/2016	5600	Head	5600	35.93	35.53	1.11	5.06	5.06	-0.06
				5500	36.10	35.65	1.27	4.95	4.96	-0.18
				5725	35.78	35.39	1.10	5.19	5.19	0.00

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
E	7/25/2016	5800	Head	5800	35.73	35.30	1.22	5.06	5.27	-3.91
				5700	35.81	35.42	1.10	4.96	5.16	-4.00
				5850	35.64	35.30	0.96	5.11	5.27	-3.02
F	7/11/2016	2450	Head	2450	39.02	39.20	-0.46	1.88	1.80	4.56
				2400	39.21	39.30	-0.22	1.82	1.75	3.96
				2480	38.93	39.16	-0.59	1.91	1.83	4.45
F	7/11/2016	2450	Body	2450	50.81	52.70	-3.59	1.97	1.95	0.82
				2400	50.94	52.77	-3.47	1.92	1.90	0.95
				2480	50.77	52.66	-3.59	2.00	1.99	0.14
F	7/15/2016	2450	Head	2450	38.56	39.20	-1.63	1.79	1.80	-0.56
				2400	38.75	39.30	-1.39	1.73	1.75	-1.46
				2480	38.47	39.16	-1.77	1.82	1.83	-0.46
F	7/15/2016	2450	Body	2450	52.11	52.70	-1.12	1.92	1.95	-1.69
				2400	52.20	52.77	-1.08	1.86	1.90	-2.16
				2480	52.06	52.66	-1.14	1.95	1.99	-2.12
F	7/19/2016	2450	Head	2450	39.12	39.20	-0.20	1.74	1.80	-3.11
				2400	39.31	39.30	0.03	1.69	1.75	-3.58
				2480	39.04	39.16	-0.31	1.78	1.83	-3.08
F	7/19/2016	2450	Body	2450	51.29	52.70	-2.68	1.99	1.95	1.85
				2400	51.35	52.77	-2.70	1.93	1.90	1.63
				2480	51.24	52.66	-2.70	2.02	1.99	1.50
G	7/11/2016	5600	Body	5600	48.76	48.48	0.58	5.94	5.76	3.18
				5500	48.93	48.61	0.65	5.81	5.64	2.88
				5725	48.53	48.31	0.46	6.10	5.91	3.31
G	7/11/2016	5800	Body	5800	48.40	48.20	0.41	6.22	6.00	3.63
				5700	48.63	48.34	0.60	6.08	5.88	3.44
				5850	48.34	48.20	0.29	6.28	6.00	4.60
G	7/15/2016	5800	Body	5800	47.90	48.20	-0.62	6.14	6.00	2.30
				5700	48.13	48.34	-0.44	6.00	5.88	2.15
				5850	47.81	48.20	-0.81	6.19	6.00	3.13
G	7/18/2016	5600	Body	5600	46.96	48.48	-3.13	5.89	5.76	2.29
				5500	47.15	48.61	-3.01	5.75	5.64	1.78
				5725	46.74	48.31	-3.25	6.07	5.91	2.73
G	7/18/2016	5800	Body	5800	46.61	48.20	-3.30	6.17	6.00	2.78
				5700	46.79	48.34	-3.21	6.03	5.88	2.66
				5850	46.55	48.20	-3.42	6.24	6.00	4.03
H	7/11/2016	5200	Head	5200	37.35	35.99	3.78	4.47	4.65	-3.81
				5150	37.41	36.05	3.78	4.42	4.60	-3.93
				5350	37.15	35.82	3.72	4.61	4.80	-3.98
H	7/11/2016	5200	Body	5200	47.65	49.02	-2.79	5.28	5.29	-0.32
				5150	47.75	49.09	-2.72	5.21	5.24	-0.43
				5350	47.39	48.82	-2.92	5.47	5.47	0.04

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
H	7/15/2016	5200	Body	5200	48.85	49.02	-0.35	5.32	5.29	0.50
				5150	48.95	49.09	-0.28	5.26	5.24	0.41
				5350	48.69	48.82	-0.26	5.52	5.47	0.83
H	7/18/2016	5200	Head	5200	36.61	35.99	1.72	4.53	4.65	-2.71
				5150	36.65	36.05	1.67	4.47	4.60	-2.74
				5350	36.53	35.82	1.98	4.70	4.80	-2.28
H	7/19/2016	5200	Body	5200	48.27	49.02	-1.53	5.28	5.29	-0.28
				5150	48.37	49.09	-1.46	5.21	5.24	-0.50
				5350	48.15	48.82	-1.37	5.44	5.47	-0.56
3	7/17/2016	1900	Head	1900	39.48	40.00	-1.30	1.43	1.40	2.43
				1850	39.71	40.00	-0.72	1.38	1.40	-1.64
				1920	39.40	40.00	-1.50	1.45	1.40	3.79
3	7/17/2016	1900	Body	1900	51.59	53.30	-3.21	1.55	1.52	2.24
				1850	51.76	53.30	-2.89	1.49	1.52	-1.78
				1920	51.46	53.30	-3.45	1.58	1.52	3.68
3	7/20/2016	5600	Body	5600	47.14	48.48	-2.76	5.82	5.76	0.99
				5500	47.15	48.61	-3.01	5.64	5.64	-0.08
				5725	47.04	48.31	-2.63	5.99	5.91	1.48
3	7/20/2016	5800	Body	5800	46.84	48.20	-2.82	6.07	6.00	1.13
				5700	46.87	48.34	-3.05	5.96	5.88	1.45
				5850	46.73	48.20	-3.05	6.14	6.00	2.25
3	7/24/2016	5800	Body	5800	48.08	48.20	-0.25	6.06	6.00	1.02
				5700	48.24	48.34	-0.21	5.90	5.88	0.35
				5850	48.00	48.20	-0.41	6.12	6.00	2.02
4	7/6/2016	750	Head	750	39.72	41.96	-5.34	0.92	0.89	2.79
				695	40.46	42.24	-4.22	0.87	0.89	-1.91
				790	39.11	41.76	-6.34	0.95	0.90	6.08
4	7/5/2016	750	Body	750	53.52	55.55	-3.65	0.96	0.96	-0.10
				695	54.16	55.76	-2.87	0.91	0.96	-4.65
				790	52.89	55.39	-4.52	1.01	0.97	4.02
4	7/7/2016	750	Head	750	39.80	41.96	-5.15	0.90	0.89	1.14
				695	40.63	42.24	-3.82	0.85	0.89	-4.62
				790	39.24	41.76	-6.03	0.94	0.90	4.69
4	7/8/2016	750	Head	750	40.29	41.96	-3.98	0.91	0.89	2.25
				695	41.07	42.24	-2.78	0.86	0.89	-2.69
				790	39.83	41.76	-4.61	0.95	0.90	5.73
4	7/8/2016	750	Body	750	54.32	55.55	-2.21	0.97	0.96	0.46
				695	54.89	55.76	-1.56	0.92	0.96	-4.45
				790	53.91	55.39	-2.68	1.01	0.97	4.33
4	7/15/2016	1900	Head	1900	38.16	40.00	-4.60	1.44	1.40	3.07
				1850	38.38	40.00	-4.05	1.40	1.40	0.07
				1920	38.06	40.00	-4.85	1.47	1.40	4.71
4	7/15/2016	1900	Body	1900	52.01	53.30	-2.42	1.49	1.52	-2.11
				1850	52.24	53.30	-1.99	1.45	1.52	-4.67
				1920	51.97	53.30	-2.50	1.51	1.52	-0.39

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SAR Lab	Date	Tissue Type	Band (MHz)	Frequency (MHz)	Relative Permittivity (εr)			Conductivity (σ)		
					Measured	Target	Delta ±5 %	Measured	Target	Delta ±5 %
4	7/18/2016	750	Head	750	40.27	41.96	-4.03	0.93	0.89	3.62
				695	40.94	42.24	-3.09	0.88	0.89	-1.38
				725	40.72	42.09	-3.25	0.91	0.89	2.04
5	7/5/2016	835	Head	835	41.49	41.50	-0.02	0.94	0.90	4.62
				805	41.54	41.68	-0.33	0.91	0.90	0.96
				905	40.37	41.50	-2.72	0.99	0.97	1.81
5	7/5/2016	835	Body	835	52.56	55.20	-4.78	0.99	0.97	1.59
				805	52.95	55.33	-4.31	0.96	0.97	-1.06
				905	52.28	55.00	-4.95	1.07	1.05	1.19
5	7/8/2016	835	Head	835	40.51	41.50	-2.39	0.90	0.90	0.51
				805	40.95	41.68	-1.75	0.88	0.90	-2.04
				905	39.67	41.50	-4.41	0.97	0.97	-0.31
5	7/8/2016	835	Body	835	54.05	55.20	-2.08	0.99	0.97	2.25
				805	54.43	55.33	-1.63	0.97	0.97	-0.21
				905	53.26	55.00	-3.16	1.06	1.05	0.71
5	7/11/2016	835	Head	835	40.43	41.50	-2.58	0.91	0.90	0.94
				805	40.68	41.68	-2.40	0.87	0.90	-2.70
				905	39.55	41.50	-4.70	0.97	0.97	-0.35
5	7/11/2016	835	Body	835	53.70	55.20	-2.72	1.00	0.97	2.71
				805	53.99	55.33	-2.43	0.97	0.97	-0.20
				905	53.00	55.00	-3.64	1.06	1.05	0.81
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

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

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

Additional Bluetooth testing 8/23/2016 to 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 %
F	8/23/2016	2450	Head	2450	40.30	39.20	2.81	1.84	1.80	2.44
				2400	40.46	39.30	2.96	1.79	1.75	2.08
				2480	40.19	39.16	2.62	1.88	1.83	2.49
E	8/24/2016	2450	Body	2450	51.35	52.70	-2.56	1.87	1.95	-3.95
				2400	51.47	52.77	-2.47	1.81	1.90	-4.69
				2480	51.23	52.66	-2.72	1.91	1.99	-4.07

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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	7/16/2016	Head	D1750V2 SN:1053	11/12/2016	3.420	34.20	37.10	-7.82	1.800	18.00	19.80	-9.09	1,2
A	7/16/2016	Body	D1750V2 SN:1053	11/12/2016	3.710	37.10	37.50	-1.07	1.930	19.30	20.30	-4.93	
A	7/20/2016	Head	D1750V2 SN:1053	11/13/2016	3.510	35.10	37.10	-5.39	1.840	18.40	19.80	-7.07	
A	7/20/2016	Body	D2300V2 SN:1002	9/23/2016	4.760	47.60	47.50	0.21	2.230	22.30	23.10	-3.46	
A	7/20/2016	Head	D2300V2 SN:1002	9/23/2016	4.900	49.00	50.50	-2.97	2.300	23.00	24.20	-4.96	3,4
A	7/22/2016	Body	D5GHzV2 SN:1003 (5.2 GHz)	2/25/2017	7.720	77.20	73.30	5.32	2.150	21.50	20.60	4.37	5,6
A	7/24/2016	Head	D1750V2 SN:1053	8/11/2016	3.680	36.80	37.10	-0.81	1.930	19.30	19.80	-2.53	
B	7/16/2016	Head	D2600V2 SN:1006	11/13/2016	5.730	57.30	56.90	0.70	2.490	24.90	25.50	-2.35	
B	7/16/2016	Body	D2600V2 SN:1006	11/13/2016	5.700	57.00	55.30	3.07	2.420	24.20	24.80	-2.42	
B	7/20/2016	Head	D2600V2 SN:1006	11/13/2016	5.370	53.70	56.90	-5.62	2.320	23.20	25.50	-9.02	7,8
B	7/20/2016	Body	D2600V2 SN:1006	11/13/2016	5.730	57.30	55.30	3.62	2.450	24.50	24.80	-1.21	
C	7/13/2016	Head	D1900V2 SN:5d140	3/18/2017	4.100	41.00	38.30	7.05	2.080	20.80	20.00	4.00	9,10
C	7/13/2016	Body	D1900V2 SN:5d140	3/18/2017	4.080	40.80	39.30	3.82	2.050	20.50	20.80	-1.44	
C	7/16/2016	Head	D1900V2 SN:5d140	11/12/2016	4.090	40.90	38.30	6.79	2.070	20.70	20.00	3.50	
C	7/16/2016	Body	D1900V2 SN:5d140	9/23/2016	3.880	38.80	39.30	-1.27	1.960	19.60	20.80	-5.77	
C	7/19/2016	Head	D1900V2 SN:5d140	9/23/2016	3.570	35.70	38.30	-6.79	1.810	18.10	20.00	-9.50	
C	7/20/2016	Body	D1900V2 SN:5d140	9/23/2016	4.190	41.90	39.30	6.62	2.110	21.10	20.80	1.44	
C	7/22/2016	Head	D5GHzV2 SN:1138 (5.6 GHz)	8/11/2016	7.740	77.40	84.70	-8.62	2.210	22.10	24.20	-8.68	11,12
C	7/23/2016	Body	D1900V2 SN:5d140	11/12/2016	3.790	37.90	39.30	-3.56	1.930	19.30	20.80	-7.21	
C	7/24/2016	Head	D1900V2 SN:5d140	4/12/2017	4.000	40.00	38.30	4.44	2.030	20.30	20.00	1.50	
D	7/12/2016	Body	D2600V2 SN:1036	9/23/2016	5.680	56.80	53.40	6.37	2.480	24.80	23.80	4.20	
D	7/16/2016	Head	D2600V2 SN:1036	11/13/2016	5.610	56.10	55.40	1.26	2.450	24.50	24.60	-0.41	
D	7/16/2016	Body	D2600V2 SN:1036	11/12/2016	5.610	56.10	53.40	5.06	2.450	24.50	23.80	2.94	
D	7/19/2016	Head	D2600V2 SN:1036	2/25/2017	5.180	51.80	55.40	-6.50	2.260	22.60	24.60	-8.13	13,14
D	7/19/2016	Body	D2600V2 SN:1036	2/25/2017	5.560	55.60	53.40	4.12	2.430	24.30	23.80	2.10	
E	7/11/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	8/11/2016	7.040	70.40	77.10	-8.69	2.000	20.00	21.90	-8.68	15,16
E	7/11/2016	Head	D5GHzV2 SN:1003 (5.6 GHz)	4/12/2017	7.760	77.60	81.70	-5.02	2.200	22.00	23.40	-5.98	
E	7/14/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.530	75.30	77.10	-2.33	2.130	21.30	21.90	-2.74	
E	7/17/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	11/12/2016	7.420	74.20	77.10	-3.76	2.100	21.00	21.90	-4.11	
E	7/21/2016	Head	D5GHzV2 SN:1003 (5.6 GHz)	9/23/2016	8.050	80.50	81.70	-1.47	2.280	22.80	23.40	-2.56	
E	7/25/2016	Head	D5GHzV2 SN:1003 (5.8 GHz)	2/25/2017	7.040	70.40	77.10	-8.69	2.000	20.00	21.90	-8.68	
F	7/11/2016	Head	D2450V2 SN:748	8/11/2016	5.490	54.90	50.90	7.86	2.460	24.60	23.70	3.80	17,18
F	7/11/2016	Body	D2450V2 SN:748	9/21/2016	4.860	48.60	49.80	-2.41	2.240	22.40	23.20	-3.45	
F	7/15/2016	Head	D2450V2 SN:748	11/13/2016	4.880	48.80	50.90	-4.13	2.200	22.00	23.70	-7.17	
F	7/15/2016	Body	D2450V2 SN:748	11/13/2016	4.870	48.70	49.80	-2.21	2.220	22.20	23.20	-4.31	
F	7/19/2016	Head	D2450V2 SN:748	9/22/2016	5.260	52.60	50.90	3.34	2.380	23.80	23.70	0.42	
F	7/19/2016	Body	D2450V2 SN:748	9/22/2016	5.220	52.20	49.80	4.82	2.390	23.90	23.20	3.02	
G	7/11/2016	Body	D5GHzV2 SN:1168 (5.6 GHz)	2/25/2017	8.360	83.60	82.50	1.33	2.320	23.20	23.00	0.87	
G	7/11/2016	Body	D5GHzV2 SN:1168 (5.8 GHz)	9/21/2016	7.200	72.00	78.10	-7.81	2.010	20.10	21.60	-6.94	
G	7/15/2016	Body	D5GHzV2 SN:1168 (5.8 GHz)	2/22/2017	7.200	72.00	78.10	-7.81	2.010	20.10	21.60	-6.94	
G	7/18/2016	Body	D5GHzV2 SN:1168 (5.6 GHz)	11/13/2016	7.530	75.30	82.50	-8.73	2.090	20.90	23.00	-9.13	19,20
G	7/18/2016	Body	D5GHzV2 SN:1168 (5.8 GHz)	9/23/2016	7.130	71.30	78.10	-8.71	1.980	19.80	21.60	-8.33	

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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 %	
H	7/11/2016	Head	D5GHzV2 SN:1168 (5.2 GHz)	8/11/2016	8.120	81.20	78.40	3.57	2.370	23.70	22.50	5.33	
H	7/11/2016	Body	D5GHzV2 SN:1168 (5.2 GHz)	8/11/2016	7.510	75.10	75.00	0.13	2.080	20.80	21.00	-0.95	
H	7/15/2016	Body	D5GHzV2 SN:1168 (5.2 GHz)	2/22/2017	7.020	70.20	75.00	-6.40	1.970	19.70	21.00	-6.19	
H	7/18/2016	Head	D5GHzV2 SN:1168 (5.2 GHz)	2/25/2017	7.200	72.00	78.40	-8.16	2.070	20.70	22.50	-8.00	
H	7/19/2016	Body	D5GHzV2 SN:1168 (5.2 GHz)	9/21/2016	6.790	67.90	75.00	-9.47	1.910	19.10	21.00	-9.05	21,22
3	7/17/2016	Head	D1900V2 SN:5d163	9/23/2016	4.040	40.40	40.10	0.75	2.100	21.00	21.00	0.00	
3	7/17/2016	Body	D1900V2 SN:5d163	9/23/2016	3.940	39.40	39.90	-1.25	2.070	20.70	21.00	-1.43	23,24
3	7/20/2016	Body	D5GHzV2 SN:1003 (5.6 GHz)	9/23/2016	8.160	81.60	79.80	2.26	2.280	22.80	22.40	1.79	
3	7/20/2016	Body	D5GHzV2 SN:1003 (5.8 GHz)	9/23/2016	7.810	78.10	75.50	3.44	2.180	21.80	21.00	3.81	25,26
3	7/24/2016	Body	D5GHzV2 SN:1138 (5.8 GHz)	9/23/2016	7.250	72.50	77.90	-6.93	2.020	20.20	21.60	-6.48	27,28
4	7/5/2016	Body	D750V3 SN:1071	9/23/2016	0.874	8.74	8.74	0.00	0.583	5.83	5.81	0.34	
4	7/6/2016	Head	D750V3 SN:1071	11/12/2016	0.854	8.54	8.21	4.02	0.559	5.59	5.38	3.90	
4	7/8/2016	Body	D750V3 SN:1071	9/23/2016	0.870	8.70	8.74	-0.46	0.581	5.81	5.81	0.00	
4	7/15/2016	Head	D1900V2 SN:5d163	11/13/2016	4.290	42.90	40.10	6.98	2.220	22.20	21.00	5.71	29,30
4	7/15/2016	Body	D1900V2 SN:5d163	11/13/2016	3.900	39.00	39.90	-2.26	2.080	20.80	21.00	-0.95	
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	31,32
5	7/5/2016	Head	D835V2 SN:4d142	9/21/2016	0.999	9.99	9.27	7.77	0.660	6.60	6.01	9.82	33,34
5	7/5/2016	Body	D835V2 SN:4d142	9/21/2016	0.945	9.45	9.41	0.43	0.625	6.25	6.18	1.13	
5	7/8/2016	Head	D835V2 SN:4d142	9/23/2016	0.992	9.92	9.27	7.01	0.655	6.55	6.01	8.99	
5	7/8/2016	Body	D835V2 SN:4d142	11/12/2016	0.984	9.84	9.41	4.57	0.651	6.51	6.18	5.34	
5	7/11/2016	Head	D835V2 SN:4d142	4/12/2017	0.997	9.97	9.27	7.55	0.661	6.61	6.01	9.98	
5	7/11/2016	Body	D835V2 SN:4d142	4/12/2017	0.953	9.53	9.41	1.28	0.630	6.30	6.18	1.94	
5	7/19/2016	Body	D750V3 SN:1071	9/21/2016	0.941	9.41	8.74	7.67	0.625	6.25	5.81	7.57	35,36

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	37,38
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	39,40
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	41,42
C	8/15/2016	Body	D2600V2 SN:1006	9/21/2016	5.680	56.80	55.30	2.71	2.470	24.70	24.80	-0.40	

Additional Bluetooth testing 8/23/2016 to 8/25/2016:

SAR Room	Date	Tissue Type	Dipole Type _Serial #	Dipole Cal. Due Data	Measured Results for 1g SAR				Measured Results for 10g SAR				Plot No.
					Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	Zoom Scan to 100 mW	Normalize to 1 W	Target (Ref. Value)	Delta ±10 %	
F	8/23/2016	Head	D2450V2 SN:748	2/22/2017	5.280	52.80	50.90	3.73	2.360	23.60	23.70	-0.42	43,44
E	8/24/2016	Body	D2450V2 SN:706	5/10/2017	4.610	46.10	49.50	-6.87	2.110	21.10	23.30	-9.44	45,46

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9. Conducted Output Power Measurements

9.1. GSM

Per KDB 941225 D01 3G SAR Procedures:

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

GSM850 Measured Results

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850	128	824.2	30.5	**29.4**	30.5	**29.4**	33.5	**32.5**	33.5	**32.5**
	190	836.6	30.5	**29.4**	30.5	**29.4**	33.5	**32.5**	33.5	**32.5**
	251	848.8	30.5	**29.4**	30.5	**29.4**	33.5	**32.5**	33.5	**32.5**
Frame Power (dBm)										
850	128	824.2	21.5	23.4	21.5	23.4	24.5	26.5	24.5	26.5
	190	836.6	21.5	23.4	21.5	23.4	24.5	26.5	24.5	26.5
	251	848.8	21.5	23.4	21.5	23.4	24.5	26.5	24.5	26.5

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850.0	128.0	824.2	24.7	23.5	24.5	23.6	29.0	28.0	28.8	27.8
	190.0	836.6	24.6	23.7	24.6	23.6	28.9	28.0	28.9	27.8
	251.0	848.8	24.5	23.7	24.6	23.6	28.9	27.9	28.8	27.8
Frame Power (dBm)										
850.0	128.0	824.2	15.7	17.5	15.5	17.6	20.0	22.0	19.8	21.8
	190.0	836.6	15.6	17.7	15.6	17.6	19.9	22.0	19.9	21.8
	251.0	848.8	15.5	17.7	15.6	17.6	19.9	21.9	19.8	21.8

Notes:

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

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

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GSM1900 Measured Results

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	25.2	**23.0**	25.2	**23.2**	30.5	**29.1**	28.8	**25.8**
	661.0	1880.0	25.2	**23.2**	25.2	**23.2**	30.5	**29.1**	28.8	**25.8**
	810.0	1909.8	25.2	**23.3**	25.2	**23.2**	30.5	**29.1**	28.8	**25.8**
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	16.2	17.0	16.2	17.2	21.5	23.1	19.8	19.8
	661.0	1880.0	16.2	17.2	16.2	17.2	21.5	23.1	19.8	19.8
	810.0	1909.8	16.2	17.3	16.2	17.2	21.5	23.1	19.8	19.8

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	UAT				LAT			
			HEAD		BODY		HEAD		BODY	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	22.3	21.4	22.3	21.4	27.9	26.9	27.6	24.6
	661.0	1880.0	22.4	21.3	22.3	21.4	27.8	27.0	27.6	24.6
	810.0	1909.8	22.4	21.5	22.5	21.4	27.9	27.0	27.6	24.7
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	13.3	15.4	13.3	15.4	18.9	20.9	18.6	18.6
	661.0	1880.0	13.4	15.3	13.3	15.4	18.8	21.0	18.6	18.6
	810.0	1909.8	13.4	15.5	13.5	15.4	18.9	21.0	18.6	18.7

Notes:

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

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

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9.2. W-CDMA

Release 99 Setup Procedures used to establish the test signals

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

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

HSDPA Setup Procedures used to establish the test signals

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

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

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

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

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

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DC-HSDPA Setup Procedures used to establish the test signals

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

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

Table E.5.0: Levels for HSDPA connection setup

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

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

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

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

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.

Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

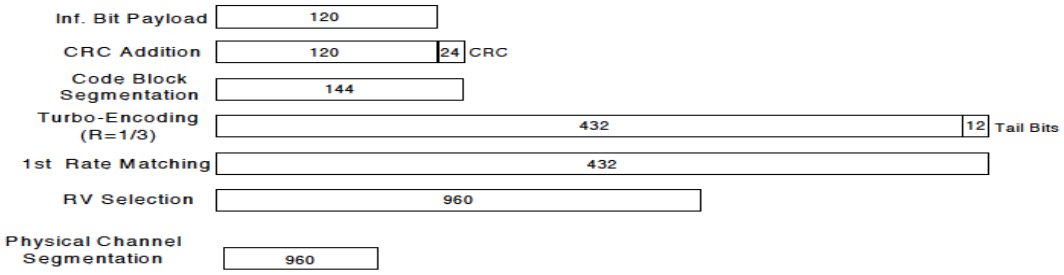

Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

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

HSPA+

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

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W-CDMA Band V Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band V	Rel 99	RMC, 12.2 kbps	4132	826.4	N/A	23.0	23.0	25.0	25.0
			4183	836.6	N/A	23.0	23.0	25.0	25.0
			4233	846.6	N/A	23.0	23.0	25.0	25.0
	HSDPA	Subtest 1	4132	826.4	0	22.8	22.9	25.0	25.0
			4183	836.6	0	23.0	23.0	24.8	25.0
			4233	846.6	0	22.8	23.0	24.8	24.9
		Subtest 2	4132	826.4	0	23.0	22.9	24.8	24.8
			4183	836.6	0	22.9	22.8	25.0	25.0
			4233	846.6	0	23.0	22.9	24.8	24.8
		Subtest 3	4132	826.4	0.5	22.4	22.5	24.3	24.3
			4183	836.6	0.5	22.3	22.3	24.4	24.5
			4233	846.6	0.5	22.3	22.4	24.4	24.3
		Subtest 4	4132	826.4	0.5	22.4	22.3	24.4	24.4
			4183	836.6	0.5	22.3	22.3	24.3	24.3
			4233	846.6	0.5	22.3	22.5	24.3	24.5
	HSUPA	Subtest 1	4132	826.4	0	22.8	22.8	24.8	24.8
			4183	836.6	0	22.9	23.0	24.8	24.9
			4233	846.6	0	22.8	22.8	24.8	24.8
		Subtest 2	4132	826.4	2	20.8	20.8	23.0	22.9
			4183	836.6	2	20.9	20.8	22.9	22.8
			4233	846.6	2	20.8	20.8	22.9	22.9
		Subtest 3	4132	826.4	1	21.8	21.9	23.8	23.9
			4183	836.6	1	22.0	21.9	23.9	23.8
			4233	846.6	1	22.0	21.8	23.9	23.8
		Subtest 4	4132	826.4	2	20.9	20.9	22.8	22.8
			4183	836.6	2	20.9	21.0	22.9	22.9
			4233	846.6	2	20.8	20.9	22.9	22.8
		Subtest 5	4132	826.4	0	22.8	22.9	24.9	25.0
			4183	836.6	0	22.9	22.8	24.9	25.0
			4233	846.6	0	22.8	22.9	24.8	25.0
	DC-HSDPA	Subtest 1	4132	826.4	0	23.0	22.8	24.8	24.8
			4183	836.6	0	22.9	22.9	24.9	24.8
			4233	846.6	0	22.9	22.9	24.9	24.9
		Subtest 2	4132	826.4	0	22.9	22.9	25.0	24.8
			4183	836.6	0	23.0	22.9	25.0	24.8
			4233	846.6	0	22.8	22.9	24.8	25.0
		Subtest 3	4132	826.4	0.5	22.3	22.4	24.4	24.4
			4183	836.6	0.5	22.3	22.4	24.3	24.3
			4233	846.6	0.5	22.4	22.3	24.3	24.3
		Subtest 4	4132	826.4	0.5	22.5	22.4	24.5	24.3
			4183	836.6	0.5	22.3	22.5	24.4	24.4
			4233	846.6	0.5	22.3	22.5	24.3	24.4

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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	19.3	20.5	24.4	22.3
			1413	1732.6	N/A	19.3	20.5	24.3	22.3
			1513	1752.6	N/A	19.3	20.5	24.4	22.3
	HSDPA	Subtest 1	1312	1712.4	0	19.3	20.5	24.3	22.2
			1413	1732.6	0	19.2	20.3	24.3	22.3
			1513	1752.6	0	19.2	20.3	24.3	22.2
		Subtest 2	1312	1712.4	0	19.2	20.3	24.2	22.2
			1413	1732.6	0	19.1	20.3	24.1	22.2
			1513	1752.6	0	19.3	20.3	24.4	22.2
		Subtest 3	1312	1712.4	0.5	18.8	19.8	23.7	21.6
			1413	1732.6	0.5	18.8	19.8	23.6	21.7
			1513	1752.6	0.5	18.7	19.9	23.8	21.7
		Subtest 4	1312	1712.4	0.5	18.7	19.9	23.8	21.6
			1413	1732.6	0.5	18.6	20.0	23.7	21.6
			1513	1752.6	0.5	18.8	19.9	23.8	21.6
	HSUPA	Subtest 1	1312	1712.4	0	19.3	20.4	24.4	22.1
			1413	1732.6	0	19.1	20.3	24.3	22.1
			1513	1752.6	0	19.1	20.4	24.3	22.3
		Subtest 2	1312	1712.4	2	17.2	18.4	22.2	20.2
			1413	1732.6	2	17.2	18.3	22.1	20.2
			1513	1752.6	2	17.1	18.4	22.2	20.3
		Subtest 3	1312	1712.4	1	18.2	19.5	23.2	21.1
			1413	1732.6	1	18.1	19.3	23.3	21.2
			1513	1752.6	1	18.3	19.4	23.2	21.2
		Subtest 4	1312	1712.4	2	17.2	18.3	22.2	20.1
			1413	1732.6	2	17.3	18.4	22.1	20.2
			1513	1752.6	2	17.1	18.4	22.4	20.3
		Subtest 5	1312	1712.4	0	19.2	20.4	24.2	22.2
			1413	1732.6	0	19.3	20.3	24.2	22.2
			1513	1752.6	0	19.1	20.4	24.3	22.2
	DC-HSDPA	Subtest 1	1312	1712.4	0	19.1	20.3	24.2	22.1
			1413	1732.6	0	19.1	20.4	24.2	22.1
			1513	1752.6	0	19.2	20.3	24.3	22.3
		Subtest 2	1312	1712.4	0	19.3	20.4	24.3	22.1
			1413	1732.6	0	19.2	20.3	24.2	22.3
			1513	1752.6	0	19.3	20.3	24.3	22.2
		Subtest 3	1312	1712.4	0.5	18.6	19.9	23.7	21.7
			1413	1732.6	0.5	18.6	19.9	23.6	21.7
			1513	1752.6	0.5	18.6	19.8	23.7	21.6
		Subtest 4	1312	1712.4	0.5	18.6	19.8	23.9	21.6
			1413	1732.6	0.5	18.6	19.9	23.7	21.7
			1513	1752.6	0.5	18.8	20.0	23.9	21.6

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W-CDMA Band II Measured Results

Band	Mode		UL Ch No.	Freq. (MHz)	MPR (dB)	Avg Pwr (dBm)			
						UAT		LAT	
						HEAD	BODY	HEAD	BODY
W-CDMA Band II	Rel 99	RMC, 12.2 kbps	9262	1852.4	N/A	16.8	20.0	25.1	20.5
			9400	1880.0	N/A	16.8	20.0	25.0	20.5
			9538	1907.6	N/A	16.8	20.0	25.1	20.5
	HSDPA	Subtest 1	9262	1852.4	0	16.8	19.8	25.0	20.5
			9400	1880.0	0	16.7	20.0	25.0	20.4
			9538	1907.6	0	16.6	19.8	25.1	20.3
		Subtest 2	9262	1852.4	0	16.6	19.9	25.1	20.5
			9400	1880.0	0	16.6	19.8	24.8	20.4
			9538	1907.6	0	16.7	19.9	25.1	20.4
		Subtest 3	9262	1852.4	0.5	16.3	19.5	24.5	19.9
			9400	1880.0	0.5	16.2	19.3	24.4	20.0
			9538	1907.6	0.5	16.2	19.4	24.4	19.8
		Subtest 4	9262	1852.4	0.5	16.2	19.4	24.4	19.8
			9400	1880.0	0.5	16.1	19.3	24.3	19.8
			9538	1907.6	0.5	16.3	19.4	24.4	19.9
	HSUPA	Subtest 1	9262	1852.4	0	16.7	19.8	24.9	20.3
			9400	1880.0	0	16.6	20.0	24.9	20.3
			9538	1907.6	0	16.7	20.0	24.9	20.3
		Subtest 2	9262	1852.4	2	14.7	17.8	23.1	18.5
			9400	1880.0	2	14.8	18.0	23.0	18.5
			9538	1907.6	2	14.7	17.8	22.9	18.3
		Subtest 3	9262	1852.4	1	15.7	18.9	24.1	19.3
			9400	1880.0	1	15.6	18.8	23.9	19.4
			9538	1907.6	1	15.6	18.8	24.1	19.4
		Subtest 4	9262	1852.4	2	14.8	17.8	22.9	18.3
			9400	1880.0	2	14.7	17.9	22.9	18.4
			9538	1907.6	2	14.7	17.8	23.1	18.5
		Subtest 5	9262	1852.4	0	16.7	19.9	25.0	20.4
			9400	1880.0	0	16.6	20.0	24.9	20.3
			9538	1907.6	0	16.6	19.9	25.0	20.5
	DC-HSDPA	Subtest 1	9262	1852.4	0	16.6	20.0	25.0	20.3
			9400	1880.0	0	16.7	19.8	25.0	20.3
			9538	1907.6	0	16.6	20.0	25.0	20.3
		Subtest 2	9262	1852.4	0	16.6	20.0	25.0	20.3
			9400	1880.0	0	16.6	19.9	24.9	20.4
			9538	1907.6	0	16.8	19.9	25.1	20.5
		Subtest 3	9262	1852.4	0.5	16.1	19.3	24.4	19.9
			9400	1880.0	0.5	16.2	19.3	24.4	20.0
			9538	1907.6	0.5	16.1	19.3	24.4	19.9
		Subtest 4	9262	1852.4	0.5	16.3	19.5	24.4	19.8
			9400	1880.0	0.5	16.1	19.5	24.3	19.9
			9538	1907.6	0.5	16.1	19.5	24.4	20.0

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9.3. CDMA

1x Advanced Setup Procedures used to establish the test signals

Call box setup procedure

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

CDMA BC0 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 0	1xRTT	RC1 SO55 (Loopback)	1013	824.70	23.5	23.3	24.9	24.9
			384	836.52	23.3	23.4	24.8	24.9
			777	848.31	23.4	23.4	24.8	24.9
		RC3 SO55 (Loopback)	1013	824.70	23.5	23.4	25.0	24.8
			384	836.52	23.5	23.3	25.0	24.8
			777	848.31	23.5	23.3	25.0	24.9
		RC3 SO32 (+F-SCH)	1013	824.70	23.3	23.5	24.9	25.0
			384	836.52	23.4	23.5	24.8	25.0
			777	848.31	23.5	23.5	25.0	25.0
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	1013	824.70	23.3	23.4	24.9	24.8
			384	836.52	23.4	23.4	24.9	25.0
			777	848.31	23.4	23.3	24.9	25.0
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	1013	824.70	23.5	23.3	25.0	24.8
			384	836.52	23.5	23.5	25.0	24.8
			777	848.31	23.5	23.4	25.0	24.9
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	1013	824.70	23.5	23.1	24.9	24.7
			384	836.52	23.3	23.5	24.8	24.6
			777	848.31	23.3	23.2	24.8	24.7

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CDMA BC1 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 1	1xRTT	RC1 SO55 (Loopback)	25	1851.25	16.7	20.2	24.0	20.3
			600	1880.00	16.7	20.3	24.5	20.4
			1175	1908.75	16.7	20.4	24.3	20.2
		RC3 SO55 (Loopback)	25	1851.25	16.9	20.3	24.2	20.4
			600	1880.00	16.9	20.4	24.6	20.3
			1175	1908.75	16.8	20.3	24.5	20.2
		RC3 SO32 (+F-SCH)	25	1851.25	16.7	20.4	24.0	20.5
			600	1880.00	16.8	20.5	24.4	20.4
			1175	1908.75	16.7	20.5	24.3	20.4
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	25	1851.25	16.9	20.3	24.0	20.3
			600	1880.00	16.9	20.3	24.5	20.3
			1175	1908.75	16.6	20.3	24.5	20.4
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	25	1851.25	16.8	20.2	24.2	20.5
			600	1880.00	16.8	20.5	24.2	20.3
			1175	1908.75	16.8	20.3	24.2	20.2
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	25	1851.25	16.7	20.0	24.0	20.3
			600	1880.00	16.7	20.4	24.0	20.1
			1175	1908.75	16.7	20.1	24.1	20.0

CDMA BC10 Measured Results

Band	Mode		Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					UAT		LAT	
					HEAD	BODY	HEAD	BODY
BC 10	1xRTT	RC1 SO55 (Loopback)	476	817.90	23.2	23.3	24.8	25.0
			580	820.50	23.3	23.3	24.8	24.8
			684	823.10	23.4	23.5	24.8	24.8
		RC3 SO55 (Loopback)	476	817.90	23.4	23.4	25.0	24.9
			580	820.50	23.4	23.5	25.0	24.9
			684	823.10	23.4	23.3	25.0	24.9
		RC3 SO32 (+F-SCH)	476	817.90	23.2	23.5	24.9	25.0
			580	820.50	23.4	23.5	24.9	25.0
			684	823.10	23.3	23.5	25.0	25.0
	1xAdvanced	Fwd11/Rvs8 SO75 (Loopback)	476	817.90	23.4	23.5	24.9	24.8
			580	820.50	23.2	23.3	24.8	24.9
			684	823.10	23.3	23.3	24.8	24.9
	1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	476	817.90	23.5	23.3	25.0	25.0
			580	820.50	23.5	23.3	25.0	24.9
			684	823.10	23.5	23.5	25.0	24.8
	1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	476	817.90	23.3	23.3	25.0	24.9
			580	820.50	23.4	23.1	25.0	24.8
			684	823.10	23.3	23.3	24.8	24.7

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9.4. LTE

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

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

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

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

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

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

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

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LTE Band 2 Average Power (dBm) Measured Results

