



**FCC 47 CFR § 2.1093
IEEE Std 1528-2013**

SAR EVALUATION REPORT

FOR

GSM/WCDMA/LTE/5G NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax, NFC, WPT and UWB

MODEL NUMBER: SM-S908B/DS

FCC ID: A3LSMS908B

REPORT NUMBER: 4790089631-S1V4

ISSUE DATE: 12/22/2021

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TL-637

Revision History

Rev.	Date	Revisions	Revised By
V1	11/5/2021	Initial Issue	--
V2	11/25/2021	Added Dynamic Antenna tuner test Sec.6.8 & Sec.8 & Sec.9.3 & Sec.10.11 & Appendix C.	Sunghoon.kim
V3	12/14/2021	Added Cal.Due Date in Table of Section.8.2. Revised NR power measurement procedure in Section.9.4.	Sunghoon.kim
V4	12/22/2021	Revised SAR report, Appendix B, C, E, F, I, J Added Variant model (Version 2 & 3) spot-check data and SAR results	Sunghoon.kim

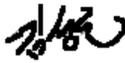
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1. Attestation of Test Results

Applicant Name		SAMSUNG ELECTRONICS CO.,LTD.			
FCC ID		A3LSMS908B			
Model Number		SM-S908B/DS			
Applicable Standards		FCC 47 CFR § 2.1093 IEEE Std 1528-2013 Published RF exposure KDB procedures			
Exposure Category		SAR Limits (W/Kg)			
		Peak spatial-average (1g of tissue)		Product Specific 10g (10g of tissue)	
General population / Uncontrolled exposure		1.6		4.0	
RF Exposure Conditions		Equipment Class - The Highest Reported SAR (W/kg)			
		PCE	DTS	NII	DSS
Head		1.19	0.32	0.32	0.18
Body-worn		0.72	0.20	1.14	0.18
Hotspot		1.22	0.41	1.29	0.44
Product Specific 10g		1.74	N/A	2.98	N/A
Simultaneous TX	Head	1.36	1.36	1.34	1.34
	Body-worn	1.59	1.58	1.59	1.59
	Hotspot	1.56	1.52	1.56	1.55
	Product Specific 10g	2.12	N/A	2.12	N/A
Date Tested		9/13/2021 to 12/22/2021			
Test Results		Pass			
<p>UL Korea, Ltd. 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 Korea, Ltd. 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.</p> <p>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 Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. 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 IAS, any agency of the Federal Government, or any agency of any government.</p>					
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1.1. The Highest Reported SAR for RF exposure conditions for each bands

Equipment Class	Band	Antenna	The Highest Reported SAR (W/kg)			
			1g of tissue			10g of tissue
			Head Exposure condition	Body-worn Exposure condition	Hotspot Exposure condition	Product Specific Exposure condition
PCE	GSM 850	Main.1 Ant.	0.168	0.359	0.911	N/A
	GSM 1900	Main.1 Ant.	0.056	0.405	1.173	1.579
	WCDMA Band II	Main.1 Ant.	0.074	0.585	1.174	1.408
	WCDMA Band IV	Main.1 Ant.	0.064	0.537	0.918	1.243
	WCDMA Band V	Main.1 Ant.	0.227	0.398	0.908	N/A
	LTE Band 2	Main.3 Ant.	0.791	0.231	0.450	N/A
	LTE Band 4	Main.3 Ant.	0.785	0.279	0.406	N/A
	LTE Band 5	Main.1 Ant.	N/A	N/A	N/A	N/A
	LTE Band 12	Main.1 Ant.	0.161	0.181	0.335	N/A
	LTE Band 13	Main.1 Ant.	0.171	0.236	0.576	N/A
	LTE Band 17	Main.1 Ant.	N/A	N/A	N/A	N/A
	LTE Band 25	Main.1 Ant.	0.096	0.722	1.222	1.744
	LTE Band 26	Main.1 Ant.	0.208	0.341	0.680	N/A
	LTE Band 66	Main.1 Ant.	0.066	0.490	0.977	1.697
	LTE Band 41	Main.2 Ant.	0.018	0.199	0.492	N/A
	NR Band n5	Main.1 Ant.	0.174	0.355	0.636	N/A
	NR Band n66	Main.1 Ant.	0.034	0.297	0.567	1.380
NR Band n66	Main.3 Ant.	1.190	0.221	0.492	N/A	
DTS	2.4GHz WLAN	All	0.316	0.204	0.413	N/A
UNII	5GHz WLAN	All	0.318	1.137	1.288	2.978
DSS	Bluetooth	All	0.183	0.177	0.442	N/A