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

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LTE Band 4 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz		1720 MHz	1732.5 MHz	1745 MHz
LTE Band 4	20	QPSK	1	0	0.0	19.0	19.1	19.1	0.0	20.0	20.1	20.2	0.0	24.4	24.3	24.3	0.0	22.0	22.2	22.2
			1	49	0.0	19.2	19.3	19.3	0.0	20.2	20.2	20.2	0.0	24.5	24.5	24.5	0.0	22.2	22.3	22.3
			1	99	0.0	19.1	19.2	19.1	0.0	20.1	20.1	20.0	0.0	24.4	24.4	24.5	0.0	22.0	22.2	22.2
			50	0	0.0	19.2	19.3	19.1	0.5	19.8	19.8	19.8	1.0	23.3	23.2	23.2	0.0	22.1	22.1	22.3
			50	24	0.0	19.3	19.3	19.3	0.5	19.9	20.0	19.9	1.0	23.4	23.4	23.4	0.0	22.3	22.3	22.3
			50	49	0.0	19.3	19.2	19.1	0.5	19.8	20.0	19.9	1.0	23.2	23.3	23.4	0.0	22.2	22.1	22.2
			100	0	0.0	19.2	19.2	19.0	0.5	19.7	19.9	19.7	1.0	23.3	23.4	23.2	0.0	22.1	22.3	22.2
		16QAM	1	0	0.0	19.0	19.1	19.1	0.5	19.4	19.6	19.6	1.0	23.3	23.3	23.2	0.0	21.9	22.1	22.2
			1	49	0.0	19.2	19.2	19.2	0.5	19.6	19.6	19.6	1.0	23.4	23.5	23.4	0.0	22.1	22.2	22.2
			1	99	0.0	19.0	19.1	19.1	0.5	19.5	19.6	19.4	1.0	23.4	23.3	23.4	0.0	22.0	22.1	22.1
			50	0	0.3	18.9	18.9	18.8	1.5	18.7	18.8	18.7	2.0	22.3	22.1	22.1	0.0	22.0	22.1	22.2
			50	24	0.3	19.0	19.0	19.0	1.5	18.8	19.0	18.9	2.0	22.4	22.4	22.3	0.0	22.2	22.2	22.2
			50	49	0.3	19.0	18.8	18.7	1.5	18.8	18.9	18.9	2.0	22.2	22.2	22.3	0.0	22.1	22.0	22.1
			100	0	0.3	18.9	18.8	18.7	1.5	18.6	18.8	18.6	2.0	22.3	22.4	22.1	0.0	22.0	22.3	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		
						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	0.0	19.1	19.2	19.1	0.0	20.0	20.1	20.2	0.0	24.5	24.3	24.3	0.0	22.1	22.3	22.1
			1	36	0.0	19.2	19.3	19.3	0.0	20.1	20.1	20.1	0.0	24.5	24.3	24.3	0.0	22.0	22.1	22.2
			1	74	0.0	19.2	19.3	19.2	0.0	20.1	20.0	20.2	0.0	24.3	24.3	24.5	0.0	22.1	22.3	22.2
			36	0	0.0	19.3	19.2	19.2	0.5	19.7	20.0	19.7	1.0	23.4	23.4	23.2	0.0	22.3	22.1	22.3
			36	18	0.0	19.1	19.2	19.2	0.5	19.8	19.9	19.9	1.0	23.3	23.3	23.2	0.0	22.1	22.1	22.1
			36	37	0.0	19.3	19.1	19.3	0.5	19.9	19.9	19.9	1.0	23.2	23.3	23.3	0.0	22.2	22.1	22.1
			75	0	0.0	19.1	19.2	19.0	0.5	19.5	19.7	19.9	1.0	23.0	23.3	23.2	0.0	22.2	22.2	22.0
		16QAM	1	0	0.0	19.0	19.1	19.0	0.5	19.4	19.5	19.6	1.0	23.4	23.3	23.2	0.0	22.0	22.3	22.0
			1	36	0.0	19.2	19.2	19.3	0.5	19.6	19.6	19.5	1.0	23.4	23.3	23.3	0.0	21.9	22.0	22.1
			1	74	0.0	19.1	19.3	19.1	0.5	19.5	19.4	19.6	1.0	23.3	23.3	23.5	0.0	22.0	22.2	22.1
			36	0	0.3	19.0	18.9	18.8	1.5	18.6	18.9	18.6	2.0	22.3	22.4	22.1	0.0	22.3	22.0	22.2
			36	18	0.3	18.8	18.9	18.8	1.5	18.7	18.8	18.8	2.0	22.2	22.2	22.2	0.0	22.1	22.0	22.0
			36	37	0.3	18.9	18.7	19.0	1.5	18.8	18.9	18.8	2.0	22.1	22.2	22.2	0.0	22.2	22.0	22.1
			75	0	0.3	18.8	18.9	18.7	1.5	18.5	18.7	18.8	2.0	21.9	22.2	22.2	0.0	22.2	22.2	21.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	0.0	19.2	19.2	19.1	0.0	20.2	20.2	20.0	0.0	24.5	24.4	24.5	0.0	22.1	22.3	22.3
			1	24	0.0	19.1	19.1	19.3	0.0	20.1	20.0	20.1	0.0	24.4	24.5	24.4	0.0	22.1	22.3	22.1
			1	49	0.0	19.1	19.1	19.3	0.0	20.2	20.1	20.1	0.0	24.4	24.3	24.3	0.0	22.2	22.2	22.1
			25	0	0.0	19.2	19.1	19.2	0.5	19.7	20.0	19.8	1.0	23.3	23.3	23.3	0.0	22.1	22.2	22.1
			25	12	0.0	19.1	19.2	19.2	0.5	19.7	19.8	19.7	1.0	23.2	23.4	23.2	0.0	22.3	22.1	22.2
			25	24	0.0	19.1	19.3	19.3	0.5	19.8	19.9	19.7	1.0	23.3	23.3	23.2	0.0	22.1	22.3	22.1
			50	0	0.0	18.8	19.0	19.1	0.5	19.7	19.9	19.7	1.0	23.2	23.2	23.3	0.0	22.1	22.2	22.1
		16QAM	1	0	0.0	19.1	19.1	19.1	0.5	19.7	19.6	19.4	1.0	23.5	23.3	23.4	0.0	22.0	22.2	22.2
			1	24	0.0	19.0	19.0	19.2	0.5	19.5	19.4	19.5	1.0	23.3	23.4	23.3	0.0	22.0	22.2	22.1
			1	49	0.0	19.0	19.0	19.2	0.5	19.7	19.5	19.6	1.0	23.3	23.3	23.2	0.0	22.2	22.2	22.0
			25	0	0.3	18.9	18.8	18.8	1.5	18.6	18.9	18.7	2.0	22.2	22.3	22.2	0.0	22.1	22.1	22.0
			25	12	0.3	18.8	18.8	18.9	1.5	18.6	18.8	18.6	2.0	22.1	22.3	22.1	0.0	22.2	22.0	22.1
			25	24	0.3	18.8	18.9	18.9	1.5	18.8	18.9	18.6	2.0	22.2	22.3	22.1	0.0	22.0	22.2	22.0
			50	0	0.3	18.5	18.7	18.8	1.5	18.7	18.9	18.7	2.0	22.1	22.1	22.2	0.0	22.1	22.1	22.0

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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	0.0	19.1	19.1	19.1	0.0	20.0	20.0	20.0	0.0	24.3	24.4	24.3	0.0	22.0	22.3	22.1
			1	12	0.0	19.1	19.2	19.2	0.0	20.1	20.1	20.0	0.0	24.5	24.3	24.3	0.0	22.2	22.2	22.1
			1	24	0.0	19.1	19.3	19.2	0.0	20.1	20.2	20.1	0.0	24.4	24.4	24.4	0.0	22.0	22.1	22.1
			12	0	0.0	19.2	19.1	19.1	0.5	19.8	19.9	19.7	1.0	23.3	23.4	23.2	0.0	22.2	22.3	22.1
			12	7	0.0	19.1	19.3	19.1	0.5	19.9	19.8	19.8	1.0	23.2	23.4	23.2	0.0	22.2	22.2	22.1
			12	13	0.0	19.2	19.2	19.2	0.5	19.8	19.8	19.7	1.0	23.2	23.2	23.4	0.0	22.1	22.2	22.1
			25	0	0.0	19.0	19.1	19.0	0.5	19.7	19.7	19.7	1.0	23.2	23.4	23.1	0.0	22.0	22.2	22.2
		16QAM	1	0	0.0	19.1	19.1	19.1	0.5	19.4	19.4	19.5	1.0	23.2	23.3	23.2	0.0	22.0	22.2	22.0
			1	12	0.0	19.1	19.2	19.1	0.5	19.6	19.5	19.4	1.0	23.4	23.2	23.2	0.0	22.1	22.2	22.0
			1	24	0.0	19.1	19.2	19.2	0.5	19.5	19.7	19.5	1.0	23.4	23.3	23.3	0.0	22.0	22.0	22.0
			12	0	0.3	18.9	18.7	18.8	1.5	18.7	18.8	18.6	2.0	22.2	22.3	22.1	0.0	22.1	22.2	22.0
			12	7	0.3	18.8	18.9	18.7	1.5	18.9	18.7	18.7	2.0	22.1	22.4	22.1	0.0	22.2	22.1	22.0
			12	13	0.3	18.8	18.8	18.9	1.5	18.7	18.7	18.6	2.0	22.1	22.1	22.3	0.0	22.1	22.1	22.0
			25	0	0.3	18.7	18.7	18.7	1.5	18.7	18.6	18.7	2.0	22.1	22.4	22.0	0.0	21.9	22.1	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		
						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	0.0	19.1	19.1	19.3	0.0	20.2	20.2	20.2	0.0	24.4	24.4	24.4	0.0	22.1	22.2	22.1
			1	8	0.0	19.0	19.1	19.2	0.0	20.0	20.1	20.0	0.0	24.3	24.3	24.3	0.0	22.0	22.1	22.1
			1	14	0.0	19.0	19.3	19.2	0.0	20.1	20.1	20.1	0.0	24.4	24.3	24.4	0.0	22.1	22.1	22.3
			8	0	0.0	19.2	19.2	19.2	0.5	19.7	19.8	19.9	1.0	23.3	23.3	23.2	0.0	22.1	22.1	22.2
			8	4	0.0	19.1	19.3	19.3	0.5	19.7	19.8	19.7	1.0	23.3	23.3	23.3	0.0	22.1	22.3	22.1
			8	7	0.0	19.3	19.2	19.1	0.5	19.8	20.0	19.7	1.0	23.2	23.3	23.3	0.0	22.1	22.1	22.2
			15	0	0.0	18.9	19.1	19.0	0.5	19.7	19.8	19.7	1.0	23.1	23.3	23.3	0.0	22.1	22.3	21.9
		16QAM	1	0	0.0	19.0	19.1	19.2	0.5	19.7	19.7	19.6	1.0	23.3	23.3	23.3	0.0	22.1	22.2	22.1
			1	8	0.0	19.0	19.0	19.1	0.5	19.4	19.5	19.5	1.0	23.3	23.3	23.2	0.0	21.9	22.1	22.1
			1	14	0.0	19.0	19.3	19.1	0.5	19.5	19.5	19.5	1.0	23.4	23.3	23.3	0.0	22.1	22.0	22.2
			8	0	0.3	18.8	18.9	18.9	1.5	18.6	18.8	18.8	2.0	22.2	22.2	22.1	0.0	22.0	22.0	22.1
			8	4	0.3	18.8	18.9	18.9	1.5	18.6	18.8	18.7	2.0	22.3	22.3	22.2	0.0	22.1	22.2	22.0
			8	7	0.3	18.9	18.9	18.8	1.5	18.7	18.9	18.6	2.0	22.1	22.2	22.2	0.0	22.0	22.0	22.2
			15	0	0.3	18.5	18.7	18.7	1.5	18.6	18.7	18.6	2.0	22.0	22.2	22.2	0.0	22.0	22.2	21.8

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	0.0	19.2	19.1	19.2	0.0	20.0	20.1	20.1	0.0	24.4	24.4	24.5	0.0	22.1	22.2	22.2
			1	3	0.0	19.1	19.2	19.3	0.0	20.0	20.2	20.0	0.0	24.4	24.4	24.4	0.0	22.0	22.3	22.3
			1	5	0.0	19.0	19.1	19.1	0.0	20.1	20.1	20.0	0.0	24.3	24.3	24.4	0.0	22.0	22.3	22.1
			3	0	0.0	19.2	19.3	19.2	0.0	20.2	20.4	20.2	0.0	24.4	24.4	24.2	0.0	22.1	22.1	22.2
			3	1	0.0	19.1	19.2	19.1	0.0	20.2	20.3	20.3	0.0	24.3	24.3	24.3	0.0	22.2	22.2	22.2
			3	3	0.0	19.3	19.2	19.1	0.0	20.3	20.3	20.3	0.0	24.3	24.2	24.4	0.0	22.1	22.2	22.2
			6	0	0.0	18.9	19.1	18.9	0.5	19.8	19.8	19.7	1.0	23.2	23.3	23.1	0.0	22.0	22.2	22.3
		16QAM	1	0	0.0	19.2	19.0	19.1	0.5	19.5	19.5	19.5	1.0	23.4	23.3	23.5	0.0	22.0	22.1	22.1
			1	3	0.0	19.0	19.2	19.3	0.5	19.5	19.6	19.4	1.0	23.3	23.3	23.3	0.0	22.0	22.2	22.3
			1	5	0.0	18.9	19.1	19.0	0.5	19.5	19.6	19.5	1.0	23.2	23.3	23.3	0.0	22.0	22.3	22.0
			3	0	0.0	19.1	19.3	19.2	0.5	19.6	19.9	19.6	1.0	23.3	23.3	23.1	0.0	22.0	22.0	22.1
			3	1	0.0	19.0	19.1	19.0	0.5	19.6	19.7	19.8	1.0	23.2	23.2	23.3	0.0	22.2	22.1	22.1
			3	3	0.0	19.2	19.2	19.0	0.5	19.7	19.7	19.7	1.0	23.2	23.1	23.4	0.0	22.1	22.2	22.1
			6	0	0.3	18.6	18.8	18.6	1.5	18.8	18.8	18.7	2.0	22.1	22.2	22.1	0.0	21.9	22.1	22.2

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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	0.0	16.0	15.9	15.9	0.0	18.7	18.7	18.6	0.0	23.9	23.9	23.9	0.0	17.6	17.5	17.5
			1	49	0.0	16.0	16.0	16.0	0.0	18.8	18.8	18.8	0.0	24.0	24.0	24.0	0.0	17.7	17.7	17.7
			1	99	0.0	15.9	15.9	15.9	0.0	18.7	18.8	18.6	0.0	24.0	23.9	24.0	0.0	17.7	17.7	17.6
			50	0	0.0	15.9	15.8	15.8	0.0	18.7	18.6	18.6	0.5	23.4	23.4	23.3	0.0	17.6	17.5	17.6
			50	24	0.0	16.0	16.0	16.0	0.0	18.8	18.8	18.8	0.5	23.5	23.5	23.5	0.0	17.7	17.6	17.8
			50	49	0.0	15.8	16.0	15.8	0.0	18.7	18.8	18.8	0.5	23.5	23.5	23.3	0.0	17.5	17.4	17.7
			100	0	0.0	16.0	16.0	15.9	0.0	18.6	18.8	18.8	0.5	23.4	23.5	23.3	0.0	17.5	17.6	17.4
		16QAM	1	0	0.0	15.9	15.8	15.9	0.0	18.6	18.6	18.5	0.5	23.4	23.4	23.3	0.0	17.5	17.4	17.4
			1	49	0.0	15.9	15.9	16.0	0.0	18.7	18.8	18.7	0.5	23.4	23.5	23.4	0.0	17.6	17.6	17.7
			1	99	0.0	15.9	15.8	15.9	0.0	18.6	18.8	18.5	0.5	23.4	23.3	23.4	0.0	17.7	17.7	17.5
			50	0	0.0	15.8	15.7	15.7	0.8	17.8	17.8	17.8	1.5	22.4	22.4	22.2	0.0	17.5	17.5	17.5
			50	24	0.0	16.0	15.9	15.9	0.8	18.0	18.0	18.0	1.5	22.5	22.4	22.4	0.0	17.6	17.6	17.8
			50	49	0.0	15.7	15.9	15.7	0.8	17.9	17.9	18.0	1.5	22.5	22.5	22.2	0.0	17.4	17.4	17.6
			100	0	0.0	15.9	15.9	15.8	0.8	17.8	18.0	17.9	1.5	22.3	22.4	22.2	0.0	17.5	17.5	17.3

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	0.0	15.9	15.8	16.0	0.0	18.6	18.7	18.6	0.0	23.9	23.8	24.0	0.0	17.7	17.5	17.6
			1	36	0.0	15.8	15.9	15.9	0.0	18.6	18.8	18.7	0.0	23.8	23.9	23.8	0.0	17.5	17.6	17.7
			1	74	0.0	15.8	15.9	15.8	0.0	18.7	18.7	18.7	0.0	23.9	24.0	23.9	0.0	17.6	17.5	17.5
			36	0	0.0	15.8	15.8	15.8	0.0	18.6	18.8	18.8	0.5	23.4	23.3	23.4	0.0	17.5	17.5	17.7
			36	18	0.0	16.0	15.9	15.8	0.0	18.8	18.6	18.7	0.5	23.4	23.3	23.4	0.0	17.6	17.5	17.7
			36	37	0.0	15.9	15.9	16.0	0.0	18.7	18.6	18.8	0.5	23.4	23.4	23.3	0.0	17.7	17.4	17.7
			75	0	0.0	15.7	15.8	15.8	0.0	18.6	18.6	18.4	0.5	23.3	23.4	23.3	0.0	17.3	17.4	17.2
		16QAM	1	0	0.0	15.8	15.7	15.9	0.0	18.6	18.6	18.5	0.5	23.3	23.3	23.5	0.0	17.7	17.5	17.5
			1	36	0.0	15.8	15.8	15.9	0.0	18.5	18.7	18.6	0.5	23.2	23.4	23.3	0.0	17.5	17.6	17.6
			1	74	0.0	15.7	15.9	15.8	0.0	18.6	18.7	18.6	0.5	23.3	23.4	23.3	0.0	17.5	17.4	17.4
			36	0	0.0	15.7	15.8	15.7	0.8	17.7	18.0	18.0	1.5	22.4	22.3	22.3	0.0	17.5	17.5	17.6
			36	18	0.0	15.9	15.9	15.7	0.8	18.0	17.8	17.8	1.5	22.3	22.3	22.4	0.0	17.5	17.4	17.6
			36	37	0.0	15.8	15.8	15.9	0.8	17.9	17.7	18.0	1.5	22.4	22.3	22.3	0.0	17.7	17.3	17.7
			75	0	0.0	15.6	15.8	15.8	0.8	17.8	17.8	17.6	1.5	22.2	22.3	22.3	0.0	17.2	17.4	17.1

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	0.0	15.9	15.8	15.8	0.0	18.7	18.6	18.6	0.0	24.0	23.8	24.0	0.0	17.6	17.7	17.6
			1	24	0.0	15.8	15.9	16.0	0.0	18.8	18.6	18.7	0.0	23.8	24.0	23.9	0.0	17.5	17.5	17.6
			1	49	0.0	15.9	15.9	16.0	0.0	18.8	18.6	18.8	0.0	23.8	23.9	24.0	0.0	17.5	17.7	17.6
			25	0	0.0	15.9	15.9	15.8	0.0	18.7	18.7	18.6	0.5	23.5	23.4	23.3	0.0	17.5	17.6	17.7
			25	12	0.0	15.8	16.0	15.9	0.0	18.6	18.7	18.8	0.5	23.4	23.3	23.3	0.0	17.5	17.4	17.6
			25	24	0.0	15.8	15.9	15.8	0.0	18.7	18.6	18.8	0.5	23.4	23.4	23.3	0.0	17.5	17.5	17.8
			50	0	0.0	15.9	15.8	15.9	0.0	18.6	18.7	18.4	0.5	23.4	23.4	23.3	0.0	17.2	17.5	17.4
		16QAM	1	0	0.0	15.8	15.8	15.7	0.0	18.7	18.5	18.6	0.5	23.4	23.2	23.4	0.0	17.5	17.6	17.5
			1	24	0.0	15.8	15.8	16.0	0.0	18.7	18.5	18.6	0.5	23.2	23.5	23.3	0.0	17.4	17.5	17.6
			1	49	0.0	15.8	15.9	15.9	0.0	18.8	18.6	18.7	0.5	23.3	23.4	23.5	0.0	17.4	17.6	17.5
			25	0	0.0	15.8	15.8	15.7	0.8	17.9	17.9	17.7	1.5	22.5	22.4	22.2	0.0	17.4	17.6	17.7
			25	12	0.0	15.8	16.0	15.8	0.8	17.8	17.9	18.0	1.5	22.4	22.2	22.2	0.0	17.4	17.3	17.5
			25	24	0.0	15.7	15.8	15.8	0.8	17.9	17.7	17.9	1.5	22.4	22.3	22.2	0.0	17.5	17.4	17.7
			50	0	0.0	15.9	15.7	15.8	0.8	17.7	17.9	17.6	1.5	22.3	22.4	22.2	0.0	17.1	17.4	17.3

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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	0.0	16.0	15.8	15.9	0.0	18.7	18.8	18.7	0.0	24.0	23.8	23.8	0.0	17.6	17.5	17.6
			1	12	0.0	15.9	15.8	16.0	0.0	18.6	18.8	18.7	0.0	24.0	24.0	23.9	0.0	17.6	17.5	17.5
			1	24	0.0	15.9	15.8	15.9	0.0	18.7	18.7	18.6	0.0	23.8	23.8	24.0	0.0	17.6	17.5	17.7
			12	0	0.0	16.0	15.9	15.8	0.0	18.7	18.7	18.6	0.5	23.4	23.4	23.5	0.0	17.6	17.4	17.7
			12	7	0.0	16.0	15.9	15.9	0.0	18.8	18.6	18.8	0.5	23.4	23.5	23.3	0.0	17.5	17.6	17.7
			12	13	0.0	15.8	15.9	15.8	0.0	18.8	18.8	18.8	0.5	23.4	23.5	23.5	0.0	17.7	17.4	17.7
			25	0	0.0	15.9	16.0	15.7	0.0	18.6	18.8	18.5	0.5	23.4	23.5	23.1	0.0	17.5	17.6	17.3
		16QAM	1	0	0.0	16.0	15.7	15.8	0.0	18.6	18.7	18.7	0.5	23.4	23.2	23.2	0.0	17.6	17.4	17.6
			1	12	0.0	15.8	15.8	16.0	0.0	18.6	18.7	18.6	0.5	23.5	23.5	23.4	0.0	17.5	17.4	17.4
			1	24	0.0	15.8	15.7	15.9	0.0	18.6	18.7	18.6	0.5	23.3	23.2	23.4	0.0	17.5	17.4	17.6
			12	0	0.0	15.9	15.8	15.7	0.8	17.9	17.9	17.8	1.5	22.4	22.3	22.4	0.0	17.5	17.4	17.6
			12	7	0.0	15.9	15.8	15.8	0.8	18.0	17.8	18.0	1.5	22.4	22.5	22.2	0.0	17.4	17.5	17.7
			12	13	0.0	15.7	15.8	15.7	0.8	18.0	18.0	18.0	1.5	22.3	22.4	22.4	0.0	17.7	17.3	17.6
			25	0	0.0	15.8	15.9	15.6	0.8	17.8	17.9	17.7	1.5	22.3	22.4	22.1	0.0	17.4	17.6	17.2

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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	23.5	23.5	23.4	0	23.3	23.3	23.3	0	24.5	24.4	24.5	0	24.4	24.5	24.4
			1	24	0	23.5	23.5	23.5	0	23.5	23.5	23.5	0	24.5	24.5	24.5	0	24.5	24.5	24.5
			1	49	0	23.5	23.5	23.3	0	23.3	23.3	23.4	0	24.3	24.3	24.4	0	24.3	24.4	24.5
			25	0	1	22.4	22.5	22.3	1	22.5	22.5	22.5	1	23.4	23.3	23.3	1	23.5	23.4	23.3
			25	12	1	22.5	22.5	22.5	1	22.5	22.5	22.5	1	23.5	23.5	23.5	1	23.5	23.5	23.5
			25	24	1	22.3	22.4	22.4	1	22.5	22.3	22.4	1	23.3	23.5	23.3	1	23.5	23.4	23.3
			50	0	1	22.4	22.5	22.4	1	22.3	22.5	22.4	1	23.3	23.5	23.3	1	23.5	23.5	23.3
		16QAM	1	0	1	22.5	22.4	22.3	1	22.2	22.2	22.3	1	23.4	23.4	23.4	1	23.4	23.4	23.3
			1	24	1	22.4	22.4	22.5	1	22.4	22.4	22.4	1	23.4	23.5	23.5	1	23.5	23.4	23.4
			1	49	1	22.4	22.5	22.2	1	22.3	22.2	22.3	1	23.2	23.3	23.4	1	23.2	23.3	23.4
			25	0	2	21.4	21.5	21.3	2	21.5	21.4	21.4	2	22.4	22.2	22.2	2	22.4	22.3	22.2
			25	12	2	21.4	21.4	21.5	2	21.4	21.4	21.5	2	22.5	22.5	22.5	2	22.4	22.4	22.5
			25	24	2	21.2	21.3	21.3	2	21.5	21.2	21.4	2	22.2	22.4	22.2	2	22.4	22.4	22.2
			50	0	2	21.3	21.5	21.3	2	21.3	21.4	21.3	2	22.3	22.5	22.2	2	22.4	22.4	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	23.3	23.4	23.4	0	23.4	23.3	23.4	0	24.3	24.5	24.3	0	24.4	24.5	24.3
			1	12	0	23.3	23.3	23.3	0	23.3	23.3	23.4	0	24.3	24.3	24.4	0	24.4	24.5	24.4
			1	24	0	23.5	23.4	23.5	0	23.3	23.3	23.5	0	24.3	24.3	24.4	0	24.4	24.3	24.3
			12	0	1	22.3	22.3	22.4	1	22.3	22.5	22.4	1	23.4	23.4	23.4	1	23.4	23.3	23.4
			12	7	1	22.4	22.5	22.5	1	22.4	22.4	22.4	1	23.4	23.5	23.5	1	23.5	23.4	23.4
			12	13	1	22.5	22.3	22.4	1	22.3	22.5	22.4	1	23.4	23.5	23.3	1	23.5	23.3	23.3
			25	0	1	22.1	22.3	22.3	1	22.5	22.4	22.3	1	23.4	23.4	23.1	1	23.2	23.3	23.5
		16QAM	1	0	1	22.2	22.3	22.4	1	22.4	22.3	22.3	1	23.2	23.4	23.2	1	23.3	23.4	23.2
			1	12	1	22.2	22.3	22.2	1	22.2	22.2	22.4	1	23.2	23.2	23.3	1	23.3	23.5	23.3
			1	24	1	22.4	22.3	22.5	1	22.2	22.3	22.4	1	23.2	23.3	23.4	1	23.3	23.2	23.2
			12	0	2	21.3	21.2	21.3	2	21.2	21.4	21.3	2	22.3	22.4	22.3	2	22.3	22.2	22.3
			12	7	2	21.4	21.5	21.4	2	21.4	21.3	21.3	2	22.3	22.4	22.5	2	22.5	22.4	22.3
			12	13	2	21.4	21.3	21.3	2	21.2	21.4	21.3	2	22.3	22.4	22.3	2	22.4	22.2	22.2
			25	0	2	21.0	21.2	21.2	2	21.4	21.3	21.3	2	22.3	22.4	22.1	2	22.1	22.2	22.4

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	23.3	23.4	23.4	0	23.5	23.5	23.5	0	24.4	24.3	24.5	0	24.3	24.5	24.3
			1	8	0	23.4	23.3	23.5	0	23.3	23.5	23.4	0	24.4	24.5	24.4	0	24.3	24.3	24.4
			1	14	0	23.3	23.3	23.3	0	23.3	23.5	23.4	0	24.4	24.3	24.3	0	24.3	24.4	24.3
			8	0	1	22.4	22.3	22.3	1	22.3	22.3	22.4	1	23.3	23.3	23.3	1	23.5	23.4	23.4
			8	4	1	22.4	22.4	22.4	1	22.4	22.3	22.4	1	23.3	23.4	23.5	1	23.4	23.3	23.3
			8	7	1	22.4	22.3	22.4	1	22.3	22.4	22.3	1	23.3	23.4	23.3	1	23.3	23.4	23.4
			15	0	1	22.4	22.4	22.3	1	22.1	22.4	22.4	1	23.3	23.5	23.4	1	23.3	23.4	23.3
		16QAM	1	0	1	22.2	22.3	22.3	1	22.4	22.4	22.4	1	23.3	23.2	23.4	1	23.2	23.4	23.2
			1	8	1	22.3	22.3	22.5	1	22.2	22.4	22.3	1	23.3	23.4	23.3	1	23.2	23.2	23.3
			1	14	1	22.3	22.2	22.3	1	22.2	22.5	22.3	1	23.4	23.3	23.3	1	23.2	23.3	23.2
			8	0	2	21.3	21.3	21.3	2	21.3	21.3	21.4	2	22.3	22.2	22.3	2	22.4	22.4	22.4
			8	4	2	21.4	21.4	21.4	2	21.4	21.2	21.3	2	22.3	22.3	22.4	2	22.3	22.3	22.2
			8	7	2	21.4	21.2	21.3	2	21.2	21.3	21.3	2	22.2	22.3	22.2	2	22.2	22.3	22.3
			15	0	2	21.3	21.3	21.2	2	21.0	21.4	21.3	2	22.2	22.5	22.3	2	22.2	22.3	22.2

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz
LTE Band 12	1.4	QPSK	1	0	0	23.4	23.3	23.3	0	23.3	23.5	23.4	0	24.4	24.5	24.3	0	24.5	24.4	24.4
			1	2	0	23.5	23.4	23.4	0	23.4	23.4	23.3	0	24.3	24.4	24.4	0	24.4	24.3	24.4
			1	5	0	23.3	23.3	23.5	0	23.4	23.5	23.3	0	24.4	24.3	24.3	0	24.3	24.3	24.4
			3	0	0	23.4	23.4	23.4	0	23.3	23.3	23.4	0	24.4	24.5	24.3	0	24.3	24.4	24.3
			3	1	0	23.3	23.3	23.5	0	23.4	23.3	23.5	0	24.3	24.4	24.3	0	24.5	24.4	24.3
			3	2	0	23.4	23.3	23.4	0	23.4	23.3	23.5	0	24.4	24.3	24.4	0	24.3	24.3	24.3
			6	0	1	22.3	22.5	22.4	1	22.3	22.4	22.1	1	23.2	23.3	23.1	1	23.3	23.3	23.3
		16QAM	1	0	1	22.3	22.2	22.3	1	22.2	22.4	22.3	1	23.3	23.4	23.2	1	23.4	23.4	23.3
			1	2	1	22.4	22.3	22.4	1	22.3	22.4	22.2	1	23.2	23.4	23.3	1	23.4	23.2	23.4
			1	5	1	22.2	22.2	22.5	1	22.4	22.4	22.2	1	23.3	23.3	23.2	1	23.2	23.2	23.3
			3	0	1	22.4	22.3	22.3	1	22.2	22.3	22.3	1	23.3	23.4	23.3	1	23.2	23.3	23.2
			3	1	1	22.3	22.2	22.4	1	22.4	22.2	22.4	1	23.2	23.3	23.3	1	23.4	23.3	23.2
			3	2	1	22.3	22.2	22.4	1	22.4	22.2	22.4	1	23.3	23.2	23.4	1	23.2	23.2	23.2
			6	0	2	21.2	21.4	21.3	2	21.2	21.3	21.1	2	22.2	22.3	22.0	2	22.2	22.3	22.3

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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	22.9	0	22.8	0	24.2	0	24.2
			1	24	0	23.0	0	23.0	0	24.4	0	24.4
			1	49	0	22.8	0	22.8	0	24.3	0	24.2
			25	0	1	21.8	1	21.9	1	23.2	1	23.3
			25	12	1	22.0	1	22.0	1	23.4	1	23.4
			25	24	1	22.0	1	22.0	1	23.2	1	23.4
			50	0	1	22.0	1	22.0	1	23.4	1	23.4
		16QAM	1	0	1	21.8	1	21.7	1	23.2	1	23.1
			1	24	1	22.0	1	21.9	1	23.3	1	23.3
			1	49	1	21.7	1	21.7	1	23.2	1	23.2
			25	0	2	20.7	2	20.8	2	22.1	2	22.2
			25	12	2	20.9	2	20.9	2	22.3	2	22.3
			25	24	2	21.0	2	20.9	2	22.2	2	22.4
			50	0	2	20.9	2	20.9	2	22.4	2	22.4

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz
LTE Band 13	5	QPSK	1	0	0	22.8	22.8	22.8	0	22.8	22.9	22.8	0	24.3	24.4	24.4	0	24.3	24.3	24.2
			1	12	0	23.0	22.9	23.0	0	22.8	22.9	22.8	0	24.4	24.2	24.4	0	24.2	24.3	24.2
			1	24	0	22.9	22.8	22.8	0	22.8	22.9	22.8	0	24.3	24.3	24.3	0	24.2	24.2	24.2
			12	0	1	21.9	21.8	21.9	1	21.9	21.9	21.9	1	23.2	23.2	23.2	1	23.3	23.4	23.3
			12	7	1	21.8	21.8	21.9	1	21.8	21.8	21.9	1	23.2	23.4	23.2	1	23.3	23.4	23.4
			12	13	1	21.9	21.8	21.9	1	21.9	21.8	21.9	1	23.3	23.2	23.4	1	23.2	23.2	23.3
			25	0	1	22.0	21.9	21.7	1	21.8	21.9	22.0	1	23.0	23.3	23.1	1	23.0	23.3	23.0
		16QAM	1	0	1	21.7	21.7	21.8	1	21.8	21.8	21.7	1	23.2	23.3	23.3	1	23.2	23.3	23.2
			1	12	1	21.9	21.9	21.9	1	21.8	21.9	21.7	1	23.4	23.1	23.3	1	23.1	23.3	23.1
			1	24	1	21.9	21.7	21.7	1	21.8	21.8	21.7	1	23.2	23.3	23.2	1	23.1	23.2	23.1
			12	0	2	20.8	20.7	20.8	2	20.8	20.9	20.8	2	22.1	22.2	22.1	2	22.3	22.4	22.3
			12	7	2	20.7	20.8	20.9	2	20.7	20.8	20.9	2	22.1	22.4	22.1	2	22.2	22.3	22.4
			12	13	2	20.8	20.8	20.8	2	20.8	20.8	20.8	2	22.3	22.2	22.3	2	22.1	22.2	22.2
			25	0	2	21.0	20.9	20.7	2	20.7	20.8	20.9	2	22.0	22.2	22.0	2	21.9	22.3	22.0

Note(s):

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

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LTE 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	0.0	16.3	16.3	16.1	0.0	20.0	19.9	20.1	0.0	24.5	24.3	24.3	0.0	20.3	20.3	20.3
			1	49	0.0	16.3	16.4	16.3	0.0	20.1	20.1	20.1	0.0	24.5	24.5	24.5	0.0	20.5	20.5	20.5
			1	99	0.0	16.2	16.3	16.1	0.0	20.0	20.0	19.9	0.0	24.4	24.5	24.4	0.0	20.3	20.3	20.3
			50	0	0.0	16.2	16.3	16.2	0.5	19.4	19.5	19.5	1.0	23.3	23.3	23.3	0.0	20.5	20.4	20.3
			50	24	0.0	16.3	16.5	16.3	0.5	19.5	19.5	19.5	1.0	23.5	23.3	23.5	0.0	20.5	20.5	20.4
			50	49	0.0	16.1	16.3	16.3	0.5	19.3	19.5	19.4	1.0	23.4	23.3	23.3	0.0	20.4	20.4	20.4
			100	0	0.0	16.3	16.5	16.4	0.5	19.5	19.5	19.4	1.0	23.1	23.2	23.2	0.0	20.2	20.4	20.2
		16QAM	1	0	0.0	16.3	16.2	16.0	0.5	19.4	19.3	19.5	1.0	23.4	23.2	23.2	0.0	20.2	20.2	20.2
			1	49	0.0	16.2	16.3	16.2	0.5	19.5	19.5	19.5	1.0	23.4	23.4	23.4	0.0	20.5	20.4	20.5
			1	99	0.0	16.1	16.2	16.1	0.5	19.4	19.4	19.3	1.0	23.3	23.4	23.3	0.0	20.2	20.2	20.2
			50	0	0.0	16.2	16.2	16.1	1.5	18.4	18.4	18.5	2.0	22.2	22.3	22.2	0.0	20.5	20.3	20.3
			50	24	0.0	16.2	16.4	16.3	1.5	18.4	18.4	18.4	2.0	22.4	22.3	22.4	0.0	20.5	20.4	20.4
			50	49	0.0	16.0	16.3	16.3	1.5	18.2	18.5	18.4	2.0	22.3	22.3	22.2	0.0	20.3	20.3	20.3
			100	0	0.0	16.2	16.4	16.3	1.5	18.4	18.4	18.3	2.0	22.1	22.2	22.1	0.0	20.2	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		
						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	0.0	16.2	16.2	16.2	0.0	20.0	20.0	19.9	0.0	24.3	24.4	24.3	0.0	20.4	20.5	20.4
			1	36	0.0	16.3	16.2	16.2	0.0	19.9	20.1	19.9	0.0	24.3	24.4	24.5	0.0	20.3	20.3	20.3
			1	74	0.0	16.1	16.3	16.3	0.0	20.1	20.0	20.1	0.0	24.3	24.4	24.4	0.0	20.3	20.3	20.5
			36	0	0.0	16.2	16.4	16.2	0.5	19.5	19.3	19.4	1.0	23.3	23.1	23.3	0.0	20.3	20.3	20.2
			36	18	0.0	16.1	16.3	16.1	0.5	19.3	19.4	19.3	1.0	23.3	23.1	23.3	0.0	20.4	20.5	20.4
			36	37	0.0	16.2	16.4	16.3	0.5	19.5	19.3	19.4	1.0	23.4	23.1	23.5	0.0	20.3	20.5	20.2
			75	0	0.0	16.4	16.3	16.3	0.5	19.4	19.5	19.3	1.0	23.1	23.1	23.0	0.0	20.3	20.2	20.0
		16QAM	1	0	0.0	16.2	16.2	16.2	0.5	19.4	19.5	19.3	1.0	23.2	23.3	23.3	0.0	20.3	20.4	20.4
			1	36	0.0	16.2	16.2	16.2	0.5	19.4	19.6	19.4	1.0	23.3	23.3	23.4	0.0	20.2	20.2	20.3
			1	74	0.0	16.0	16.3	16.2	0.5	19.5	19.4	19.6	1.0	23.2	23.4	23.3	0.0	20.3	20.3	20.4
			36	0	0.0	16.1	16.3	16.1	1.5	18.5	18.2	18.4	2.0	22.3	22.0	22.2	0.0	20.3	20.3	20.1
			36	18	0.0	16.1	16.2	16.0	1.5	18.2	18.3	18.2	2.0	22.3	22.0	22.3	0.0	20.4	20.5	20.3
			36	37	0.0	16.1	16.3	16.3	1.5	18.4	18.2	18.4	2.0	22.4	22.0	22.4	0.0	20.3	20.4	20.1
			75	0	0.0	16.3	16.2	16.2	1.5	18.3	18.4	18.2	2.0	22.1	22.0	21.9	0.0	20.2	20.2	20.0
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	0.0	16.1	16.3	16.2	0.0	20.1	20.1	20.1	0.0	24.5	24.4	24.4	0.0	20.3	20.3	20.4
			1	24	0.0	16.3	16.4	16.2	0.0	20.0	20.0	19.9	0.0	24.3	24.3	24.3	0.0	20.3	20.4	20.4
			1	49	0.0	16.1	16.3	16.2	0.0	19.9	20.1	20.0	0.0	24.3	24.4	24.4	0.0	20.4	20.5	20.5
			25	0	0.0	16.1	16.4	16.2	0.5	19.5	19.4	19.3	1.0	23.3	23.1	23.3	0.0	20.4	20.3	20.3
			25	12	0.0	16.2	16.3	16.2	0.5	19.5	19.4	19.5	1.0	23.3	23.3	23.4	0.0	20.3	20.5	20.3
			25	24	0.0	16.2	16.3	16.1	0.5	19.5	19.4	19.3	1.0	23.3	23.2	23.3	0.0	20.4	20.3	20.2
			50	0	0.0	16.3	16.4	16.4	0.5	19.4	19.3	19.2	1.0	23.0	23.1	23.0	0.0	20.2	20.3	20.2
		16QAM	1	0	0.0	16.0	16.2	16.1	0.5	19.6	19.6	19.5	1.0	23.4	23.3	23.4	0.0	20.2	20.2	20.4
			1	24	0.0	16.2	16.3	16.1	0.5	19.5	19.4	19.4	1.0	23.2	23.3	23.3	0.0	20.2	20.3	20.3
			1	49	0.0	16.0	16.2	16.1	0.5	19.3	19.5	19.4	1.0	23.3	23.4	23.3	0.0	20.3	20.5	20.4
			25	0	0.0	16.0	16.3	16.1	1.5	18.4	18.3	18.2	2.0	22.2	22.1	22.2	0.0	20.3	20.2	20.2
			25	12	0.0	16.1	16.2	16.1	1.5	18.4	18.3	18.4	2.0	22.2	22.3	22.3	0.0	20.3	20.4	20.2
			25	24	0.0	16.2	16.3	16.0	1.5	18.4	18.3	18.2	2.0	22.2	22.2	22.3	0.0	20.3	20.2	20.2
			50	0	0.0	16.2	16.3	16.3	1.5	18.4	18.2	18.2	2.0	21.9	22.1	21.9	0.0	20.2	20.2	20.2

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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	0.0	16.3	16.2	16.3	0.0	19.9	19.9	19.9	0.0	24.4	24.3	24.3	0.0	20.3	20.5	20.3
			1	12	0.0	16.1	16.3	16.2	0.0	20.1	20.0	19.9	0.0	24.5	24.5	24.5	0.0	20.5	20.3	20.4
			1	24	0.0	16.1	16.4	16.1	0.0	20.1	20.0	19.9	0.0	24.3	24.5	24.4	0.0	20.4	20.4	20.4
			12	0	0.0	16.1	16.5	16.2	0.5	19.4	19.3	19.4	1.0	23.3	23.1	23.3	0.0	20.4	20.4	20.2
			12	7	0.0	16.1	16.4	16.1	0.5	19.4	19.4	19.4	1.0	23.5	23.3	23.5	0.0	20.5	20.5	20.3
			12	13	0.0	16.3	16.5	16.2	0.5	19.3	19.3	19.3	1.0	23.4	23.1	23.3	0.0	20.4	20.5	20.3
			25	0	0.0	16.2	16.4	16.1	0.5	19.2	19.4	19.2	1.0	23.1	23.2	22.8	0.0	20.3	20.4	20.4
		16QAM	1	0	0.0	16.2	16.2	16.2	0.5	19.3	19.3	19.3	1.0	23.3	23.3	23.3	0.0	20.2	20.4	20.2
			1	12	0.0	16.0	16.2	16.1	0.5	19.5	19.4	19.3	1.0	23.4	23.5	23.5	0.0	20.5	20.2	20.4
			1	24	0.0	16.0	16.3	16.0	0.5	19.5	19.4	19.3	1.0	23.3	23.4	23.3	0.0	20.3	20.3	20.3
			12	0	0.0	16.0	16.5	16.1	1.5	18.3	18.2	18.3	2.0	22.3	22.1	22.2	0.0	20.3	20.4	20.1
			12	7	0.0	16.1	16.3	16.0	1.5	18.3	18.4	18.3	2.0	22.5	22.2	22.5	0.0	20.5	20.4	20.2
			12	13	0.0	16.2	16.4	16.1	1.5	18.3	18.3	18.2	2.0	22.3	22.0	22.3	0.0	20.3	20.4	20.2
			25	0	0.0	16.1	16.4	16.0	1.5	18.1	18.3	18.1	2.0	22.0	22.1	21.7	0.0	20.2	20.3	20.4
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz		1851.5 MHz	1882.5 MHz	1913.5 MHz
LTE Band 25	3	QPSK	1	0	0.0	16.1	16.2	16.1	0.0	20.0	20.1	20.0	0.0	24.4	24.3	24.3	0.0	20.4	20.4	20.3
			1	8	0.0	16.1	16.4	16.2	0.0	20.0	20.0	19.9	0.0	24.5	24.5	24.4	0.0	20.3	20.5	20.3
			1	14	0.0	16.3	16.2	16.3	0.0	19.9	19.9	20.1	0.0	24.3	24.3	24.3	0.0	20.3	20.3	20.4
			8	0	0.0	16.2	16.3	16.1	0.5	19.4	19.3	19.5	1.0	23.4	23.3	23.4	0.0	20.4	20.3	20.3
			8	4	0.0	16.2	16.5	16.2	0.5	19.4	19.5	19.3	1.0	23.4	23.1	23.5	0.0	20.4	20.4	20.3
			8	7	0.0	16.1	16.4	16.1	0.5	19.4	19.3	19.4	1.0	23.5	23.3	23.5	0.0	20.5	20.4	20.3
			15	0	0.0	16.3	16.4	16.3	0.5	19.2	19.5	19.3	1.0	23.1	23.1	22.8	0.0	20.1	20.3	20.1
		16QAM	1	0	0.0	16.1	16.2	16.0	0.5	19.4	19.6	19.4	1.0	23.3	23.2	23.2	0.0	20.3	20.4	20.2
			1	8	0.0	16.0	16.3	16.1	0.5	19.4	19.5	19.3	1.0	23.5	23.4	23.3	0.0	20.3	20.4	20.2
			1	14	0.0	16.2	16.1	16.2	0.5	19.4	19.3	19.6	1.0	23.2	23.2	23.2	0.0	20.2	20.3	20.4
			8	0	0.0	16.1	16.3	16.0	1.5	18.4	18.2	18.4	2.0	22.4	22.3	22.4	0.0	20.4	20.3	20.2
			8	4	0.0	16.2	16.5	16.1	1.5	18.3	18.4	18.2	2.0	22.3	22.0	22.4	0.0	20.3	20.4	20.2
			8	7	0.0	16.1	16.3	16.1	1.5	18.3	18.2	18.3	2.0	22.4	22.2	22.5	0.0	20.4	20.3	20.3
			15	0	0.0	16.2	16.3	16.2	1.5	18.1	18.5	18.3	2.0	22.0	22.0	21.7	0.0	20.0	20.2	20.0
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	0.0	16.2	16.2	16.1	0.0	20.1	19.9	20.0	0.0	24.3	24.4	24.4	0.0	20.3	20.4	20.3
			1	3	0.0	16.2	16.3	16.2	0.0	20.0	19.9	20.0	0.0	24.4	24.5	24.3	0.0	20.3	20.4	20.4
			1	5	0.0	16.3	16.4	16.1	0.0	20.0	20.0	19.9	0.0	24.3	24.5	24.4	0.0	20.5	20.4	20.4
			3	0	0.0	16.2	16.3	16.2	0.0	19.9	19.8	19.8	0.0	24.3	24.2	24.3	0.0	20.3	20.5	20.4
			3	1	0.0	16.2	16.3	16.1	0.0	19.9	19.8	19.9	0.0	24.5	24.1	24.3	0.0	20.4	20.5	20.2
			3	3	0.0	16.1	16.3	16.1	0.0	20.0	19.8	19.9	0.0	24.4	24.2	24.3	0.0	20.3	20.4	20.4
			6	0	0.0	16.3	16.3	16.2	0.5	19.3	19.3	19.1	1.0	23.1	23.0	23.0	0.0	20.0	20.2	20.3
		16QAM	1	0	0.0	16.1	16.1	16.1	0.5	19.5	19.3	19.4	1.0	23.3	23.3	23.4	0.0	20.2	20.3	20.2
			1	3	0.0	16.2	16.2	16.1	0.5	19.4	19.3	19.5	1.0	23.3	23.4	23.2	0.0	20.2	20.3	20.4
			1	5	0.0	16.3	16.3	16.0	0.5	19.4	19.4	19.4	1.0	23.3	23.4	23.4	0.0	20.5	20.4	20.4
			3	0	0.0	16.1	16.2	16.2	0.5	19.3	19.2	19.3	1.0	23.2	23.1	23.2	0.0	20.3	20.4	20.3
			3	1	0.0	16.2	16.2	16.0	0.5	19.3	19.2	19.3	1.0	23.4	23.0	23.3	0.0	20.3	20.4	20.1
			3	3	0.0	16.1	16.3	16.1	0.5	19.5	19.2	19.3	1.0	23.3	23.1	23.2	0.0	20.3	20.4	20.3
			6	0	0.0	16.3	16.3	16.1	1.5	18.3	18.3	18.1	2.0	22.1	21.9	21.9	0.0	19.9	20.2	20.2

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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	22.3	22.2	22.2	0	22.3	22.2	22.2	0	23.9	23.8	23.9	0	23.9	23.8	23.9
			1	24	0	22.4	22.4	22.4	0	22.4	22.4	22.4	0	24.0	24.0	24.0	0	24.0	24.0	24.0
			1	49	0	22.3	22.4	22.3	0	22.3	22.3	22.2	0	23.9	23.8	23.8	0	23.9	23.9	23.8
			25	0	1	21.2	21.2	21.3	1	21.2	21.2	21.2	1	22.9	22.9	22.9	1	22.9	22.8	22.8
			25	12	1	21.4	21.4	21.4	1	21.4	21.4	21.4	1	23.0	23.0	23.0	1	23.0	23.0	23.0
			25	24	1	21.3	21.4	21.2	1	21.3	21.3	21.2	1	22.9	22.9	23.0	1	22.9	22.9	22.8
			50	0	1	21.2	21.4	21.4	1	21.3	21.4	21.3	1	22.8	23.0	22.9	1	22.8	23.0	22.8
		16QAM	1	0	1	21.2	21.1	21.2	1	21.3	21.2	21.1	1	22.9	22.7	22.8	1	22.8	22.8	22.9
			1	24	1	21.3	21.3	21.3	1	21.3	21.4	21.4	1	22.9	22.9	22.9	1	22.9	23.0	22.9
			1	49	1	21.2	21.3	21.2	1	21.2	21.3	21.2	1	22.8	22.8	22.7	1	22.8	22.8	22.7
			25	0	2	20.1	20.1	20.3	2	20.2	20.1	20.2	2	21.8	21.9	21.8	2	21.8	21.8	21.8
			25	12	2	20.3	20.3	20.3	2	20.4	20.3	20.3	2	22.0	21.9	21.9	2	22.0	21.9	22.0
			25	24	2	20.3	20.3	20.2	2	20.2	20.2	20.1	2	21.8	21.9	22.0	2	21.9	21.8	21.8
			50	0	2	20.2	20.3	20.4	2	20.2	20.3	20.3	2	21.8	21.9	21.8	2	21.7	21.9	21.7

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	22.3	22.2	22.4	0	22.4	22.3	22.3	0	24.0	23.9	24.0	0	23.8	24.0	23.9
			1	12	0	22.3	22.3	22.3	0	22.4	22.2	22.3	0	23.8	23.8	23.9	0	23.9	23.9	23.8
			1	24	0	22.3	22.2	22.3	0	22.3	22.4	22.2	0	23.8	23.9	23.9	0	23.9	24.0	23.8
			12	0	1	21.3	21.2	21.4	1	21.4	21.3	21.3	1	22.9	22.9	22.9	1	22.8	22.9	22.9
			12	7	1	21.3	21.2	21.2	1	21.3	21.4	21.2	1	22.9	22.8	22.8	1	23.0	23.0	22.9
			12	13	1	21.3	21.3	21.2	1	21.3	21.2	21.3	1	22.8	22.9	23.0	1	22.9	22.8	22.8
			25	0	1	21.2	21.4	21.0	1	21.1	21.3	21.2	1	22.6	22.9	22.7	1	22.7	22.9	22.8
		16QAM	1	0	1	21.2	21.1	21.4	1	21.3	21.2	21.3	1	22.9	22.8	22.9	1	22.8	22.9	22.8
			1	12	1	21.2	21.3	21.2	1	21.4	21.1	21.2	1	22.7	22.8	22.9	1	22.9	22.9	22.7
			1	24	1	21.2	21.1	21.2	1	21.2	21.4	21.1	1	22.7	22.8	22.9	1	22.9	23.0	22.7
			12	0	2	20.2	20.1	20.3	2	20.3	20.2	20.2	2	21.8	21.9	21.8	2	21.7	21.8	21.8
			12	7	2	20.2	20.1	20.1	2	20.2	20.4	20.1	2	21.9	21.8	21.7	2	21.9	21.9	21.8
			12	13	2	20.3	20.2	20.2	2	20.2	20.2	20.2	2	21.7	21.8	21.9	2	21.9	21.7	21.8
			25	0	2	20.1	20.4	20.0	2	20.0	20.2	20.2	2	21.6	21.8	21.7	2	21.6	21.8	21.7

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	22.3	22.2	0	22.2	22.3	22.3	0	23.8	23.9	24.0	0	23.9	23.9	24.0
			1	8	0	22.3	22.3	22.2	0	22.4	22.3	22.3	0	23.8	23.8	23.8	0	23.9	23.9	23.9
			1	14	0	22.3	22.3	22.3	0	22.3	22.3	22.2	0	24.0	23.8	24.0	0	23.9	23.9	23.9
			8	0	1	21.2	21.2	21.3	1	21.3	21.3	21.3	1	22.8	22.9	22.8	1	22.8	22.9	22.8
			8	4	1	21.2	21.3	21.3	1	21.3	21.2	21.3	1	22.8	22.9	22.8	1	22.9	22.8	23.0
			8	7	1	21.2	21.2	21.3	1	21.3	21.3	21.3	1	22.9	23.0	23.0	1	22.8	22.9	22.8
			15	0	1	21.1	21.4	21.3	1	21.1	21.2	21.2	1	22.6	22.8	22.6	1	22.7	23.0	22.6
		16QAM	1	0	1	21.3	21.2	21.1	1	21.2	21.3	21.2	1	22.7	22.8	23.0	1	22.8	22.8	23.0
			1	8	1	21.3	21.2	21.2	1	21.3	21.2	21.2	1	22.8	22.7	22.7	1	22.9	22.8	22.8
			1	14	1	21.2	21.2	21.3	1	21.2	21.2	21.1	1	22.9	22.7	22.9	1	22.9	22.8	22.8
			8	0	2	20.1	20.1	20.3	2	20.2	20.2	20.3	2	21.7	21.8	21.8	2	21.8	21.9	21.7
			8	4	2	20.1	20.2	20.2	2	20.2	20.1	20.2	2	21.7	21.9	21.7	2	21.8	21.7	21.9
			8	7	2	20.2	20.1	20.2	2	20.2	20.2	20.3	2	21.8	21.9	21.9	2	21.7	21.8	21.7
			15	0	2	20.1	20.3	20.2	2	20.0	20.1	20.1	2	21.6	21.8	21.6	2	21.6	21.9	21.5

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LTE Band 26 Average Power (dBm) Measured Results

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz
LTE Band 26	1.4	QPSK	1	0	0	22.3	22.3	22.2	0	22.3	22.4	22.3	0	24.0	23.9	23.9	0	23.9	23.8	24.0
			1	3	0	22.3	22.3	22.3	0	22.2	22.4	22.4	0	23.8	23.8	23.9	0	23.9	23.8	23.9
			1	5	0	22.2	22.3	22.3	0	22.2	22.3	22.4	0	23.9	23.8	24.0	0	23.8	23.8	23.9
			3	0	0	22.2	22.4	22.3	0	22.2	22.2	22.3	0	23.9	23.8	23.8	0	23.8	23.8	23.9
			3	1	0	22.3	22.2	22.4	0	22.2	22.3	22.2	0	23.9	23.9	24.0	0	23.9	23.9	24.0
			3	3	0	22.4	22.4	22.2	0	22.4	22.3	22.3	0	23.8	24.0	23.9	0	24.0	24.0	23.8
			6	0	1	21.4	21.2	21.4	1	21.2	21.3	21.1	1	22.9	22.8	22.7	1	22.8	22.8	22.7
		16QAM	1	0	1	21.2	21.2	21.1	1	21.2	21.4	21.2	1	22.9	22.8	22.8	1	22.8	22.7	22.9
			1	3	1	21.3	21.3	21.3	1	21.1	21.4	21.3	1	22.7	22.8	22.9	1	22.8	22.7	22.8
			1	5	1	21.1	21.2	21.2	1	21.1	21.2	21.4	1	22.8	22.8	22.9	1	22.8	22.8	22.8
			3	0	1	21.2	21.3	21.2	1	21.1	21.1	21.3	1	22.8	22.8	22.7	1	22.7	22.7	22.9
			3	1	1	21.3	21.1	21.3	1	21.1	21.2	21.2	1	22.8	22.9	22.9	1	22.9	22.9	23.0
			3	3	1	21.4	21.3	21.1	1	21.3	21.3	21.2	1	22.7	22.9	22.8	1	23.0	22.9	22.8
			6	0	2	20.3	20.1	20.4	2	20.1	20.3	20.0	2	21.8	21.7	21.6	2	21.8	21.7	21.7

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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	19.8	0	20.0	0	22.9	0	20.8
			1	24	0	20.0	0	20.0	0	23.0	0	21.0
			1	49	0	19.9	0	19.8	0	22.8	0	20.8
			25	0	1	18.8	1	18.9	0	22.9	0	20.8
			25	12	1	18.9	1	18.9	0	23.0	0	21.0
			25	24	1	18.8	1	18.7	0	22.9	0	20.8
			50	0	1	18.9	1	18.9	0	23.0	0	21.0
		16QAM	1	0	1	18.7	1	19.0	0	22.8	0	20.8
			1	24	1	18.9	1	19.0	0	22.9	0	20.9
			1	49	1	18.9	1	18.8	0	22.7	0	20.7
			25	0	2	17.7	2	17.9	1	21.8	0	20.8
			25	12	2	17.9	2	17.8	1	22.0	0	20.9
			25	24	2	17.7	2	17.6	1	21.8	0	20.7
			50	0	2	17.8	2	17.8	1	21.9	0	20.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD			Target MPR	UAT / BODY			Target MPR	LAT / HEAD			Target MPR	LAT / BODY		
						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	20.0	19.9	19.9	0	19.9	20.0	19.8	0	22.8	22.9	22.9	0	20.9	21.0	20.9
			1	12	0	19.8	20.0	19.9	0	19.8	20.0	19.8	0	22.9	22.9	22.9	0	20.8	20.9	20.8
			1	24	0	19.9	19.8	19.9	0	19.8	19.8	19.8	0	22.8	22.8	22.9	0	20.8	21.0	20.9
			12	0	1	18.9	18.7	18.7	1	18.7	18.8	18.8	0	22.8	22.8	23.0	0	20.9	20.9	20.9
			12	7	1	18.7	18.7	18.8	1	18.7	18.8	18.7	0	22.9	22.8	23.0	0	21.0	21.0	20.9
			12	13	1	18.8	18.9	18.8	1	18.7	18.7	18.9	0	23.0	22.9	22.9	0	20.8	20.8	20.8
			25	0	1	18.9	18.7	18.7	1	18.6	18.7	18.6	0	22.9	22.8	22.7	0	20.9	20.8	20.7
		16QAM	1	0	1	19.0	18.8	18.9	1	18.8	19.0	18.7	0	22.7	22.8	22.8	0	20.8	20.9	20.8
			1	12	1	18.7	19.0	18.9	1	18.7	18.9	18.7	0	22.8	22.9	22.8	0	20.7	20.8	20.7
			1	24	1	18.8	18.8	18.9	1	18.7	18.7	18.7	0	22.8	22.7	22.9	0	20.8	20.9	20.8
			12	0	2	17.8	17.6	17.7	2	17.6	17.8	17.7	1	21.7	21.7	22.0	0	20.8	20.8	20.8
			12	7	2	17.6	17.7	17.8	2	17.7	17.8	17.6	1	21.9	21.7	21.9	0	21.0	20.9	20.8
			12	13	2	17.8	17.8	17.7	2	17.6	17.6	17.9	1	21.9	21.9	21.8	0	20.8	20.7	20.7
			25	0	2	17.8	17.6	17.6	2	17.5	17.6	17.6	1	21.8	21.7	21.7	0	20.8	20.7	20.6

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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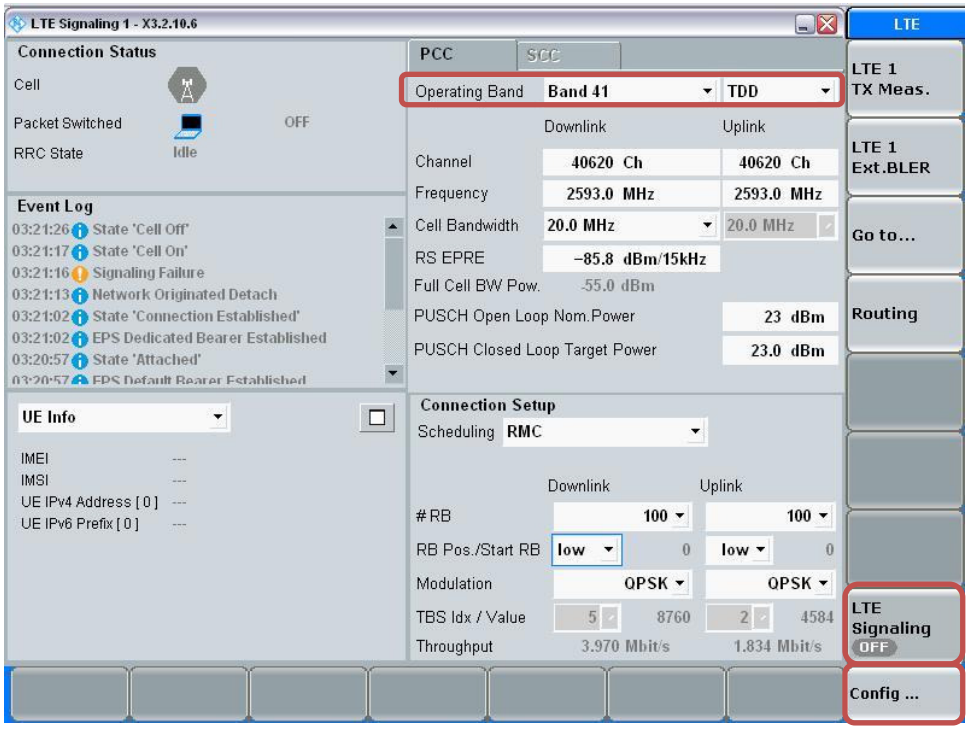
LTE TDD Bands Measured Results

Procedure used to establish SAR test signal for LTE TDD Bands

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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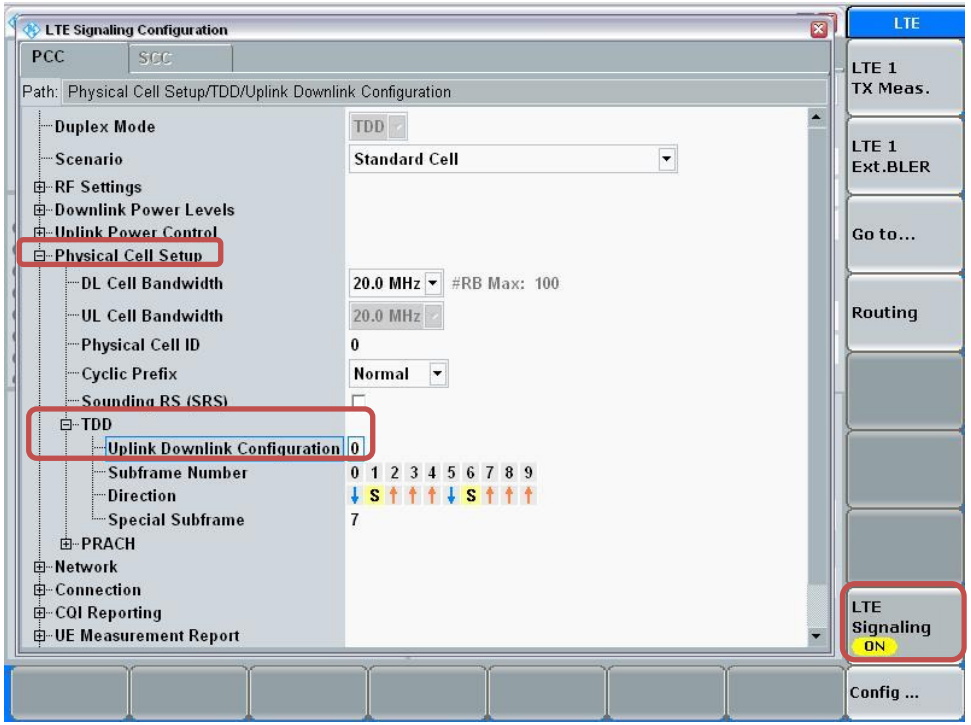

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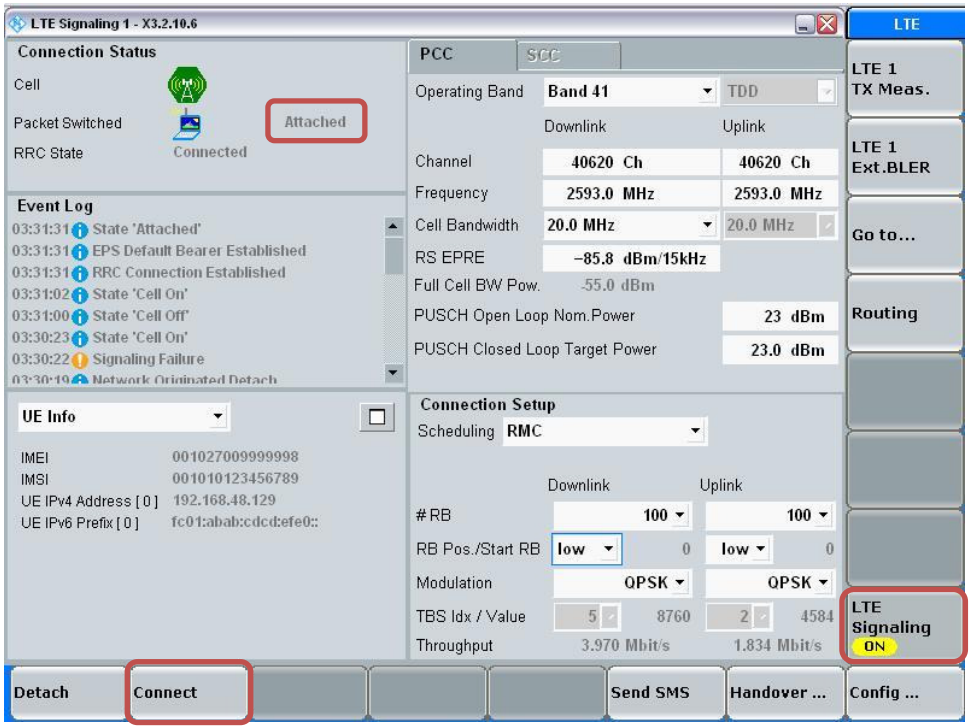
Connect to EUT

- 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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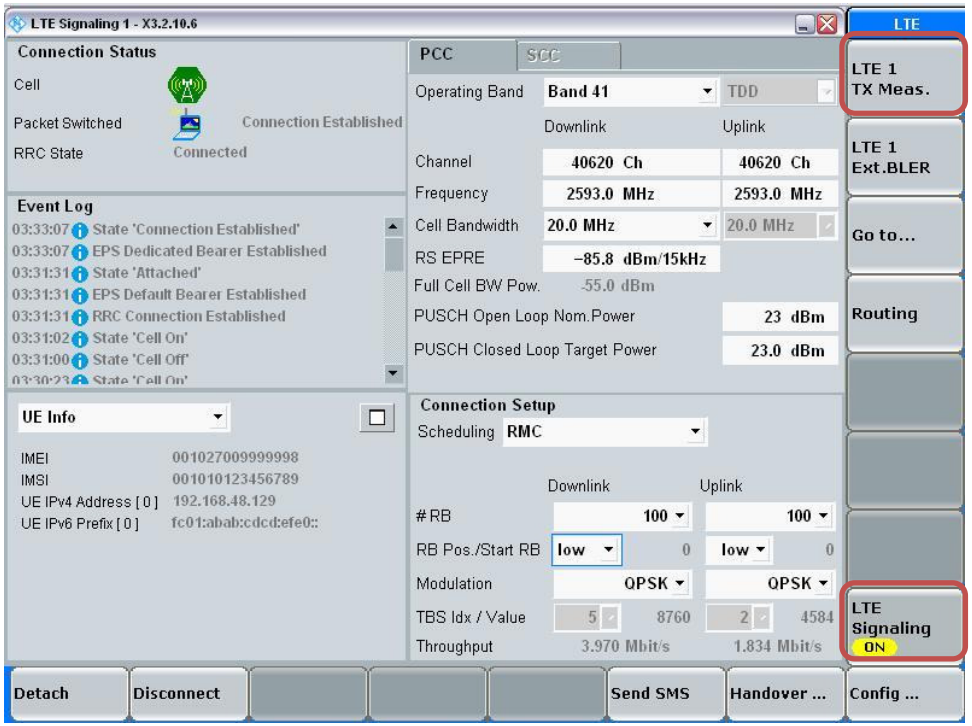

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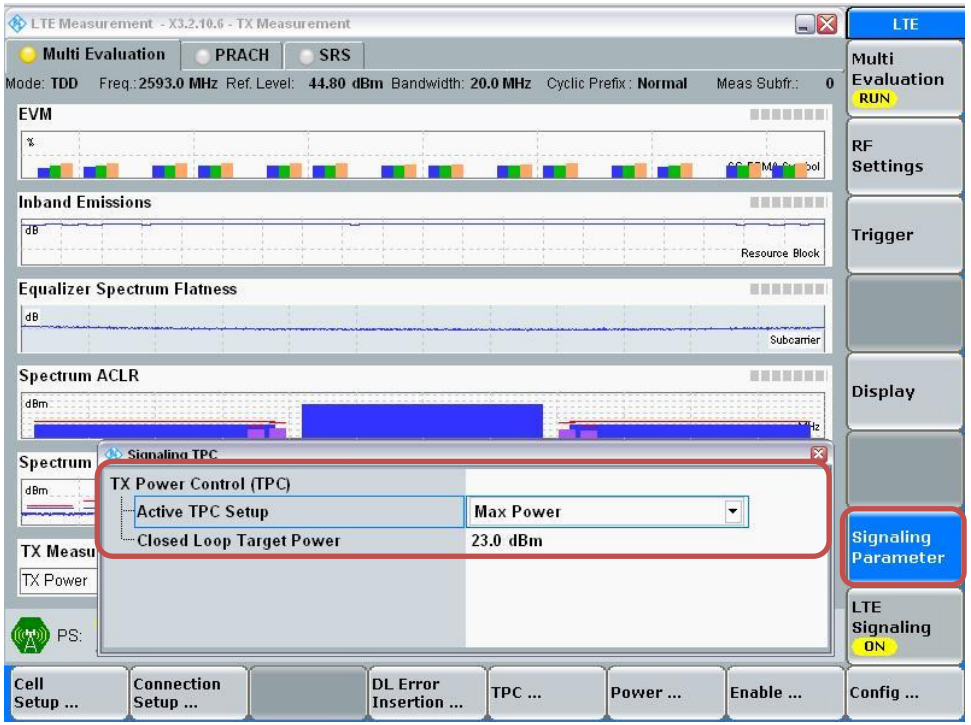
- Select “Signaling Parameter”
- Select “TX Power Control (TPC)” > Select “Active TPC Setup” to “Max Power” > Set “Closed Loop Target Power” to “23 dBm”



View TX Power

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

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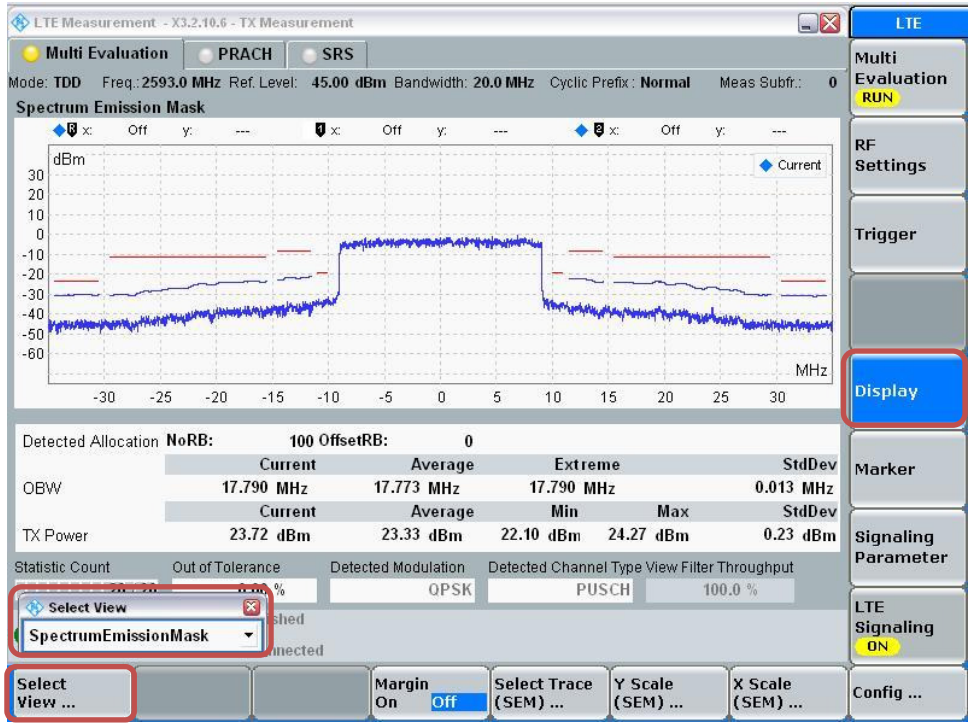

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LTE Band 41 Measured Results

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	0.0	17.3	17.2	17.3	17.1	17.2	0.0	20.3	20.1	20.1	20.2	20.1	0.0	22.3	22.2	22.2	22.4	22.2	0.0	19.2	19.2	19.2	19.2	19.2
			1	49	0.0	17.3	17.3	17.5	17.3	17.3	0.0	20.3	20.3	20.3	20.3	20.3	0.0	22.4	22.4	22.4	22.4	22.4	0.0	19.4	19.4	19.4	19.4	19.4
			1	99	0.0	17.1	17.1	17.4	17.2	17.1	0.0	20.1	20.3	20.2	20.3	20.2	0.0	22.2	22.2	22.2	22.3	22.2	0.0	19.2	19.3	19.2	19.2	19.2
			50	0	0.0	17.1	17.1	17.6	17.1	17.1	1.0	18.8	19.0	18.8	19.0	18.8	0.0	22.3	22.3	22.3	22.3	22.4	0.0	19.4	19.3	19.2	19.3	19.2
			50	24	0.0	17.3	17.3	17.6	17.3	17.3	1.0	19.0	19.0	19.0	19.0	19.0	0.0	22.4	22.4	22.4	22.4	22.4	0.0	19.4	19.4	19.4	19.4	19.4
			50	49	0.0	17.1	17.2	17.5	17.3	17.2	1.0	19.0	18.9	18.8	19.0	18.9	0.0	22.4	22.2	22.3	22.2	22.3	0.0	19.2	19.2	19.2	19.2	19.4
			100	0	0.0	17.3	17.4	17.5	17.3	17.3	1.0	18.8	18.8	19.0	18.8	18.8	0.0	22.4	22.3	22.4	22.4	22.2	0.0	19.4	19.2	19.4	19.2	19.2
		16QAM	1	0	0.0	17.2	17.2	17.3	17.1	17.1	1.0	19.2	19.1	19.0	19.1	19.1	0.0	22.2	22.2	22.1	22.3	22.2	0.0	19.1	19.2	19.1	19.2	19.2
			1	49	0.0	17.2	17.3	17.5	17.3	17.2	1.0	19.2	19.3	19.2	19.3	19.2	0.0	22.4	22.3	22.3	22.3	22.3	0.0	19.4	19.3	19.3	19.3	19.3
			1	99	0.0	17.1	17.1	17.4	17.1	17.0	1.0	19.0	19.3	19.2	19.3	19.1	0.0	22.2	22.2	22.2	22.3	22.1	0.0	19.1	19.3	19.1	19.1	19.1
			50	0	0.0	17.0	17.0	17.5	17.0	17.0	2.0	17.7	17.9	17.8	18.0	17.7	0.5	21.7	21.7	21.7	21.8	21.9	0.0	19.3	19.3	19.1	19.2	19.1
			50	24	0.0	17.2	17.2	17.5	17.3	17.3	2.0	17.9	17.9	17.9	17.9	18.0	0.5	21.9	21.8	21.9	21.9	21.8	0.0	19.4	19.4	19.4	19.3	19.3
			50	49	0.0	17.0	17.1	17.5	17.2	17.2	2.0	17.9	17.8	17.8	17.9	17.9	0.5	21.8	21.6	21.8	21.6	21.7	0.0	19.2	19.1	19.2	19.1	19.4
			100	0	0.0	17.3	17.3	17.4	17.3	17.2	2.0	17.7	17.7	17.9	17.8	17.7	0.5	21.8	21.7	21.8	21.8	21.7	0.0	19.4	19.1	19.3	19.1	19.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
LTE Band 41	15	QPSK	1	0	0.0	17.2	17.2	17.4	17.1	17.3	0.0	20.2	20.1	20.2	20.1	20.2	0.0	22.2	22.3	22.3	22.4	22.3	0.0	19.4	19.3	19.3	19.3	19.4
			1	36	0.0	17.1	17.2	17.3	17.1	17.2	0.0	20.2	20.2	20.3	20.3	20.1	0.0	22.3	22.4	22.3	22.3	22.4	0.0	19.3	19.4	19.2	19.2	19.2
			1	74	0.0	17.1	17.2	17.5	17.1	17.2	0.0	20.1	20.3	20.2	20.1	20.2	0.0	22.3	22.3	22.3	22.2	22.2	0.0	19.4	19.2	19.2	19.4	19.4
			36	0	0.0	17.1	17.3	17.4	17.2	17.2	1.0	18.9	18.9	18.8	18.9	18.8	0.0	22.3	22.2	22.2	22.2	22.4	0.0	19.3	19.3	19.3	19.2	19.2
			36	18	0.0	17.1	17.2	17.5	17.1	17.1	1.0	19.0	18.9	18.8	18.8	19.0	0.0	22.2	22.2	22.3	22.2	22.2	0.0	19.3	19.2	19.2	19.3	19.3
			36	37	0.0	17.3	17.1	17.6	17.2	17.2	1.0	18.9	18.8	19.0	18.9	18.8	0.0	22.3	22.3	22.2	22.2	22.3	0.0	19.3	19.3	19.2	19.2	19.4
			75	0	0.0	17.1	17.3	17.3	17.2	17.3	1.0	18.7	18.7	18.9	18.8	18.7	0.0	22.1	22.2	22.4	22.0	22.1	0.0	19.1	19.2	19.2	19.2	19.0
		16QAM	1	0	0.0	17.2	17.1	17.3	17.0	17.2	1.0	19.2	19.0	19.1	19.1	19.2	0.0	22.2	22.3	22.2	22.3	22.2	0.0	19.4	19.2	19.2	19.3	19.3
			1	36	0.0	17.1	17.1	17.2	17.0	17.1	1.0	19.1	19.1	19.2	19.2	19.0	0.0	22.2	22.3	22.2	22.2	22.4	0.0	19.2	19.4	19.2	19.2	19.1
			1	74	0.0	17.1	17.2	17.4	17.1	17.1	1.0	19.0	19.2	19.1	19.0	19.2	0.0	22.2	22.2	22.2	22.1	22.1	0.0	19.4	19.1	19.2	19.3	19.3
			36	0	0.0	17.0	17.2	17.3	17.2	17.1	2.0	17.8	17.9	17.7	17.8	17.7	0.5	21.8	21.6	21.6	21.6	21.8	0.0	19.2	19.3	19.2	19.1	19.1
			36	18	0.0	17.1	17.2	17.4	17.0	17.0	2.0	17.9	17.9	17.7	17.7	18.0	0.5	21.6	21.6	21.7	21.6	21.6	0.0	19.3	19.1	19.1	19.3	19.2
			36	37	0.0	17.2	17.0	17.6	17.1	17.1	2.0	17.8	17.8	17.9	17.9	17.7	0.5	21.8	21.8	21.6	21.7	21.8	0.0	19.2	19.3	19.2	19.1	19.4
			75	0	0.0	17.0	17.2	17.2	17.2	17.2	2.0	17.6	17.6	17.8	17.7	17.6	0.5	21.6	21.6	21.8	21.4	21.6	0.0	19.0	19.2	19.1	19.1	18.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	UAT / HEAD					Target MPR	UAT / BODY					Target MPR	LAT / HEAD					Target MPR	LAT / BODY				
						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	0.0	17.2	17.2	17.5	17.2	17.1	0.0	20.3	20.1	20.1	20.3	20.1	0.0	22.2	22.4	22.3	22.4	22.3	0.0	19.2	19.3	19.4	19.4	19.2
			1	24	0.0	17.1	17.2	17.3	17.2	17.1	0.0	20.1	20.1	20.3	20.2	20.2	0.0	22.2	22.4	22.2	22.4	22.2	0.0	19.2	19.4	19.2	19.2	19.2
			1	49	0.0	17.1	17.2	17.3	17.3	17.1	0.0	20.2	20.2	20.1	20.2	20.1	0.0	22.4	22.2	22.4	22.2	22.3	0.0	19.3	19.4	19.3	19.3	19.3
			25	0	0.0	17.1	17.2	17.5	17.2	17.2	1.0	18.8	18.8	18.8	18.9	18.9	0.0	22.4	22.4	22.2	22.4	22.2	0.0	19.2	19.4	19.2	19.3	19.3
			25	12	0.0	17.2	17.2	17.5	17.3	17.1	1.0	18.9	18.9	18.9	18.8	18.9	0.0	22.2	22.3	22.2	22.4	22.2	0.0	19.3	19.2	19.4	19.3	19.3
			25	24	0.0	17.2	17.2	17.6	17.2	17.1	1.0	18.8	19.0	18.9	18.8	18.8	0.0	22.3	22.2	22.3	22.3	22.3	0.0	19.3	19.3	19.4	19.4	19.3
			50	0	0.0	17.2	17.5	17.4	17.3	17.3	1.0	18.6	18.7	18.8	18.6	18.7	0.0	22.2	22.1	22.2	22.3	22.1	0.0	19.2	19.1	19.3	19.1	19.2
		16QAM	1	0	0.0	17.1	17.1	17.4	17.1	17.0	1.0	19.3	19.0	19.1	19.3	19.1	0.0	22.1	22.4	22.3	22.3	22.2	0.0	19.1	19.2	19.3	19.3	19.1
			1	24	0.0	17.1	17.1	17.3	17.2	17.1	1.0	19.0	19.0	19.2	19.1	19.2	0.0	22.2	22.4	22.1	22.4	22.2	0.0	19.1	19.4	19.2	19.1	19.1
			1	49	0.0	17.1	17.1	17.2	17.3	17.0	1.0	19.2	19.2	19.0	19.1	19.0	0.0	22.3	22.1	22.3	22.1	22.3	0.0	19.2	19.4	19.2	19.3	19.3
			25	0	0.0	17.0	17.2	17.4	17.2	17.2	2.0	17.7	17.7	17.8	17.8	17.8	0.5	21.8	21.9	21.6	21.8	21.6	0.0	19.1	19.3	19.1	19.2	19.2
			25	12	0.0	17.2	17.2	17.4	17.3	17.1	2.0	17.9	17.8	17.8	17.7	17.8	0.5	21.7	21.7	21.6	21.8	21.6	0.0	19.2	19.2	19.3	19.3	19.3
			25	24	0.0	17.1	17.1	17.5	17.2	17.0	2.0	17.7	18.0	17.9	17.8	17.7	0.5	21.7	21.7	21.7	21.7	21.8	0.0	19.2	19.3	19.3	19.3	19.2
			50	0	0.0	17.1	17.4	17.3	17.3	17.3	2.0	17.5	17.6	17.7	17.6	17.6	0.5	21.6	21.5	21.7	21.7	21.5	0.0	19.1	19.0	19.3	19.0	19.1