1.2. Spot-check results

Antenna	Test Band	RF Exposure Conditions	Mode	Pwr Back-off	Test distance (mm)	Test Position	Ch	Freq(MHz)	RB Allocation	RB Offset	Duty (%)	Power		Version.1		Version.2		Version.3		Note.	
												Tune-up Limit	Meas	Meas	Scaled	Meas	Scaled	Meas	Scaled		
																					1-g SAR (W/kg) or 10-g SAR (W/kg)
Main 3 Ant.	LTE B2	Head	QPSK	On	0	Left Tilt	18700	1860.0	50	0		18.5	17.5	0.634	0.791	0.577	0.720	0.514	0.641		
		Body-worn	QPSK	Off	15	Rear	18700	1860.0	50	0		21.5	20.7	0.123	0.147	0.156	0.186	0.098	0.116	1	
		Hotspot	QPSK	On	10	Edge 1	18700	1860.0	1	99		18.5	17.5	0.357	0.450	0.267	0.337	0.264	0.333		
Main 3 Ant.	LTE B4	Head	QPSK	On	0	Left Tilt	20175	1732.5	50	24		18.5	17.9	0.690	0.785	0.533	0.606	0.559	0.636		
		Body-worn	QPSK	Off	15	Rear	20175	1732.5	1	99		22.5	21.5	0.141	0.177	0.223	0.279	0.130	0.163	1	
		Hotspot	QPSK	On	10	Edge 1	20175	1732.5	1	0		18.5	18.1	0.366	0.406	0.253	0.281	0.290	0.322		
Main 3 Ant.	NR Bn66	Head	DFT-s-OFDM (QPSK)	On	0	Left Tilt	354000	1770	50	25		20.0	19.6	0.901	0.985	1.090	1.191	0.968	1.058	1	
		Body-worn	DFT-s-OFDM (QPSK)	Off	15	Rear	354000	1770	50	25		22.4	21.6	0.170	0.204	0.184	0.221	0.174	0.209	1	
		Hotspot	DFT-s-OFDM (QPSK)	On	10	Edge 1	354000	1770	1	53		20.0	19.5	0.358	0.403	0.425	0.478	0.437	0.492	1	
Bluetooth SISO Ant.1	Bluetooth	Head	GFSK	Off	0	Right Touch	39	2441.0				77.1	19.0	19.0	0.062	0.081	0.140	0.183	0.127	0.166	1
		Body-worn	GFSK	Off	15	Rear	39	2441.0				77.1	19.0	19.0	0.032	0.042	0.025	0.033	0.022	0.029	
		Hotspot	GFSK	Off	10	Rear	39	2441.0				77.1	19.0	19.0	0.103	0.135	0.086	0.113	0.086	0.112	
Bluetooth SISO Ant.2	Bluetooth	Head	GFSK	On	0	Right Touch	0	2402.0				77.1	17.0	16.4	0.082	0.123	0.107	0.160	0.088	0.131	1
		Body-worn	GFSK	Off	15	Rear	39	2441.0				77.1	19.0	17.1	0.087	0.177	0.039	0.079	0.050	0.100	
		Hotspot	GFSK	Off	10	Edge 4	39	2441.0				77.1	19.0	17.1	0.218	0.442	0.126	0.255	0.147	0.298	
Bluetooth MIMO Ant.1 & 2	Bluetooth	Head	GFSK	Off	0	Right Touch	78	2480.0				77.1	13.0	12.2	0.084	0.130	0.063	0.099	0.065	0.101	
		Body-worn	GFSK	Off	15	Rear	78	2480.0				77.1	13.0	12.2	0.032	0.050	0.018	0.028	0.007	0.011	
		Hotspot	GFSK	Off	10	Rear	78	2480.0				77.1	13.0	12.2	0.091	0.141	0.027	0.043	0.037	0.057	
WiFi 2.4GHz SISO Ant.1	DTS	Head	802.11b	On	0	Right Touch	6	2437.0				99.5	17.0	15.7	0.028	0.037	0.080	0.108	0.106	0.143	1
		Body-worn	802.11b	Off	15	Rear	6	2437.0				99.5	20.0	18.8	0.043	0.056	0.043	0.056	0.031	0.040	
		Hotspot	802.11b	Off	10	Rear	6	2437.0				99.5	20.0	18.8	0.139	0.183	0.125	0.164	0.128	0.168	
WiFi 2.4GHz SISO Ant.2	DTS	Head	802.11b	On	0	Right Touch	6	2437.0				99.5	17.0	15.9	0.241	0.316	0.141	0.185	0.196	0.257	
		Body-worn	802.11b	Off	15	Rear	6	2437.0				99.5	20.0	18.9	0.157	0.204	0.105	0.137	0.112	0.146	
		Hotspot	802.11b	Off	10	Edge 4	6	2437.0				99.5	20.0	18.9	0.317	0.413	0.248	0.323	0.308	0.402	
WiFi 2.4GHz MIMO Ant.1 & 2	DTS	Body-worn	802.11g	Off	15	Rear	6	2437.0				96.4	18.0	17.0	0.083	0.107	0.043	0.056	0.063	0.082	
		Hotspot	802.11g	Off	10	Edge 4	6	2437.0				96.4	18.0	16.9	0.202	0.267	0.148	0.196	0.198	0.262	
WiFi 5.3GHz MIMO Ant.1 & 2	UNII	Head	802.11ac (VHT80)	On	0	Right Touch	58	5290.0				94.4	15.0	14.2	0.222	0.286	0.189	0.243	0.172	0.222	
		Body-worn	802.11a	Off	15	Rear	52	5260.0				96.4	18.0	17.1	0.153	0.197	0.124	0.159	0.154	0.198	
		Product Specific 10-g	802.11a	Off	0	Edge 4	52	5260.0				96.4	18.0	17.1	1.050	1.355	0.825	1.064	0.990	1.277	
WiFi 5.5GHz MIMO Ant.1 & 2	UNII	Head	802.11ac (VHT80)	On	0	Right Touch	138	5690.0				94.4	15.0	14.2	0.198	0.251	0.217	0.275	0.241	0.306	1
		Body-worn	802.11a	Off	15	Rear	144	5720.0				96.4	18.0	16.7	0.242	0.340	0.398	0.560	0.433	0.609	1
		Product Specific 10-g	802.11a	Off	0	Edge 4	144	5720.0				96.4	18.0	17.8	1.140	1.244	0.657	0.717	0.614	0.670	
WiFi 5.8GHz MIMO Ant.1 & 2	UNII	Head	802.11ac (VHT80)	On	0	Right Touch	155	5775.0				94.4	15.0	14.3	0.207	0.257	0.248	0.308	0.256	0.318	1
		Body-worn	802.11a	Off	15	Rear	165	5825.0				96.4	18.0	16.0	0.609	0.996	0.662	1.083	0.694	1.135	1
		Hotspot	802.11a	Off	10	Rear	149	5745.0				96.4	18.0	16.1	0.728	1.175	0.710	1.146	0.798	1.288	1
WiFi 5.9GHz MIMO Ant.1 & 2	UNII	Head	802.11ac (VHT80)	On	0	Right Touch	171	5855.0				94.4	15.0	14.6	0.191	0.221	0.131	0.151	0.154	0.178	
		Body-worn	802.11a	Off	15	Rear	177	5885.0				96.4	18.0	16.2	0.718	1.137	0.438	0.694	0.460	0.729	
		Product Specific 10-g	802.11a	Off	0	Rear	177	5885.0				96.4	18.0	16.2	1.880	2.978	1.560	2.471	1.160	1.838	

Note(s):

This device has 3 versions. So All supported Band's SAR test and conducted output power measurement performed using Version.1. and Both Version.2 and Version.3 performed SAR spot-check at Each RF exposure conditions' worst configuration from upper antennas (WiFi/BT Ant.1 & Ant.2, Main 3 Ant.) of Version.1

1. If Version.2 or Version.3's Reported SAR are higher than Version.1, then the RF exposure require full test using Version.2 or Version.3. Version.2 or Version.3's Full test results are refer to Section.10 in report.

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, ANSI C63.26-2015 the following FCC Published RF exposure [KDB](#) procedures:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 648474 D04 Handset SAR v01r03
- 690783 D01 SAR Listings on Grants 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
- 941225 D07 UMPC Mini Tablet v01r02
- 971168 D01 Power Meas License Digital System v03r01

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

- [TCB workshop](#) October, 2014; RF Exposure Procedures Update (Overlapping LTE Bands)
- [TCB workshop](#) October, 2014; RF Exposure Procedures Update (Other LTE Considerations)
- [TCB workshop](#) October, 2016; RF Exposure Procedures (Bluetooth Duty Factor)
- [TCB workshop](#) October, 2016; RF Exposure Procedures (DUT Holder Perturbations)
- [TCB workshop](#) May, 2017; RF Exposure Procedures (LTE Test Conditions)
- [TCB workshop](#) May, 2017; RF Exposure Procedures (LTE Band 41 Power Class 2)
- [TCB workshop](#) November, 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- [TCB workshop](#) April, 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion Update)
- [TCB workshop](#) April, 2018; RF Exposure Procedures (LTE Inter-Band Uplink Carrier Aggregation – Interim Procedures)
- [TCB workshop](#) April, 2019; RF Exposure Procedures (Tissue Simulating Liquids (TSL))
- [TCB workshop](#) October, 2020; 5G RFX Policies (Intra-band and Inter-band NSA-EN-DC evaluation)

3. Facilities and Accreditation

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

Suwon
SAR 1 Room
SAR 2 Room
SAR 3 Room
SAR 4 Room
SAR 5 Room

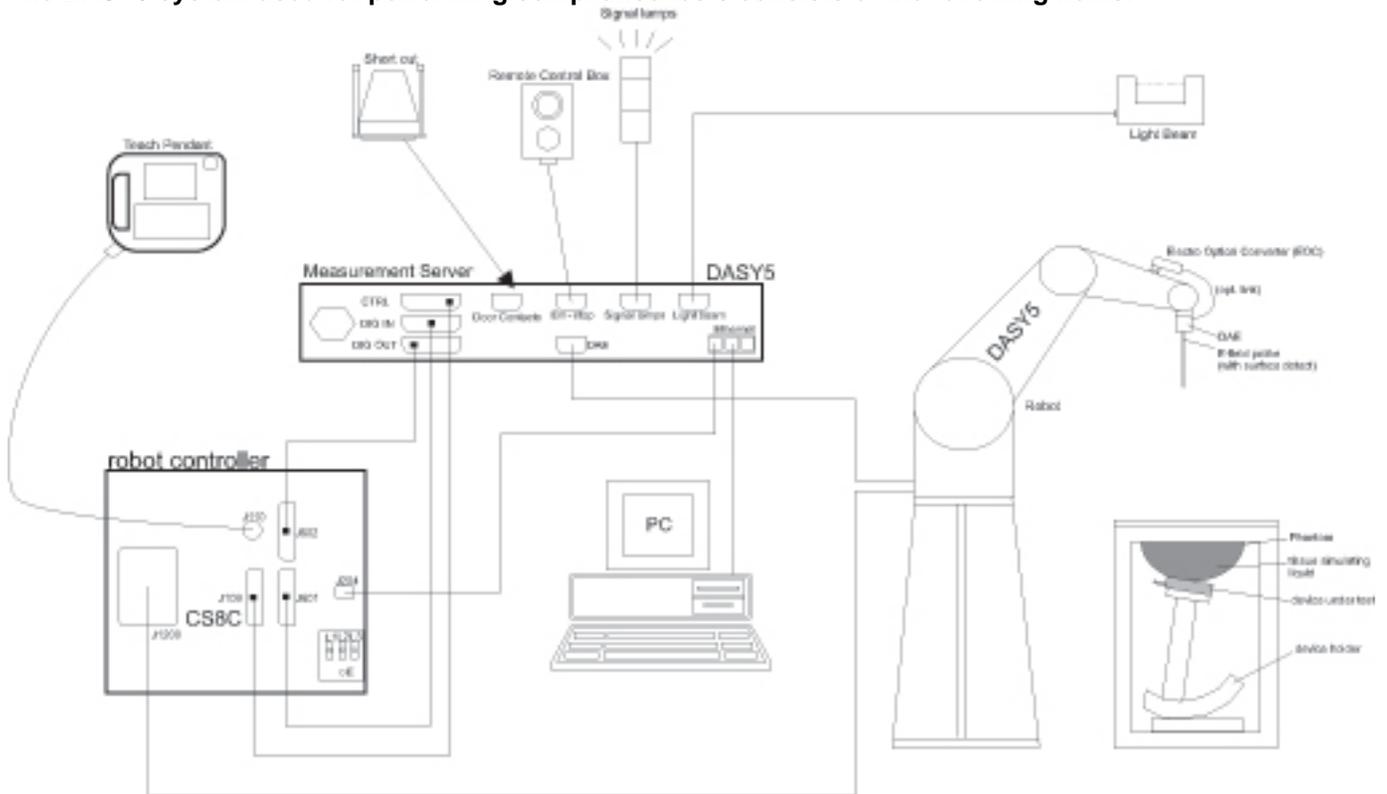
UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.