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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	0.0	17.3	17.2	17.3	17.1	17.1	0.0	20.2	20.2	20.2	20.1	20.2	0.0	22.2	22.2	22.3	22.3	22.2	0.0	19.4	19.3	19.2	19.4	19.2
			1	12	0.0	17.1	17.1	17.3	17.1	17.2	0.0	20.1	20.2	20.2	20.2	20.2	0.0	22.2	22.4	22.3	22.3	22.2	0.0	19.3	19.2	19.3	19.3	19.2
			1	24	0.0	17.2	17.1	17.4	17.2	17.1	0.0	20.2	20.1	20.1	20.1	20.2	0.0	22.3	22.2	22.3	22.2	22.3	0.0	19.4	19.3	19.3	19.2	19.2
			12	0	0.0	17.3	17.3	17.4	17.2	17.2	1.0	18.9	18.9	18.8	18.8	18.9	0.0	22.2	22.2	22.3	22.2	22.4	0.0	19.2	19.2	19.2	19.2	19.4
			12	7	0.0	17.3	17.1	17.5	17.1	17.3	1.0	18.8	18.8	18.8	19.0	18.8	0.0	22.2	22.4	22.4	22.2	22.4	0.0	19.4	19.3	19.2	19.2	19.2
			12	13	0.0	17.3	17.3	17.4	17.2	17.3	1.0	19.0	19.0	18.8	19.0	19.0	0.0	22.2	22.3	22.3	22.3	22.2	0.0	19.3	19.3	19.3	19.3	19.3
			25	0	0.0	17.1	17.2	17.3	17.2	17.3	1.0	18.8	18.7	18.9	18.8	18.8	0.0	22.2	22.2	22.2	22.1	22.2	0.0	19.2	19.1	19.2	19.3	19.1
		16QAM	1	0	0.0	17.2	17.2	17.2	17.0	17.0	1.0	19.1	19.1	19.1	19.0	19.1	0.0	22.2	22.2	22.2	22.3	22.1	0.0	19.3	19.2	19.1	19.3	19.2
			1	12	0.0	17.1	17.0	17.2	17.0	17.2	1.0	19.1	19.1	19.2	19.1	19.1	0.0	22.1	22.4	22.2	22.2	22.2	0.0	19.2	19.1	19.2	19.3	19.1
			1	24	0.0	17.1	17.1	17.3	17.2	17.1	1.0	19.1	19.0	19.0	19.0	19.2	0.0	22.3	22.2	22.2	22.1	22.2	0.0	19.3	19.2	19.3	19.1	19.2
			12	0	0.0	17.3	17.2	17.4	17.1	17.2	2.0	17.8	17.8	17.7	17.7	17.8	0.5	21.7	21.6	21.7	21.7	21.8	0.0	19.1	19.2	19.1	19.1	19.3
			12	7	0.0	17.2	17.1	17.4	17.0	17.2	2.0	17.7	17.7	17.8	17.9	17.7	0.5	21.6	21.8	21.8	21.6	21.9	0.0	19.4	19.3	19.1	19.2	19.1
			12	13	0.0	17.2	17.2	17.4	17.1	17.3	2.0	17.9	18.0	17.8	17.9	18.0	0.5	21.7	21.8	21.7	21.7	21.6	0.0	19.2	19.3	19.2	19.2	19.2
			25	0	0.0	17.0	17.2	17.3	17.1	17.3	2.0	17.8	17.6	17.9	17.8	17.8	0.5	21.6	21.7	21.7	21.6	21.6	0.0	19.2	19.0	19.2	19.2	19.0

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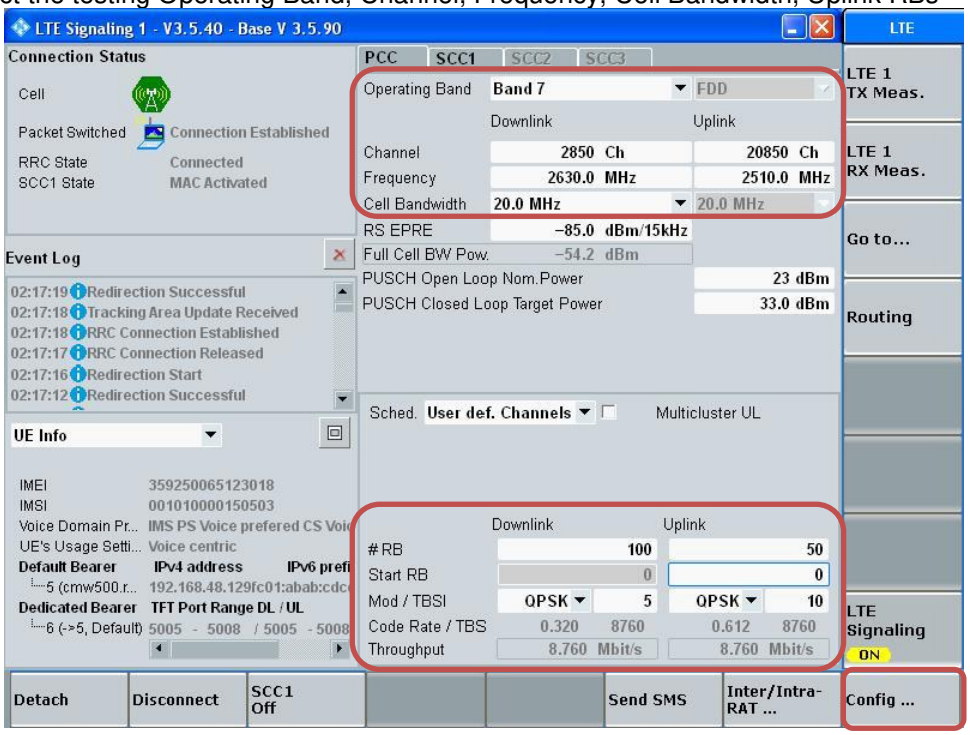
9.5. LTE Rel. 11 Carrier Aggregation

<u>LTE Carrier Aggregation Test Signal Set-up Procedure</u>
(Use normal LTE set-up procedure in addition with the following steps)

Set to CMW-500 with following parameters:

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

- Go to "Config…."

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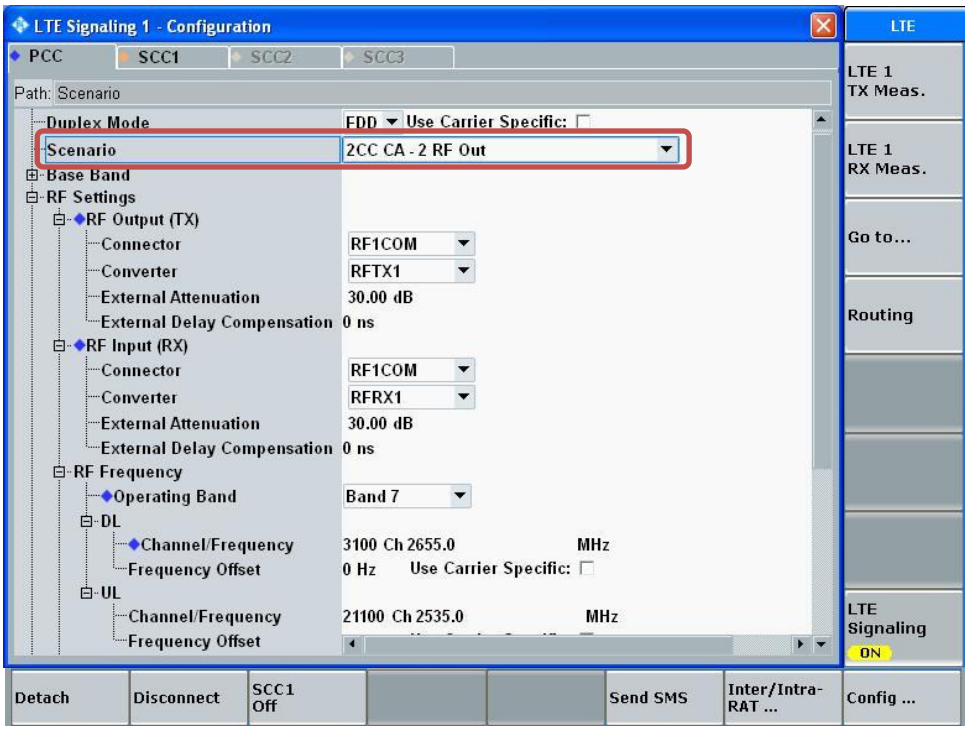
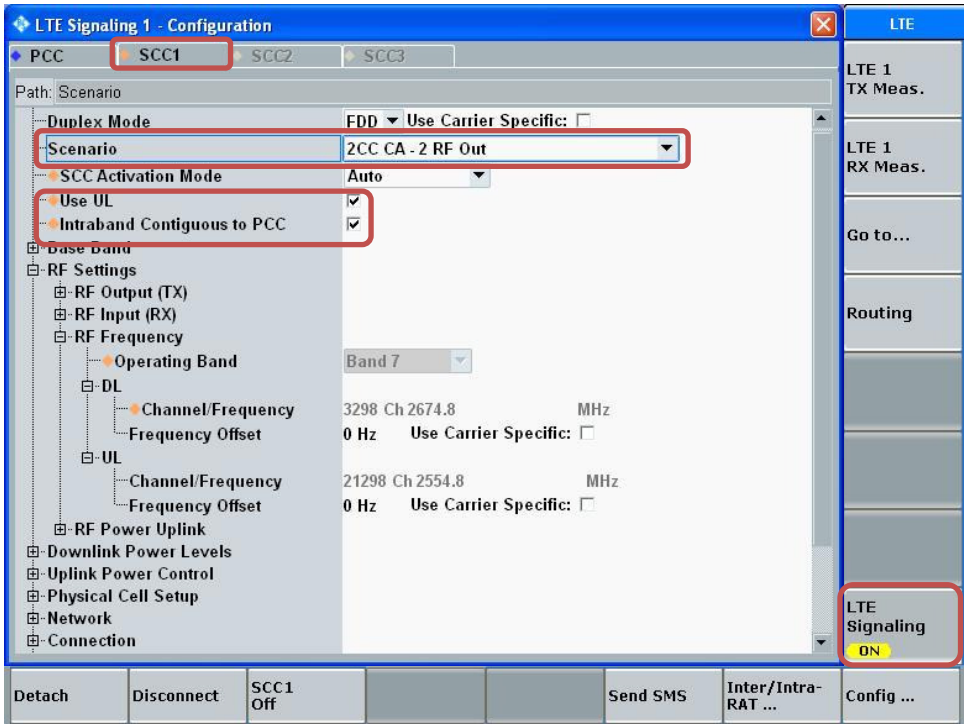
- Go to “Scenario”
- Set to “2CC CA – 2 RF Out”



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



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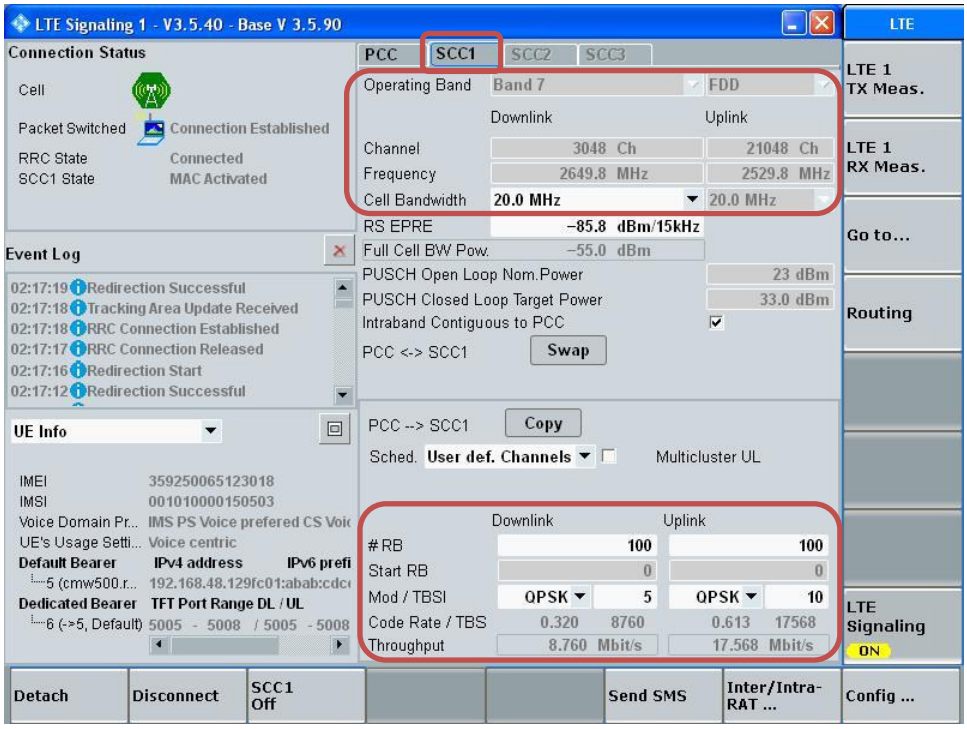
- Select “SCC1” tab
  - Select the testing Cell Bandwidth, Uplink RBs



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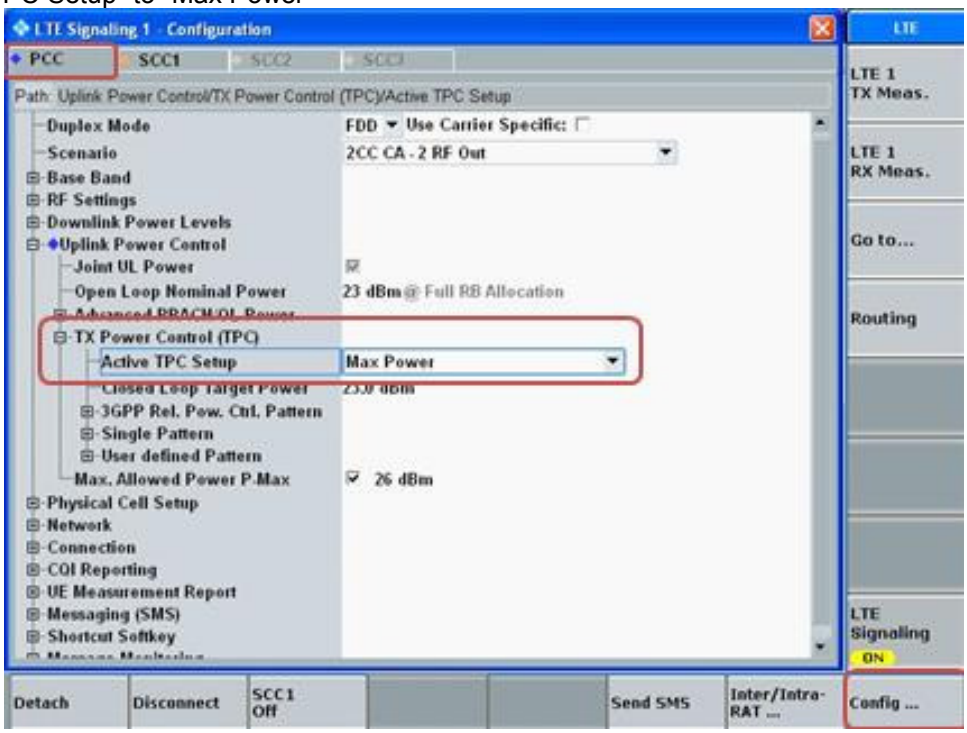
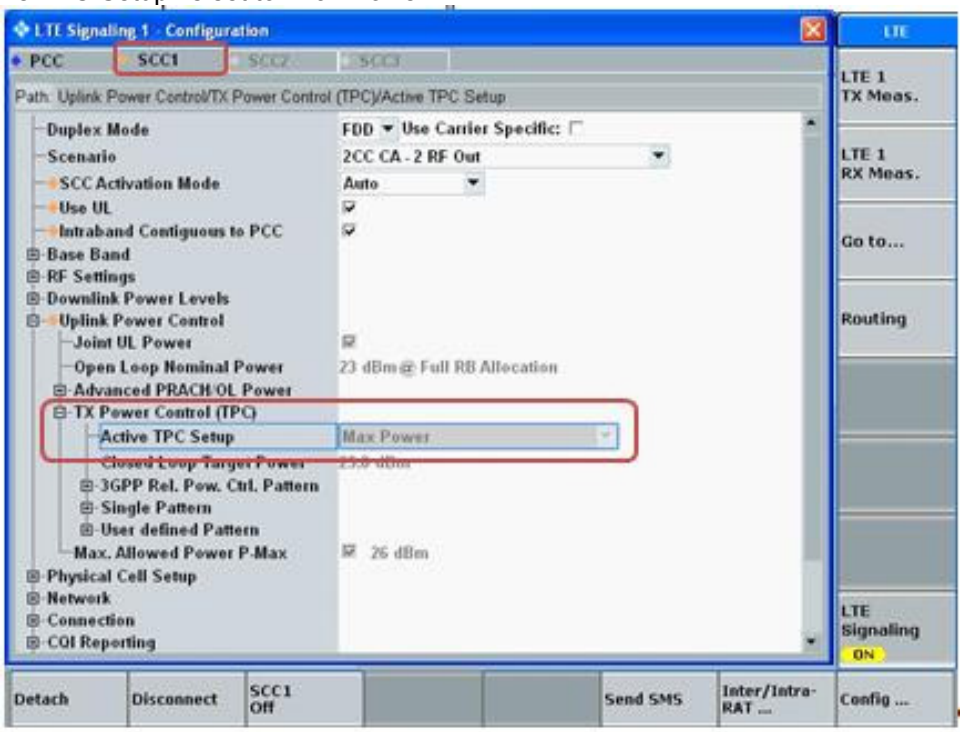
Max Power Setting

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



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



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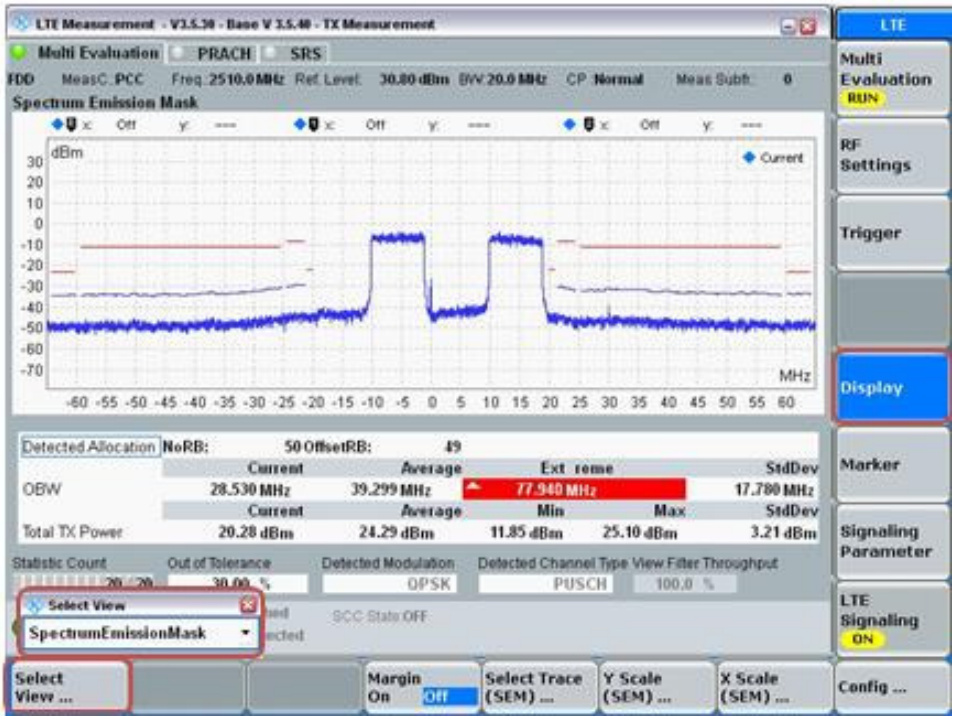
View TX Power

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



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

Inter-Band

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

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

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

Intra-Band Non-Contiguous

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

Intra-Band Contiguous

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

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Carrier Aggregation Power Measurements:

Inter-Band

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

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DL									UL															
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC							
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
25	26		3	1962.5	15	876.5			QPSK	1	8	1882.5	0	24.5	24.4	-0.1							
25	26		5	1962.5	15	876.5			QPSK	1	12	1882.5	0	24.4	24.4	0							
25	26		10	1962.5	15	876.5			QPSK	1	24	1882.5	0	24.4	24.4	0							
25	26		15	1962.5	15	876.5			QPSK	1	36	1882.5	0	24.4	24.4	0							
25	26		20	1962.5	15	876.5			QPSK	1	49	1882.5	0	24.5	24.5	0							
26	25		3	876.5	20	1962.5			QPSK	1	8	831.5	0	23.9	23.9	0							
26	25		5	876.5	20	1962.5			QPSK	1	12	831.5	0	24.0	23.9	-0.1							
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	22.9	22.9	0							
30	2		10	2355	20	1960			QPSK	1	24	2310	0	22.9	22.8	-0.1							
2	4	12	5	1960	20	2132.5	10	737.5	QPSK	1	12	1880	0	24.5	24.4	-0.1							
2	4	12	10	1960	20	2132.5	10	737.5	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	4	12	15	1960	20	2132.5	10	737.5	QPSK	1	36	1880	0	24.5	24.4	-0.1							
2	4	12	20	1960	20	2132.5	10	737.5	QPSK	1	49	1880	0	24.5	24.4	-0.1							
2	4	13	5	1960	20	2132.5	10	751	QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	4	13	10	1960	20	2132.5	10	751	QPSK	1	24	1880	0	24.4	24.4	0							
2	4	13	15	1960	20	2132.5	10	751	QPSK	1	36	1880	0	24.4	24.4	0							
2	4	13	20	1960	20	2132.5	10	751	QPSK	1	49	1880	0	24.4	24.4	0							
2	5	30	5	1960	10	881.5	10	2355	QPSK	1	12	1880	0	24.4	24.4	0							
2	5	30	10	1960	10	881.5	10	2355	QPSK	1	24	1880	0	24.5	24.4	-0.1							
2	5	30	15	1960	10	881.5	10	2355	QPSK	1	36	1880	0	24.5	24.4	-0.1							
2	5	30	20	1960	10	881.5	10	2355	QPSK	1	49	1880	0	24.4	24.3	-0.1							
2	12	30	5	1960	10	737.5	10	2355	QPSK	1	12	1880	0	24.4	24.3	-0.1							
2	12	30	10	1960	10	737.5	10	2355	QPSK	1	24	1880	0	24.4	24.4	0							
2	12	30	15	1960	10	737.5	10	2355	QPSK	1	36	1880	0	24.5	24.4	-0.1							
2	12	30	20	1960	10	737.5	10	2355	QPSK	1	49	1880	0	24.4	24.3	-0.1							
2	29	30	5	1960	10	722.5	10	2355	QPSK	1	12	1880	0	24.5	24.5	0							
2	29	30	10	1960	10	722.5	10	2355	QPSK	1	24	1880	0	24.4	24.3	-0.1							
2	29	30	15	1960	10	722.5	10	2355	QPSK	1	36	1880	0	24.5	24.4	-0.1							
2	29	30	20	1960	10	722.5	10	2355	QPSK	1	49	1880	0	24.5	24.4	-0.1							
4	2	12	5	2132.5	20	1960	10	737.5	QPSK	1	12	1732.5	0	24.5	24.5	0							
4	2	12	10	2132.5	20	1960	10	737.5	QPSK	1	24	1732.5	0	24.5	24.4	-0.1							
4	2	12	15	2132.5	20	1960	10	737.5	QPSK	1	36	1732.5	0	24.5	24.4	-0.1							
4	2	12	20	2132.5	20	1960	10	737.5	QPSK	1	49	1732.5	0	24.4	24.4	0							
5	2	30	5	881.5	20	1960	10	2355	QPSK	1	12	836.5	0	24.0	24.0	0							
5	2	30	10	881.5	20	1960	10	2355	QPSK	1	24	836.5	0	23.9	23.8	-0.1							
12	2	4	5	737.5	20	1960	20	2132.5	QPSK	1	12	707.5	0	24.4	24.4	0							
12	2	4	10	737.5	20	1960	20	2132.5	QPSK	1	24	707.5	0	24.4	24.4	0							
13	2	4	10	751	20	1960	20	2132.5	QPSK	1	24	782	0	24.4	24.4	0							
30	2	5	5	2355	20	1960	10	881.5	QPSK	1	12	2310	0	22.9	22.8	-0.1							
30	2	5	10	2355	20	1960	10	881.5	QPSK	1	24	2310	0	22.9	22.8	-0.1							
12A	2A	2A	5	737.5	20	1960	20	1960	QPSK	1	12	707.5	0	24.4	24.4	0							
12A	2A	2A	10	737.5	20	1960	20	1960	QPSK	1	24	707.5	0	24.5	24.4	-0.1							

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

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

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

Intra-Band Non-Contiguous

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

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Intra-Band Contiguous

DL									UL															
PCC	SCC	TCC	PCC		SCC		TCC		PCC								SCC							
Band	Band	Band	BW	Frequency	BW	Frequency	BW	Frequency	Modulation	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta	RB	Offset	Frequency	MPR	Standalone	CA Power	Delta
2C	2C		5	1960	20	1972.5			QPSK	1	12	1880	0	24.5	24.4	-0.1							
2C	2C		10	1960	20	1975			QPSK	1	24	1880	0	24.4	24.3	-0.1							
2C	2C		15	1960	20	1977.5			QPSK	1	36	1880	0	24.4	24.3	-0.1							
2C	2C		20	1960	20	1980			QPSK	1	49	1880	0	24.5	24.5	0							
7B	7B		5	2655	15	2665			QPSK	1	12	2535	0	23.9	23.8	-0.1							
7B	7B		15	2655	5	2665			QPSK	1	36	2535	0	24.0	24.0	0							
7C	7C		10	2655	20	2670			QPSK	1	24	2535	0	24.0	23.9	-0.1							
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	23.9	23.9	0							
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	24.0	23.9	-0.1							
12B	12B		5	737.5	5	742.5			QPSK	1	12	707.5	0	24.5	24.5	0							
12B	12B		5	737.5	10	745			QPSK	1	12	707.5	0	24.4	24.3	-0.1							
12B	12B		10	737.5	5	745			QPSK	1	24	707.5	0	24.4	24.4	0							
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	22.5	22.4	-0.1							
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	22.4	22.3	-0.1							
41C	41C		15	2593	20	2610.5			QPSK	1	36	2593	0	22.5	22.5	0							
41C	41C		20	2593	20	2613			QPSK	1	49	2593	0	22.4	22.4	0							
7C	7C		10	2655	20	2670			QPSK	1	24	2535	0	23.9	22.9	-1	1	49	2550	0	24.0	22.9	-1.1
7C	7C		15	2655	20	2672.5			QPSK	1	36	2535	0	24.0	23.0	-1	1	49	2552.5	0	23.9	22.9	-1
7C	7C		20	2655	20	2675			QPSK	1	49	2535	0	23.9	22.8	-1.1	1	49	2555	0	23.9	22.9	-1
41C	41C		5	2593	20	2605.5			QPSK	1	12	2593	0	22.5	22.5	0	1	49	2605.5	0	22.5	22.5	0
41C	41C		10	2593	20	2608			QPSK	1	24	2593	0	22.5	22.5	0	1	49	2608	0	22.4	22.3	-0.1
41C	41C		15	2593	20	2610.5			QPSK	1	36	2593	0	22.4	22.3	-0.1	1	49	2610.5	0	22.5	22.4	-0.1
41C	41C		20	2593	20	2613			QPSK	1	49	2593	0	22.4	22.4	0	1	49	2613	0	22.5	22.4	-0.1
41D	41D	41D	10	2593	20	2608	20	2628	QPSK	1	24	2593	0	22.4	22.3	-0.1							
41D	41D	41D	15	2593	20	2610.5	20	2630.5	QPSK	1	36	2593	0	22.4	22.4	0							
41D	41D	41D	20	2593	20	2613	20	2633	QPSK	1	49	2593	0	22.5	22.4	-0.1							

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

LTE-2CA Band 7

Antenna	RF Exposure Conditions	Mode	PCC					SCC					Power (dBm)	
			Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.
LAT	Body & Hotspot	QPSK	20	21100	2535.0	100	0	20	21298	2554.8	50	24	17.8	17.8

LTE-2CA Band 41

Antenna	RF Exposure Conditions	Mode	PCC					SCC					Power (dBm)	
			Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Bandwidth (MHz)	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.
UAT	Head	QPSK	20	41055	2636.5	50	24	20	40857	2616.7	1	49	18.0	18.0
LAT	Body & Hotspot	QPSK	20	40620	2593.0	50	24	20	40818	2612.8	100	0	20.3	20.3

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9.6. WLAN SISO (P_{Cell_ON})

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

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

Measured Results

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	12.0	19.0	15.5	13.5
			6	2437	12.0	19.0	15.5	13.5
			11	2462	12.0	19.0	15.5	13.5
			12	2467	12.0	17.5	15.5	13.5
			13	2472	12.0	13.5	13.5	13.5
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	1 Tx HT40	38	5190	Not required	Not required	15.3	Not required
			46	5230			15.3	
	802.11ac	1 Tx VHT80	42	5210	6.5	Not required	Not required	10.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11a	1 Tx	52	5260	Not required	19.5	Not required	Not required
			56	5280		20.5		
			60	5300		19.0		
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11n	1 Tx HT40	110	5550	Not required	18.5	Not required	Not required
			118	5590		19.4		
			142	5710		19.0		
	802.11ac	1 Tx VHT80	106	5530	5.0	Not required	11.5	8.5
			122	5610	5.0		11.5	8.5
			138	5690	5.0		11.5	8.5
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11a	1 Tx	153	5765	Not required	19.5	Not required	Not required
			157	5785		19.5		
			161	5805		19.5		
	802.11ac	1 Tx VHT80	155	5775	5.0	Not required	11.3	13.0

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 MIMO (P_{Cell_ON})

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

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11g	2 Tx CDD	1	2412	12.0	15.0	15.0	13.4
			2	2417	12.0	17.5	15.5	13.5
			3	2422	12.0	19.0	15.5	13.5
			6	2437	12.0	19.0	15.5	13.5
			9	2452	12.0	19.0	15.5	13.5
			10	2457	12.0	16.0	15.5	13.5
			11	2462	12.0	14.5	14.5	13.4
			12	2467	12.0	12.5	12.5	12.5
			13	2472	2.5	2.5	2.5	2.5
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	Not required		13.5	10.0
			46	5230			15.3	10.0
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11n	2 Tx HT40 CDD/STBC/SDM	54	5270	5.9	18.5	Not required	
			62	5310	5.9	14.0		
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	802.11n	2 Tx HT40 CDD/STBC/SDM	110	5550	5.0	18.5	Not required	
			118	5590	5.0	19.4		
			142	5710	5.0	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	106	5530	Not required		11.5	8.5
			122	5610			11.5	8.5
			138	5690			11.5	8.5
Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.8	802.11a	2 Tx CDD	153	5765	5.0	19.5	Not required	
			157	5785	5.0	19.5		
			161	5805	5.0	19.5		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	155	5775	Not required		11.3	13.0

Note(s):

1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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9.8. WLAN SISO (P_{Cell_OFF})

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

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11b	1 Tx	1	2412	18.5	19.0	18.8	19.0
			6	2437	18.5	19.0	18.9	19.0
			11	2462	18.5	19.0	18.9	19.0
			12	2467	17.5	17.5	17.5	17.5
			13	2472	13.5	13.5	13.5	13.5

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	802.11a	1 Tx	40	5200	Not required	Not required	19.0	Not required
			44	5220			20.3	
			48	5240			19.0	
	802.11n	1 Tx HT40	38	5190	Not required	Not required	Not required	15.5
			46	5230				16.8
	802.11ac	1 Tx VHT80	42	5210	14.3	Not required	Not required	Not required

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.3	802.11a	1 Tx	52	5260	Not required	19.5	Not required	Not required
			56	5280		20.5		
			60	5300		19.0		

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
5.5	802.11a	1 Tx	108	5540	Not required	20.1	Not required	Not required
			120	5600		20.0		
			132	5660		19.9		
	802.11ac	1 Tx VHT80	106	5530	12.8	Not required	14.0	14.0
			122	5610	12.8		17.0	15.3
			138	5690	12.8		17.0	15.3

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	802.11a	1 Tx	153	5765	Not required	19.5	Not required	19.4
			157	5785		19.5		19.5
			161	5805		19.5		19.5
	802.11ac	1 Tx VHT80	155	5775	13.0	Not required	16.5	Not required

Note(s):

1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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9.9. WLAN MIMO (P_{Cell_OFF})

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

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

Band (GHz)	Mode	No. of Transmitters	Ch #	Freq. (MHz)	Max. Avg. RF Output Power (dBm)			
					HEAD		BODY	
					Chain 0	Chain 1	Chain 0	Chain 1
2.4	802.11g	2 Tx CDD	1	2412	15.0	15.0	15.0	15.0
			2	2417	17.5	17.5	17.5	17.5
			3	2422	18.5	19.0	19.0	19.0
			6	2437	18.5	19.0	19.0	19.0
			9	2452	18.5	19.0	19.0	19.0
			10	2457	16.0	16.0	16.0	16.0
			11	2462	14.5	14.5	14.5	14.5
			12	2467	12.5	12.5	12.5	12.5
			13	2472	2.5	2.5	2.5	2.5

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	2 Tx HT40 CDD/STBC/SDM	54	5270	13.6	18.3	18.4	15.7
			62	5310	13.7	14.0	14.0	14.0

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	802.11n	2 Tx HT40 CDD/STBC/SDM	110	5550	12.8	18.5	Not required	
			118	5590	12.8	19.5		
			142	5710	12.8	19.0		
	802.11ac	2 Tx VHT80 CDD/STBC/SDM	106	5530	Not required		14.0	14.0
			122	5610			17.0	15.3
			138	5690			17.0	15.3

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	802.11a	2 Tx CDD	153	5765	13.0	19.5	16.5	19.5
			157	5785	13.0	19.5	16.5	19.5
			161	5805	13.0	19.5	16.5	19.5

Note(s):

1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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9.10. Bluetooth

P_{High}

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	V3.0 + EDR, GFSK	0	2402	13.0
		39	2441	13.0
		78	2480	13.0

P_{Low}

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

$P_{Standalone}$

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

Notes:

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

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10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

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

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

KDB 648474 D04 Handset SAR:
With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

KDB 648474 D04 Handset SAR (Phablet Only):
This device qualifies as a phablet (display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm as applicable), and phablet procedures have been applied. Extremity SAR (10g SAR) at 5mm for hot spot mode is not required as the 1g SAR values at 10mm are all less than 1.2W/Kg.

KDB 941225 D01 SAR test for 3G devices:
When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode

KDB 941225 D05 SAR for LTE Devices:
SAR test reduction is applied using the following criteria:

- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
- When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
- Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
- Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.
- Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

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 (VoIP)	GPRS 2 Slots	0	Left Touch	190	836.6	29.5	29.4	0.333	0.341	0.189	0.193	
			Left Tilt	190	836.6	29.5	29.4	0.321	0.328	0.164	0.168	
			Right Touch	190	836.6	29.5	29.4	0.400	0.409	0.221	0.226	
			Right Tilt	190	836.6	29.5	29.4	0.332	0.340	0.169	0.173	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	190	836.6	29.5	29.4	0.295	0.302	0.176	0.180	
			Front	190	836.6	29.5	29.4	0.359	0.367	0.217	0.222	
Hotspot			Edge 1	190	836.6	29.5	29.4	0.231	0.236	0.109	0.112	
			Edge 2	190	836.6	29.5	29.4	0.293	0.300	0.193	0.197	
			Edge 4	190	836.6	29.5	29.4	0.156	0.160	0.102	0.104	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head (VoIP)	GPRS 2 Slots	0	Left Touch	190	836.6	32.5	32.5	0.443	0.443	0.344	0.344	1
			Left Tilt	190	836.6	32.5	32.5	0.169	0.169	0.134	0.134	
			Right Touch	190	836.6	32.5	32.5	0.369	0.369	0.291	0.291	
			Right Tilt	190	836.6	32.5	32.5	0.176	0.176	0.142	0.142	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	190	836.6	32.5	32.5	0.756	0.756	0.411	0.411	
			Front	128	824.2	32.5	32.5	0.702	0.702	0.417	0.417	
				190	836.6	32.5	32.5	0.824	0.824	0.482	0.482	
				251	848.8	32.5	32.5	1.030	1.030	0.576	0.576	2
Hotspot			Edge 2	190	836.6	32.5	32.5	0.314	0.314	0.208	0.208	
			Edge 3	190	836.6	32.5	32.5	0.635	0.635	0.297	0.297	
			Edge 4	190	836.6	32.5	32.5	0.790	0.790	0.520	0.520	

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10.2. GSM1900

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head VoIP	GPRS 2 Slots	0	Left Touch	661	1880.0	24.0	23.2	0.359	0.432	0.190	0.228	
			Left Tilt	661	1880.0	24.0	23.2	0.335	0.403	0.170	0.204	
			Right Touch	512	1850.2	24.0	23.0	0.850	1.070	0.478	0.602	3
				661	1880.0	24.0	23.2	0.803	0.965	0.453	0.545	
				810	1909.8	24.0	23.3	0.776	0.912	0.435	0.511	
			Right Tilt	661	1880.0	24.0	23.2	0.467	0.561	0.231	0.278	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	661	1880.0	24.2	23.2	0.238	0.300	0.124	0.156	
			Front	661	1880.0	24.2	23.2	0.569	0.716	0.290	0.365	
Hotspot			Edge 1	661	1880.0	24.2	23.2	0.208	0.262	0.101	0.127	
			Edge 2	661	1880.0	24.2	23.2	0.022	0.028	0.012	0.015	
			Edge 4	661	1880.0	24.2	23.2	0.197	0.248	0.108	0.136	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head VoIP	GPRS 2 Slots	0	Left Touch	661	1880.0	29.5	29.1	0.319	0.350	0.216	0.237	
			Left Tilt	661	1880.0	29.5	29.1	0.193	0.212	0.118	0.129	
			Right Touch	661	1880.0	29.5	29.1	0.636	0.697	0.405	0.444	
			Right Tilt	661	1880.0	29.5	29.1	0.165	0.181	0.101	0.111	
Body-worn(VoIP) & Hotspot	GPRS 2 Slots	5	Rear	661	1880.0	25.8	25.8	0.787	0.787	0.458	0.458	
			Front	512	1850.2	25.8	25.8	1.070	1.070	0.590	0.590	
				661	1880.0	25.8	25.8	1.100	1.100	0.604	0.604	4
				810	1909.8	25.8	25.8	1.090	1.090	0.593	0.593	
Hotspot			Edge 2	512	1850.2	25.8	25.8	0.766	0.766	0.437	0.437	
				661	1880.0	25.8	25.8	0.811	0.811	0.459	0.459	
				810	1909.8	25.8	25.8	0.776	0.776	0.435	0.435	
			Edge 3	512	1850.2	25.8	25.8	0.877	0.877	0.412	0.412	
				661	1880.0	25.8	25.8	0.894	0.894	0.411	0.411	
				810	1909.8	25.8	25.8	0.822	0.822	0.370	0.370	
			Edge 4	661	1880.0	25.8	25.8	0.087	0.087	0.048	0.048	

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10.3. W-CDMA Band V

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	4183	836.6	23.0	23.0	0.670	0.670	0.416	0.416	
			Left Tilt	4183	836.6	23.0	23.0	0.670	0.670	0.318	0.318	
			Right Touch	4132	826.4	23.0	23.0	0.750	0.750	0.488	0.488	
				4183	836.6	23.0	23.0	0.810	0.810	0.521	0.521	
				4233	846.6	23.0	23.0	0.842	0.842	0.540	0.540	5
			Right Tilt	4183	836.6	23.0	23.0	0.463	0.463	0.256	0.256	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	23.0	23.0	0.344	0.344	0.212	0.212	
			Front	4183	836.6	23.0	23.0	0.388	0.388	0.244	0.244	
Hotspot	Rel 99 RMC	5	Edge 1	4183	836.6	23.0	23.0	0.209	0.209	0.100	0.100	
			Edge 2	4183	836.6	23.0	23.0	0.319	0.319	0.211	0.211	
			Edge 4	4183	836.6	23.0	23.0	0.138	0.138	0.091	0.091	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	4183	836.6	25.0	25.0	0.460	0.460	0.348	0.348	
			Left Tilt	4183	836.6	25.0	25.0	0.219	0.219	0.174	0.174	
			Right Touch	4183	836.6	25.0	25.0	0.330	0.330	0.258	0.258	
			Right Tilt	4183	836.6	25.0	25.0	0.193	0.193	0.153	0.153	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	4183	836.6	25.0	25.0	0.648	0.648	0.390	0.390	
			Front	4132	826.4	25.0	25.0	0.707	0.707	0.401	0.401	
				4183	836.6	25.0	25.0	0.844	0.844	0.474	0.474	
				4233	846.6	25.0	25.0	0.969	0.969	0.538	0.538	6
Hotspot	Rel 99 RMC	5	Edge 2	4183	836.6	25.0	25.0	0.235	0.235	0.155	0.155	
			Edge 3	4183	836.6	25.0	25.0	0.553	0.553	0.259	0.259	
			Edge 4	4183	836.6	25.0	25.0	0.599	0.599	0.397	0.397	

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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	19.3	19.3	0.565	0.565	0.303	0.303	
			Left Tilt	1413	1732.6	19.3	19.3	0.474	0.474	0.248	0.248	
			Right Touch	1312	1712.4	19.3	19.3	0.959	0.959	0.519	0.519	
				1413	1732.6	19.3	19.3	1.020	1.020	0.554	0.554	
				1513	1752.6	19.3	19.3	1.040	1.040	0.576	0.576	7
			Right Tilt	1413	1732.6	19.3	19.3	0.852	0.852	0.434	0.434	
				1413	1732.6	19.3	19.3	0.909	0.909	0.466	0.466	
				1413	1732.6	19.3	19.3	0.915	0.915	0.476	0.476	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	20.5	20.5	0.455	0.455	0.260	0.260	
			Front	1312	1712.4	20.5	20.5	0.914	0.914	0.464	0.464	
				1413	1732.6	20.5	20.5	0.949	0.949	0.477	0.477	
				1513	1752.6	20.5	20.5	0.983	0.983	0.493	0.493	8
Hotspot	Rel 99 RMC	5	Edge 1	1413	1732.6	20.5	20.5	0.589	0.589	0.295	0.295	
			Edge 2	1413	1732.6	20.5	20.5	0.039	0.039	0.021	0.021	
			Edge 4	1413	1732.6	20.5	20.5	0.574	0.574	0.313	0.313	

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	24.3	0.169	0.208	0.115	0.141	
			Left Tilt	1413	1732.6	25.2	24.3	0.146	0.180	0.084	0.103	
			Right Touch	1413	1732.6	25.2	24.3	0.323	0.397	0.212	0.261	
			Right Tilt	1413	1732.6	25.2	24.3	0.128	0.157	0.077	0.095	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	1413	1732.6	22.3	22.3	0.609	0.609	0.353	0.353	
			Front	1312	1712.4	22.3	22.3	0.781	0.781	0.417	0.417	
				1413	1732.6	22.3	22.3	0.867	0.867	0.463	0.463	
				1513	1752.6	22.3	22.3	0.964	0.964	0.510	0.510	
Hotspot	Rel 99 RMC	5	Edge 2	1413	1732.6	22.3	22.3	0.666	0.666	0.372	0.372	
			Edge 3	1312	1712.4	22.3	22.3	0.995	0.995	0.473	0.473	
				1413	1732.6	22.3	22.3	1.090	1.090	0.515	0.515	
				1513	1752.6	22.3	22.3	1.130	1.130	0.535	0.535	9
			Edge 4	1413	1732.6	22.3	22.3	0.090	0.090	0.050	0.050	

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10.5. W-CDMA Band II

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	Rel 99 RMC	0	Left Touch	9400	1880.0	17.3	16.8	0.422	0.473	0.223	0.250	
			Left Tilt	9400	1880.0	17.3	16.8	0.410	0.460	0.208	0.233	
			Right Touch	9262	1852.4	17.3	16.8	0.790	0.886	0.446	0.500	
				9400	1880.0	17.3	16.8	0.798	0.895	0.446	0.500	
				9538	1907.6	17.3	16.8	0.844	0.947	0.474	0.532	
			Right Tilt	9400	1880.0	17.3	16.8	0.600	0.673	0.303	0.340	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9400	1880.0	20.5	20.0	0.503	0.564	0.267	0.300	
			Front	9262	1852.4	20.5	20.0	0.846	0.949	0.429	0.481	
				9400	1880.0	20.5	20.0	0.836	0.938	0.430	0.482	
				9538	1907.6	20.5	20.0	0.836	0.938	0.437	0.490	
Hotspot	Rel 99 RMC	5	Edge 1	9400	1880.0	20.5	20.0	0.521	0.585	0.251	0.282	
			Edge 2	9400	1880.0	20.5	20.0	0.048	0.054	0.027	0.030	
			Edge 4	9400	1880.0	20.5	20.0	0.468	0.525	0.254	0.285	

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	25.0	0.407	0.426	0.276	0.289	
			Left Tilt	9400	1880.0	25.2	25.0	0.269	0.282	0.163	0.171	
			Right Touch	9262	1852.4	25.2	25.1	0.932	0.954	0.609	0.623	
				9400	1880.0	25.2	25.0	0.983	1.029	0.635	0.665	
				9538	1907.6	25.2	25.1	1.030	1.054	0.657	0.672	10
			Right Tilt	9400	1880.0	25.2	25.0	0.255	0.267	0.153	0.160	
Body-worn & Hotspot	Rel 99 RMC	5	Rear	9262	1852.4	20.5	20.5	1.000	1.000	0.572	0.572	
				9400	1880.0	20.5	20.5	1.040	1.040	0.590	0.590	
				9538	1907.6	20.5	20.5	1.080	1.080	0.611	0.611	
			Front	9262	1852.4	20.5	20.5	1.060	1.060	0.584	0.584	
				9400	1880.0	20.5	20.5	1.070	1.070	0.592	0.592	
				9538	1907.6	20.5	20.5	1.090	1.090	0.602	0.602	11
Hotspot	Rel 99 RMC	5	Edge 2	9400	1880.0	20.5	20.5	0.729	0.729	0.413	0.413	
			Edge 3	9400	1880.0	20.5	20.5	0.797	0.797	0.361	0.361	
			Edge 4	9400	1880.0	20.5	20.5	0.072	0.072	0.041	0.041	

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10.6. CDMA BC0

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	23.5	23.5	0.739	0.739	0.550	0.550	
			Left Tilt	384	836.5	23.5	23.5	0.650	0.650	0.325	0.325	
			Right Touch	1013	824.7	23.5	23.5	0.872	0.872	0.557	0.557	
				384	836.5	23.5	23.5	1.060	1.060	0.659	0.659	
				777	848.3	23.5	23.5	0.727	0.727	0.460	0.460	
			Right Tilt	384	836.5	23.5	23.5	0.547	0.547	0.302	0.302	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	23.5	23.5	0.647	0.647	0.411	0.411	
			Left Tilt	384	836.5	23.5	23.5	0.666	0.666	0.333	0.333	
			Right Touch	1013	824.7	23.5	23.5	0.927	0.927	0.602	0.602	
				384	836.5	23.5	23.5	1.070	1.070	0.688	0.688	12
				777	848.3	23.5	23.5	0.797	0.797	0.510	0.510	
			Right Tilt	384	836.5	23.5	23.5	0.594	0.594	0.331	0.331	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	384	836.5	23.5	23.5	0.410	0.410	0.258	0.258	
			Front	384	836.5	23.5	23.5	0.449	0.449	0.282	0.282	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	384	836.5	23.5	23.5	0.277	0.277	0.133	0.133	
			Edge 2	384	836.5	23.5	23.5	0.453	0.453	0.300	0.300	
			Edge 4	384	836.5	23.5	23.5	0.204	0.204	0.134	0.134	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	25.0	25.0	0.532	0.532	0.402	0.402	
			Left Tilt	384	836.5	25.0	25.0	0.249	0.249	0.196	0.196	
			Right Touch	384	836.5	25.0	25.0	0.387	0.387	0.304	0.304	
			Right Tilt	384	836.5	25.0	25.0	0.224	0.224	0.178	0.178	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	25.0	25.0	0.353	0.353	0.272	0.272	
			Left Tilt	384	836.5	25.0	25.0	0.187	0.187	0.148	0.148	
			Right Touch	384	836.5	25.0	25.0	0.264	0.264	0.206	0.206	
			Right Tilt	384	836.5	25.0	25.0	0.162	0.162	0.129	0.129	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	1013	824.7	25.0	25.0	0.898	0.898	0.565	0.565	
				384	836.5	25.0	25.0	0.950	0.950	0.559	0.559	
				777	848.3	25.0	25.0	0.925	0.925	0.519	0.519	
			Front	1013	824.7	25.0	25.0	0.946	0.946	0.546	0.546	
				384	836.5	25.0	25.0	1.100	1.100	0.615	0.615	13
				777	848.3	25.0	25.0	1.030	1.030	0.569	0.569	
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	384	836.5	25.0	25.0	0.276	0.276	0.182	0.182	
			Edge 3	384	836.5	25.0	25.0	0.731	0.731	0.338	0.338	
			Edge 4	384	836.5	25.0	25.0	0.759	0.759	0.504	0.504	

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10.7. CDMA BC1

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	17.3	16.9	0.457	0.501	0.243	0.266	
			Left Tilt	600	1880.0	17.3	16.9	0.464	0.509	0.233	0.255	
			Right Touch	25	1851.3	17.3	16.9	0.843	0.924	0.474	0.520	
				600	1880.0	17.3	16.9	0.863	0.946	0.486	0.533	
				1175	1908.8	17.3	16.8	0.909	1.020	0.508	0.570	
			Right Tilt	600	1880.0	17.3	16.9	0.714	0.783	0.354	0.388	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	17.3	16.8	0.448	0.503	0.238	0.267	
			Left Tilt	600	1880.0	17.3	16.8	0.385	0.432	0.196	0.220	
			Right Touch	25	1851.3	17.3	16.8	0.807	0.905	0.450	0.505	
				600	1880.0	17.3	16.8	0.856	0.960	0.477	0.535	
				1175	1908.8	17.3	16.8	0.845	0.948	0.471	0.528	
			Right Tilt	600	1880.0	17.3	16.8	0.667	0.748	0.338	0.379	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	600	1880.0	20.5	20.5	0.640	0.640	0.335	0.335	
			Front	25	1851.3	20.5	20.4	0.807	0.826	0.409	0.419	
				600	1880.0	20.5	20.5	0.988	0.988	0.507	0.507	
				1175	1908.8	20.5	20.5	0.802	0.802	0.419	0.419	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	600	1880.0	20.5	20.5	0.630	0.630	0.300	0.300	
			Edge 2	600	1880.0	20.5	20.5	0.058	0.058	0.033	0.033	
			Edge 4	600	1880.0	20.5	20.5	0.542	0.542	0.287	0.287	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	25.2	24.6	0.388	0.445	0.261	0.300	
			Left Tilt	600	1880.0	25.2	24.6	0.264	0.303	0.155	0.178	
			Right Touch	25	1851.3	25.2	24.2	0.693	0.872	0.443	0.558	
				600	1880.0	25.2	24.6	0.931	1.069	0.586	0.673	
				1175	1908.8	25.2	24.5	0.920	1.081	0.574	0.674	14
			Right Tilt	600	1880.0	25.2	24.6	0.233	0.268	0.133	0.153	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	25.2	24.2	0.300	0.378	0.203	0.256	
			Left Tilt	600	1880.0	25.2	24.2	0.187	0.235	0.111	0.140	
			Right Touch	25	1851.3	25.2	24.2	0.545	0.686	0.350	0.441	
				600	1880.0	25.2	24.2	0.688	0.866	0.437	0.550	
				1175	1908.8	25.2	24.2	0.694	0.874	0.437	0.550	
			Right Tilt	600	1880.0	25.2	24.2	0.182	0.229	0.109	0.137	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	25	1851.3	20.5	20.5	0.786	0.786	0.455	0.455	
				600	1880.0	20.5	20.4	0.840	0.860	0.484	0.495	
				1175	1908.8	20.5	20.4	0.867	0.887	0.496	0.508	
			Front	25	1851.3	20.5	20.5	0.939	0.939	0.521	0.521	
				600	1880.0	20.5	20.4	0.952	0.974	0.533	0.545	
				1175	1908.8	20.5	20.4	1.010	1.034	0.561	0.574	15
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	600	1880.0	20.5	20.4	0.724	0.741	0.410	0.420	
			Edge 3	25	1851.3	20.5	20.5	0.794	0.794	0.377	0.377	
				600	1880.0	20.5	20.4	0.796	0.815	0.368	0.377	
				1175	1908.8	20.5	20.4	0.748	0.765	0.338	0.346	
			Edge 4	600	1880.0	20.5	20.4	0.072	0.074	0.040	0.041	

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10.8. CDMA BC10

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	23.5	23.4	0.568	0.581	0.371	0.380	
			Left Tilt	580	820.5	23.5	23.4	0.644	0.659	0.318	0.325	
			Right Touch	476	817.9	23.5	23.4	0.942	0.964	0.610	0.624	16
				580	820.5	23.5	23.4	0.841	0.861	0.545	0.558	
				684	823.1	23.5	23.4	0.543	0.556	0.346	0.354	
			Right Tilt	580	820.5	23.5	23.4	0.459	0.470	0.244	0.250	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	23.5	23.5	0.680	0.680	0.434	0.434	
			Left Tilt	580	820.5	23.5	23.5	0.676	0.676	0.336	0.336	
			Right Touch	476	817.9	23.5	23.5	0.843	0.843	0.541	0.541	
				580	820.5	23.5	23.5	0.812	0.812	0.520	0.520	
				684	823.1	23.5	23.5	0.766	0.766	0.500	0.500	
			Right Tilt	580	820.5	23.5	23.5	0.525	0.525	0.303	0.303	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	580	820.5	23.5	23.5	0.374	0.374	0.234	0.234	
			Front	580	820.5	23.5	23.5	0.384	0.384	0.244	0.244	
Hotspot	1xRTT (RC3 SO32)	5	Edge 1	580	820.5	23.5	23.5	0.184	0.184	0.087	0.087	
			Edge 2	580	820.5	23.5	23.5	0.311	0.311	0.207	0.207	
			Edge 4	580	820.5	23.5	23.5	0.134	0.134	0.089	0.089	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	25.0	25.0	0.404	0.404	0.307	0.307	
			Left Tilt	580	820.5	25.0	25.0	0.174	0.174	0.139	0.139	
			Right Touch	580	820.5	25.0	25.0	0.310	0.310	0.244	0.244	
			Right Tilt	580	820.5	25.0	25.0	0.179	0.179	0.142	0.142	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	25.0	25.0	0.275	0.275	0.210	0.210	
			Left Tilt	580	820.5	25.0	25.0	0.127	0.127	0.101	0.101	
			Right Touch	580	820.5	25.0	25.0	0.227	0.227	0.179	0.179	
			Right Tilt	580	820.5	25.0	25.0	0.129	0.129	0.103	0.103	
Body-worn & Hotspot	1xRTT (RC3 SO32)	5	Rear	580	820.5	25.0	25.0	0.756	0.756	0.463	0.463	
			Front	476	817.9	25.0	25.0	0.879	0.879	0.521	0.521	
				580	820.5	25.0	25.0	0.895	0.895	0.517	0.517	17
				684	823.1	25.0	25.0	0.668	0.668	0.391	0.391	
Hotspot	1xRTT (RC3 SO32)	5	Edge 2	580	820.5	25.0	25.0	0.440	0.440	0.237	0.237	
			Edge 3	580	820.5	25.0	25.0	0.529	0.529	0.246	0.246	
			Edge 4	580	820.5	25.0	25.0	0.621	0.621	0.414	0.414	

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10.9. LTE Band 2 (20MHz Bandwidth)

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

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10.10. LTE Band 4 (20MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	19.3	19.3	0.557	0.557	0.298	0.298	
						50	24	19.3	19.3	0.571	0.571	0.307	0.307	
			Left Tilt	20175	1732.5	1	49	19.3	19.3	0.470	0.470	0.246	0.246	
						50	24	19.3	19.3	0.487	0.487	0.255	0.255	
			Right Touch	20050	1720.0	1	49	19.3	19.2	0.992	1.015	0.536	0.548	
						50	24	19.3	19.3	0.971	0.971	0.524	0.524	
				20175	1732.5	1	49	19.3	19.3	1.060	1.060	0.583	0.583	
						50	24	19.3	19.3	1.090	1.090	0.601	0.601	18
						100	0	19.3	19.2	1.050	1.074	0.576	0.589	
				20300	1745.0	1	49	19.3	19.3	1.050	1.062	0.583	0.590	
						50	24	19.3	19.3	1.080	1.080	0.597	0.597	
			Right Tilt	20050	1720.0	1	49	19.3	19.3	0.799	0.799	0.399	0.399	
						50	24	19.3	19.3	0.827	0.827	0.412	0.412	
				20175	1732.5	1	49	19.3	19.3	0.835	0.835	0.422	0.422	
						50	24	19.3	19.3	0.869	0.869	0.437	0.437	
						100	0	19.3	19.2	0.890	0.911	0.455	0.466	
				20300	1745.0	1	49	19.3	19.3	0.857	0.857	0.434	0.434	
						50	24	19.3	19.3	0.879	0.879	0.443	0.443	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	20.5	20.2	0.554	0.594	0.307	0.329	
						50	24	20.0	20.0	0.464	0.464	0.256	0.256	
			Front	20050	1720.0	1	49	20.5	20.2	0.814	0.872	0.411	0.440	
						50	24	20.0	19.9	0.689	0.705	0.348	0.356	
				20175	1732.5	1	49	20.5	20.2	0.871	0.933	0.439	0.470	
						50	24	20.0	20.0	0.732	0.732	0.368	0.368	
						100	0	20.0	19.9	0.745	0.762	0.375	0.384	
				20300	1745.0	1	49	20.5	20.2	0.881	0.944	0.444	0.476	19
						50	24	20.0	19.9	0.821	0.840	0.415	0.425	
Hotspot	QPSK	5	Edge 1	20175	1732.5	1	49	20.5	20.2	0.608	0.651	0.305	0.327	
						50	24	20.0	20.0	0.510	0.510	0.256	0.256	
			Edge 2	20175	1732.5	1	49	20.5	20.2	0.035	0.037	0.019	0.020	
						50	24	20.0	20.0	0.029	0.029	0.015	0.015	
			Edge 4	20175	1732.5	1	49	20.5	20.2	0.599	0.642	0.325	0.348	
						50	24	20.0	20.0	0.540	0.540	0.290	0.290	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	20175	1732.5	1	49	24.5	24.5	0.094	0.094	0.064	0.064	
						50	24	23.5	23.4	0.096	0.099	0.066	0.067	
			Left Tilt	20175	1732.5	1	49	24.5	24.5	0.072	0.072	0.041	0.041	
						50	24	23.5	23.4	0.079	0.081	0.045	0.046	
			Right Touch	20175	1732.5	1	49	24.5	24.5	0.205	0.205	0.132	0.132	
						50	24	23.5	23.4	0.208	0.213	0.135	0.138	
			Right Tilt	20175	1732.5	1	49	24.5	24.5	0.068	0.068	0.041	0.041	
						50	24	23.5	23.4	0.070	0.072	0.042	0.043	
Body-worn & Hotspot	QPSK	5	Rear	20175	1732.5	1	49	22.3	22.3	0.644	0.644	0.368	0.368	
						50	24	22.3	22.3	0.668	0.668	0.381	0.381	
			Front	20175	1732.5	1	49	22.3	22.3	0.706	0.706	0.382	0.382	
						50	24	22.3	22.3	0.787	0.787	0.427	0.427	
Hotspot	QPSK	5	Edge 2	20175	1732.5	1	49	22.3	22.3	0.636	0.636	0.354	0.354	
						50	24	22.3	22.3	0.731	0.731	0.404	0.404	
			Edge 3	20050	1720.0	1	49	22.3	22.2	0.919	0.930	0.438	0.443	
						50	24	22.3	22.3	1.050	1.050	0.496	0.496	
				20175	1732.5	1	49	22.3	22.3	1.010	1.010	0.480	0.480	
						50	24	22.3	22.3	1.090	1.090	0.515	0.515	
						100	0	22.3	22.3	1.030	1.030	0.486	0.486	
				20300	1745.0	1	49	22.3	22.3	1.130	1.130	0.535	0.535	20
						50	24	22.3	22.3	0.981	0.970	0.469	0.464	
			Edge 4	20175	1732.5	1	49	22.3	22.3	0.068	0.068	0.037	0.037	
						50	24	22.3	22.3	0.066	0.066	0.035	0.035	

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10.11. LTE Band 5 (10MHz Bandwidth)

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

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10.12. LTE Band 7 (20MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	21100	2535.0	1	49	16.3	16.0	0.274	0.294	0.118	0.126	
						50	24	16.3	16.0	0.274	0.294	0.119	0.128	
			Left Tilt	21100	2535.0	1	49	16.3	16.0	0.248	0.266	0.102	0.109	
						50	24	16.3	16.0	0.251	0.269	0.103	0.110	
			Right Touch	21100	2535.0	1	49	16.3	16.0	0.734	0.786	0.311	0.333	
						50	24	16.3	16.0	0.743	0.796	0.315	0.338	21
			Right Tilt	21100	2535.0	1	49	16.3	16.0	0.713	0.764	0.269	0.288	
						50	24	16.3	16.0	0.711	0.762	0.268	0.287	
Body-worn & Hotspot	QPSK	5	Rear	21100	2535.0	1	49	19.3	18.8	0.622	0.698	0.298	0.334	
						50	24	19.3	18.8	0.632	0.709	0.302	0.339	
			Front	20850	2510.0	1	49	19.3	18.8	0.662	0.743	0.299	0.335	
						50	24	19.3	18.8	0.668	0.750	0.302	0.339	
Hotspot	QPSK	5	Edge 1	21100	2535.0	1	49	19.3	18.8	0.457	0.513	0.146	0.164	
						50	24	19.3	18.8	0.415	0.466	0.132	0.148	
			Edge 2	21100	2535.0	1	49	19.3	18.8	0.283	0.318	0.123	0.138	
						50	24	19.3	18.8	0.283	0.318	0.124	0.139	
			Edge 4	21100	2535.0	1	49	19.3	18.8	0.599	0.672	0.294	0.330	
						50	24	19.3	18.8	0.601	0.674	0.294	0.330	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	21100	2535.0	1	49	24.0	24.0	0.298	0.298	0.164	0.164	
						50	24	23.5	23.5	0.263	0.263	0.144	0.144	
			Left Tilt	21100	2535.0	1	49	24.0	24.0	0.101	0.101	0.052	0.052	
						50	24	23.5	23.5	0.090	0.090	0.046	0.046	
			Right Touch	21100	2535.0	1	49	24.0	24.0	0.217	0.217	0.118	0.118	
						50	24	23.5	23.5	0.202	0.202	0.108	0.108	
			Right Tilt	21100	2535.0	1	49	24.0	24.0	0.138	0.138	0.074	0.074	
						50	24	23.5	23.5	0.112	0.112	0.062	0.062	
Body-worn & Hotspot	QPSK	5	Rear	21100	2535.0	1	49	17.8	17.7	0.355	0.359	0.134	0.136	
						50	24	17.8	17.6	0.360	0.373	0.137	0.142	
			Front	20850	2510.0	1	49	17.8	17.7	0.982	0.993	0.356	0.360	
						50	24	17.8	17.7	0.845	0.855	0.311	0.315	
				21100	2535.0	1	49	17.8	17.7	1.010	1.022	0.364	0.368	
						50	24	17.8	17.6	1.010	1.045	0.364	0.377	22
						100	0	17.8	17.6	1.010	1.045	0.364	0.377	
				21350	2560.0	1	49	17.8	17.7	0.960	0.971	0.351	0.355	
						50	24	17.8	17.8	1.000	1.000	0.366	0.366	
Hotspot	QPSK	5	Edge 2	21100	2535.0	1	49	17.8	17.7	0.072	0.073	0.032	0.032	
						50	24	17.8	17.6	0.075	0.078	0.034	0.035	
			Edge 3	21100	2535.0	1	49	17.8	17.7	0.492	0.498	0.149	0.151	
						50	24	17.8	17.6	0.496	0.513	0.151	0.156	
			Edge 4	21100	2535.0	1	49	17.8	17.7	0.327	0.331	0.142	0.144	
						50	24	17.8	17.6	0.326	0.337	0.142	0.147	

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10.13. LTE Band 12 (10MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24	23.5	23.5	0.325	0.325	0.225	0.225	
						25	12	22.5	22.5	0.266	0.266	0.184	0.184	
			Left Tilt	23095	707.5	1	24	23.5	23.5	0.297	0.297	0.159	0.159	
						25	12	22.5	22.5	0.244	0.244	0.130	0.130	
			Right Touch	23095	707.5	1	24	23.5	23.5	0.421	0.421	0.267	0.267	23
						25	12	22.5	22.5	0.340	0.340	0.214	0.214	
			Right Tilt	23095	707.5	1	24	23.5	23.5	0.307	0.307	0.169	0.169	
						25	12	22.5	22.5	0.246	0.246	0.137	0.137	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	23.5	23.5	0.145	0.145	0.097	0.097	
						25	12	22.5	22.5	0.117	0.117	0.078	0.078	
			Front	23095	707.5	1	24	23.5	23.5	0.186	0.186	0.121	0.121	
						25	12	22.5	22.5	0.149	0.149	0.094	0.094	
Hotspot	QPSK	5	Edge 1	23095	707.5	1	24	23.5	23.5	0.068	0.068	0.033	0.033	
						25	12	22.5	22.5	0.053	0.053	0.026	0.026	
			Edge 2	23095	707.5	1	24	23.5	23.5	0.203	0.203	0.138	0.138	
						25	12	22.5	22.5	0.164	0.164	0.112	0.112	
			Edge 4	23095	707.5	1	24	23.5	23.5	0.074	0.074	0.050	0.050	
						25	12	22.5	22.5	0.059	0.059	0.040	0.040	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23095	707.5	1	24	24.5	24.5	0.276	0.276	0.214	0.214	
						25	12	23.5	23.5	0.228	0.228	0.176	0.176	
			Left Tilt	23095	707.5	1	24	24.5	24.5	0.114	0.114	0.091	0.091	
						25	12	23.5	23.5	0.096	0.096	0.077	0.077	
			Right Touch	23095	707.5	1	24	24.5	24.5	0.225	0.225	0.176	0.176	
						25	12	23.5	23.5	0.158	0.158	0.124	0.124	
			Right Tilt	23095	707.5	1	24	24.5	24.5	0.087	0.087	0.069	0.069	
						25	12	23.5	23.5	0.066	0.066	0.051	0.051	
Body-worn & Hotspot	QPSK	5	Rear	23095	707.5	1	24	24.5	24.5	0.410	0.410	0.237	0.237	
						25	12	23.5	23.5	0.328	0.328	0.193	0.193	
			Front	23095	707.5	1	24	24.5	24.5	0.526	0.526	0.301	0.301	24
						25	12	23.5	23.5	0.404	0.404	0.234	0.234	
Hotspot	QPSK	5	Edge 2	23095	707.5	1	24	24.5	24.5	0.224	0.224	0.151	0.151	
						25	12	23.5	23.5	0.186	0.186	0.130	0.130	
			Edge 3	23095	707.5	1	24	24.5	24.5	0.354	0.354	0.168	0.168	
						25	12	23.5	23.5	0.272	0.272	0.132	0.132	
			Edge 4	23095	707.5	1	24	24.5	24.5	0.595	0.595	0.403	0.403	25
						25	12	23.5	23.5	0.477	0.477	0.330	0.330	

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10.14. LTE Band 13 (10MHz Bandwidth)

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	23.5	23.0	0.471	0.528	0.290	0.325	
						25	12	22.5	22.0	0.368	0.413	0.227	0.255	
			Left Tilt	23230	782.0	1	24	23.5	23.0	0.476	0.534	0.246	0.276	
						25	12	22.5	22.0	0.383	0.430	0.197	0.221	
			Right Touch	23230	782.0	1	24	23.5	23.0	0.597	0.670	0.350	0.393	26
						25	12	22.5	22.0	0.480	0.539	0.281	0.315	
			Right Tilt	23230	782.0	1	24	23.5	23.0	0.511	0.573	0.269	0.302	
						25	12	22.5	22.0	0.416	0.467	0.218	0.245	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	23.5	23.0	0.508	0.570	0.283	0.318	
						25	12	22.5	22.0	0.415	0.466	0.232	0.260	
			Front	23230	782.0	1	24	23.5	23.0	0.397	0.445	0.229	0.257	
						25	12	22.5	22.0	0.304	0.341	0.179	0.201	
Hotspot	QPSK	5	Edge 1	23230	782.0	1	24	23.5	23.0	0.326	0.366	0.152	0.171	
						25	12	22.5	22.0	0.262	0.294	0.122	0.137	
			Edge 2	23230	782.0	1	24	23.5	23.0	0.437	0.490	0.290	0.325	
						25	12	22.5	22.0	0.351	0.394	0.233	0.261	
			Edge 4	23230	782.0	1	24	23.5	23.0	0.230	0.258	0.152	0.171	
						25	12	22.5	22.0	0.185	0.208	0.122	0.137	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	23230	782.0	1	24	24.5	24.4	0.339	0.347	0.254	0.260	
						25	12	23.5	23.4	0.297	0.304	0.223	0.228	
			Left Tilt	23230	782.0	1	24	24.5	24.4	0.156	0.160	0.124	0.127	
						25	12	23.5	23.4	0.133	0.136	0.107	0.109	
			Right Touch	23230	782.0	1	24	24.5	24.4	0.252	0.258	0.196	0.201	
						25	12	23.5	23.4	0.226	0.231	0.175	0.179	
			Right Tilt	23230	782.0	1	24	24.5	24.4	0.129	0.132	0.102	0.104	
						25	12	23.5	23.4	0.115	0.118	0.092	0.094	
Body-worn & Hotspot	QPSK	5	Rear	23230	782.0	1	24	24.5	24.4	0.673	0.689	0.378	0.387	
						25	12	23.5	23.4	0.596	0.610	0.335	0.343	
			Front	23230	782.0	1	24	24.5	24.4	0.802	0.821	0.436	0.446	27
						25	12	23.5	23.4	0.704	0.720	0.384	0.393	
Hotspot	QPSK	5	Edge 2	23230	782.0	1	24	24.5	24.4	0.465	0.476	0.307	0.314	
						25	12	23.5	23.4	0.419	0.429	0.276	0.282	
			Edge 3	23230	782.0	1	24	24.5	24.4	0.567	0.580	0.271	0.277	
						25	12	23.5	23.4	0.491	0.502	0.232	0.237	
			Edge 4	23230	782.0	1	24	24.5	24.4	0.876	0.896	0.580	0.594	28
						25	12	23.5	23.4	0.789	0.807	0.522	0.534	
						50	0	23.5	23.4	0.822	0.841	0.544	0.557	

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10.15. LTE Band 17 (10MHz Bandwidth)

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

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10.16. LTE Band 25 (20MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26365	1882.5	1	49	17.3	16.4	0.357	0.439	0.189	0.233	
						50	24	17.3	16.5	0.408	0.491	0.216	0.260	
			Left Tilt	26365	1882.5	1	49	17.3	16.4	0.401	0.493	0.204	0.251	
						50	24	17.3	16.5	0.412	0.495	0.208	0.250	
			Right Touch	26140	1860.0	1	49	17.3	16.3	0.727	0.915	0.411	0.517	
						50	24	17.3	16.3	0.734	0.924	0.415	0.522	
				26365	1882.5	1	49	17.3	16.4	0.806	0.992	0.448	0.551	29
						50	24	17.3	16.5	0.816	0.981	0.455	0.547	
						100	0	17.3	16.5	0.805	0.968	0.448	0.539	
				26590	1905.0	1	49	17.3	16.3	0.772	0.972	0.434	0.546	
						50	24	17.3	16.3	0.790	0.995	0.444	0.559	
			Right Tilt	26140	1882.5	1	49	17.3	16.4	0.639	0.786	0.317	0.390	
						50	24	17.3	16.5	0.651	0.783	0.321	0.386	
Body-worn & Hotspot	QPSK	5	Rear	26140	1882.5	1	49	20.5	20.1	0.566	0.621	0.296	0.325	
						50	24	20.0	19.5	0.478	0.536	0.252	0.283	
			Front	26140	1860.0	1	49	20.5	20.1	0.928	1.018	0.457	0.501	
						50	24	20.0	19.5	0.858	0.963	0.421	0.472	
				26365	1882.5	1	49	20.5	20.1	0.948	1.039	0.474	0.520	
						50	24	20.0	19.5	0.867	0.973	0.431	0.484	
						100	0	20.0	19.5	0.881	0.988	0.437	0.490	
				26590	1905.0	1	49	20.5	20.1	0.896	0.982	0.454	0.498	
						50	24	20.0	19.5	0.863	0.968	0.433	0.486	
Hotspot	QPSK	5	Edge 1	26365	1882.5	1	49	20.5	20.1	0.523	0.573	0.255	0.280	
						50	24	20.0	19.5	0.498	0.559	0.239	0.268	
			Edge 2	26365	1882.5	1	49	20.5	20.1	0.062	0.068	0.035	0.038	
						50	24	20.0	19.5	0.051	0.057	0.028	0.031	
			Edge 4	26365	1882.5	1	49	20.5	20.1	0.483	0.530	0.265	0.291	
						50	24	20.0	19.5	0.399	0.448	0.218	0.245	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26365	1882.5	1	49	24.5	24.5	0.350	0.350	0.241	0.241	
						50	24	23.5	23.3	0.283	0.296	0.192	0.201	
			Left Tilt	26365	1882.5	1	49	24.5	24.5	0.226	0.226	0.140	0.140	
						50	24	23.5	23.3	0.180	0.188	0.113	0.118	
			Right Touch	26365	1882.5	1	49	24.5	24.5	0.760	0.760	0.494	0.494	
						50	24	23.5	23.3	0.613	0.642	0.399	0.418	
			Right Tilt	26365	1882.5	1	49	24.5	24.5	0.232	0.232	0.144	0.144	
						50	24	23.5	23.3	0.198	0.207	0.122	0.128	
Body-worn & Hotspot	QPSK	5	Rear	26140	1860.0	1	49	20.5	20.5	0.891	0.891	0.515	0.515	
						50	24	20.5	20.5	0.879	0.879	0.509	0.509	
				26365	1882.5	1	49	20.5	20.5	0.956	0.956	0.542	0.542	
						50	24	20.5	20.5	0.966	0.966	0.547	0.547	
						100	0	20.5	20.4	0.962	0.984	0.539	0.552	
				26590	1905.0	1	49	20.5	20.5	0.883	0.883	0.510	0.510	
						50	24	20.5	20.4	0.887	0.908	0.512	0.524	
			Front	26140	1860.0	1	49	20.5	20.5	1.040	1.040	0.574	0.574	
						50	24	20.5	20.5	1.040	1.040	0.571	0.571	
				26365	1882.5	1	49	20.5	20.5	1.030	1.030	0.567	0.567	
						50	24	20.5	20.5	1.050	1.050	0.573	0.573	
						100	0	20.5	20.4	1.040	1.064	0.570	0.583	30
				26590	1905.0	1	49	20.5	20.5	1.020	1.020	0.556	0.556	
						50	24	20.5	20.4	1.020	1.044	0.557	0.570	
Hotspot	QPSK	5	Edge 2	26365	1882.5	1	49	20.5	20.5	0.694	0.694	0.400	0.400	
						50	24	20.5	20.5	0.713	0.713	0.409	0.409	
			Edge 3	26365	1882.5	1	49	20.5	20.5	0.702	0.702	0.332	0.332	
						50	24	20.5	20.5	0.709	0.709	0.334	0.334	
			Edge 4	26365	1882.5	1	49	20.5	20.5	0.071	0.071	0.040	0.040	
						50	24	20.5	20.5	0.073	0.073	0.041	0.041	

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10.17. LTE Band 26 (10MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	22.5	22.4	0.655	0.670	0.419	0.429	
						25	12	21.5	21.4	0.572	0.585	0.367	0.376	
			Left Tilt	26865	831.5	1	24	22.5	22.4	0.622	0.636	0.314	0.321	
						25	12	21.5	21.4	0.546	0.559	0.275	0.281	
			Right Touch	26865	831.5	1	24	22.5	22.4	0.832	0.851	0.544	0.557	
				26865	831.5	1	24	22.5	22.4	0.857	0.877	0.554	0.567	31
						25	12	21.5	21.4	0.770	0.788	0.497	0.509	
				26865	831.5	1	24	22.5	22.4	0.754	0.772	0.479	0.490	
			Right Tilt	26865	831.5	1	24	22.5	22.4	0.529	0.541	0.296	0.303	
						25	12	21.5	21.4	0.463	0.474	0.258	0.264	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	22.5	22.4	0.373	0.382	0.227	0.232	
						25	12	21.5	21.4	0.299	0.306	0.182	0.186	
			Front	26865	831.5	1	24	22.5	22.4	0.422	0.432	0.263	0.269	
						25	12	21.5	21.4	0.336	0.344	0.209	0.214	
Hotspot	QPSK	5	Edge 1	26865	831.5	1	24	22.5	22.4	0.198	0.203	0.092	0.094	
						25	12	21.5	21.4	0.160	0.164	0.074	0.076	
			Edge 2	26865	831.5	1	24	22.5	22.4	0.297	0.304	0.197	0.202	
						25	12	21.5	21.4	0.197	0.202	0.131	0.134	
			Edge 4	26865	831.5	1	24	22.5	22.4	0.104	0.106	0.069	0.071	
						25	12	21.5	21.4	0.083	0.085	0.055	0.056	

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RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	26865	831.5	1	24	24.0	24.0	0.267	0.267	0.204	0.204	
						25	12	23.0	23.0	0.214	0.214	0.164	0.164	
			Left Tilt	26865	831.5	1	24	24.0	24.0	0.113	0.113	0.089	0.089	
						25	12	23.0	23.0	0.091	0.091	0.071	0.071	
			Right Touch	26865	831.5	1	24	24.0	24.0	0.202	0.202	0.157	0.157	
						25	12	23.0	23.0	0.154	0.154	0.119	0.119	
			Right Tilt	26865	831.5	1	24	24.0	24.0	0.113	0.113	0.087	0.087	
						25	12	23.0	23.0	0.092	0.092	0.071	0.071	
Body-worn & Hotspot	QPSK	5	Rear	26865	831.5	1	24	24.0	24.0	0.712	0.712	0.384	0.384	
						25	12	23.0	23.0	0.574	0.574	0.309	0.309	
			Front	26865	831.5	1	24	24.0	24.0	0.753	0.753	0.417	0.417	32
						25	12	23.0	23.0	0.613	0.613	0.340	0.340	
Hotspot	QPSK	5	Edge 2	26865	831.5	1	24	24.0	24.0	0.141	0.141	0.093	0.093	
						25	12	23.0	23.0	0.115	0.115	0.076	0.076	
			Edge 3	26865	831.5	1	24	24.0	24.0	0.485	0.485	0.223	0.223	
						25	12	23.0	23.0	0.397	0.397	0.179	0.179	
			Edge 4	26865	831.5	1	24	24.0	24.0	0.515	0.515	0.339	0.339	
						25	12	23.0	23.0	0.422	0.422	0.277	0.277	