The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

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



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

4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

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

Step 2: Area Scan

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
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 \leq the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

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

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{Zoom}, \Delta y_{Zoom}$			≤ 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 1 st 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 <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> 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.

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	E5071C	MY46522054	8-6-2022
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-21-2022
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	LKM	DTM3000	3851	8-4-2022

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Agilent	N5181A	MY50145882	8-4-2022
Power Sensor	Agilent	U2000A	MY54260007	8-4-2022
Power Sensor	Agilent	U2000A	MY60180020	8-4-2022
Power Amplifier	EXODUS	1410025-AMP2027-10003	10003	8-4-2022
Directional Coupler	Agilent	772D	MY52180193	8-3-2022
Directional Coupler	Agilent	778D	MY52180432	8-3-2022
Low Pass Filter	MINI-CIRCUITS	NLP-1200	VUU19301915	8-4-2022
Low Pass Filter	MICROLAB	LA-15N	3943	8-3-2022
Low Pass Filter	FILTRON	L14012FL	1410003S	8-3-2022
Low Pass Filter	MICROLAB	LA-60N	3942	8-4-2022
Attenuator	MINI-CIRCUITS	BW-N3W5+	N/A	8-4-2022
Attenuator	Agilent	8491B/003	MY39272275	8-17-2022
Attenuator	Agilent	8491B/010	MY39272011	8-4-2022
Attenuator	Agilent	8491B/020	MY39271973	8-4-2022
E-Field Probe	SPEAG	EX3DV4	7314	5-31-2022
E-Field Probe	SPEAG	EX3DV4	7610	8-26-2022
E-Field Probe	SPEAG	EX3DV4	7645	4-15-2022
E-Field Probe	SPEAG	EX3DV4	7545	8-26-2022
E-Field Probe	SPEAG	EX3DV4	7330	9-29-2022
E-Field Probe	SPEAG	EX3DV4	7376	7-30-2022
E-Field Probe	SPEAG	EX3DV4	7313	2-23-2022
E-Field Probe	SPEAG	EX3DV4	3697	3-22-2022
E-Field Probe	SPEAG	EX3DV4	7309	4-20-2022
Data Acquisition Electronics	SPEAG	DAE4	614	3-5-2022
Data Acquisition Electronics	SPEAG	DAE4	1591	3-26-2022
Data Acquisition Electronics	SPEAG	DAE4	1343	8-23-2022
Data Acquisition Electronics	SPEAG	DAE4	1468	9-27-2022
Data Acquisition Electronics	SPEAG	DAE4	1494	7-27-2022
System Validation Dipole	SPEAG	D750V3	1122	2-24-2022
System Validation Dipole	SPEAG	D835V2	4d194	3-20-2022
System Validation Dipole	SPEAG	D1750V2	1125	2-21-2022
System Validation Dipole	SPEAG	D1900V2	5d199	3-19-2022
System Validation Dipole	SPEAG	D2450V2	960	3-20-2022
System Validation Dipole	SPEAG	D2600V2	1178	4-21-2023
System Validation Dipole	SPEAG	D5GHzV2	1209	2-27-2022
System Validation Dipole	SPEAG	D5GHzV2	1094	11-23-2021
System Validation Dipole	SPEAG	D5GHzV2	1184	12-3-2022
System Validation Dipole	SPEAG	D5GHzV2	1209	11-24-2023
Thermometer	Lutron	MHB-382SD	AH.50213	8-4-2022
Thermometer	Lutron	MHB-382SD	AH.50215	8-4-2022
Thermometer	Lutron	MHB-382SD	AJ.45903	8-3-2022
Thermometer	Lutron	MHB-382SD	AK.12123	8-3-2022

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	169801	8-3-2022
Base Station Simulator	R & S	CMW500	169799	8-3-2022
Base Station Simulator	R & S	CMW500	169800	8-3-2022
Base Station Simulator	R & S	CMW500	169798	8-3-2022
Base Station Simulator	R & S	CMW500	169797	8-3-2022
Base Station Simulator	R & S	CMW500	150313	8-3-2022
Base Station Simulator	R & S	CMW500	150314	8-4-2022
Base Station Simulator	R & S	CMW500	162790	8-3-2022
UXM 5G Wireless Test Platform	Keysight	E7515B	MY57510596	8-6-2022

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations. (for blue box items)
3. All equipments were used until Cal.Due data.

5. Measurement Uncertainty

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

5.1. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedures 1, Clause 4.4.2 in IEC Guide 115:2007.