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10.18. LTE Band 27 (10MHz Bandwidth)

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

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10.19. LTE Band 30 (10MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	27710	2310.0	1	24	20.0	20.0	0.431	0.431	0.217	0.217	
						25	12	19.0	18.9	0.344	0.352	0.174	0.178	
			Left Tilt	27710	2310.0	1	24	20.0	20.0	0.416	0.416	0.203	0.203	
						25	12	19.0	18.9	0.324	0.332	0.157	0.161	
			Right Touch	27710	2310.0	1	24	20.0	20.0	0.863	0.863	0.448	0.448	33
						25	12	19.0	18.9	0.696	0.712	0.360	0.368	
			Right Tilt	27710	2310.0	1	24	20.0	20.0	0.556	0.556	0.273	0.273	
						25	12	19.0	18.9	0.549	0.562	0.252	0.258	
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	20.0	20.0	0.620	0.620	0.282	0.282	
						25	12	19.0	18.9	0.436	0.446	0.207	0.212	
			Front	27710	2310.0	1	24	20.0	20.0	0.618	0.618	0.281	0.281	
						25	12	19.0	18.9	0.313	0.320	0.147	0.150	
Hotspot	QPSK	5	Edge 1	27710	2310.0	1	24	20.0	20.0	0.153	0.153	0.067	0.067	
						25	12	19.0	18.9	0.126	0.129	0.053	0.054	
			Edge 2	27710	2310.0	1	24	20.0	20.0	0.099	0.099	0.045	0.045	
						25	12	19.0	18.9	0.095	0.097	0.042	0.043	
			Edge 4	27710	2310.0	1	24	20.0	20.0	0.358	0.358	0.165	0.165	
						25	12	19.0	18.9	0.288	0.295	0.134	0.137	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	27710	2310.0	1	24	23.0	23.0	0.182	0.182	0.109	0.109	
						25	12	23.0	23.0	0.187	0.187	0.112	0.112	
			Left Tilt	27710	2310.0	1	24	23.0	23.0	0.198	0.198	0.096	0.096	
						25	12	23.0	23.0	0.202	0.202	0.098	0.098	
			Right Touch	27710	2310.0	1	24	23.0	23.0	0.378	0.378	0.217	0.217	
						25	12	23.0	23.0	0.386	0.386	0.222	0.222	
			Right Tilt	27710	2310.0	1	24	23.0	23.0	0.176	0.176	0.093	0.093	
						25	12	23.0	23.0	0.179	0.179	0.094	0.094	
Body-worn & Hotspot	QPSK	5	Rear	27710	2310.0	1	24	21.0	21.0	0.892	0.892	0.385	0.385	
						25	12	21.0	21.0	0.541	0.541	0.243	0.243	
			Front	27710	2310.0	1	24	21.0	21.0	1.100	1.100	0.446	0.446	34
						25	12	21.0	21.0	1.050	1.050	0.428	0.428	
						50	0	21.0	21.0	1.030	1.030	0.421	0.421	
Hotspot	QPSK	5	Edge 2	27710	2310.0	1	24	21.0	21.0	0.735	0.735	0.349	0.349	
						25	12	21.0	21.0	0.769	0.769	0.348	0.348	
			Edge 3	27710	2310.0	1	24	21.0	21.0	0.767	0.767	0.269	0.269	
						25	12	21.0	21.0	0.851	0.851	0.307	0.307	
			Edge 4	27710	2310.0	1	24	21.0	21.0	0.187	0.187	0.081	0.081	
						25	12	21.0	21.0	0.198	0.198	0.090	0.090	

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10.20. LTE Band 41 (20MHz Bandwidth)

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	40620	2593.0	1	49	18.3	17.5	0.382	0.459	0.158	0.190	
						50	24	18.3	17.6	0.386	0.448	0.160	0.186	
			Left Tilt	40620	2593.0	1	49	18.3	17.5	0.280	0.333	0.122	0.145	
						50	24	18.3	17.6	0.287	0.333	0.125	0.145	
			Right Touch	39750	2506.0	1	49	18.3	17.3	0.706	0.879	0.309	0.385	
						50	24	18.3	17.3	0.717	0.892	0.316	0.393	
				40185	2593.0	1	49	18.3	17.3	0.738	0.918	0.300	0.373	
						50	24	18.3	17.3	0.757	0.942	0.307	0.382	
				40620	2593.0	1	49	18.3	17.5	0.778	0.925	0.300	0.357	
						50	24	18.3	17.6	0.795	0.923	0.307	0.357	
						100	0	18.3	17.5	0.816	0.970	0.339	0.403	
				41055	2636.5	1	49	18.3	17.3	0.807	1.004	0.307	0.382	
						50	24	18.3	17.3	0.816	1.016	0.339	0.422	35
				41490	2680.0	1	49	18.3	17.3	0.568	0.707	0.222	0.276	
						50	24	18.3	17.3	0.562	0.699	0.221	0.275	
			Right Tilt	40620	2593.0	1	49	18.3	17.5	0.668	0.794	0.241	0.286	
						50	24	18.3	17.6	0.675	0.784	0.243	0.282	
Body-worn & Hotspot	QPSK	5	Rear	40620	2593.0	1	49	21.0	20.3	0.560	0.658	0.213	0.250	
						50	24	20.0	19.0	0.428	0.539	0.165	0.208	
			Front	39750	2506.0	1	49	21.0	20.3	0.398	0.468	0.186	0.219	
				40185	2549.5	1	49	21.0	20.3	0.759	0.892	0.343	0.403	
				40620	2593.0	1	49	21.0	20.3	0.810	0.952	0.336	0.395	
						50	24	20.0	19.0	0.397	0.500	0.168	0.211	
				41055	2636.5	1	49	21.0	20.3	0.626	0.735	0.270	0.317	
				41490	2680.0	1	49	21.0	20.3	0.492	0.578	0.219	0.257	
Hotspot	QPSK	5	Edge 1	40620	2593.0	1	49	21.0	20.3	0.248	0.291	0.078	0.092	
						50	24	20.0	19.0	0.205	0.258	0.056	0.070	
			Edge 2	40620	2593.0	1	49	21.0	20.3	0.355	0.417	0.155	0.182	
						50	24	20.0	19.0	0.216	0.272	0.090	0.113	
			Edge 4	40620	2593.0	1	49	21.0	20.3	0.218	0.256	0.099	0.116	
						50	24	20.0	19.0	0.306	0.385	0.137	0.172	

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LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Left Touch	40620	2593.0	1	49	22.5	22.4	0.096	0.098	0.051	0.052	
						50	24	22.5	22.4	0.096	0.098	0.052	0.053	
			Left Tilt	40620	2593.0	1	49	22.5	22.4	0.031	0.032	0.014	0.014	
						50	24	22.5	22.4	0.028	0.029	0.011	0.011	
			Right Touch	40620	2593.0	1	49	22.5	22.4	0.070	0.072	0.035	0.036	
						50	24	22.5	22.4	0.072	0.074	0.037	0.038	
			Right Tilt	40620	2593.0	1	49	22.5	22.4	0.042	0.043	0.020	0.020	
						50	24	22.5	22.4	0.039	0.040	0.018	0.018	
Body-worn & Hotspot	QPSK	5	Rear	40620	2593.0	1	49	20.3	19.4	0.594	0.722	0.227	0.276	
						50	24	20.3	19.4	0.644	0.783	0.247	0.300	
			Front	39750	2506.0	1	49	20.3	19.4	0.769	0.935	0.287	0.349	
						50	24	20.3	19.4	0.784	0.953	0.291	0.354	
				40185	2549.5	1	49	20.3	19.4	0.848	1.031	0.315	0.383	
						50	24	20.3	19.4	0.874	1.063	0.324	0.394	
				40620	2593.0	1	49	20.3	19.4	0.868	1.056	0.325	0.395	
						50	24	20.3	19.4	0.883	1.074	0.328	0.399	36
						100	0	20.3	19.4	0.875	1.064	0.325	0.395	
				41055	2636.5	1	49	20.3	19.4	0.755	0.918	0.287	0.349	
						50	24	20.3	19.4	0.762	0.927	0.289	0.351	
				41490	2680.0	1	49	20.3	19.4	0.643	0.782	0.257	0.313	
						50	24	20.3	19.4	0.666	0.810	0.266	0.324	
Hotspot	QPSK	5	Edge 1	40620	2593.0	1	49	20.3	19.4	0.061	0.074	0.028	0.034	
						50	24	20.3	19.4	0.062	0.075	0.028	0.034	
			Edge 3	40620	2593.0	1	49	20.3	19.4	0.564	0.686	0.174	0.212	
						50	24	20.3	19.4	0.617	0.750	0.188	0.229	
			Edge 4	40620	2593.0	1	49	20.3	19.4	0.478	0.581	0.206	0.251	
						50	24	20.3	19.4	0.456	0.555	0.197	0.240	

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10.21. LTE-2CA Band 7 (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	
Body & Hotspot	QPSK	5	Front	21100	2535.0	100	0	21298	2554.8	50	24	17.8	17.8	0.891	0.891	0.355	0.355	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.

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

UAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC				SCC				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
				Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Head	QPSK	0	Right Touch	41055	2636.5	50	24	40857	2616.7	1	49	18.0	18.0	0.813	0.813	0.324	0.324	

LAT

RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC				SCC				Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
				Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Body & Hotspot	QPSK	5	Front	40620	2593.0	50	24	40818	2612.8	100	0	20.3	20.3	1.010	1.010	0.374	0.374	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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10.23. Wi-Fi (DTS Band)

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
2.4 GHz	Head	802.11b 20MHz	0	1 Tx	Left Touch	6	2437	13.0	12.0			0.112									
					Left Tilt	6	2437	13.0	12.0			0.101									
					Right Touch	6	2437	13.0	12.0			0.278	0.210	0.102	0.264	0.128					
					Right Tilt	6	2437	13.0	12.0			0.239									
					Left Touch	6	2437			19.0	19.0	0.109									
					Left Tilt	6	2437			19.0	19.0	0.064									
					Right Touch	6	2437			19.0	19.0	0.216					0.167	0.089	0.167	0.089	
					Right Tilt	6	2437			19.0	19.0	0.039									
		802.11g 20MHz	0	2 Tx	Left Touch	6	2437	13.0	12.0	19.0	19.0	0.121									
					Left Tilt	6	2437	13.0	12.0	19.0	19.0	0.131									
					Right Touch	6	2437	13.0	12.0	19.0	19.0	0.346	0.263	0.131	0.331	0.165	0.141	0.075	0.141	0.075	
					Right Tilt	6	2437	13.0	12.0	19.0	19.0	0.359									
	Body-worn & Hotspot & Airplay	802.11b 20MHz	5	1 Tx	Rear	6	2437	16.5	15.5			0.344	0.253	0.120	0.319	0.151					
					Front	6	2437	16.5	15.5			0.289									
					Edge 1	6	2437	16.5	15.5			0.151									
					Edge 2	6	2437	16.5	15.5			0.092									
					Edge 4	6	2437	16.5	15.5			0.330									
					Rear	6	2437			14.5	13.5	0.126									
					Front	6	2437			14.5	13.5	0.201					0.164	0.067	0.206	0.084	
					Edge 2	6	2437			14.5	13.5	0.109									
					Edge 3	6	2437			14.5	13.5	0.090									
					Edge 4	6	2437			14.5	13.5	0.008									
		802.11g 20MHz	5	2 Tx	Rear	6	2437	16.5	15.5	14.5	13.5	0.363	0.295	0.138	0.371	0.174	0.123	0.061	0.155	0.077	
					Front	6	2437	16.5	15.5	14.5	13.5	0.300									
					Edge 1	6	2437	16.5	15.5	14.5	13.5	0.111									
					Edge 2	6	2437	16.5	15.5	14.5	13.5	0.138									
					Edge 3	6	2437	16.5	15.5	14.5	13.5	0.127									
					Edge 4	6	2437	16.5	15.5	14.5	13.5	0.332									

Notes:

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

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
2.4 GHz	Head	802.11b 20MHz	0	1 Tx	Left Touch	6	2437	18.5	18.5			0.465									
					Left Tilt	6	2437	18.5	18.5			0.497	0.303	0.148	0.303	0.148					
					Right Touch	6	2437	18.5	18.5			1.210	0.890	0.450	0.890	0.450					
						11	2462	18.5	18.5				1.190	0.566	1.190	0.566					39
					Right Tilt	6	2437	18.5	18.5			1.570	1.090	0.466	1.090	0.466					
						11	2462	18.5	18.5				1.190	0.471	1.190	0.471					
					Left Touch	6	2437			19.0	19.0	0.109									
					Left Tilt	6	2437			19.0	19.0	0.064									
					Right Touch	6	2437			19.0	19.0	0.216					0.167	0.089	0.167	0.089	
					Right Tilt	6	2437			19.0	19.0	0.039									
		802.11g 20MHz	0	2 Tx	Left Touch	6	2437	18.5	18.5	19.0	19.0	0.410	0.318	0.149	0.318	0.149	-	-	-	-	
					Left Tilt	6	2437	18.5	18.5	19.0	19.0	0.353									
					Right Touch	6	2437	18.5	18.5	19.0	19.0	1.190	0.894	0.448	0.894	0.448	0.163	0.090	0.163	0.090	
						9	2452	18.5	18.5	19.0	19.0		1.180	0.575	1.180	0.575	0.163	0.090	0.163	0.090	
					Right Tilt	6	2437	18.5	18.5	19.0	19.0	0.929	0.916	0.380	0.916	0.380	-	-	-	-	
						9	2452	18.5	18.5	19.0	19.0		1.110	0.443	1.110	0.443	-	-	-	-	
	Body-worn & Airplay	802.11b 20MHz	5	1 Tx	Rear	6	2437	19.0	18.9			0.706	0.396	0.193	0.405	0.197					
					Front	6	2437	19.0	18.9			0.640	0.448	0.221	0.458	0.226					
					Edge 1	6	2437	19.0	18.9			0.288									
					Edge 2	6	2437	19.0	18.9			0.205									
					Edge 4	6	2437	19.0	18.9			0.573									
					Rear	6	2437			19.0	19.0	0.396					0.287	0.145	0.287	0.145	
					Front	6	2437			19.0	19.0	1.010					0.686	0.289	0.686	0.289	40
					Edge 2	6	2437			19.0	19.0	0.359									
					Edge 3	6	2437			19.0	19.0	0.247									
					Edge 4	6	2437			19.0	19.0	0.041									
		802.11g 20MHz	5	2 Tx	Rear	6	2437	19.0	19.0	19.0	19.0	0.479									
					Front	6	2437	19.0	19.0	19.0	19.0	0.711	0.369	0.183	0.369	0.183	0.514	0.218	0.514	0.218	
					Edge 1	6	2437	19.0	19.0	19.0	19.0	0.204									
					Edge 2	6	2437	19.0	19.0	19.0	19.0	0.346									
					Edge 3	6	2437	19.0	19.0	19.0	19.0	0.273									
					Edge 4	6	2437	19.0	19.0	19.0	19.0	0.498	0.374	0.179	0.374	0.179	-	-	-	-	

Notes:

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

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

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.2 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	42	5210	6.5	6.5			0.201									
					Left Tilt	42	5210	6.5	6.5			0.154									
					Right Touch	42	5210	6.5	6.5			0.340	0.181	0.052	0.181	0.052					
					Right Tilt	42	5210	6.5	6.5			0.179									
5.3 GHz		802.11a	0	1 Tx	Left Touch	56	5280			20.5	20.5	0.207									
					Left Tilt	56	5280			20.5	20.5	0.086									
					Right Touch	56	5280			20.5	20.5	0.508					0.263	0.112	0.263	0.112	
					Right Tilt	56	5280			20.5	20.5	0.090									
5.3 GHz		802.11n HT40 CDD	0	2 Tx	Left Touch	54	5270	6.0	5.9	18.5	18.5	0.238									
					Left Tilt	54	5270	6.0	5.9	18.5	18.5	0.220									
					Right Touch	54	5270	6.0	5.9	18.5	18.5	0.308	0.205	0.058	0.210	0.059	0.146	0.057	0.146	0.057	
					Right Tilt	54	5270	6.0	5.9	18.5	18.5	0.265									
5.2 GHz	Body-worn & Airplay	802.11n HT40	5	1 Tx	Rear	46	5230	15.3	15.3			0.647									
					Front	46	5230	15.3	15.3			0.664	0.317	0.095	0.317	0.095					
					Edge 1	46	5230	15.3	15.3			0.641									
					Edge 2	46	5230	15.3	15.3			0.075									
					Edge 4	46	5230	15.3	15.3			0.404									
5.2 GHz		802.11ac VHT80	5	1 Tx	Rear	42	5210			10.0	10.0	0.048									
					Front	42	5210			10.0	10.0	0.730					0.208	0.049	0.208	0.049	
					Edge 2	42	5210			10.0	10.0	0.021									
					Edge 3	42	5210			10.0	10.0	0.051									
					Edge 4	42	5210			10.0	10.0	0.037									
5.2 GHz		802.11n HT40 CDD	5	2 Tx	Rear	46	5230	15.3	15.3	10.0	10.0	0.385									
					Front	46	5230	15.3	15.3	10.0	10.0	0.632	0.317	0.104	0.317	0.104	0.132	0.031	0.132	0.031	
					Edge 1	46	5230	15.3	15.3	10.0	10.0	0.551									
					Edge 2	46	5230	15.3	15.3	10.0	10.0	0.071									
					Edge 3	46	5230	15.3	15.3	10.0	10.0	0.086									
					Edge 4	46	5230	15.3	15.3	10.0	10.0	0.316									

Notes:

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

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.2 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	42	5210	14.3	14.3			1.050									
					Left Tilt	42	5210	14.3	14.3			0.768									
					Right Touch	42	5210	14.3	14.3			1.670	1.170	0.367	1.170	0.367					41
					Right Tilt	42	5210	14.3	14.3			1.200	0.666	0.211	0.666	0.211					
5.3 GHz		802.11a	0	1 Tx	Left Touch	56	5280			20.5	20.5	0.207									
					Left Tilt	56	5280			20.5	20.5	0.086									
					Right Touch	56	5280			20.5	20.5	0.508					0.263	0.112	0.263	0.112	
					Right Tilt	56	5280			20.5	20.5	0.090									
5.3 GHz		802.11n HT40 CDD	0	2 Tx	Left Touch	54	5270	13.8	13.6	18.5	18.3	0.910									
					Left Tilt	54	5270	13.8	13.6	18.5	18.3	0.918									
					Right Touch	54	5270	13.8	13.6	18.5	18.3	1.500	0.853	0.258	0.893	0.270	-	-	-	-	
						62	5310	13.8	13.7	14.0	14.0		0.794	0.246	0.812	0.252	-	-	-	-	
					Right Tilt	54	5270	13.8	13.6	18.5	18.3	1.350	0.761	0.240	0.797	0.251	-	-	-	-	
5.2 GHz	Body-worn & Airplay	802.11a	5	1 Tx	Rear	44	5220	20.5	20.3			1.930	1.120	0.387	1.173	0.405					42
						48	5240	19.5	19.0				0.701	0.232	0.787	0.260					
					Front	44	5220	20.5	20.3			1.860	1.060	0.366	1.110	0.383					
						48	5240	19.5	19.0				1.000	0.330	1.122	0.370					
					Edge 1	44	5220	20.5	20.3			1.430	0.878	0.273	0.919	0.286					
						48	5240	19.5	19.0				0.620	0.194	0.696	0.218					
					Edge 2	44	5220	20.5	20.3			0.172									
					Edge 4	44	5220	20.5	20.3			0.935	0.500	0.183	0.524	0.192					
5.2 GHz		802.11n HT40	5	1 Tx	Rear	46	5230			16.8	16.8	0.256					0.139	0.046	0.139	0.046	
					Front	38	5190			15.5	15.5						0.834	0.193	0.834	0.193	
						46	5230			16.8	16.8	2.470					1.050	0.246	1.050	0.246	
					Edge 2	46	5230			16.8	16.8	0.181									
					Edge 3	46	5230			16.8	16.8	0.066									
					Edge 4	46	5230			16.8	16.8	0.024									
5.3 GHz		802.11n HT40 CDD	5	2 Tx	Rear	54	5270	18.5	18.4	15.8	15.7										
					Front	54	5270	18.5	18.4	15.8	15.7	1.820	0.825	0.264	0.844	0.270	0.771	0.187	0.780	0.189	
						62	5310	14.0	14.0	14.0	14.0	0.684	0.269	0.083	0.269	0.083	0.326	0.077	0.326	0.077	
					Edge 1	54	5270	18.5	18.4	15.8	15.7	0.953	0.280	0.057	0.287	0.058	-	-	-	-	
					Edge 2	54	5270	18.5	18.4	15.8	15.7										
					Edge 3	54	5270	18.5	18.4	15.8	15.7										
					Edge 4	54	5270	18.5	18.4	15.8	15.7										

Notes:

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

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

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	138	5690	5.0	5.0			0.184									
					Left Tilt	138	5690	5.0	5.0			0.201									
					Right Touch	138	5690	5.0	5.0			0.275	0.162	0.055	0.162	0.055					
					Right Tilt	138	5690	5.0	5.0			0.199									
		802.11n HT40	0	1 Tx	Left Touch	118	5590			19.5	19.4	0.074									
					Left Tilt	118	5590			19.5	19.4	0.062									
					Right Touch	118	5590			19.5	19.4	0.136					0.087	0.043	0.089	0.044	
					Right Tilt	118	5590			19.5	19.4	0.057									
		802.11n HT40 CDD	0	2 Tx	Left Touch	118	5590	5.0	5.0	19.5	19.4	0.175									
					Left Tilt	118	5590	5.0	5.0	19.5	19.4	0.167									
					Right Touch	118	5590	5.0	5.0	19.5	19.4	0.266	0.172	0.053	0.172	0.053	0.088	0.038	0.090	0.039	
					Right Tilt	118	5590	5.0	5.0	19.5	19.4	0.286	0.134	0.043	0.134	0.043	-	-	-	-	
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	138	5690	11.5	11.5			0.680									
					Front	138	5690	11.5	11.5			0.728	0.327	0.102	0.327	0.102					
					Edge 1	138	5690	11.5	11.5			0.660									
					Edge 2	138	5690	11.5	11.5			0.028									
					Edge 4	138	5690	11.5	11.5			0.224									
		802.11ac VHT80	5	1 Tx	Rear	106	5530			8.5	8.5	0.061									
					Front	106	5530			8.5	8.5	0.213					0.131	0.029	0.131	0.029	
					Edge 2	106	5530			8.5	8.5	0.023									
					Edge 3	106	5530			8.5	8.5	0.030									
					Edge 4	106	5530			8.5	8.5	0.003									
		802.11ac VHT80	5	2 Tx	Rear	138	5690	11.5	11.5	8.5	8.5	0.549									
					Front	138	5690	11.5	11.5	8.5	8.5	0.695	0.336	0.106	0.336	0.106	0.068	0.017	0.068	0.017	
					Edge 1	138	5690	11.5	11.5	8.5	8.5	0.398									
					Edge 2	138	5690	11.5	11.5	8.5	8.5	0.039									
					Edge 3	138	5690	11.5	11.5	8.5	8.5	0.042									
					Edge 4	138	5690	11.5	11.5	8.5	8.5	0.159									

Notes:

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

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.6 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	138	5690	12.8	12.8			1.310									
					Left Tilt	138	5690	12.8	12.8			1.190									
					Right Touch	106	5530	12.8	12.8				0.691	0.264	0.691	0.264					
						122	5610	12.8	12.8				0.873	0.286	0.873	0.286					
						138	5690	12.8	12.8			1.800	0.960	0.317	0.960	0.317					
					Right Tilt	138	5690	12.8	12.8			1.150	1.030	0.322	1.030	0.322					
		802.11a	0	1 Tx	Left Touch	108	5540			20.5	20.1	0.160									
					Left Tilt	108	5540			20.5	20.1	0.120									
					Right Touch	108	5540			20.5	20.1	0.499					0.188	0.086	0.206	0.094	
					Right Tilt	108	5540			20.5	20.1	0.098									
		802.11n HT40	0	2 Tx	Left Touch	118	5590	12.8	12.8	19.5	19.5	1.130									
					Left Tilt	118	5590	12.8	12.8	19.5	19.5	0.887									
					Right Touch	118	5590	12.8	12.8	19.5	19.5	1.850	1.080	0.344	1.080	0.344	0.124	0.054	0.124	0.054	
						142	5710	12.8	12.8	19.0	19.0	2.420	1.180	0.352	1.180	0.352	0.122	0.122	0.122	0.122	43
					Right Tilt	118	5590	12.8	12.8	19.5	19.5	1.740	0.862	0.271	0.862	0.271	-	-	-	-	
						142	5710	12.8	12.8	19.0	19.0	1.880	0.987	0.306	0.987	0.306	-	-	-	-	
5.6 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	106	5530	14.0	14.0				0.554	0.166	0.554	0.166					
						122	5610	17.0	17.0				1.170	0.373	1.170	0.373					
						138	5690	17.0	17.0			2.630	1.110	0.373	1.110	0.373					
					Front	106	5530	14.0	14.0				0.433	0.146	0.433	0.146					
						122	5610	17.0	17.0				1.000	0.352	1.000	0.352					
						138	5690	17.0	17.0			2.520	1.030	0.366	1.030	0.366					
					Edge 1	106	5530	14.0	14.0				0.430	0.143	0.430	0.143					
						122	5610	17.0	17.0				1.040	0.355	1.040	0.355					
						138	5690	17.0	17.0			2.150	1.160	0.395	1.160	0.395					
					Edge 2	138	5690	17.0	17.0			0.202									
					Edge 4	138	5690	17.0	17.0			1.030	0.522	0.194	0.522	0.194					
		802.11ac VHT80	5	1 Tx	Rear	138	5690			15.3	15.3	0.337					0.132	0.040	0.132	0.040	
					Front	106	5530			14.0	14.0						0.776	0.185	0.776	0.185	
						122	5610			15.3	15.3						0.644	0.158	0.644	0.158	
						138	5690			15.3	15.3	0.948					0.416	0.107	0.416	0.107	
					Edge 2	138	5690			15.3	15.3	0.164									
					Edge 3	138	5690			15.3	15.3	0.249									
					Edge 4	138	5690			15.3	15.3	0.021									
		802.11ac VHT80	5	2 Tx	Rear	106	5530	14.0	14.0	14.0	14.0		0.365	0.114	0.365	0.114	0.184	0.059	0.184	0.059	
						122	5610	17.0	17.0	15.3	15.3		0.976	0.317	0.976	0.317	0.198	0.067	0.198	0.067	
						138	5690	17.0	17.0	15.3	15.3	2.070	1.010	0.336	1.010	0.336	0.150	0.051	0.150	0.051	
					Front	106	5530	14.0	14.0	14.0	14.0		0.478	0.166	0.478	0.166	0.643	0.166	0.643	0.166	
						122	5610	17.0	17.0	15.3	15.3		1.170	0.391	1.170	0.391	0.585	0.153	0.585	0.153	44
						138	5690	17.0	17.0	15.3	15.3	2.260	1.150	0.384	1.150	0.384	0.418	0.112	0.418	0.112	
					Edge 1	138	5690	17.0	17.0	15.3	15.3	1.410	0.740	0.265	0.740	0.265	-	-	-	-	
					Edge 2	138	5690	17.0	17.0	15.3	15.3	0.200									
					Edge 3	138	5690	17.0	17.0	15.3	15.3	0.283									
					Edge 4	138	5690	17.0	17.0	15.3	15.3	0.675									

Notes:

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

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

Cell On

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.8 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	155	5775	5.0	5.0			0.183									
					Left Tilt	155	5775	5.0	5.0			0.193									
					Right Touch	155	5775	5.0	5.0			0.442	0.200	0.061	0.200	0.061					
					Right Tilt	155	5775	5.0	5.0			0.235									
		802.11a	0	1 Tx	Left Touch	157	5785			20.5	19.5	0.084									
					Left Tilt	157	5785			20.5	19.5	0.069									
					Right Touch	157	5785			20.5	19.5	0.255					0.163	0.075	0.205	0.095	
					Right Tilt	157	5785			20.5	19.5	0.100									
		802.11a	0	2 Tx	Left Touch	157	5785	5.0	5.0	20.5	19.5	0.249									
					Left Tilt	157	5785	5.0	5.0	20.5	19.5	0.282									
					Right Touch	157	5785	5.0	5.0	20.5	19.5	0.414	0.198	0.061	0.198	0.061	0.125	0.059	0.157	0.074	
					Right Tilt	157	5785	5.0	5.0	20.5	19.5	0.297									
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	11.3	11.3			0.780	0.338	0.106	0.338	0.106					
					Front	155	5775	11.3	11.3			0.544									
					Edge 1	155	5775	11.3	11.3			0.631									
					Edge 2	155	5775	11.3	11.3			0.036									
					Edge 4	155	5775	11.3	11.3			0.259									
		802.11ac VHT80	5	1 Tx	Rear	155	5775			13.0	13.0	0.204									
					Front	155	5775			13.0	13.0	0.341					0.249	0.057	0.249	0.057	
					Edge 2	155	5775			13.0	13.0	0.084									
					Edge 3	155	5775			13.0	13.0	0.117									
					Edge 4	155	5775			13.0	13.0	0.010									
		802.11ac VHT80 CDD	5	2 Tx	Rear	155	5775	11.3	11.3	13.0	13.0	0.550									
					Front	155	5775	11.3	11.3	13.0	13.0	0.645	0.310	0.103	0.310	0.103	0.139	0.037	0.139	0.037	
					Edge 1	155	5775	11.3	11.3	13.0	13.0	0.554									
					Edge 2	155	5775	11.3	11.3	13.0	13.0	0.077									
					Edge 3	155	5775	11.3	11.3	13.0	13.0	0.095									
					Edge 4	155	5775	11.3	11.3	13.0	13.0	0.210									

Notes:

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

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Cell Off

Band	RF Exposure Condition	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				Area Scan Measured Peak	SAR (W/kg)								Plots
								Chain 0		Chain 1			Chain 0				Chain 1				
								Tune-up Limit	Measured	Tune-up Limit	Measured		Measured		Scaled		Measured		Scaled		
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g	
5.8 GHz	Head	802.11ac VHT80	0	1 Tx	Left Touch	155	5775	13.0	13.0			1.610	0.912	0.344	0.912	0.344					
					Left Tilt	155	5775	13.0	13.0			1.700	0.956	0.348	0.956	0.348					
					Right Touch	155	5775	13.0	13.0			2.590	1.180	0.377	1.180	0.377					45
					Right Tilt	155	5775	13.0	13.0			1.920	0.935	0.309	0.935	0.309					
		802.11a	0	1 Tx	Left Touch	157	5785			20.5	19.5	0.084									
					Left Tilt	157	5785			20.5	19.5	0.069									
					Right Touch	157	5785			20.5	19.5	0.255					0.163	0.075	0.205	0.095	
					Right Tilt	157	5785			20.5	19.5	0.100									
		802.11a	0	2 Tx	Left Touch	157	5785	13.0	13.0	20.5	19.5	1.010									
					Left Tilt	157	5785	13.0	13.0	20.5	19.5	1.150									
					Right Touch	157	5785	13.0	13.0	20.5	19.5	1.500	1.120	0.326	1.120	0.326	0.101	0.048	0.127	0.060	
						161	5805	13.0	13.0	20.5	19.5		1.060	0.311	1.060	0.311	0.105	0.053	0.132	0.067	
					Right Tilt	157	5785	13.0	13.0	20.5	19.5	1.46	0.759	0.237	0.759	0.237	-	-	-	-	
5.8 GHz	Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Rear	155	5775	16.5	16.5			2.380	1.11	0.370	1.110	0.370					46
					Front	155	5775	16.5	16.5			2.250	1.080	0.377	1.080	0.377					
					Edge 1	155	5775	16.5	16.5			2.040	1.110	0.363	1.110	0.363					
					Edge 2	155	5775	16.5	16.5			0.183									
					Edge 4	155	5775	16.5	16.5			0.793	0.487	0.181	0.487	0.181					
		802.11a	5	1 Tx	Rear	157	5785			19.8	19.5	0.671					0.338	0.112	0.362	0.120	
					Front	157	5785			19.8	19.5	1.660					1.060	0.284	1.136	0.304	
						161	5805			19.8	19.5						0.727	0.185	0.779	0.198	
					Edge 2	157	5785			19.8	19.5	0.283									
					Edge 3	157	5785			19.8	19.5	0.475									
					Edge 4	157	5785			19.8	19.5	0.008									
		802.11a CDD	5	2 Tx	Rear	157	5765	16.5	16.5	19.8	19.5	2.000	0.999	0.345	0.999	0.345	0.377	0.135	0.404	0.145	
						161	5785	16.5	16.5	19.8	19.5		0.801	0.279	0.801	0.279	0.577	0.197	0.618	0.211	
					Front	157	5765	16.5	16.5	19.8	19.5	2.100	1.030	0.342	1.030	0.342	1.010	0.274	1.082	0.294	
						161	5785	16.5	16.5	19.8	19.5		1.100	0.245	1.100	0.245	0.845	0.231	0.905	0.248	
					Edge 1	157	5765	16.5	16.5	19.8	19.5	1.390	0.832	0.294	0.832	0.294	-	-	-	-	
						161	5785	16.5	16.5	19.8	19.5		0.917	0.316	0.917	0.316	-	-	-	-	
					Edge 2	157	5765	16.5	16.5	19.8	19.5	0.493									
					Edge 3	157	5765	16.5	16.5	19.8	19.5	0.560									
					Edge 4	157	5765	16.5	16.5	19.8	19.5	0.731	0.295	0.112	0.295	0.112	-	-	-	-	

Notes:

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

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10.27. Wi-Fi Variant 2 Spot Check

Wi-Fi (DTS Band)

Vendor	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	2.4 GHz	Head	802.11b	0	1Tx	Right Touch	11	2462	18.5	18.5			1.190	0.566	1.190	0.566				
		Body-worn & Airplay	802.11b	5	1Tx	Front	6	2437			19.0	19.0					0.686	0.289	0.686	0.289
Variant 2 Spot Check	2.4 GHz	Head	802.11b	0	1Tx	Right Touch	11	2462	18.5	18.5			1.140	0.558	1.140	0.558				
		Body-worn & Airplay	802.11b	5	1Tx	Front	6	2437			19.0	19.0					0.540	0.235	0.540	0.235

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)

Variant	Band	RF Exposure Conditions	Mode	Dist. (mm)	No. of Transmitters	Position	Ch #.	Freq. (MHz)	Power (dBm)				SAR (W/kg)							
									Chain 0		Chain 1		Chain 0				Chain 1			
									Tune-up Limit	Measured	Tune-up Limit	Measured	Measured		Scaled		Measured		Scaled	
													1-g	10-g	1-g	10-g	1-g	10-g	1-g	10-g
Variant 1 Highest Report SAR	5.2 & 5.3 GHz	Head	802.11ac vHT80	0	1 Tx	Right Touch	42	5210	14.3	14.3			1.170	0.367	1.170	0.367				
		Body-worn & Airplay	802.11n HT40 CDD	5	1 Tx	Rear	44	5220	20.5	20.3			1.120	0.387	1.173	0.405				
Variant 2 Spot Check	5.2 & 5.3 GHz	Head	802.11ac vHT80	0	1 Tx	Right Touch	42	5210	14.3	14.3			1.020	0.329	1.020	0.329				
		Body-worn & Airplay	802.11n HT40 CDD	5	1 Tx	Rear	44	5220	20.5	20.5			1.080	0.366	1.080	0.366				

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)

Variant	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	802.11n HT40 CDD	0	2 Tx	Right Touch	142	5710	12.8	12.8	19.0	19.0	1.180	0.352	1.180	0.352	0.122	0.122	0.122	0.122
		Body-worn & Airplay	802.11ac VHT80	5	2 Tx	Front	122	5610	17.0	17.0	15.3	15.3	1.170	0.391	1.170	0.391	0.585	0.153	0.585	0.153
Variant 2 Spot Check	5.6 GHz	Head	802.11n HT40 CDD	0	2 Tx	Right Touch	142	5710	12.8	12.8	19.0	19.0	1.140	0.110	1.140	0.110	-	-	-	-
		Body-worn & Airplay	802.11ac VHT80	5	2 Tx	Front	122	5610	17.0	17.0	15.3	15.3	0.950	0.329	0.950	0.329	0.610	0.149	0.610	0.149

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)

Variant	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	1Tx	Right Touch	155	5775	13.0	13.0			1.180	0.377	1.180	0.377				
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	157	5785	16.5	16.5			1.110	0.370	1.110	0.370				
Variant 2 Spot Check	5.8 GHz	Head	802.11ac VHT80	0	1Tx	Right Touch	155	5775	13.0	13.0			1.180	0.342	1.180	0.342				
		Body-worn & Airplay	802.11ac VHT80	5	1 Tx	Front	157	5785	16.5	16.5			0.971	0.245	0.971	0.245				

Notes:

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

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10.28. Bluetooth

P_{high}

Frequency Band	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
2.4 GHz	Head	GFSK	0	Left Touch	39	2441.0	13.0	13.0	0.071	0.071	0.032	0.032	
				Left Tilt	39	2441.0	13.0	13.0	0.067	0.067	0.031	0.031	
				Right Touch	39	2441.0	13.0	13.0	0.202	0.202	0.099	0.099	47
				Right Tilt	39	2441.0	13.0	13.0	0.187	0.187	0.080	0.080	
	Body-worn	GFSK	5	Rear	39	2441.0	13.0	13.0	0.199	0.199	0.094	0.094	
				Front	39	2441.0	13.0	13.0	0.205	0.205	0.106	0.106	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	10.0	0.034	0.034	0.015	0.015	
				Left Tilt	39	2441.0	10.0	10.0	0.025	0.025	0.012	0.012	
				Right Touch	39	2441.0	10.0	10.0	0.093	0.093	0.045	0.045	
				Right Tilt	39	2441.0	10.0	10.0	0.094	0.094	0.040	0.040	
	Body-worn	GFSK	5	Rear	39	2441.0	10.0	10.0	0.098	0.098	0.046	0.046	
				Front	39	2441.0	10.0	10.0	0.088	0.088	0.045	0.045	

$P_{standalone}$

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	0.511	0.511	0.225	0.225	
				Left Tilt	39	2441.0	16.5	16.5	0.593	0.593	0.258	0.258	49
				Right Touch	39	2441.0	16.5	16.5	0.463	0.463	0.192	0.192	
				Right Tilt	39	2441.0	16.5	16.5	0.423	0.423	0.169	0.169	
	Body-worn	GFSK	5	Rear	39	2441.0	16.5	16.5	0.336	0.336	0.152	0.152	50
				Front	39	2441.0	16.5	16.5	0.317	0.317	0.144	0.144	

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11. SAR Measurement Variability