6. Device Under Test (DUT) Information

6.1. DUT Description

Device Dimension	Refer to Appendix A.																																																																		
Back Cover	<input checked="" type="checkbox"/> The Back Cover is not removable.																																																																		
Battery Options	<input checked="" type="checkbox"/> The rechargeable battery is not user accessible																																																																		
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. <input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 2.4 GHz) <input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 5.8 GHz)																																																																		
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other <input checked="" type="checkbox"/> Wi-Fi Direct (Wi-Fi 2.4 GHz) <input checked="" type="checkbox"/> Wi-Fi Direct (Wi-Fi 5.2 GHz_UNII-1, Wi-Fi 5.8 GHz_UNII-3)																																																																		
Test Sample Information	<p>Version.1</p> <table border="1"> <thead> <tr> <th>No.</th> <th>S/N</th> <th>Notes</th> <th>No.</th> <th>S/N</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>R3CR80AB3FD</td> <td>Main Conducted</td> <td>8</td> <td>R3CR80AB3CM</td> <td>SAR</td> </tr> <tr> <td>2</td> <td>R3CR80AB3AJ</td> <td>Main Conducted</td> <td>9</td> <td>R3CR80AB3ME</td> <td>SAR</td> </tr> <tr> <td>3</td> <td>R3CR80ABDAL</td> <td>Main Conducted</td> <td>10</td> <td>R3CR80AB8XD</td> <td>SAR</td> </tr> <tr> <td>4</td> <td>R3CR80AAZJJ</td> <td>Wi-Fi & BT Conducted</td> <td>11</td> <td>R3CR80AB7RP</td> <td>SAR</td> </tr> <tr> <td>5</td> <td>R3CR80AAZER</td> <td>Wi-Fi & BT Conducted</td> <td>12</td> <td>R3CR706LMGA</td> <td>SAR</td> </tr> <tr> <td>6</td> <td>R3CR80AB3BA</td> <td>SAR</td> <td>13</td> <td>R3CR80ABWRF</td> <td>SAR</td> </tr> <tr> <td>7</td> <td>R3CR80AB3EW</td> <td>SAR</td> <td>14</td> <td>R3CRA0HCA0M</td> <td>SAR</td> </tr> <tr> <td></td> <td></td> <td></td> <td>15</td> <td>R3CRA0HCAHN</td> <td>SAR</td> </tr> </tbody> </table> <p>Version.2</p> <table border="1"> <tbody> <tr> <td>1</td> <td>R3CRB0V31DB</td> <td>SAR</td> </tr> <tr> <td>2</td> <td>R3CRB0V317Y</td> <td>SAR</td> </tr> </tbody> </table> <p>Version.3</p> <table border="1"> <tbody> <tr> <td>1</td> <td>R3CRB0V2YPF</td> <td>SAR</td> </tr> <tr> <td>2</td> <td>R3CRB0V2Z5R</td> <td>SAR</td> </tr> </tbody> </table>	No.	S/N	Notes	No.	S/N	Notes	1	R3CR80AB3FD	Main Conducted	8	R3CR80AB3CM	SAR	2	R3CR80AB3AJ	Main Conducted	9	R3CR80AB3ME	SAR	3	R3CR80ABDAL	Main Conducted	10	R3CR80AB8XD	SAR	4	R3CR80AAZJJ	Wi-Fi & BT Conducted	11	R3CR80AB7RP	SAR	5	R3CR80AAZER	Wi-Fi & BT Conducted	12	R3CR706LMGA	SAR	6	R3CR80AB3BA	SAR	13	R3CR80ABWRF	SAR	7	R3CR80AB3EW	SAR	14	R3CRA0HCA0M	SAR				15	R3CRA0HCAHN	SAR	1	R3CRB0V31DB	SAR	2	R3CRB0V317Y	SAR	1	R3CRB0V2YPF	SAR	2	R3CRB0V2Z5R	SAR
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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 Multi-Slot Class:	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
		GPRS (GMSK)	<input type="checkbox"/> Class 8 - 1 Up, 4 Down <input type="checkbox"/> Class 10 - 2 Up, 4 Down <input type="checkbox"/> Class 12 - 4 Up, 4 Down <input checked="" type="checkbox"/> Class 33 - 4 Up, 5 Down	
Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Category 24) HSUPA (Category 6) DC-HSDPA (Category 24) HSPA+ (DL only)		100%
LTE	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 12 FDD Band 13 FDD Band 17 FDD Band 25 FDD Band 26 TDD Band 41 ^{Power Class 3} TDD Band 41 ^{Power Class 2} FDD Band 66 <u>Uplink inter-band Carrier Aggregation(2CC)</u> CA_2A-4A CA_4A-5A CA_4A-12A CA_5A-66A CA_12A-66A	QPSK 16QAM 64QAM 256QAM Rel. 15 Carrier Aggregation (2 Uplink and 5 Downlinks)		100% (FDD) 63.3% (TDD) ^{Power Class 3} 43.3% (TDD) ^{Power Class 2}
		Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5G NR (Sub 6)	NR Band n5 NR Band n66	DFT-s-OFDM: ■ $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: ■ QPSK, 16QAM, 64QAM, 256QAM		100%
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20) 802.11ax (HE20)		SISO mode 99.5% (802.11b) MIMO mode 96.4% (802.11g)
	5 GHz	802.11a 802.11n (HT20) & (HT40) 802.11ac (VHT20) & (VHT40) & (VHT80) & (VHT160) 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		MIMO mode 96.4% (802.11a) 96.2% (802.11n (HT20)) 94.4% (802.11ac (VHT80))
	Does this device support bands 5.60 ~ 5.65 GHz? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Does this device support Band gap channel(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Bluetooth	2.4 GHz	Version 5.0 LE		77.1% (DH5)
NFC	13.56 MHz	Type A/B/F		N/A ⁴
UWB	6.24 – 8.24 GHz	BPM-BPSK		N/A ⁴

Notes:

- The Bluetooth protocol is considered source-based averaging. Bluetooth GFSK (DH5) was verified to have the highest duty cycle of 77.1% and was considered and used for SAR Testing.
- Duty cycle for Wi-Fi is referenced from the DTS and UNII report.
- This device supports Power Class 2(HPUE) and Power Class 3 for LTE Band 41.
- Measured Duty Cycle is not required due to SAR test exemption.
- This device supports UL CA inter-band.

6.3. Nominal and Maximum Output Power

KDB 447498 sec.4.1. 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

RF Air interface	Antenna	Mode	Time Slots	Max. RF Output Power (dBm)		Reduced. RF Output Power (Hotspot & Proximity sensor & Earjack back-off) (dBm)	
				Tune-up Limit	Frame Power	Tune-up Limit	Frame Power
GSM850	Main 1 Ant.	Voice	1	34.5	25.5		
		GPRS	1	34.5	25.5		
		GPRS	2	32.5	26.5		
		GPRS	3	30.5	26.2		
		GPRS	4	28.5	25.5		
		EGPRS	1	27.5	18.5		
		EGPRS	2	26.0	20.0		
		EGPRS	3	24.0	19.7		
GSM1900	Main 1 Ant.	Voice	1	32.0	23.0	29.0	20.0
		GPRS	1	32.0	23.0	29.0	20.0
		GPRS	2	29.5	23.5	27.0	21.0
		GPRS	3	27.5	23.2	25.5	21.2
		GPRS	4	25.5	22.5	23.5	20.5
		EGPRS	1	27.5	18.5	27.5	18.5
		EGPRS	2	25.5	19.5	25.5	19.5
		EGPRS	3	23.5	19.2	23.5	19.2
		EGPRS	4	22.5	19.5	22.5	19.5

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)	Reduced. RF Output Power (Hotspot & Proximity sensor & Earjack back-off) (dBm)
W-CDMA Band II	Main 1 Ant.	R99	24.0	20.5
		HSDPA	24.0	20.5
		HSUPA	24.0	20.5
		DC-HSDPA	24.0	20.5
W-CDMA Band IV	Main 1 Ant.	R99	24.0	20.5
		HSDPA	24.0	20.5
		HSUPA	24.0	20.5
		DC-HSDPA	24.0	20.5
W-CDMA Band V	Main 1 Ant.	R99	25.5	
		HSDPA	25.5	
		HSUPA	25.5	
		DC-HSDPA	25.5	

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)	Reduced. RF Output Power (dBm)		
				Hotspot back-off	Proximity sensor & Ear-jack back-off	RCV back-off
LTE Band 2	Main 1 Ant.	QPSK	24.5	21.0	21.0	
LTE Band 2	Main 3 Ant.	QPSK	22.5	18.5		18.5
LTE Band 4	Main 1 Ant.	QPSK	24.5	21.0	21.0	
LTE Band 4	Main 3 Ant.	QPSK	22.5	18.5		18.5
LTE Band 5	Main 1 Ant.	QPSK	25.0			
LTE Band 12	Main 1 Ant.	QPSK	25.0			
LTE Band 13	Main 1 Ant.	QPSK	25.0			
LTE Band 17	Main 1 Ant.	QPSK	25.0			
LTE Band 25	Main 1 Ant.	QPSK	24.5	21.0	21.0	
LTE Band 26	Main 1 Ant.	QPSK	25.0			
LTE Band 66	Main 1 Ant.	QPSK	24.5	21.0	21.0	
LTE Band 41(PC3)	Main 2 Ant.	QPSK	25.0	24.0	24.0	
LTE Band 41(PC2)	Main 2 Ant.	QPSK	26.0	24.0	24.0	

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)	Reduced. RF Output Power (dBm)		
				Hotspot back-off	Proximity sensor Earjack back-off	RCV back-off
NR Band n5	Main 1 Ant.	DFT-s-OFDM QPSK	25.0			
NR Band n66	Main 1 Ant.	DFT-s-OFDM QPSK	24.5	21.0	21.0	
NR Band n66	Main 3 Ant.	DFT-s-OFDM QPSK	22.4	20.0		20.0

Normal WLAN-Maximum power

Band	Mode	SISO (dBm)	MIMO Ant.1 & Ant.2 (dBm)					MIMO (Ant.1 + Ant.2) (dBm)				
		b	a	g	n	ac	ax	a	g	n	ac	ax
2.4GHz	1Ch	20		18	18		17		21	21		20
2.4GHz	2-10Ch	20		18	18		18		21	21		21
2.4GHz	11Ch	20		18	18		17		21	21		20
2.4GHz	12Ch	12		9	9		9		12	12		12
2.4GHz	13Ch	10		7	7		6		10	10		9
5GHz (20MHz)	UNII-1		18		18	18	18	21		21	21	21
	UNII-2A		18		18	18	18	21		21	21	21
	UNII-2C		18		18	18	18	21		21	21	21
	UNII-3		18		18	18	18	21		21	21	21
	UNII-4		18		18	18	18	21		21	21	21
5GHz (40MHz)	UNII-1				17	17	17			20	20	20
	UNII-2A				17	17	17			20	20	20
	UNII-2C				17	17	17			20	20	20
	UNII-3				17	17	17			20	20	20
	UNII-4				17	17	17			20	20	20
5GHz (80MHz)	UNII-1					16	16				19	19
	UNII-2A					16	16				19	19
	UNII-2C					16	16				19	19
	UNII-3					16	16				19	19
	UNII-4					16	16				19	19
5GHz (160MHz)	UNII-1 & UNII-2A					15	15				18	18
	UNII-2C					15	15				18	18
	UNII-3 & UNII-4					15	15				18	18

Normal WLAN-Reduced power

Band	Mode	SISO (dBm)	MIMO Ant.1 & Ant.2 (dBm)					MIMO (Ant.1 + Ant.2) (dBm)					
		b	a	g	n	ac	ax	a	g	n	ac	ax	
2.4GHz	1Ch	17			17	17		17		20	20		20
2.4GHz	2-10Ch	17			17	17		17		20	20		20
2.4GHz	11Ch	17			17	17		17		20	20		20
2.4GHz	12Ch	12			9	9		9		12	12		12
2.4GHz	13Ch	10			7	7		7		10	10		10
5GHz (20MHz)	UNII-1		15		15	15	15	18		18	18	18	
	UNII-2A		15		15	15	15	18		18	18	18	
	UNII-2C		15		15	15	15	18		18	18	18	
	UNII-3		15		15	15	15	18		18	18	18	
	UNII-4		15		15	15	15	18		18	18	18	
5GHz (40MHz)	UNII-1				15	15	15			18	18	18	
	UNII-2A				15	15	15			18	18	18	
	UNII-2C				15	15	15			18	18	18	
	UNII-3				15	15	15			18	18	18	
	UNII-4				15	15	15			18	18	18	
5GHz (80MHz)	UNII-1					15	15				18	18	
	UNII-2A					15	15				18	18	
	UNII-2C					15	15				18	18	
	UNII-3					15	15				18	18	
	UNII-4					15	15				18	18	
5GHz (160MHz)	UNII-1 & UNII-2A					15	15				18	18	
	UNII-2C					15	15				18	18	
	UNII-3 & UNII-4					15	15				18	18	

Note(s):

1. This device uses an independent fixed level power reduction mechanism for WLAN mode operations during RCV operation. Detailed descriptions of the power reduction mechanism are included in the operational description.
2. Except 802.11b mode, All modes are only operate MIMO mode.

RSDB WLAN-Maximum power

Band	Mode	SISO (dBm)	MIMO Ant.1 & Ant.2 (dBm)					MIMO (Ant.1 + Ant.2) (dBm)						
		b	a	g	n	ac	ax	a	g	n	ac	ax		
2.4GHz	1Ch	17			17	17			17			20	20	20
2.4GHz	2-10Ch	17			17	17			17			20	20	20
2.4GHz	11Ch	17			17	17			17			20	20	20
2.4GHz	12Ch	12			9	9			9			12	12	12
2.4GHz	13Ch	10			7	7			7			10	10	10
5GHz (20MHz)	UNII-1		14		14	14	14	14	17			17	17	17
	UNII-2A		14		14	14	14	14	17			17	17	17
	UNII-2C		14		14	14	14	14	17			17	17	17
	UNII-3		14		14	14	14	14	17			17	17	17
	UNII-4		14		14	14	14	14	17			17	17	17
5GHz (40MHz)	UNII-1				14	14	14					17	17	17
	UNII-2A				14	14	14					17	17	17
	UNII-2C				14	14	14					17	17	17
	UNII-3				14	14	14					17	17	17
	UNII-4				14	14	14					17	17	17
5GHz (80MHz)	UNII-1					14	14						17	17
	UNII-2A					14	14						17	17
	UNII-2C					14	14						17	17
	UNII-3					14	14						17	17
	UNII-4					14	14						17	17
5GHz (160MHz)	UNII-1 & UNII-2A					14	14						17	17
	UNII-2C					14	14						17	17
	UNII-3 & UNII-4					14	14						17	17

RSDB WLAN-Reduced power

Band	Mode	SISO (dBm)	MIMO Ant.1 & Ant.2 (dBm)					MIMO (Ant.1 + Ant.2) (dBm)						
		b	a	g	n	ac	ax	a	g	n	ac	ax		
2.4GHz	1Ch	14			14	14			14			17	17	17
2.4GHz	2-10Ch	14			14	14			14			17	17	17
2.4GHz	11Ch	14			14	14			14			17	17	17
2.4GHz	12Ch	12			9	9			9			12	12	12
2.4GHz	13Ch	10			7	7			7			10	10	10
5GHz (20MHz)	UNII-1		14		14	14	14	14	17			17	17	17
	UNII-2A		14		14	14	14	14	17			17	17	17
	UNII-2C		14		14	14	14	14	17			17	17	17
	UNII-3		14		14	14	14	14	17			17	17	17
	UNII-4		14		14	14	14	14	17			17	17	17
5GHz (40MHz)	UNII-1				14	14	14					17	17	17
	UNII-2A				14	14	14					17	17	17
	UNII-2C				14	14	14					17	17	17
	UNII-3				14	14	14					17	17	17
	UNII-4				14	14	14					17	17	17
5GHz (80MHz)	UNII-1					14	14						17	17
	UNII-2A					14	14						17	17
	UNII-2C					14	14						17	17
	UNII-3					14	14						17	17
	UNII-4					14	14						17	17
5GHz (160MHz)	UNII-1 & UNII-2A					14	14						17	17
	UNII-2C					14	14						17	17
	UNII-3 & UNII-4					14	14						17	17

Bluetooth-Maximum power

Band	Mode	Maximum output power (dBm)			Reduced output power (dBm)		
		SISO Ant.1 & Ant.2	MIMO Ant.1 & Ant.2	MIMO Ant.1 + Ant.2	SISO Ant.1 & Ant.2	MIMO Ant.1 & Ant.2	MIMO Ant.1 + Ant.2
2.4GHz	Bluetooth_GFSK	19	13	16	17	13	16
2.4GHz	Bluetooth_EDR	18	10	13	17	10	13
2.4GHz	Bluetooth_LE	18	11	14	17	11	14

Note(s):

1. This device uses an independent fixed level power reduction mechanism for WLAN mode and Bluetooth operations during RCV operation. Detailed descriptions of the power reduction mechanism are included in the operational description.
2. Except 802.11b mode, All modes are only operate MIMO mode.
3. WLAN operation scenarios are refer to section.12.

6.4. Power Back-off Operation

This device supports multiple power back-off modes: WWAN (Hotspot), WWAN (Proximity sensor), WWAN (ear-jack) WWAN (RCV) and WLAN (RCV). Each of the power back-off operates within specific exposure conditions for certain technologies. For full details on how each power back-off mode operates, refer to the Operational Description.

Power Back-off mode	Technologies Supported	Exposure Conditions Active			
		Head	Body-worn	Hotspot	Product Specific 10-g
WWAN (Hotspot)	GSM 1900 WCDMA Band II & IV LTE Band 2 & 4 & 25 & 66 & 41 NR Band n66	N/A	N/A	✓	N/A
WWAN (Proximity sensor)	GSM 1900 WCDMA Band II & IV LTE Band 2 & 4 & 25 & 66 & 41 NR Band n66(Ant.1)	N/A	N/A	N/A	✓
WWAN (Ear-jack)	GSM 1900 WCDMA Band II & IV LTE Band 2 & 4 & 25 & 66 & 41	N/A	✓	N/A	✓
WWAN (RCV)	LTE Band 2 & 4 (Ant.3) NR Band n66(Ant.3)	✓	N/A	N/A	N/A
WLAN (RCV)	2.4GHz/5GHz WLAN & Bluetooth	✓	N/A	N/A	N/A

Note(s):

1. WWAN Back-off priority: RCV → Ear-jack → Proximity Sensor → Hotspot
2. Body-worn SAR with ear-jack connected is not required due to Body-worn measured at max power is not over 1.2 W/kg.