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

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

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	First Repeated		Second Repeated		Third Repeated
						Measured SAR (W/kg)	Largest to Smallest SAR Ratio	Measured SAR (W/kg)	Largest to Smallest SAR Ratio	Measured SAR (W/kg)
700	LTE Band 12	Hotspot	Edge 4	No	0.595	N/A	N/A	N/A	N/A	N/A
	LTE Band 13	Hotspot	Edge 4	Yes	0.876	0.820	1.07	N/A	N/A	
850	GSM 850	Body & Hotspot	Front	No	1.030	N/A	N/A			
	CDMA BC0	Body & Hotspot	Front	Yes	1.100	1.070	1.03	N/A	N/A	
	CDMA BC10	Head	Right Touch	No	0.942	N/A	N/A			
	WCDMA Band V	Body & Hotspot	Front	No	0.969	N/A	N/A			
	LTE Band 26	Head	Right Touch	No	0.857	N/A	N/A			
1900	GSM 1900	Body & Hotspot	Front	Yes	1.100	1.020	1.08	N/A	N/A	
	CDMA BC1	Body & Hotspot	Front	No	1.010	N/A	N/A			
	WCDMA Band II	Body & Hotspot	Front	No	1.090	N/A	N/A			
	LTE Band 25	Body & Hotspot	Front	No	1.050	N/A	N/A			
1700	LTE Band 4	Hotspot	Edge 3	Yes	1.130	1.070	1.06	N/A	N/A	
	WCDMA Band IV	Hotspot	Edge 3	Yes	1.130	N/A	N/A			
2300	LTE Band 30	Body & Hotspot	Front	Yes	1.100	1.090	1.01	N/A	N/A	
2400	Wi-Fi 802.11b/g/n	Head	Left Tilt	Yes	1.190	1.170	1.02	N/A	N/A	
	BT	Head	Left Tilt	No	0.593	N/A	N/A	N/A	N/A	N/A
2600	LTE Band 7	Body & Hotspot	Front	Yes	1.010	0.931	1.08	N/A	N/A	
	LTE Band 41	Body & Hotspot	Front	No	0.883	N/A	N/A			
5200	Wi-Fi 802.11a/n/ac	Head	Right Touch	Yes	1.170	1.120	1.04	N/A	N/A	
5500	Wi-Fi 802.11a/n/ac	Body & Hotspot	Front	Yes	1.18	1.14	1.04	N/A	N/A	
5800	Wi-Fi 802.11a/n/ac	Head	Right Touch	Yes	1.180	1.12	1.05	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 w ith 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	0.167	0.912	0.263	1.180	0.071	0.238	No	0.983	No	0.334	No	1.251	No
	Left Tilt	0.167	0.956	0.263	1.180	0.067	0.234	No	1.023	No	0.330	No	1.247	No
	Right Touch	0.167	1.180	0.263	1.180	0.202	0.369	No	1.382	No	0.465	No	1.382	No
	Right Tilt	0.167	1.030	0.263	0.987	0.187	0.354	No	1.217	No	0.450	No	1.174	No
Body-worn Accessory & Hotspot	Rear	0.287	1.173	0.338	1.010	0.199	0.486	No	1.372	No	0.537	No	1.209	No
	Front	0.689	1.122	1.060	1.170	0.205	0.894	No	1.327	No	1.265	No	1.375	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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12.2. 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	0.341	0.264	0.167	0.331	0.034	0.605	No	0.508	No	0.672	No	0.375	No	0.542	No
	Left Tilt	0.328	0.264	0.167	0.331	0.025	0.592	No	0.495	No	0.659	No	0.353	No	0.520	No
	Right Touch	0.409	0.264	0.167	0.331	0.093	0.673	No	0.576	No	0.740	No	0.502	No	0.669	No
	Right Tilt	0.340	0.264	0.167	0.331	0.094	0.604	No	0.507	No	0.671	No	0.434	No	0.601	No
Body-worn & Hotspot & Airplay	Rear	0.302	0.319	0.206	0.371	0.098	0.621	No	0.508	No	0.673	No	0.400	No	0.606	No
	Front	0.367	0.319	0.206	0.371	0.088	0.686	No	0.573	No	0.738	No	0.455	No	0.661	No
Hotspot & Airplay	Edge 1	0.236	0.319	0.206	0.371		0.555	No	0.442	No	0.607	No				
	Edge 2	0.300	0.319	0.206	0.371		0.619	No	0.506	No	0.671	No				
	Edge 4	0.160	0.319	0.206	0.371		0.479	No	0.366	No	0.531	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	0.443	0.264	0.167	0.331	0.034	0.707	No	0.610	No	0.774	No	0.477	No	0.644	No
	Left Tilt	0.169	0.264	0.167	0.331	0.025	0.433	No	0.336	No	0.500	No	0.194	No	0.361	No
	Right Touch	0.369	0.264	0.167	0.331	0.093	0.633	No	0.536	No	0.700	No	0.462	No	0.629	No
	Right Tilt	0.176	0.264	0.167	0.331	0.094	0.440	No	0.343	No	0.507	No	0.270	No	0.437	No
Body-worn & Hotspot & Airplay	Rear	0.756	0.319	0.206	0.371	0.098	1.075	No	0.962	No	1.127	No	0.854	No	1.060	No
	Front	1.030	0.319	0.206	0.371	0.088	1.349	No	1.236	No	1.401	No	1.118	No	1.324	No
Hotspot & Airplay	Edge 2	0.314	0.319	0.206	0.371		0.633	No	0.520	No	0.685	No				
	Edge 3	0.635	0.319	0.206	0.371		0.954	No	0.841	No	1.006	No				
	Edge 4	0.790	0.319	0.206	0.371		1.109	No	0.996	No	1.161	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	0.432	0.264	0.167	0.331	0.034	0.696	No	0.599	No	0.763	No	0.466	No	0.633	No
	Left Tilt	0.403	0.264	0.167	0.331	0.025	0.667	No	0.570	No	0.734	No	0.428	No	0.595	No
	Right Touch	1.070	0.264	0.167	0.331	0.093	1.334	No	1.237	No	1.401	No	1.163	No	1.330	No
	Right Tilt	0.561	0.264	0.167	0.331	0.094	0.825	No	0.728	No	0.892	No	0.655	No	0.822	No
Body-worn & Hotspot & Airplay	Rear	0.300	0.319	0.206	0.371	0.098	0.619	No	0.506	No	0.671	No	0.398	No	0.604	No
	Front	0.716	0.319	0.206	0.371	0.088	1.035	No	0.922	No	1.087	No	0.804	No	1.010	No
Hotspot & Airplay	Edge 1	0.262	0.319	0.206	0.371		0.581	No	0.468	No	0.633	No				
	Edge 2	0.028	0.319	0.206	0.371		0.347	No	0.234	No	0.399	No				
	Edge 4	0.248	0.319	0.206	0.371		0.567	No	0.454	No	0.619	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	0.350	0.264	0.167	0.331	0.034	0.614	No	0.517	No	0.681	No	0.384	No	0.551	No
	Left Tilt	0.212	0.264	0.167	0.331	0.025	0.476	No	0.379	No	0.543	No	0.237	No	0.404	No
	Right Touch	0.697	0.264	0.167	0.331	0.093	0.961	No	0.864	No	1.028	No	0.790	No	0.957	No
	Right Tilt	0.181	0.264	0.167	0.331	0.094	0.445	No	0.348	No	0.512	No	0.275	No	0.442	No
Body-worn & Hotspot & Airplay	Rear	0.787	0.319	0.206	0.371	0.098	1.106	No	0.993	No	1.158	No	0.885	No	1.091	No
	Front	1.100	0.319	0.206	0.371	0.088	1.419	No	1.306	No	1.471	No	1.188	No	1.394	No
Hotspot & Airplay	Edge 2	0.811	0.319	0.206	0.371		1.130	No	1.017	No	1.182	No				
	Edge 3	0.894	0.319	0.206	0.371		1.213	No	1.100	No	1.265	No				
	Edge 4	0.087	0.319	0.206	0.371		0.406	No	0.293	No	0.458	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	0.670	0.264	0.167	0.331	0.034	0.934	No	0.837	No	1.001	No	0.704	No	0.871	No
	Left Tilt	0.670	0.264	0.167	0.331	0.025	0.934	No	0.837	No	1.001	No	0.695	No	0.862	No
	Right Touch	0.842	0.264	0.167	0.331	0.093	1.106	No	1.009	No	1.173	No	0.935	No	1.102	No
	Right Tilt	0.463	0.264	0.167	0.331	0.094	0.727	No	0.630	No	0.794	No	0.557	No	0.724	No
Body-worn & Hotspot & Airplay	Rear	0.344	0.319	0.206	0.371	0.098	0.663	No	0.550	No	0.715	No	0.442	No	0.648	No
	Front	0.388	0.319	0.206	0.371	0.088	0.707	No	0.594	No	0.759	No	0.476	No	0.682	No
Hotspot & Airplay	Edge 1	0.209	0.319	0.206	0.371		0.528	No	0.415	No	0.580	No				
	Edge 2	0.319	0.319	0.206	0.371		0.638	No	0.525	No	0.690	No				
	Edge 4	0.138	0.319	0.206	0.371		0.457	No	0.344	No	0.509	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	0.460	0.264	0.167	0.331	0.034	0.724	No	0.627	No	0.791	No	0.494	No	0.661	No
	Left Tilt	0.219	0.264	0.167	0.331	0.025	0.483	No	0.386	No	0.550	No	0.244	No	0.411	No
	Right Touch	0.330	0.264	0.167	0.331	0.093	0.594	No	0.497	No	0.661	No	0.423	No	0.590	No
	Right Tilt	0.193	0.264	0.167	0.331	0.094	0.457	No	0.360	No	0.524	No	0.287	No	0.454	No
Body-worn & Hotspot & Airplay	Rear	0.648	0.319	0.206	0.371	0.098	0.967	No	0.854	No	1.019	No	0.746	No	0.952	No
	Front	0.969	0.319	0.206	0.371	0.088	1.288	No	1.175	No	1.340	No	1.057	No	1.263	No
Hotspot & Airplay	Edge 2	0.235	0.319	0.206	0.371		0.554	No	0.441	No	0.606	No				
	Edge 3	0.553	0.319	0.206	0.371		0.872	No	0.759	No	0.924	No				
	Edge 4	0.599	0.319	0.206	0.371		0.918	No	0.805	No	0.970	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	0.565	0.264	0.167	0.331	0.034	0.829	No	0.732	No	0.896	No	0.599	No	0.766	No
	Left Tilt	0.474	0.264	0.167	0.331	0.025	0.738	No	0.641	No	0.805	No	0.499	No	0.666	No
	Right Touch	1.040	0.264	0.167	0.331	0.093	1.304	No	1.207	No	1.371	No	1.133	No	1.300	No
	Right Tilt	0.915	0.264	0.167	0.331	0.094	1.179	No	1.082	No	1.246	No	1.009	No	1.176	No
Body-worn & Hotspot & Airplay	Rear	0.455	0.319	0.206	0.371	0.098	0.774	No	0.661	No	0.826	No	0.553	No	0.759	No
	Front	0.983	0.319	0.206	0.371	0.088	1.302	No	1.189	No	1.354	No	1.071	No	1.277	No
Hotspot & Airplay	Edge 1	0.589	0.319	0.206	0.371		0.908	No	0.795	No	0.960	No				
	Edge 2	0.039	0.319	0.206	0.371		0.358	No	0.245	No	0.410	No				
	Edge 4	0.574	0.319	0.206	0.371		0.893	No	0.780	No	0.945	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	0.208	0.264	0.167	0.331	0.034	0.472	No	0.375	No	0.539	No	0.242	No	0.409	No
	Left Tilt	0.180	0.264	0.167	0.331	0.025	0.444	No	0.347	No	0.511	No	0.205	No	0.372	No
	Right Touch	0.397	0.264	0.167	0.331	0.093	0.661	No	0.564	No	0.728	No	0.490	No	0.657	No
	Right Tilt	0.157	0.264	0.167	0.331	0.094	0.421	No	0.324	No	0.488	No	0.251	No	0.418	No
Body-worn & Hotspot & Airplay	Rear	0.609	0.319	0.206	0.371	0.098	0.928	No	0.815	No	0.980	No	0.707	No	0.913	No
	Front	0.964	0.319	0.206	0.371	0.088	1.283	No	1.170	No	1.335	No	1.052	No	1.258	No
Hotspot & Airplay	Edge 2	0.666	0.319	0.206	0.371		0.985	No	0.872	No	1.037	No				
	Edge 3	1.130	0.319	0.206	0.371		1.449	No	1.336	No	1.501	No				
	Edge 4	0.090	0.319	0.206	0.371		0.409	No	0.296	No	0.461	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	0.473	0.264	0.167	0.331	0.034	0.737	No	0.640	No	0.804	No	0.507	No	0.674	No
	Left Tilt	0.460	0.264	0.167	0.331	0.025	0.724	No	0.627	No	0.791	No	0.485	No	0.652	No
	Right Touch	0.947	0.264	0.167	0.331	0.093	1.211	No	1.114	No	1.278	No	1.040	No	1.207	No
	Right Tilt	0.673	0.264	0.167	0.331	0.094	0.937	No	0.840	No	1.004	No	0.767	No	0.934	No
Body-worn & Hotspot & Airplay	Rear	0.564	0.319	0.206	0.371	0.098	0.883	No	0.770	No	0.935	No	0.662	No	0.868	No
	Front	0.949	0.319	0.206	0.371	0.088	1.268	No	1.155	No	1.320	No	1.037	No	1.243	No
Hotspot & Airplay	Edge 1	0.585	0.319	0.206	0.371		0.904	No	0.791	No	0.956	No				
	Edge 2	0.054	0.319	0.206	0.371		0.373	No	0.260	No	0.425	No				
	Edge 4	0.525	0.319	0.206	0.371		0.844	No	0.731	No	0.896	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	0.426	0.264	0.167	0.331	0.034	0.690	No	0.593	No	0.757	No	0.460	No	0.627	No
	Left Tilt	0.282	0.264	0.167	0.331	0.025	0.546	No	0.449	No	0.613	No	0.307	No	0.474	No
	Right Touch	1.054	0.264	0.167	0.331	0.093	1.318	No	1.221	No	1.385	No	1.147	No	1.314	No
	Right Tilt	0.267	0.264	0.167	0.331	0.094	0.531	No	0.434	No	0.598	No	0.361	No	0.528	No
Body-worn & Hotspot & Airplay	Rear	1.080	0.319	0.206	0.371	0.098	1.399	No	1.286	No	1.451	No	1.178	No	1.384	No
	Front	1.090	0.319	0.206	0.371	0.088	1.409	No	1.296	No	1.461	No	1.178	No	1.384	No
Hotspot & Airplay	Edge 2	0.729	0.319	0.206	0.371		1.048	No	0.935	No	1.100	No				
	Edge 3	0.797	0.319	0.206	0.371		1.116	No	1.003	No	1.168	No				
	Edge 4	0.072	0.319	0.206	0.371		0.391	No	0.278	No	0.443	No				

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.739	0.264	0.167	0.331	0.034	1.003	No	0.906	No	1.070	No	0.773	No	0.940	No
	Left Tilt	0.666	0.264	0.167	0.331	0.025	0.930	No	0.833	No	0.997	No	0.691	No	0.858	No
	Right Touch	1.070	0.264	0.167	0.331	0.093	1.334	No	1.237	No	1.401	No	1.163	No	1.330	No
	Right Tilt	0.594	0.264	0.167	0.331	0.094	0.858	No	0.761	No	0.925	No	0.688	No	0.855	No
Body-worn & Hotspot & Airplay	Rear	0.410	0.319	0.206	0.371	0.098	0.729	No	0.616	No	0.781	No	0.508	No	0.714	No
	Front	0.449	0.319	0.206	0.371	0.088	0.768	No	0.655	No	0.820	No	0.537	No	0.743	No
Hotspot & Airplay	Edge 1	0.277	0.319	0.206	0.371		0.596	No	0.483	No	0.648	No				
	Edge 2	0.453	0.319	0.206	0.371		0.772	No	0.659	No	0.824	No				
	Edge 4	0.204	0.319	0.206	0.371		0.523	No	0.410	No	0.575	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.532	0.264	0.167	0.331	0.034	0.796	No	0.699	No	0.863	No	0.566	No	0.733	No
	Left Tilt	0.249	0.264	0.167	0.331	0.025	0.513	No	0.416	No	0.580	No	0.274	No	0.441	No
	Right Touch	0.387	0.264	0.167	0.331	0.093	0.651	No	0.554	No	0.718	No	0.480	No	0.647	No
	Right Tilt	0.224	0.264	0.167	0.331	0.094	0.488	No	0.391	No	0.555	No	0.318	No	0.485	No
Body-worn & Hotspot & Airplay	Rear	0.950	0.319	0.206	0.371	0.098	1.269	No	1.156	No	1.321	No	1.048	No	1.254	No
	Front	1.100	0.319	0.206	0.371	0.088	1.419	No	1.306	No	1.471	No	1.188	No	1.394	No
Hotspot & Airplay	Edge 2	0.276	0.319	0.206	0.371		0.595	No	0.482	No	0.647	No				
	Edge 3	0.731	0.319	0.206	0.371		1.050	No	0.937	No	1.102	No				
	Edge 4	0.759	0.319	0.206	0.371		1.078	No	0.965	No	1.130	No				

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.501	0.264	0.167	0.331	0.034	0.765	No	0.668	No	0.832	No	0.535	No	0.702	No
	Left Tilt	0.509	0.264	0.167	0.331	0.025	0.773	No	0.676	No	0.840	No	0.534	No	0.701	No
	Right Touch	1.020	0.264	0.167	0.331	0.093	1.284	No	1.187	No	1.351	No	1.113	No	1.280	No
	Right Tilt	0.783	0.264	0.167	0.331	0.094	1.047	No	0.950	No	1.114	No	0.877	No	1.044	No
Body-worn & Hotspot & Airplay	Rear	0.640	0.319	0.206	0.371	0.098	0.959	No	0.846	No	1.011	No	0.738	No	0.944	No
	Front	0.988	0.319	0.206	0.371	0.088	1.307	No	1.194	No	1.359	No	1.076	No	1.282	No
Hotspot & Airplay	Edge 1	0.630	0.319	0.206	0.371		0.949	No	0.836	No	1.001	No				
	Edge 2	0.058	0.319	0.206	0.371		0.377	No	0.264	No	0.429	No				
	Edge 4	0.542	0.319	0.206	0.371		0.861	No	0.748	No	0.913	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.445	0.264	0.167	0.331	0.034	0.709	No	0.612	No	0.776	No	0.479	No	0.646	No
	Left Tilt	0.303	0.264	0.167	0.331	0.025	0.567	No	0.470	No	0.634	No	0.328	No	0.495	No
	Right Touch	1.081	0.264	0.167	0.331	0.093	1.345	No	1.248	No	1.412	No	1.174	No	1.341	No
	Right Tilt	0.268	0.264	0.167	0.331	0.094	0.532	No	0.435	No	0.599	No	0.362	No	0.529	No
Body-worn & Hotspot & Airplay	Rear	0.887	0.319	0.206	0.371	0.098	1.206	No	1.093	No	1.258	No	0.985	No	1.191	No
	Front	1.034	0.319	0.206	0.371	0.088	1.353	No	1.240	No	1.405	No	1.122	No	1.328	No
Hotspot & Airplay	Edge 2	0.741	0.319	0.206	0.371		1.060	No	0.947	No	1.112	No				
	Edge 3	0.815	0.319	0.206	0.371		1.134	No	1.021	No	1.186	No				
	Edge 4	0.074	0.319	0.206	0.371		0.393	No	0.280	No	0.445	No				

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.680	0.264	0.167	0.331	0.034	0.944	No	0.847	No	1.011	No	0.714	No	0.881	No
	Left Tilt	0.676	0.264	0.167	0.331	0.025	0.940	No	0.843	No	1.007	No	0.701	No	0.868	No
	Right Touch	0.964	0.264	0.167	0.331	0.093	1.228	No	1.131	No	1.295	No	1.057	No	1.224	No
	Right Tilt	0.525	0.264	0.167	0.331	0.094	0.789	No	0.692	No	0.856	No	0.619	No	0.786	No
Body-worn & Hotspot & Airplay	Rear	0.374	0.319	0.206	0.371	0.098	0.693	No	0.580	No	0.745	No	0.472	No	0.678	No
	Front	0.384	0.319	0.206	0.371	0.088	0.703	No	0.590	No	0.755	No	0.472	No	0.678	No
Hotspot & Airplay	Edge 1	0.184	0.319	0.206	0.371		0.503	No	0.390	No	0.555	No				
	Edge 2	0.311	0.319	0.206	0.371		0.630	No	0.517	No	0.682	No				
	Edge 4	0.134	0.319	0.206	0.371		0.453	No	0.340	No	0.505	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.404	0.264	0.167	0.331	0.034	0.668	No	0.571	No	0.735	No	0.438	No	0.605	No
	Left Tilt	0.174	0.264	0.167	0.331	0.025	0.438	No	0.341	No	0.505	No	0.199	No	0.366	No
	Right Touch	0.310	0.264	0.167	0.331	0.093	0.574	No	0.477	No	0.641	No	0.403	No	0.570	No
	Right Tilt	0.179	0.264	0.167	0.331	0.094	0.443	No	0.346	No	0.510	No	0.273	No	0.440	No
Body-worn & Hotspot & Airplay	Rear	0.756	0.319	0.206	0.371	0.098	1.075	No	0.962	No	1.127	No	0.854	No	1.060	No
	Front	0.895	0.319	0.206	0.371	0.088	1.214	No	1.101	No	1.266	No	0.983	No	1.189	No
Hotspot & Airplay	Edge 2	0.440	0.319	0.206	0.371		0.759	No	0.646	No	0.811	No				
	Edge 3	0.529	0.319	0.206	0.371		0.848	No	0.735	No	0.900	No				
	Edge 4	0.621	0.319	0.206	0.371		0.940	No	0.827	No	0.992	No				

Conclusion:

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

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

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

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

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.571	0.264	0.167	0.331	0.034	0.835	No	0.738	No	0.902	No	0.605	No	0.772	No
	Left Tilt	0.487	0.264	0.167	0.331	0.025	0.751	No	0.654	No	0.818	No	0.512	No	0.679	No
	Right Touch	1.090	0.264	0.167	0.331	0.093	1.354	No	1.257	No	1.421	No	1.183	No	1.350	No
	Right Tilt	0.890	0.264	0.167	0.331	0.094	1.154	No	1.057	No	1.221	No	0.984	No	1.151	No
Body-worn & Hotspot & Airplay	Rear	0.594	0.319	0.206	0.371	0.098	0.913	No	0.800	No	0.965	No	0.692	No	0.898	No
	Front	0.944	0.319	0.206	0.371	0.088	1.263	No	1.150	No	1.315	No	1.032	No	1.238	No
Hotspot & Airplay	Edge 1	0.651	0.319	0.206	0.371		0.970	No	0.857	No	1.022	No				
	Edge 2	0.037	0.319	0.206	0.371		0.356	No	0.243	No	0.408	No				
	Edge 4	0.642	0.319	0.206	0.371		0.961	No	0.848	No	1.013	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.124	0.264	0.167	0.331	0.034	0.388	No	0.291	No	0.455	No	0.158	No	0.325	No
	Left Tilt	0.102	0.264	0.167	0.331	0.025	0.366	No	0.269	No	0.433	No	0.127	No	0.294	No
	Right Touch	0.268	0.264	0.167	0.331	0.093	0.532	No	0.435	No	0.599	No	0.361	No	0.528	No
	Right Tilt	0.091	0.264	0.167	0.331	0.094	0.355	No	0.258	No	0.422	No	0.185	No	0.352	No
Body-worn & Hotspot & Airplay	Rear	0.668	0.319	0.206	0.371	0.098	0.987	No	0.874	No	1.039	No	0.766	No	0.972	No
	Front	0.787	0.319	0.206	0.371	0.088	1.106	No	0.993	No	1.158	No	0.875	No	1.081	No
Hotspot & Airplay	Edge 2	0.731	0.319	0.206	0.371		1.050	No	0.937	No	1.102	No				
	Edge 3	1.130	0.319	0.206	0.371		1.449	No	1.336	No	1.501	No				
	Edge 4	0.068	0.319	0.206	0.371		0.387	No	0.274	No	0.439	No				

Conclusion:

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

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

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

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

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.294	0.264	0.167	0.331	0.034	0.558	No	0.461	No	0.625	No	0.328	No	0.495	No
	Left Tilt	0.269	0.264	0.167	0.331	0.025	0.533	No	0.436	No	0.600	No	0.294	No	0.461	No
	Right Touch	0.796	0.264	0.167	0.331	0.093	1.060	No	0.963	No	1.127	No	0.889	No	1.056	No
	Right Tilt	0.764	0.264	0.167	0.331	0.094	1.028	No	0.931	No	1.095	No	0.858	No	1.025	No
Body-worn & Hotspot & Airplay	Rear	0.709	0.319	0.206	0.371	0.098	1.028	No	0.915	No	1.080	No	0.807	No	1.013	No
	Front	0.750	0.319	0.206	0.371	0.088	1.069	No	0.956	No	1.121	No	0.838	No	1.044	No
Hotspot & Airplay	Edge 1	0.513	0.319	0.206	0.371		0.832	No	0.719	No	0.884	No				
	Edge 2	0.318	0.319	0.206	0.371		0.637	No	0.524	No	0.689	No				
	Edge 4	0.674	0.319	0.206	0.371		0.993	No	0.880	No	1.045	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.298	0.264	0.167	0.331	0.034	0.562	No	0.465	No	0.629	No	0.332	No	0.499	No
	Left Tilt	0.101	0.264	0.167	0.331	0.025	0.365	No	0.268	No	0.432	No	0.126	No	0.293	No
	Right Touch	0.217	0.264	0.167	0.331	0.093	0.481	No	0.384	No	0.548	No	0.310	No	0.477	No
	Right Tilt	0.138	0.264	0.167	0.331	0.094	0.402	No	0.305	No	0.469	No	0.232	No	0.399	No
Body-worn & Hotspot & Airplay	Rear	0.373	0.319	0.206	0.371	0.098	0.692	No	0.579	No	0.744	No	0.471	No	0.677	No
	Front	1.045	0.319	0.206	0.371	0.088	1.364	No	1.251	No	1.416	No	1.133	No	1.339	No
Hotspot & Airplay	Edge 2	0.078	0.319	0.206	0.371		0.397	No	0.284	No	0.449	No				
	Edge 3	0.513	0.319	0.206	0.371		0.832	No	0.719	No	0.884	No				
	Edge 4	0.337	0.319	0.206	0.371		0.656	No	0.543	No	0.708	No				

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.325	0.264	0.167	0.331	0.034	0.589	No	0.492	No	0.656	No	0.359	No	0.526	No
	Left Tilt	0.297	0.264	0.167	0.331	0.025	0.561	No	0.464	No	0.628	No	0.322	No	0.489	No
	Right Touch	0.421	0.264	0.167	0.331	0.093	0.685	No	0.588	No	0.752	No	0.514	No	0.681	No
	Right Tilt	0.307	0.264	0.167	0.331	0.094	0.571	No	0.474	No	0.638	No	0.401	No	0.568	No
Body-worn & Hotspot & Airplay	Rear	0.145	0.319	0.206	0.371	0.098	0.464	No	0.351	No	0.516	No	0.243	No	0.449	No
	Front	0.186	0.319	0.206	0.371	0.088	0.505	No	0.392	No	0.557	No	0.274	No	0.480	No
Hotspot & Airplay	Edge 1	0.068	0.319	0.206	0.371		0.387	No	0.274	No	0.439	No				
	Edge 2	0.203	0.319	0.206	0.371		0.522	No	0.409	No	0.574	No				
	Edge 4	0.074	0.319	0.206	0.371		0.393	No	0.280	No	0.445	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.276	0.264	0.167	0.331	0.034	0.540	No	0.443	No	0.607	No	0.310	No	0.477	No
	Left Tilt	0.114	0.264	0.167	0.331	0.025	0.378	No	0.281	No	0.445	No	0.139	No	0.306	No
	Right Touch	0.225	0.264	0.167	0.331	0.093	0.489	No	0.392	No	0.556	No	0.318	No	0.485	No
	Right Tilt	0.087	0.264	0.167	0.331	0.094	0.351	No	0.254	No	0.418	No	0.181	No	0.348	No
Body-worn & Hotspot & Airplay	Rear	0.410	0.319	0.206	0.371	0.098	0.729	No	0.616	No	0.781	No	0.508	No	0.714	No
	Front	0.526	0.319	0.206	0.371	0.088	0.845	No	0.732	No	0.897	No	0.614	No	0.820	No
Hotspot & Airplay	Edge 2	0.224	0.319	0.206	0.371		0.543	No	0.430	No	0.595	No				
	Edge 3	0.354	0.319	0.206	0.371		0.673	No	0.560	No	0.725	No				
	Edge 4	0.595	0.319	0.206	0.371		0.914	No	0.801	No	0.966	No				

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.528	0.264	0.167	0.331	0.034	0.792	No	0.695	No	0.859	No	0.562	No	0.729	No
	Left Tilt	0.534	0.264	0.167	0.331	0.025	0.798	No	0.701	No	0.865	No	0.559	No	0.726	No
	Right Touch	0.670	0.264	0.167	0.331	0.093	0.934	No	0.837	No	1.001	No	0.763	No	0.930	No
	Right Tilt	0.573	0.264	0.167	0.331	0.094	0.837	No	0.740	No	0.904	No	0.667	No	0.834	No
Body-worn & Hotspot & Airplay	Rear	0.570	0.319	0.206	0.371	0.098	0.889	No	0.776	No	0.941	No	0.668	No	0.874	No
	Front	0.445	0.319	0.206	0.371	0.088	0.764	No	0.651	No	0.816	No	0.533	No	0.739	No
Hotspot & Airplay	Edge 1	0.366	0.319	0.206	0.371		0.685	No	0.572	No	0.737	No				
	Edge 2	0.490	0.319	0.206	0.371		0.809	No	0.696	No	0.861	No				
	Edge 4	0.258	0.319	0.206	0.371		0.577	No	0.464	No	0.629	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.347	0.264	0.167	0.331	0.034	0.611	No	0.514	No	0.678	No	0.381	No	0.548	No
	Left Tilt	0.160	0.264	0.167	0.331	0.025	0.424	No	0.327	No	0.491	No	0.185	No	0.352	No
	Right Touch	0.258	0.264	0.167	0.331	0.093	0.522	No	0.425	No	0.589	No	0.351	No	0.518	No
	Right Tilt	0.132	0.264	0.167	0.331	0.094	0.396	No	0.299	No	0.463	No	0.226	No	0.393	No
Body-worn & Hotspot & Airplay	Rear	0.689	0.319	0.206	0.371	0.098	1.008	No	0.895	No	1.060	No	0.787	No	0.993	No
	Front	0.821	0.319	0.206	0.371	0.088	1.140	No	1.027	No	1.192	No	0.909	No	1.115	No
Hotspot & Airplay	Edge 2	0.476	0.319	0.206	0.371		0.795	No	0.682	No	0.847	No				
	Edge 3	0.580	0.319	0.206	0.371		0.899	No	0.786	No	0.951	No				
	Edge 4	0.896	0.319	0.206	0.371		1.215	No	1.102	No	1.267	No				

Conclusion:

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

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

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

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

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.491	0.264	0.167	0.331	0.034	0.755	No	0.658	No	0.822	No	0.525	No	0.692	No
	Left Tilt	0.495	0.264	0.167	0.331	0.025	0.759	No	0.662	No	0.826	No	0.520	No	0.687	No
	Right Touch	0.995	0.264	0.167	0.331	0.093	1.259	No	1.162	No	1.326	No	1.088	No	1.255	No
	Right Tilt	0.786	0.264	0.167	0.331	0.094	1.050	No	0.953	No	1.117	No	0.880	No	1.047	No
Body-worn & Hotspot & Airplay	Rear	0.621	0.319	0.206	0.371	0.098	0.940	No	0.827	No	0.992	No	0.719	No	0.925	No
	Front	1.039	0.319	0.206	0.371	0.088	1.358	No	1.245	No	1.410	No	1.127	No	1.333	No
Hotspot & Airplay	Edge 1	0.573	0.319	0.206	0.371		0.892	No	0.779	No	0.944	No				
	Edge 2	0.068	0.319	0.206	0.371		0.387	No	0.274	No	0.439	No				
	Edge 4	0.530	0.319	0.206	0.371		0.849	No	0.736	No	0.901	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.350	0.264	0.167	0.331	0.034	0.614	No	0.517	No	0.681	No	0.384	No	0.551	No
	Left Tilt	0.226	0.264	0.167	0.331	0.025	0.490	No	0.393	No	0.557	No	0.251	No	0.418	No
	Right Touch	0.760	0.264	0.167	0.331	0.093	1.024	No	0.927	No	1.091	No	0.853	No	1.020	No
	Right Tilt	0.232	0.264	0.167	0.331	0.094	0.496	No	0.399	No	0.563	No	0.326	No	0.493	No
Body-worn & Hotspot & Airplay	Rear	0.984	0.319	0.206	0.371	0.098	1.303	No	1.190	No	1.355	No	1.082	No	1.288	No
	Front	1.064	0.319	0.206	0.371	0.088	1.383	No	1.270	No	1.435	No	1.152	No	1.358	No
Hotspot & Airplay	Edge 2	0.713	0.319	0.206	0.371		1.032	No	0.919	No	1.084	No				
	Edge 3	0.709	0.319	0.206	0.371		1.028	No	0.915	No	1.080	No				
	Edge 4	0.073	0.319	0.206	0.371		0.392	No	0.279	No	0.444	No				

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.670	0.264	0.167	0.331	0.034	0.934	No	0.837	No	1.001	No	0.704	No	0.871	No
	Left Tilt	0.636	0.264	0.167	0.331	0.025	0.900	No	0.803	No	0.967	No	0.661	No	0.828	No
	Right Touch	0.877	0.264	0.167	0.331	0.093	1.141	No	1.044	No	1.208	No	0.970	No	1.137	No
	Right Tilt	0.541	0.264	0.167	0.331	0.094	0.805	No	0.708	No	0.872	No	0.635	No	0.802	No
Body-worn & Hotspot & Airplay	Rear	0.382	0.319	0.206	0.371	0.098	0.701	No	0.588	No	0.753	No	0.480	No	0.686	No
	Front	0.432	0.319	0.206	0.371	0.088	0.751	No	0.638	No	0.803	No	0.520	No	0.726	No
Hotspot & Airplay	Edge 1	0.203	0.319	0.206	0.371		0.522	No	0.409	No	0.574	No				
	Edge 2	0.304	0.319	0.206	0.371		0.623	No	0.510	No	0.675	No				
	Edge 4	0.106	0.319	0.206	0.371		0.425	No	0.312	No	0.477	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.267	0.264	0.167	0.331	0.034	0.531	No	0.434	No	0.598	No	0.301	No	0.468	No
	Left Tilt	0.113	0.264	0.167	0.331	0.025	0.377	No	0.280	No	0.444	No	0.138	No	0.305	No
	Right Touch	0.202	0.264	0.167	0.331	0.093	0.466	No	0.369	No	0.533	No	0.295	No	0.462	No
	Right Tilt	0.113	0.264	0.167	0.331	0.094	0.377	No	0.280	No	0.444	No	0.207	No	0.374	No
Body-worn & Hotspot & Airplay	Rear	0.712	0.319	0.206	0.371	0.098	1.031	No	0.918	No	1.083	No	0.810	No	1.016	No
	Front	0.753	0.319	0.206	0.371	0.088	1.072	No	0.959	No	1.124	No	0.841	No	1.047	No
Hotspot & Airplay	Edge 2	0.141	0.319	0.206	0.371		0.460	No	0.347	No	0.512	No				
	Edge 3	0.485	0.319	0.206	0.371		0.804	No	0.691	No	0.856	No				
	Edge 4	0.515	0.319	0.206	0.371		0.834	No	0.721	No	0.886	No				

Conclusion:

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

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

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

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

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.431	0.264	0.167	0.331	0.034	0.695	No	0.598	No	0.762	No	0.465	No	0.632	No
	Left Tilt	0.416	0.264	0.167	0.331	0.025	0.680	No	0.583	No	0.747	No	0.441	No	0.608	No
	Right Touch	0.863	0.264	0.167	0.331	0.093	1.127	No	1.030	No	1.194	No	0.956	No	1.123	No
	Right Tilt	0.556	0.264	0.167	0.331	0.094	0.820	No	0.723	No	0.887	No	0.650	No	0.817	No
Body-worn & Hotspot & Airplay	Rear	0.620	0.319	0.206	0.371	0.098	0.939	No	0.826	No	0.991	No	0.718	No	0.924	No
	Front	0.618	0.319	0.206	0.371	0.088	0.937	No	0.824	No	0.989	No	0.706	No	0.912	No
Hotspot & Airplay	Edge 1	0.153	0.319	0.206	0.371		0.472	No	0.359	No	0.524	No				
	Edge 2	0.099	0.319	0.206	0.371		0.418	No	0.305	No	0.470	No				
	Edge 4	0.358	0.319	0.206	0.371		0.677	No	0.564	No	0.729	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.187	0.264	0.167	0.331	0.034	0.451	No	0.354	No	0.518	No	0.221	No	0.388	No
	Left Tilt	0.202	0.264	0.167	0.331	0.025	0.466	No	0.369	No	0.533	No	0.227	No	0.394	No
	Right Touch	0.386	0.264	0.167	0.331	0.093	0.650	No	0.553	No	0.717	No	0.479	No	0.646	No
	Right Tilt	0.179	0.264	0.167	0.331	0.094	0.443	No	0.346	No	0.510	No	0.273	No	0.440	No
Body-worn & Hotspot & Airplay	Rear	0.892	0.319	0.206	0.371	0.098	1.211	No	1.098	No	1.263	No	0.990	No	1.196	No
	Front	1.100	0.319	0.206	0.371	0.088	1.419	No	1.306	No	1.471	No	1.188	No	1.394	No
Hotspot & Airplay	Edge 2	0.769	0.319	0.206	0.371		1.088	No	0.975	No	1.140	No				
	Edge 3	0.851	0.319	0.206	0.371		1.170	No	1.057	No	1.222	No				
	Edge 4	0.198	0.319	0.206	0.371		0.517	No	0.404	No	0.569	No				

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.459	0.264	0.167	0.331	0.034	0.723	No	0.626	No	0.790	No	0.493	No	0.660	No
	Left Tilt	0.333	0.264	0.167	0.331	0.025	0.597	No	0.500	No	0.664	No	0.358	No	0.525	No
	Right Touch	1.016	0.264	0.167	0.331	0.093	1.280	No	1.183	No	1.347	No	1.109	No	1.276	No
	Right Tilt	0.794	0.264	0.167	0.331	0.094	1.058	No	0.961	No	1.125	No	0.888	No	1.055	No
Body-worn & Hotspot & Airplay	Rear	0.658	0.319	0.206	0.371	0.098	0.977	No	0.864	No	1.029	No	0.756	No	0.962	No
	Front	0.952	0.319	0.206	0.371	0.088	1.271	No	1.158	No	1.323	No	1.040	No	1.246	No
Hotspot & Airplay	Edge 1	0.291	0.319	0.206	0.371		0.610	No	0.497	No	0.662	No				
	Edge 2	0.417	0.319	0.206	0.371		0.736	No	0.623	No	0.788	No				
	Edge 4	0.385	0.319	0.206	0.371		0.704	No	0.591	No	0.756	No				

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.098	0.264	0.167	0.331	0.034	0.362	No	0.265	No	0.429	No	0.132	No	0.299	No
	Left Tilt	0.032	0.264	0.167	0.331	0.025	0.296	No	0.199	No	0.363	No	0.057	No	0.224	No
	Right Touch	0.074	0.264	0.167	0.331	0.093	0.338	No	0.241	No	0.405	No	0.167	No	0.334	No
	Right Tilt	0.043	0.264	0.167	0.331	0.094	0.307	No	0.210	No	0.374	No	0.137	No	0.304	No
Body-worn & Hotspot & Airplay	Rear	0.783	0.319	0.206	0.371	0.098	1.102	No	0.989	No	1.154	No	0.881	No	1.087	No
	Front	1.074	0.319	0.206	0.371	0.088	1.393	No	1.280	No	1.445	No	1.162	No	1.368	No
Hotspot & Airplay	Edge 2	0.075	0.319	0.206	0.371		0.394	No	0.281	No	0.446	No				
	Edge 3	0.750	0.319	0.206	0.371		1.069	No	0.956	No	1.121	No				
	Edge 4	0.581	0.319	0.206	0.371		0.900	No	0.787	No	0.952	No				

Conclusion:

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

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12.42. Sum of the SAR for LTE-2CA Band 7 (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	0.891	0.319	0.206	0.371	0.088	0.979	No	0.407	No	0.294	No	0.459	No	1.185	No

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Right Touch	0.813	0.264	0.167	0.331	0.093	0.906	No	0.357	No	0.260	No	0.424	No	1.073	No

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 2.4GHz (Chain 0)	③ Wi-Fi 2.4GHz (Chain 1)	④ Wi-Fi 2.4GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+⑤		①+③+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	1.010	0.319	0.206	0.371	0.088	1.098	No	0.407	No	0.294	No	0.459	No	1.304	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 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	0.341	0.200	0.263	0.198	0.034	0.541	No	0.604	No	0.539	No	0.575	No	0.638	No	0.573	No
	Left Tilt	0.328	0.200	0.263	0.198	0.025	0.528	No	0.591	No	0.526	No	0.553	No	0.616	No	0.551	No
	Right Touch	0.409	0.200	0.263	0.198	0.093	0.609	No	0.672	No	0.607	No	0.702	No	0.765	No	0.700	No
	Right Tilt	0.340	0.200	0.263	0.134	0.094	0.540	No	0.603	No	0.474	No	0.634	No	0.697	No	0.568	No
Body-worn Accessory & Airplay	Rear	0.302	0.338	0.249	0.336	0.098	0.640	No	0.551	No	0.638	No	0.738	No	0.649	No	0.736	No
	Front	0.367	0.327	0.249	0.336	0.088	0.694	No	0.616	No	0.703	No	0.782	No	0.704	No	0.791	No
Airplay	Edge 1	0.236	0.338	0.249	0.336		0.574	No	0.485	No	0.572	No						
	Edge 2	0.300	0.338	0.249	0.336		0.638	No	0.549	No	0.636	No						
	Edge 4	0.160	0.338	0.249	0.336		0.498	No	0.409	No	0.496	No						