Product Specific 10g Adjusted SAR Calculation

Wireless technologies	Max Tune-up Limit (dBm)	Reduced Tune-Up Limit (dBm)	Power Factor	Reported SAR Limit (W/kg)
GSM 1900	23.5	21.2	1.70	0.707
WCDMA Band II	24.0	20.5	2.24	0.536
WCDMA Band IV	24.0	20.5	2.24	0.536
LTE Band 25(2)_Ant.1	24.5	21.0	2.24	0.536
LTE Band 66(4)_Ant.1	24.5	21.0	2.24	0.536
LTE Band 41	25.0	24.0	1.26	0.953
NR Band n66_Ant.1	24.5	21.0	2.24	0.536

Note(s):

1. Tune-up limit powers for GSM 1900 are frame power(dBm).
2. Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is < 1.2 W/kg. Therefore, Extremity SAR testing is not required for this band in accordance with KDB 648474 §2.5 b. Refer to §10 for Reported SAR results. If the Reported SAR 1g value in §10 is less than the Reported SAR Limit listed above, then Extremity SAR is not required.
3. LTE 50% RB is scaled up to the Max Tune-Up Limit with MPR included.
4. For Reported SAR limit in above table, it was calculated using Max tune-up Limit & Reduced Tune-up limit & Reported SAR 1.2 W/kg.
(Reported SAR Limit = 1.2 W/kg / Power factor, Power factor = $10^{((\text{Max tune-up limit} - \text{Reduced tune-up limit})/10)}$)

6.5. 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 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			
Band 17	Frequency range: 704 - 716 MHz						
	Channel Bandwidth						
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	
Low			23780/ 709	23755/ 706.5			
Mid			23790/ 710	23790/ 710			
High			23800/ 711	23825/ 713.5			

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 25	Frequency range: 1850 - 1915 MHz																																																																		
		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		26765/ 821.5	26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7																																																													
	Mid		26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5																																																													
	High		26965/ 841.5	26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3																																																													
	Band 41	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																																																																		
Band 66	Frequency range: 1710 - 1780 MHz																																																																			
	Channel Bandwidth																																																																			
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz																																																														
Low	132072/ 1720	132047/ 1717.5	132022/ 1715	131997/ 1712.5	131987/ 1711.5	131979/ 1710.7																																																														
Mid	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745																																																														
High	132572/ 1770	132597/ 1772.5	132622/ 1775	132647/ 1777.5	132657/ 1778.5	132665/ 1779.3																																																														
LTE transmitter and antenna implementation	Refer to Appendix A.																																																																			
Maximum power reduction (MPR)	Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3																																																																			
	<table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (N_{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> </thead> <tbody> <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> <tr> <td>64 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 3</td> </tr> <tr> <td>256 QAM</td> <td colspan="6">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>							Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1					
Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)																																																													
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz																																																														
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																																													
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																													
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2																																																													
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2																																																													
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																													
256 QAM	≥ 1						≤ 5																																																													
	MPR Built-in by design The manufacturer MPR values are always within the 3GPP maximum MPR allowance but may not follow the default MPR values. A-MPR (additional MPR) was disabled during SAR testing																																																																			
Power reduction	Yes																																																																			
Spectrum plots for RB configurations	A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																																			

Notes:

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

6.6. LTE (TDD) Considerations

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

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

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

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

Calculated Duty Cycle

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

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

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = $5120 \times [1/(15000 \times 2048)] \times 2 + 6 \text{ ms} = 63.33\%$

where

$T_s = 1/(15000 \times 2048)$ seconds

Note(s):

This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% duty cycle. Only LTE Band 41 Power Class 2 was used configuration 1 at 43.3% duty cycle for SAR testing.

6.7. NR (Sub 6GHz) SAR Test and Reporting Considerations

Item	Description													
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n5	Frequency range: 824 - 849 MHz												
		Channel Bandwidth (MHz)												
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										166800 /834	166300 /831.5	165800 /829	165300 /826.5
	Mid										167300 /836.5	167300 /836.5	167300 /836.5	167300 /836.5
	High										167800 /839	168300 /841.5	168800 /844	169300 /846.5
	Band n66	Frequency range: 1710 - 1780 MHz												
		Channel Bandwidth (MHz)												
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										344000 /1720	343500 /1717.5	343000 /1715	342500 /1712.5
	Mid										349000 /1745	349000 /1745	349000 /1745	349000 /1745
	High										354000 /1770	354500 /1772.5	355000 /1775	355500 /1777.5
	SCS	15 kHz												
	Modulations Supported in UL	DFT-s-OFDM: $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM												
A-MPR (Additional MPR) disabled for SAR Testing?	Yes													
EN-DC Carrier Aggregation Possible Combinations														
LTE Anchor Bands for NR Band n5	LTE Band 2, 66													
LTE Anchor Bands for NR Band n66 (Main Ant.1)	LTE Band 5, 12, 13													
LTE Anchor Bands for NR Band n66 (Main Ant.3)	LTE Band 2													

Notes:

- SAR test for NR bands and LTE anchor Bands were performed separately due to limitations in SAR probe calibration factors. And, Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
- NR configurations of SAR test were determined according to Section 5.2 of KDB 941225 D05.
- All NR Bands has supports both SA and NSA. But NR Bands of Main Ant.3 has supports only NSA mode.

6.8. Dynamic Antenna tuner testing – For PAG REUSE

This Device applies Qualcomm chipset solution's Dynamic Antenna tuning technology to LTE Band 5 in Main 1 Ant. Dynamic Antenna tuning was tested in accordance with the April 2019 FCC TCBC Workshop notes.

Per 2019, April TCBC Workshop document

- SAR is measured according to required procedures with dynamic tuner active allowing device to automatically tune. Auto-tune state determined by device during normal SAR measurement verified and listed alongside the reported SAR results.
- Additional single point SAR (time-sweep) measurements were evaluated for other tuner states to determine that the other configurations would result in equivalent or lower SAR values.
- Single point measurements performed at the peak SAR location of the highest measured SAR configuration for each combination. SAR probe remains stationary throughout the entire series of single point measurements for each combination.
- Total number tuner states divided evenly among each supported band / air interface and exposure condition combination. If any single point SAR measurement result is > 1.2 W/kg for a band / exposure condition combination set, all supported tuner states are evaluated with single point SAR measurements for the combination. Tuner state is established remotely so that the device is not moved for the entire series of single point SAR measurements for the tuner states in each combination.

The following test procedures were followed to demonstrate that the SAR results in Section 10 represented the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR was measured according to the required FCC SAR test procedures with the dynamic tuning active to allow the device to automatically to the antenna state for the respective RF exposure test configurations. Additional single point SAR time-sweep measurements were evaluated for other tuner states to determine that the other configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence on the antenna characteristics, other impedance matching.

To evaluate all the tuner states, the 2 tuner states were tested for each RF exposure conditions. Single point time-sweep measurements were performed at the peak SAR location determined by the zoom scan of the configuration with the highest reported SAR for each combination. The tuner state was able to be established remotely so that the device was not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe remained stationary at the same position throughout the entire series of single point measurements for each combination.

Dynamic Antenna tuner testing results

Max/Reduce	MAX	Max/Reduce	MAX	Max/Reduce	MAX
RF exposure condition	Body-worn	RF exposure condition	Hotspot	RF exposure condition	Head
Position	Rear	Position	Rear	Position	Left touch
Test distance	15mm	Test distance	10mm	Test distance	0mm
Original data SAR (W/kg)		Original data SAR (W/kg)		Original data SAR (W/kg)	
LTE Band 5	0.237	LTE Band 5	0.473	LTE Band 5	0.129
single point SAR (W/kg)		single point SAR (W/kg)		single point SAR (W/kg)	
Auto-tune code (1)	0.403	Auto-tune code (1)	0.811	Auto-tune code (1)	0.199
Default states		Default states		Default states	
1	0.363	1	0.746	1	0.165
2	0.278	2	0.473	2	0.165

7. RF Exposure Conditions (Test Configurations)

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

Wireless technologies	RF Exposure Conditions	Antenna	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN	Head	All Main Antennas	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	All Main Antennas	15 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
				Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
	Hotspot	Main 1 Ant.	10 mm	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	
	Hotspot	Main 2 Ant.	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	< 25 mm	Yes	
	Hotspot	Main 3 Ant.	10 mm	Edge 3 (Bottom)	< 25 mm	Yes	
				Edge 4 (Left)	> 25 mm	No	1
				Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
	Product Specific 10-g	All Main Antennas	0 mm	Edge 1 (Top)	Refer to notes 2 & 3		
				Edge 2 (Right)			
				Edge 3 (Bottom)			
				Edge 4 (Left)			
Rear							
Front							
2.4GHz WLAN/BT & 5GHz WLAN	Head	All Main Antennas	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	All Main Antennas	15 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
				Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
	Hotspot	WiFi/BT 2.4G Ant.1 or MIMO & WiFi 5G Ant.1 or MIMO	10 mm	Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
	Hotspot	WiFi/BT 2.4G Ant.2	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	> 25 mm	No	1
	Product Specific 10-g	All Main Antennas	0 mm	Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
				Rear	Refer to notes 2 & 4		
				Front			
	Edge 1 (Top)						
	Edge 2 (Right)						

Notes:

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

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 $\pm 2^\circ\text{C}$ 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.

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

SAR test were performed in All RF exposure conditions using Head tissue according to TCB workshop note of April. 2019.

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

**Dielectric Property Measurements Results:
SAR 1 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)		
10-4-2021	Head 5250	e'	35.5500	Relative Permittivity (ϵ_r):	35.55	35.95	-1.11	5	
		e"	16.4000	Conductivity (σ):	4.79	4.71	1.64	5	
	Head 5260	e'	35.5500	Relative Permittivity (ϵ_r):	35.55	35.94	-1.09	5	
		e"	16.4100	Conductivity (σ):	4.80	4.72	1.68	5	
	Head 5600	e'	34.9300	Relative Permittivity (ϵ_r):	34.93	35.50	-1.61	5	
		e"	16.8100	Conductivity (σ):	5.23	5.07	3.24	5	
	Head 5750	e'	34.6500	Relative Permittivity (ϵ_r):	34.65	35.35	-1.98	5	
		e"	16.8700	Conductivity (σ):	5.39	5.22	3.33	5	
	Head 5825	e'	34.4700	Relative Permittivity (ϵ_r):	34.47	35.28	-2.28	5	
		e"	16.9000	Conductivity (σ):	5.47	5.30	3.35	5	
	10-7-2021	Head 5250	e'	35.5000	Relative Permittivity (ϵ_r):	35.50	35.95	-1.25	5
			e"	15.5100	Conductivity (σ):	4.53	4.71	-3.87	5
Head 5260		e'	35.4800	Relative Permittivity (ϵ_r):	35.48	35.94	-1.28	5	
		e"	15.5100	Conductivity (σ):	4.54	4.72	-3.89	5	
Head 5600		e'	34.8100	Relative Permittivity (ϵ_r):	34.81	35.50	-1.94	5	
		e"	15.8200	Conductivity (σ):	4.93	5.07	-2.84	5	
Head 5750		e'	34.5100	Relative Permittivity (ϵ_r):	34.51	35.35	-2.38	5	
		e"	15.9800	Conductivity (σ):	5.11	5.22	-2.12	5	
Head 5825		e'	34.4600	Relative Permittivity (ϵ_r):	34.46	35.28	-2.31	5	
		e"	16.0200	Conductivity (σ):	5.19	5.30	-2.03	5	
10-18-2021		Head 1750	e'	39.6000	Relative Permittivity (ϵ_r):	39.60	40.08	-1.21	5
			e"	13.9100	Conductivity (σ):	1.35	1.37	-1.13	5
	Head 1710	e'	39.6500	Relative Permittivity (ϵ_r):	39.65	40.15	-1.24	5	
		e"	13.8400	Conductivity (σ):	1.32	1.35	-2.26	5	
	Head 1755	e'	39.5800	Relative Permittivity (ϵ_r):	39.58	40.08	-1.24	5	
		e"	13.9000	Conductivity (σ):	1.36	1.37	-1.12	5	
10-19-2021	Head 5250	e'	35.7900	Relative Permittivity (ϵ_r):	35.79	35.93	-0.40	5	
		e"	16.2400	Conductivity (σ):	4.74	4.70	0.82	5	
	Head 5260	e'	35.7700	Relative Permittivity (ϵ_r):	35.77	35.92	-0.42	5	
		e"	16.2500	Conductivity (σ):	4.75	4.71	0.86	5	
	Head 5600	e'	35.1100	Relative Permittivity (ϵ_r):	35.11	35.53	-1.19	5	
		e"	16.4800	Conductivity (σ):	5.13	5.06	1.41	5	
	Head 5750	e'	34.8200	Relative Permittivity (ϵ_r):	34.82	35.36	-1.53	5	
		e"	16.5900	Conductivity (σ):	5.30	5.21	1.73	5	
	Head 5800	e'	34.7200	Relative Permittivity (ϵ_r):	34.72	35.30	-1.64	5	
		e"	16.6300	Conductivity (σ):	5.36	5.27	1.77	5	
	Head 5925	e'	34.4900	Relative Permittivity (ϵ_r):	34.49	35.20	-2.02	5	
		e"	16.7000	Conductivity (σ):	5.50	5.40	1.88	5	
10-22-2021	Head 5250	e'	35.5100	Relative Permittivity (ϵ_r):	35.51	35.93	-1.18	5	
		e"	16.4100	Conductivity (σ):	4.79	4.70	1.88	5	
	Head 5260	e'	35.5000	Relative Permittivity (ϵ_r):	35.50	35.92	-1.17	5	
		e"	16.4200	Conductivity (σ):	4.80	4.71	1.91	5	
	Head 5600	e'	34.8600	Relative Permittivity (ϵ_r):	34.86	35.53	-1.90	5	
		e"	16.6900	Conductivity (σ):	5.20	5.06	2.70	5	
	Head 5750	e'	34.5800	Relative Permittivity (ϵ_r):	34.58	35.36	-2.21	5	
		e"	16.8300	Conductivity (σ):	5.38	5.21	3.21	5	
	Head 5825	e'	34.4400	Relative Permittivity (ϵ_r):	34.44	35.30	-2.44	5	
		e"	16.8700	Conductivity (σ):	5.46	5.27	3.68	5	