12.46. 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	0.443	0.200	0.263	0.198	0.034	0.643	No	0.706	No	0.641	No	0.677	No	0.740	No	0.675	No
	Left Tilt	0.169	0.200	0.263	0.198	0.025	0.369	No	0.432	No	0.367	No	0.394	No	0.457	No	0.392	No
	Right Touch	0.369	0.200	0.263	0.198	0.093	0.569	No	0.632	No	0.567	No	0.662	No	0.725	No	0.660	No
	Right Tilt	0.176	0.200	0.263	0.134	0.094	0.376	No	0.439	No	0.310	No	0.470	No	0.533	No	0.404	No
Body-worn Accessory & Airplay	Rear	0.756	0.338	0.249	0.336	0.098	1.094	No	1.005	No	1.092	No	1.192	No	1.103	No	1.190	No
	Front	1.030	0.327	0.249	0.336	0.088	1.357	No	1.279	No	1.366	No	1.445	No	1.367	No	1.454	No
Airplay	Edge 2	0.314	0.338	0.249	0.336		0.652	No	0.563	No	0.650	No						
	Edge 3	0.635	0.338	0.249	0.336		0.973	No	0.884	No	0.971	No						
	Edge 4	0.790	0.338	0.249	0.336		1.128	No	1.039	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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12.47. 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	0.432	0.200	0.263	0.198	0.034	0.632	No	0.695	No	0.630	No	0.666	No	0.729	No	0.664	No
	Left Tilt	0.403	0.200	0.263	0.198	0.025	0.603	No	0.666	No	0.601	No	0.628	No	0.691	No	0.626	No
	Right Touch	1.070	0.200	0.263	0.198	0.093	1.270	No	1.333	No	1.268	No	1.363	No	1.426	No	1.361	No
	Right Tilt	0.561	0.200	0.263	0.134	0.094	0.761	No	0.824	No	0.695	No	0.855	No	0.918	No	0.789	No
Body-worn Accessory & Airplay	Rear	0.300	0.338	0.249	0.336	0.098	0.638	No	0.549	No	0.636	No	0.736	No	0.647	No	0.734	No
	Front	0.716	0.327	0.249	0.336	0.088	1.043	No	0.965	No	1.052	No	1.131	No	1.053	No	1.140	No
Airplay	Edge 1	0.262	0.338	0.249	0.336		0.600	No	0.511	No	0.598	No						
	Edge 2	0.028	0.338	0.249	0.336		0.366	No	0.277	No	0.364	No						
	Edge 4	0.248	0.338	0.249	0.336		0.586	No	0.497	No	0.584	No						

12.48. 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	0.350	0.200	0.263	0.198	0.034	0.550	No	0.613	No	0.548	No	0.584	No	0.647	No	0.582	No
	Left Tilt	0.212	0.200	0.263	0.198	0.025	0.412	No	0.475	No	0.410	No	0.437	No	0.500	No	0.435	No
	Right Touch	0.697	0.200	0.263	0.198	0.093	0.897	No	0.960	No	0.895	No	0.990	No	1.053	No	0.988	No
	Right Tilt	0.181	0.200	0.263	0.134	0.094	0.381	No	0.444	No	0.315	No	0.475	No	0.538	No	0.409	No
Body-worn Accessory & Airplay	Rear	0.787	0.338	0.249	0.336	0.098	1.125	No	1.036	No	1.123	No	1.223	No	1.134	No	1.221	No
	Front	1.100	0.327	0.249	0.336	0.088	1.427	No	1.349	No	1.436	No	1.515	No	1.437	No	1.524	No
Airplay	Edge 2	0.811	0.338	0.249	0.336		1.149	No	1.060	No	1.147	No						
	Edge 3	0.894	0.338	0.249	0.336		1.232	No	1.143	No	1.230	No						
	Edge 4	0.087	0.338	0.249	0.336		0.425	No	0.336	No	0.423	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 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	0.670	0.200	0.263	0.198	0.034	0.870	No	0.933	No	0.868	No	0.904	No	0.967	No	0.902	No
	Left Tilt	0.670	0.200	0.263	0.198	0.025	0.870	No	0.933	No	0.868	No	0.895	No	0.958	No	0.893	No
	Right Touch	0.842	0.200	0.263	0.198	0.093	1.042	No	1.105	No	1.040	No	1.135	No	1.198	No	1.133	No
	Right Tilt	0.463	0.200	0.263	0.134	0.094	0.663	No	0.726	No	0.597	No	0.757	No	0.820	No	0.691	No
Body-worn Accessory & Airplay	Rear	0.344	0.338	0.249	0.336	0.098	0.682	No	0.593	No	0.680	No	0.780	No	0.691	No	0.778	No
	Front	0.388	0.327	0.249	0.336	0.088	0.715	No	0.637	No	0.724	No	0.803	No	0.725	No	0.812	No
Airplay	Edge 1	0.209	0.338	0.249	0.336		0.547	No	0.458	No	0.545	No						
	Edge 2	0.319	0.338	0.249	0.336		0.657	No	0.568	No	0.655	No						
	Edge 4	0.138	0.338	0.249	0.336		0.476	No	0.387	No	0.474	No						

12.50. 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	0.460	0.200	0.263	0.198	0.034	0.660	No	0.723	No	0.658	No	0.694	No	0.757	No	0.692	No
	Left Tilt	0.219	0.200	0.263	0.198	0.025	0.419	No	0.482	No	0.417	No	0.444	No	0.507	No	0.442	No
	Right Touch	0.330	0.200	0.263	0.198	0.093	0.530	No	0.593	No	0.528	No	0.623	No	0.686	No	0.621	No
	Right Tilt	0.193	0.200	0.263	0.134	0.094	0.393	No	0.456	No	0.327	No	0.487	No	0.550	No	0.421	No
Body-worn Accessory & Airplay	Rear	0.648	0.338	0.249	0.336	0.098	0.986	No	0.897	No	0.984	No	1.084	No	0.995	No	1.082	No
	Front	0.969	0.327	0.249	0.336	0.088	1.296	No	1.218	No	1.305	No	1.384	No	1.306	No	1.393	No
Airplay	Edge 2	0.235	0.338	0.249	0.336		0.573	No	0.484	No	0.571	No						
	Edge 3	0.553	0.338	0.249	0.336		0.891	No	0.802	No	0.889	No						
	Edge 4	0.599	0.338	0.249	0.336		0.937	No	0.848	No	0.935	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 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	0.565	0.200	0.263	0.198	0.034	0.765	No	0.828	No	0.763	No	0.799	No	0.862	No	0.797	No
	Left Tilt	0.474	0.200	0.263	0.198	0.025	0.674	No	0.737	No	0.672	No	0.699	No	0.762	No	0.697	No
	Right Touch	1.040	0.200	0.263	0.198	0.093	1.240	No	1.303	No	1.238	No	1.333	No	1.396	No	1.331	No
	Right Tilt	0.915	0.200	0.263	0.134	0.094	1.115	No	1.178	No	1.049	No	1.209	No	1.272	No	1.143	No
Body-worn Accessory & Airplay	Rear	0.455	0.338	0.249	0.336	0.098	0.793	No	0.704	No	0.791	No	0.891	No	0.802	No	0.889	No
	Front	0.983	0.327	0.249	0.336	0.088	1.310	No	1.232	No	1.319	No	1.398	No	1.320	No	1.407	No
Airplay	Edge 1	0.589	0.338	0.249	0.336		0.927	No	0.838	No	0.925	No						
	Edge 2	0.039	0.338	0.249	0.336		0.377	No	0.288	No	0.375	No						
	Edge 4	0.574	0.338	0.249	0.336		0.912	No	0.823	No	0.910	No						

12.52. 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	0.208	0.200	0.263	0.198	0.034	0.408	No	0.471	No	0.406	No	0.442	No	0.505	No	0.440	No
	Left Tilt	0.180	0.200	0.263	0.198	0.025	0.380	No	0.443	No	0.378	No	0.405	No	0.468	No	0.403	No
	Right Touch	0.397	0.200	0.263	0.198	0.093	0.597	No	0.660	No	0.595	No	0.690	No	0.753	No	0.688	No
	Right Tilt	0.157	0.200	0.263	0.134	0.094	0.357	No	0.420	No	0.291	No	0.451	No	0.514	No	0.385	No
Body-worn Accessory & Airplay	Rear	0.609	0.338	0.249	0.336	0.098	0.947	No	0.858	No	0.945	No	1.045	No	0.956	No	1.043	No
	Front	0.964	0.327	0.249	0.336	0.088	1.291	No	1.213	No	1.300	No	1.379	No	1.301	No	1.388	No
Airplay	Edge 2	0.666	0.338	0.249	0.336		1.004	No	0.915	No	1.002	No						
	Edge 3	1.130	0.338	0.249	0.336		1.468	No	1.379	No	1.466	No						
	Edge 4	0.090	0.338	0.249	0.336		0.428	No	0.339	No	0.426	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 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	0.473	0.200	0.263	0.198	0.034	0.673	No	0.736	No	0.671	No	0.707	No	0.770	No	0.705	No
	Left Tilt	0.460	0.200	0.263	0.198	0.025	0.660	No	0.723	No	0.658	No	0.685	No	0.748	No	0.683	No
	Right Touch	0.947	0.200	0.263	0.198	0.093	1.147	No	1.210	No	1.145	No	1.240	No	1.303	No	1.238	No
	Right Tilt	0.673	0.200	0.263	0.134	0.094	0.873	No	0.936	No	0.807	No	0.967	No	1.030	No	0.901	No
Body-worn Accessory & Airplay	Rear	0.564	0.338	0.249	0.336	0.098	0.902	No	0.813	No	0.900	No	1.000	No	0.911	No	0.998	No
	Front	0.949	0.327	0.249	0.336	0.088	1.276	No	1.198	No	1.285	No	1.364	No	1.286	No	1.373	No
Airplay	Edge 1	0.585	0.338	0.249	0.336		0.923	No	0.834	No	0.921	No						
	Edge 2	0.054	0.338	0.249	0.336		0.392	No	0.303	No	0.390	No						
	Edge 4	0.525	0.338	0.249	0.336		0.863	No	0.774	No	0.861	No						

12.54. 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	0.426	0.200	0.263	0.198	0.034	0.626	No	0.689	No	0.624	No	0.660	No	0.723	No	0.658	No
	Left Tilt	0.282	0.200	0.263	0.198	0.025	0.482	No	0.545	No	0.480	No	0.507	No	0.570	No	0.505	No
	Right Touch	1.054	0.200	0.263	0.198	0.093	1.254	No	1.317	No	1.252	No	1.347	No	1.410	No	1.345	No
	Right Tilt	0.267	0.200	0.263	0.134	0.094	0.467	No	0.530	No	0.401	No	0.561	No	0.624	No	0.495	No
Body-worn Accessory & Airplay	Rear	1.080	0.338	0.249	0.336	0.098	1.418	No	1.329	No	1.416	No	1.516	No	1.427	No	1.514	No
	Front	1.090	0.327	0.249	0.336	0.088	1.417	No	1.339	No	1.426	No	1.505	No	1.427	No	1.514	No
Airplay	Edge 2	0.729	0.338	0.249	0.336		1.067	No	0.978	No	1.065	No						
	Edge 3	0.797	0.338	0.249	0.336		1.135	No	1.046	No	1.133	No						
	Edge 4	0.072	0.338	0.249	0.336		0.410	No	0.321	No	0.408	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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12.55. Sum of the SAR for CDMA BC0 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.739	0.200	0.263	0.198	0.034	0.939	No	1.002	No	0.937	No	0.973	No	1.036	No	0.971	No
	Left Tilt	0.666	0.200	0.263	0.198	0.025	0.866	No	0.929	No	0.864	No	0.891	No	0.954	No	0.889	No
	Right Touch	1.070	0.200	0.263	0.198	0.093	1.270	No	1.333	No	1.268	No	1.363	No	1.426	No	1.361	No
	Right Tilt	0.594	0.200	0.263	0.134	0.094	0.794	No	0.857	No	0.728	No	0.888	No	0.951	No	0.822	No
Body-worn Accessory & Airplay	Rear	0.410	0.338	0.249	0.336	0.098	0.748	No	0.659	No	0.746	No	0.846	No	0.757	No	0.844	No
	Front	0.449	0.327	0.249	0.336	0.088	0.776	No	0.698	No	0.785	No	0.864	No	0.786	No	0.873	No
Airplay	Edge 1	0.277	0.338	0.249	0.336		0.615	No	0.526	No	0.613	No						
	Edge 2	0.453	0.338	0.249	0.336		0.791	No	0.702	No	0.789	No						
	Edge 4	0.204	0.338	0.249	0.336		0.542	No	0.453	No	0.540	No						

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.532	0.200	0.263	0.198	0.034	0.732	No	0.795	No	0.730	No	0.766	No	0.829	No	0.764	No
	Left Tilt	0.249	0.200	0.263	0.198	0.025	0.449	No	0.512	No	0.447	No	0.474	No	0.537	No	0.472	No
	Right Touch	0.387	0.200	0.263	0.198	0.093	0.587	No	0.650	No	0.585	No	0.680	No	0.743	No	0.678	No
	Right Tilt	0.224	0.200	0.263	0.134	0.094	0.424	No	0.487	No	0.358	No	0.518	No	0.581	No	0.452	No
Body-worn Accessory & Airplay	Rear	0.950	0.338	0.249	0.336	0.098	1.288	No	1.199	No	1.286	No	1.386	No	1.297	No	1.384	No
	Front	1.100	0.327	0.249	0.336	0.088	1.427	No	1.349	No	1.436	No	1.515	No	1.437	No	1.524	No
Airplay	Edge 2	0.276	0.338	0.249	0.336		0.614	No	0.525	No	0.612	No						
	Edge 3	0.731	0.338	0.249	0.336		1.069	No	0.980	No	1.067	No						
	Edge 4	0.759	0.338	0.249	0.336		1.097	No	1.008	No	1.095	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 CDMA BC1 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.501	0.200	0.263	0.198	0.034	0.701	No	0.764	No	0.699	No	0.735	No	0.798	No	0.733	No
	Left Tilt	0.509	0.200	0.263	0.198	0.025	0.709	No	0.772	No	0.707	No	0.734	No	0.797	No	0.732	No
	Right Touch	1.020	0.200	0.263	0.198	0.093	1.220	No	1.283	No	1.218	No	1.313	No	1.376	No	1.311	No
	Right Tilt	0.783	0.200	0.263	0.134	0.094	0.983	No	1.046	No	0.917	No	1.077	No	1.140	No	1.011	No
Body-worn Accessory & Airplay	Rear	0.640	0.338	0.249	0.336	0.098	0.978	No	0.889	No	0.976	No	1.076	No	0.987	No	1.074	No
	Front	0.988	0.327	0.249	0.336	0.088	1.315	No	1.237	No	1.324	No	1.403	No	1.325	No	1.412	No
Airplay	Edge 1	0.630	0.338	0.249	0.336		0.968	No	0.879	No	0.966	No						
	Edge 2	0.058	0.338	0.249	0.336		0.396	No	0.307	No	0.394	No						
	Edge 4	0.542	0.338	0.249	0.336		0.880	No	0.791	No	0.878	No						

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.445	0.200	0.263	0.198	0.034	0.645	No	0.708	No	0.643	No	0.679	No	0.742	No	0.677	No
	Left Tilt	0.303	0.200	0.263	0.198	0.025	0.503	No	0.566	No	0.501	No	0.528	No	0.591	No	0.526	No
	Right Touch	1.081	0.200	0.263	0.198	0.093	1.281	No	1.344	No	1.279	No	1.374	No	1.437	No	1.372	No
	Right Tilt	0.268	0.200	0.263	0.134	0.094	0.468	No	0.531	No	0.402	No	0.562	No	0.625	No	0.496	No
Body-worn Accessory & Airplay	Rear	0.887	0.338	0.249	0.336	0.098	1.225	No	1.136	No	1.223	No	1.323	No	1.234	No	1.321	No
	Front	1.034	0.327	0.249	0.336	0.088	1.361	No	1.283	No	1.370	No	1.449	No	1.371	No	1.458	No
Airplay	Edge 2	0.741	0.338	0.249	0.336		1.079	No	0.990	No	1.077	No						
	Edge 3	0.815	0.338	0.249	0.336		1.153	No	1.064	No	1.151	No						
	Edge 4	0.074	0.338	0.249	0.336		0.412	No	0.323	No	0.410	No						

Conclusion:

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

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.680	0.200	0.263	0.198	0.034	0.880	No	0.943	No	0.878	No	0.914	No	0.977	No	0.912	No
	Left Tilt	0.676	0.200	0.263	0.198	0.025	0.876	No	0.939	No	0.874	No	0.901	No	0.964	No	0.899	No
	Right Touch	0.964	0.200	0.263	0.198	0.093	1.164	No	1.227	No	1.162	No	1.257	No	1.320	No	1.255	No
	Right Tilt	0.525	0.200	0.263	0.134	0.094	0.725	No	0.788	No	0.659	No	0.819	No	0.882	No	0.753	No
Body-worn Accessory & Airplay	Rear	0.374	0.338	0.249	0.336	0.098	0.712	No	0.623	No	0.710	No	0.810	No	0.721	No	0.808	No
	Front	0.384	0.327	0.249	0.336	0.088	0.711	No	0.633	No	0.720	No	0.799	No	0.721	No	0.808	No
Airplay	Edge 1	0.184	0.338	0.249	0.336		0.522	No	0.433	No	0.520	No						
	Edge 2	0.311	0.338	0.249	0.336		0.649	No	0.560	No	0.647	No						
	Edge 4	0.134	0.338	0.249	0.336		0.472	No	0.383	No	0.470	No						

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.404	0.200	0.263	0.198	0.034	0.604	No	0.667	No	0.602	No	0.638	No	0.701	No	0.636	No
	Left Tilt	0.174	0.200	0.263	0.198	0.025	0.374	No	0.437	No	0.372	No	0.399	No	0.462	No	0.397	No
	Right Touch	0.310	0.200	0.263	0.198	0.093	0.510	No	0.573	No	0.508	No	0.603	No	0.666	No	0.601	No
	Right Tilt	0.179	0.200	0.263	0.134	0.094	0.379	No	0.442	No	0.313	No	0.473	No	0.536	No	0.407	No
Body-worn Accessory & Airplay	Rear	0.756	0.338	0.249	0.336	0.098	1.094	No	1.005	No	1.092	No	1.192	No	1.103	No	1.190	No
	Front	0.895	0.327	0.249	0.336	0.088	1.222	No	1.144	No	1.231	No	1.310	No	1.232	No	1.319	No
Airplay	Edge 2	0.440	0.338	0.249	0.336		0.778	No	0.689	No	0.776	No						
	Edge 3	0.529	0.338	0.249	0.336		0.867	No	0.778	No	0.865	No						
	Edge 4	0.621	0.338	0.249	0.336		0.959	No	0.870	No	0.957	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 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.

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

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

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12.63. 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	0.571	0.200	0.263	0.198	0.034	0.771	No	0.834	No	0.769	No	0.805	No	0.868	No	0.803	No
	Left Tilt	0.487	0.200	0.263	0.198	0.025	0.687	No	0.750	No	0.685	No	0.712	No	0.775	No	0.710	No
	Right Touch	1.090	0.200	0.263	0.198	0.093	1.290	No	1.353	No	1.288	No	1.383	No	1.446	No	1.381	No
	Right Tilt	0.890	0.200	0.263	0.134	0.094	1.090	No	1.153	No	1.024	No	1.184	No	1.247	No	1.118	No
Body-worn Accessory & Airplay	Rear	0.594	0.338	0.249	0.336	0.098	0.932	No	0.843	No	0.930	No	1.030	No	0.941	No	1.028	No
	Front	0.944	0.327	0.249	0.336	0.088	1.271	No	1.193	No	1.280	No	1.359	No	1.281	No	1.368	No
Airplay	Edge 1	0.651	0.338	0.249	0.336		0.989	No	0.900	No	0.987	No						
	Edge 2	0.037	0.338	0.249	0.336		0.375	No	0.286	No	0.373	No						
	Edge 4	0.642	0.338	0.249	0.336		0.980	No	0.891	No	0.978	No						

12.64. 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	0.124	0.200	0.263	0.198	0.034	0.324	No	0.387	No	0.322	No	0.358	No	0.421	No	0.356	No
	Left Tilt	0.102	0.200	0.263	0.198	0.025	0.302	No	0.365	No	0.300	No	0.327	No	0.390	No	0.325	No
	Right Touch	0.268	0.200	0.263	0.198	0.093	0.468	No	0.531	No	0.466	No	0.561	No	0.624	No	0.559	No
	Right Tilt	0.091	0.200	0.263	0.134	0.094	0.291	No	0.354	No	0.225	No	0.385	No	0.448	No	0.319	No
Body-worn Accessory & Airplay	Rear	0.668	0.338	0.249	0.336	0.098	1.006	No	0.917	No	1.004	No	1.104	No	1.015	No	1.102	No
	Front	0.787	0.327	0.249	0.336	0.088	1.114	No	1.036	No	1.123	No	1.202	No	1.124	No	1.211	No
Airplay	Edge 2	0.731	0.338	0.249	0.336		1.069	No	0.980	No	1.067	No						
	Edge 3	1.130	0.338	0.249	0.336		1.468	No	1.379	No	1.466	No						
	Edge 4	0.068	0.338	0.249	0.336		0.406	No	0.317	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 5 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

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

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

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

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12.67. 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	0.294	0.200	0.263	0.198	0.034	0.494	No	0.557	No	0.492	No	0.528	No	0.591	No	0.526	No
	Left Tilt	0.269	0.200	0.263	0.198	0.025	0.469	No	0.532	No	0.467	No	0.494	No	0.557	No	0.492	No
	Right Touch	0.796	0.200	0.263	0.198	0.093	0.996	No	1.059	No	0.994	No	1.089	No	1.152	No	1.087	No
	Right Tilt	0.764	0.200	0.263	0.134	0.094	0.964	No	1.027	No	0.898	No	1.058	No	1.121	No	0.992	No
Body-worn Accessory & Airplay	Rear	0.709	0.338	0.249	0.336	0.098	1.047	No	0.958	No	1.045	No	1.145	No	1.056	No	1.143	No
	Front	0.750	0.327	0.249	0.336	0.088	1.077	No	0.999	No	1.086	No	1.165	No	1.087	No	1.174	No
Airplay	Edge 1	0.513	0.338	0.249	0.336		0.851	No	0.762	No	0.849	No						
	Edge 2	0.318	0.338	0.249	0.336		0.656	No	0.567	No	0.654	No						
	Edge 4	0.674	0.338	0.249	0.336		1.012	No	0.923	No	1.010	No						

12.68. 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	0.298	0.200	0.263	0.198	0.034	0.498	No	0.561	No	0.496	No	0.532	No	0.595	No	0.530	No
	Left Tilt	0.101	0.200	0.263	0.198	0.025	0.301	No	0.364	No	0.299	No	0.326	No	0.389	No	0.324	No
	Right Touch	0.217	0.200	0.263	0.198	0.093	0.417	No	0.480	No	0.415	No	0.510	No	0.573	No	0.508	No
	Right Tilt	0.138	0.200	0.263	0.134	0.094	0.338	No	0.401	No	0.272	No	0.432	No	0.495	No	0.366	No
Body-worn Accessory & Airplay	Rear	0.373	0.338	0.249	0.336	0.098	0.711	No	0.622	No	0.709	No	0.809	No	0.720	No	0.807	No
	Front	1.045	0.327	0.249	0.336	0.088	1.372	No	1.294	No	1.381	No	1.460	No	1.382	No	1.469	No
Airplay	Edge 2	0.078	0.338	0.249	0.336		0.416	No	0.327	No	0.414	No						
	Edge 3	0.513	0.338	0.249	0.336		0.851	No	0.762	No	0.849	No						
	Edge 4	0.337	0.338	0.249	0.336		0.675	No	0.586	No	0.673	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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12.69. 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	0.325	0.200	0.263	0.198	0.034	0.525	No	0.588	No	0.523	No	0.559	No	0.622	No	0.557	No
	Left Tilt	0.297	0.200	0.263	0.198	0.025	0.497	No	0.560	No	0.495	No	0.522	No	0.585	No	0.520	No
	Right Touch	0.421	0.200	0.263	0.198	0.093	0.621	No	0.684	No	0.619	No	0.714	No	0.777	No	0.712	No
	Right Tilt	0.307	0.200	0.263	0.134	0.094	0.507	No	0.570	No	0.441	No	0.601	No	0.664	No	0.535	No
Body-worn Accessory & Airplay	Rear	0.145	0.338	0.249	0.336	0.098	0.483	No	0.394	No	0.481	No	0.581	No	0.492	No	0.579	No
	Front	0.186	0.327	0.249	0.336	0.088	0.513	No	0.435	No	0.522	No	0.601	No	0.523	No	0.610	No
Airplay	Edge 1	0.068	0.338	0.249	0.336		0.406	No	0.317	No	0.404	No						
	Edge 2	0.203	0.338	0.249	0.336		0.541	No	0.452	No	0.539	No						
	Edge 4	0.074	0.338	0.249	0.336		0.412	No	0.323	No	0.410	No						

12.70. 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	0.276	0.200	0.263	0.198	0.034	0.476	No	0.539	No	0.474	No	0.510	No	0.573	No	0.508	No
	Left Tilt	0.114	0.200	0.263	0.198	0.025	0.314	No	0.377	No	0.312	No	0.339	No	0.402	No	0.337	No
	Right Touch	0.225	0.200	0.263	0.198	0.093	0.425	No	0.488	No	0.423	No	0.518	No	0.581	No	0.516	No
	Right Tilt	0.087	0.200	0.263	0.134	0.094	0.287	No	0.350	No	0.221	No	0.381	No	0.444	No	0.315	No
Body-worn Accessory & Airplay	Rear	0.410	0.338	0.249	0.336	0.098	0.748	No	0.659	No	0.746	No	0.846	No	0.757	No	0.844	No
	Front	0.526	0.327	0.249	0.336	0.088	0.853	No	0.775	No	0.862	No	0.941	No	0.863	No	0.950	No
Airplay	Edge 2	0.224	0.338	0.249	0.336		0.562	No	0.473	No	0.560	No						
	Edge 3	0.354	0.338	0.249	0.336		0.692	No	0.603	No	0.690	No						
	Edge 4	0.595	0.338	0.249	0.336		0.933	No	0.844	No	0.931	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 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	0.528	0.200	0.263	0.198	0.034	0.728	No	0.791	No	0.726	No	0.762	No	0.825	No	0.760	No
	Left Tilt	0.534	0.200	0.263	0.198	0.025	0.734	No	0.797	No	0.732	No	0.759	No	0.822	No	0.757	No
	Right Touch	0.670	0.200	0.263	0.198	0.093	0.870	No	0.933	No	0.868	No	0.963	No	1.026	No	0.961	No
	Right Tilt	0.573	0.200	0.263	0.134	0.094	0.773	No	0.836	No	0.707	No	0.867	No	0.930	No	0.801	No
Body-worn Accessory & Airplay	Rear	0.570	0.338	0.249	0.336	0.098	0.908	No	0.819	No	0.906	No	1.006	No	0.917	No	1.004	No
	Front	0.445	0.327	0.249	0.336	0.088	0.772	No	0.694	No	0.781	No	0.860	No	0.782	No	0.869	No
Airplay	Edge 1	0.366	0.338	0.249	0.336		0.704	No	0.615	No	0.702	No						
	Edge 2	0.490	0.338	0.249	0.336		0.828	No	0.739	No	0.826	No						
	Edge 4	0.258	0.338	0.249	0.336		0.596	No	0.507	No	0.594	No						

12.72. 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	0.347	0.200	0.263	0.198	0.034	0.547	No	0.610	No	0.545	No	0.581	No	0.644	No	0.579	No
	Left Tilt	0.160	0.200	0.263	0.198	0.025	0.360	No	0.423	No	0.358	No	0.385	No	0.448	No	0.383	No
	Right Touch	0.258	0.200	0.263	0.198	0.093	0.458	No	0.521	No	0.456	No	0.551	No	0.614	No	0.549	No
	Right Tilt	0.132	0.200	0.263	0.134	0.094	0.332	No	0.395	No	0.266	No	0.426	No	0.489	No	0.360	No
Body-worn Accessory & Airplay	Rear	0.689	0.338	0.249	0.336	0.098	1.027	No	0.938	No	1.025	No	1.125	No	1.036	No	1.123	No
	Front	0.821	0.327	0.249	0.336	0.088	1.148	No	1.070	No	1.157	No	1.236	No	1.158	No	1.245	No
Airplay	Edge 2	0.476	0.338	0.249	0.336		0.814	No	0.725	No	0.812	No						
	Edge 3	0.580	0.338	0.249	0.336		0.918	No	0.829	No	0.916	No						
	Edge 4	0.896	0.338	0.249	0.336		1.234	No	1.145	No	1.232	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 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.

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

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

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12.75. 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	0.491	0.200	0.263	0.198	0.034	0.691	No	0.754	No	0.689	No	0.725	No	0.788	No	0.723	No
	Left Tilt	0.495	0.200	0.263	0.198	0.025	0.695	No	0.758	No	0.693	No	0.720	No	0.783	No	0.718	No
	Right Touch	0.995	0.200	0.263	0.198	0.093	1.195	No	1.258	No	1.193	No	1.288	No	1.351	No	1.286	No
	Right Tilt	0.786	0.200	0.263	0.134	0.094	0.986	No	1.049	No	0.920	No	1.080	No	1.143	No	1.014	No
Body-worn Accessory & Airplay	Rear	0.621	0.338	0.249	0.336	0.098	0.959	No	0.870	No	0.957	No	1.057	No	0.968	No	1.055	No
	Front	1.039	0.327	0.249	0.336	0.088	1.366	No	1.288	No	1.375	No	1.454	No	1.376	No	1.463	No
Airplay	Edge 1	0.573	0.338	0.249	0.336		0.911	No	0.822	No	0.909	No						
	Edge 2	0.068	0.338	0.249	0.336		0.406	No	0.317	No	0.404	No						
	Edge 4	0.530	0.338	0.249	0.336		0.868	No	0.779	No	0.866	No						

12.76. 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	0.350	0.200	0.263	0.198	0.034	0.550	No	0.613	No	0.548	No	0.584	No	0.647	No	0.582	No
	Left Tilt	0.226	0.200	0.263	0.198	0.025	0.426	No	0.489	No	0.424	No	0.451	No	0.514	No	0.449	No
	Right Touch	0.760	0.200	0.263	0.198	0.093	0.960	No	1.023	No	0.958	No	1.053	No	1.116	No	1.051	No
	Right Tilt	0.232	0.200	0.263	0.134	0.094	0.432	No	0.495	No	0.366	No	0.526	No	0.589	No	0.460	No
Body-worn Accessory & Airplay	Rear	0.984	0.338	0.249	0.336	0.098	1.322	No	1.233	No	1.320	No	1.420	No	1.331	No	1.418	No
	Front	1.064	0.327	0.249	0.336	0.088	1.391	No	1.313	No	1.400	No	1.479	No	1.401	No	1.488	No
Airplay	Edge 2	0.713	0.338	0.249	0.336		1.051	No	0.962	No	1.049	No						
	Edge 3	0.709	0.338	0.249	0.336		1.047	No	0.958	No	1.045	No						
	Edge 4	0.073	0.338	0.249	0.336		0.411	No	0.322	No	0.409	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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12.77. 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	0.670	0.200	0.263	0.198	0.034	0.870	No	0.933	No	0.868	No	0.904	No	0.967	No	0.902	No
	Left Tilt	0.636	0.200	0.263	0.198	0.025	0.836	No	0.899	No	0.834	No	0.861	No	0.924	No	0.859	No
	Right Touch	0.877	0.200	0.263	0.198	0.093	1.077	No	1.140	No	1.075	No	1.170	No	1.233	No	1.168	No
	Right Tilt	0.541	0.200	0.263	0.134	0.094	0.741	No	0.804	No	0.675	No	0.835	No	0.898	No	0.769	No
Body-worn Accessory & Airplay	Rear	0.382	0.338	0.249	0.336	0.098	0.720	No	0.631	No	0.718	No	0.818	No	0.729	No	0.816	No
	Front	0.432	0.327	0.249	0.336	0.088	0.759	No	0.681	No	0.768	No	0.847	No	0.769	No	0.856	No
Airplay	Edge 1	0.203	0.338	0.249	0.336		0.541	No	0.452	No	0.539	No						
	Edge 2	0.304	0.338	0.249	0.336		0.642	No	0.553	No	0.640	No						
	Edge 4	0.106	0.338	0.249	0.336		0.444	No	0.355	No	0.442	No						

12.78. 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	0.267	0.200	0.263	0.198	0.034	0.467	No	0.530	No	0.465	No	0.501	No	0.564	No	0.499	No
	Left Tilt	0.113	0.200	0.263	0.198	0.025	0.313	No	0.376	No	0.311	No	0.338	No	0.401	No	0.336	No
	Right Touch	0.202	0.200	0.263	0.198	0.093	0.402	No	0.465	No	0.400	No	0.495	No	0.558	No	0.493	No
	Right Tilt	0.113	0.200	0.263	0.134	0.094	0.313	No	0.376	No	0.247	No	0.407	No	0.470	No	0.341	No
Body-worn Accessory & Airplay	Rear	0.712	0.338	0.249	0.336	0.098	1.050	No	0.961	No	1.048	No	1.148	No	1.059	No	1.146	No
	Front	0.753	0.327	0.249	0.336	0.088	1.080	No	1.002	No	1.089	No	1.168	No	1.090	No	1.177	No
Airplay	Edge 2	0.141	0.338	0.249	0.336		0.479	No	0.390	No	0.477	No						
	Edge 3	0.485	0.338	0.249	0.336		0.823	No	0.734	No	0.821	No						
	Edge 4	0.515	0.338	0.249	0.336		0.853	No	0.764	No	0.851	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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12.79. Sum of the SAR for LTE Band 27 (UAT) & Wi-Fi UNII (Cell On) & BT(P_{low})

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

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

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

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12.81. 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	0.431	0.200	0.263	0.198	0.034	0.631	No	0.694	No	0.629	No	0.665	No	0.728	No	0.663	No
	Left Tilt	0.416	0.200	0.263	0.198	0.025	0.616	No	0.679	No	0.614	No	0.641	No	0.704	No	0.639	No
	Right Touch	0.863	0.200	0.263	0.198	0.093	1.063	No	1.126	No	1.061	No	1.156	No	1.219	No	1.154	No
	Right Tilt	0.556	0.200	0.263	0.134	0.094	0.756	No	0.819	No	0.690	No	0.850	No	0.913	No	0.784	No
Body-worn Accessory & Airplay	Rear	0.620	0.338	0.249	0.336	0.098	0.958	No	0.869	No	0.956	No	1.056	No	0.967	No	1.054	No
	Front	0.618	0.327	0.249	0.336	0.088	0.945	No	0.867	No	0.954	No	1.033	No	0.955	No	1.042	No
Airplay	Edge 1	0.153	0.338	0.249	0.336		0.491	No	0.402	No	0.489	No						
	Edge 2	0.099	0.338	0.249	0.336		0.437	No	0.348	No	0.435	No						
	Edge 4	0.358	0.338	0.249	0.336		0.696	No	0.607	No	0.694	No						

12.82. 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	0.187	0.200	0.263	0.198	0.034	0.387	No	0.450	No	0.385	No	0.421	No	0.484	No	0.419	No
	Left Tilt	0.202	0.200	0.263	0.198	0.025	0.402	No	0.465	No	0.400	No	0.427	No	0.490	No	0.425	No
	Right Touch	0.386	0.200	0.263	0.198	0.093	0.586	No	0.649	No	0.584	No	0.679	No	0.742	No	0.677	No
	Right Tilt	0.179	0.200	0.263	0.134	0.094	0.379	No	0.442	No	0.313	No	0.473	No	0.536	No	0.407	No
Body-worn Accessory & Airplay	Rear	0.892	0.338	0.249	0.336	0.098	1.230	No	1.141	No	1.228	No	1.328	No	1.239	No	1.326	No
	Front	1.100	0.327	0.249	0.336	0.088	1.427	No	1.349	No	1.436	No	1.515	No	1.437	No	1.524	No
Airplay	Edge 2	0.769	0.338	0.249	0.336		1.107	No	1.018	No	1.105	No						
	Edge 3	0.851	0.338	0.249	0.336		1.189	No	1.100	No	1.187	No						
	Edge 4	0.198	0.338	0.249	0.336		0.536	No	0.447	No	0.534	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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12.83. 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	0.459	0.200	0.263	0.198	0.034	0.659	No	0.722	No	0.657	No	0.693	No	0.756	No	0.691	No
	Left Tilt	0.333	0.200	0.263	0.198	0.025	0.533	No	0.596	No	0.531	No	0.558	No	0.621	No	0.556	No
	Right Touch	1.016	0.200	0.263	0.198	0.093	1.216	No	1.279	No	1.214	No	1.309	No	1.372	No	1.307	No
	Right Tilt	0.794	0.200	0.263	0.134	0.094	0.994	No	1.057	No	0.928	No	1.088	No	1.151	No	1.022	No
Body-worn Accessory & Airplay	Rear	0.658	0.338	0.249	0.336	0.098	0.996	No	0.907	No	0.994	No	1.094	No	1.005	No	1.092	No
	Front	0.952	0.327	0.249	0.336	0.088	1.279	No	1.201	No	1.288	No	1.367	No	1.289	No	1.376	No
Airplay	Edge 1	0.291	0.338	0.249	0.336		0.629	No	0.540	No	0.627	No						
	Edge 2	0.417	0.338	0.249	0.336		0.755	No	0.666	No	0.753	No						
	Edge 4	0.385	0.338	0.249	0.336		0.723	No	0.634	No	0.721	No						

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)	∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Left Touch	0.098	0.200	0.263	0.198	0.034	0.298	No	0.361	No	0.296	No	0.332	No	0.395	No	0.330	No
	Left Tilt	0.032	0.200	0.263	0.198	0.025	0.232	No	0.295	No	0.230	No	0.257	No	0.320	No	0.255	No
	Right Touch	0.074	0.200	0.263	0.198	0.093	0.274	No	0.337	No	0.272	No	0.367	No	0.430	No	0.365	No
	Right Tilt	0.043	0.200	0.263	0.134	0.094	0.243	No	0.306	No	0.177	No	0.337	No	0.400	No	0.271	No
Body-worn Accessory & Airplay	Rear	0.783	0.338	0.249	0.336	0.098	1.121	No	1.032	No	1.119	No	1.219	No	1.130	No	1.217	No
	Front	1.074	0.327	0.249	0.336	0.088	1.401	No	1.323	No	1.410	No	1.489	No	1.411	No	1.498	No
Airplay	Edge 2	0.075	0.338	0.249	0.336		0.413	No	0.324	No	0.411	No						
	Edge 3	0.750	0.338	0.249	0.336		1.088	No	0.999	No	1.086	No						
	Edge 4	0.581	0.338	0.249	0.336		0.919	No	0.830	No	0.917	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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12.85. 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	0.891	0.327	0.249	0.336	0.088	0.979	No	0.415	No	0.337	No	0.424	No	1.228	No	1.315	No

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Head	Right Touch	0.813	0.200	0.263	0.198	0.093	0.906	No	0.293	No	0.356	No	0.291	No	1.169	No	1.104	No

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

RF Exposure Conditions	Test Position	① WWAN	② Wi-Fi 5GHz (Chain 0)	③ Wi-Fi 5GHz (Chain 1)	④ Wi-Fi 5GHz (MIMO)	⑤ Bluetooth (P_{low})	①+②		①+③		①+④		①+②+⑤		①+③+⑤		①+④+⑤	
							∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)	∑1-g SAR (mW/g)	SPLSR (Yes/ No)
Body-worn Accessory & Hotspot	Front	1.010	0.327	0.249	0.336	0.088	1.098	No	0.415	No	0.337	No	0.424	No	1.347	No	1.434	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.

16U23287-S1V1 SAR_App A Setup Photos (STC_180days)

16U23287-S1V3 SAR_App B System Check Plots

16U23287-S1V3 SAR_App C Highest Test Plots

16U23287-S1V1 SAR_App D Tissue Ingredients

16U23287-S1V1 SAR_App E Probe Cal. Certificates

16U23287-S1V1 SAR_App F Dipole Cal. Certificates

END OF REPORT

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