SAR 1 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)		
10-25-2021	Head 5250	e'	35.5300	Relative Permittivity (ϵ_r):	35.53	35.93	-1.12	5	
		e"	15.9500	Conductivity (σ):	4.66	4.70	-0.98	5	
	Head 5260	e'	35.5100	Relative Permittivity (ϵ_r):	35.51	35.92	-1.15	5	
		e"	15.9600	Conductivity (σ):	4.67	4.71	-0.94	5	
	Head 5600	e'	34.8800	Relative Permittivity (ϵ_r):	34.88	35.53	-1.84	5	
		e"	16.1500	Conductivity (σ):	5.03	5.06	-0.62	5	
	Head 5750	e'	34.6000	Relative Permittivity (ϵ_r):	34.60	35.36	-2.16	5	
		e"	16.2400	Conductivity (σ):	5.19	5.21	-0.41	5	
	Head 5800	e'	34.5100	Relative Permittivity (ϵ_r):	34.51	35.30	-2.24	5	
		e"	16.2600	Conductivity (σ):	5.24	5.27	-0.50	5	
	Head 5925	e'	34.2900	Relative Permittivity (ϵ_r):	34.29	35.20	-2.59	5	
		e"	16.3100	Conductivity (σ):	5.37	5.40	-0.49	5	
	10-28-2021	Head 835	e'	40.7200	Relative Permittivity (ϵ_r):	40.72	41.50	-1.88	5
			e"	20.3100	Conductivity (σ):	0.94	0.90	4.77	5
Head 820		e'	40.7700	Relative Permittivity (ϵ_r):	40.77	41.60	-2.00	5	
		e"	20.5800	Conductivity (σ):	0.94	0.90	4.44	5	
Head 850		e'	40.6900	Relative Permittivity (ϵ_r):	40.69	41.50	-1.95	5	
		e"	20.0500	Conductivity (σ):	0.95	0.92	3.56	5	
10-28-2021	Head 1750	e'	39.0000	Relative Permittivity (ϵ_r):	39.00	40.08	-2.71	5	
		e"	13.9800	Conductivity (σ):	1.36	1.37	-0.63	5	
	Head 1710	e'	39.1500	Relative Permittivity (ϵ_r):	39.15	40.15	-2.48	5	
		e"	14.1200	Conductivity (σ):	1.34	1.35	-0.29	5	
	Head 1755	e'	38.9800	Relative Permittivity (ϵ_r):	38.98	40.08	-2.74	5	
		e"	13.9700	Conductivity (σ):	1.36	1.37	-0.62	5	
10-28-2021	Head 1900	e'	38.8500	Relative Permittivity (ϵ_r):	38.85	40.00	-2.88	5	
		e"	13.5900	Conductivity (σ):	1.44	1.40	2.55	5	
	Head 1850	e'	38.8800	Relative Permittivity (ϵ_r):	38.88	40.00	-2.80	5	
		e"	13.6700	Conductivity (σ):	1.41	1.40	0.44	5	
	Head 1910	e'	38.8500	Relative Permittivity (ϵ_r):	38.85	40.00	-2.88	5	
		e"	13.5900	Conductivity (σ):	1.44	1.40	3.09	5	
10-28-2021	Head 2450	e'	38.0600	Relative Permittivity (ϵ_r):	38.06	39.20	-2.91	5	
		e"	13.2300	Conductivity (σ):	1.80	1.80	0.13	5	
	Head 2400	e'	38.1300	Relative Permittivity (ϵ_r):	38.13	39.30	-2.97	5	
		e"	13.2600	Conductivity (σ):	1.77	1.75	1.02	5	
	Head 2480	e'	38.0100	Relative Permittivity (ϵ_r):	38.01	39.16	-2.94	5	
		e"	13.2100	Conductivity (σ):	1.82	1.83	-0.59	5	
10-28-2021	Head 2600	e'	37.8800	Relative Permittivity (ϵ_r):	37.88	39.01	-2.90	5	
		e"	13.2600	Conductivity (σ):	1.92	1.96	-2.30	5	
	Head 2500	e'	37.9800	Relative Permittivity (ϵ_r):	37.98	39.14	-2.96	5	
		e"	13.2100	Conductivity (σ):	1.84	1.85	-0.96	5	
	Head 2700	e'	37.7300	Relative Permittivity (ϵ_r):	37.73	38.88	-2.97	5	
		e"	13.3200	Conductivity (σ):	2.00	2.07	-3.41	5	
10-31-2021	Head 835	e'	41.8800	Relative Permittivity (ϵ_r):	41.88	41.50	0.92	5	
		e"	20.0500	Conductivity (σ):	0.93	0.90	3.43	5	
	Head 820	e'	41.9500	Relative Permittivity (ϵ_r):	41.95	41.60	0.84	5	
		e"	20.2700	Conductivity (σ):	0.92	0.90	2.86	5	
	Head 850	e'	41.8500	Relative Permittivity (ϵ_r):	41.85	41.50	0.84	5	
		e"	19.8400	Conductivity (σ):	0.94	0.92	2.48	5	
11-3-2021	Head 1750	e'	39.5700	Relative Permittivity (ϵ_r):	39.57	40.08	-1.28	5	
		e"	13.8400	Conductivity (σ):	1.35	1.37	-1.63	5	
	Head 1710	e'	39.7100	Relative Permittivity (ϵ_r):	39.71	40.15	-1.09	5	
		e"	13.9800	Conductivity (σ):	1.33	1.35	-1.28	5	
	Head 1755	e'	39.5500	Relative Permittivity (ϵ_r):	39.55	40.08	-1.31	5	
		e"	13.8400	Conductivity (σ):	1.35	1.37	-1.55	5	
11-3-2021	Head 1900	e'	39.3800	Relative Permittivity (ϵ_r):	39.38	40.00	-1.55	5	
		e"	13.4200	Conductivity (σ):	1.42	1.40	1.27	5	
	Head 1850	e'	39.4500	Relative Permittivity (ϵ_r):	39.45	40.00	-1.37	5	
		e"	13.5500	Conductivity (σ):	1.39	1.40	-0.44	5	
	Head 1910	e'	39.3800	Relative Permittivity (ϵ_r):	39.38	40.00	-1.55	5	
		e"	13.4100	Conductivity (σ):	1.42	1.40	1.73	5	

SAR 1 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)		
12-6-2021	Head 5250	e'	35.1900	Relative Permittivity (ϵ_r):	35.19	35.93	-2.07	5	
		e"	15.8300	Conductivity (σ):	4.62	4.70	-1.72	5	
	Head 5260	e'	35.1700	Relative Permittivity (ϵ_r):	35.17	35.92	-2.09	5	
		e"	15.8400	Conductivity (σ):	4.63	4.71	-1.69	5	
	Head 5600	e'	34.4900	Relative Permittivity (ϵ_r):	34.49	35.53	-2.94	5	
		e"	16.1800	Conductivity (σ):	5.04	5.06	-0.44	5	
	Head 5750	e'	34.2300	Relative Permittivity (ϵ_r):	34.23	35.36	-3.20	5	
		e"	16.3100	Conductivity (σ):	5.21	5.21	0.02	5	
	Head 5825	e'	34.0800	Relative Permittivity (ϵ_r):	34.08	35.30	-3.46	5	
		e"	16.3400	Conductivity (σ):	5.29	5.27	0.42	5	
	12-9-2021	Head 5250	e'	35.7100	Relative Permittivity (ϵ_r):	35.71	35.93	-0.62	5
			e"	16.0900	Conductivity (σ):	4.70	4.70	-0.11	5
Head 5260		e'	35.6800	Relative Permittivity (ϵ_r):	35.68	35.92	-0.67	5	
		e"	16.0900	Conductivity (σ):	4.71	4.71	-0.14	5	
Head 5600		e'	34.8800	Relative Permittivity (ϵ_r):	34.88	35.53	-1.84	5	
		e"	16.4200	Conductivity (σ):	5.11	5.06	1.04	5	
Head 5750		e'	34.6100	Relative Permittivity (ϵ_r):	34.61	35.36	-2.13	5	
		e"	16.5900	Conductivity (σ):	5.30	5.21	1.73	5	
Head 5825		e'	34.4800	Relative Permittivity (ϵ_r):	34.48	35.30	-2.32	5	
		e"	16.6300	Conductivity (σ):	5.39	5.27	2.21	5	
12-13-2021	Head 5250	e'	35.5100	Relative Permittivity (ϵ_r):	35.51	35.93	-1.18	5	
		e"	15.8300	Conductivity (σ):	4.62	4.70	-1.72	5	
	Head 5260	e'	35.5000	Relative Permittivity (ϵ_r):	35.50	35.92	-1.17	5	
		e"	15.8400	Conductivity (σ):	4.63	4.71	-1.69	5	
	Head 5600	e'	34.8100	Relative Permittivity (ϵ_r):	34.81	35.53	-2.04	5	
		e"	16.0700	Conductivity (σ):	5.00	5.06	-1.11	5	
	Head 5750	e'	34.5300	Relative Permittivity (ϵ_r):	34.53	35.36	-2.35	5	
		e"	16.2200	Conductivity (σ):	5.19	5.21	-0.54	5	
	Head 5825	e'	34.4600	Relative Permittivity (ϵ_r):	34.46	35.30	-2.38	5	
		e"	16.2900	Conductivity (σ):	5.28	5.27	0.12	5	
12-16-2021	Head 5250	e'	35.1400	Relative Permittivity (ϵ_r):	35.14	35.93	-2.21	5	
		e"	15.7600	Conductivity (σ):	4.60	4.70	-2.16	5	
	Head 5260	e'	35.1200	Relative Permittivity (ϵ_r):	35.12	35.92	-2.23	5	
		e"	15.7700	Conductivity (σ):	4.61	4.71	-2.12	5	
	Head 5600	e'	34.7700	Relative Permittivity (ϵ_r):	34.77	35.53	-2.15	5	
		e"	15.9400	Conductivity (σ):	4.96	5.06	-1.91	5	
	Head 5750	e'	34.5100	Relative Permittivity (ϵ_r):	34.51	35.36	-2.41	5	
		e"	16.0300	Conductivity (σ):	5.13	5.21	-1.70	5	
	Head 5825	e'	34.2800	Relative Permittivity (ϵ_r):	34.28	35.30	-2.89	5	
		e"	16.0500	Conductivity (σ):	5.20	5.27	-1.36	5	

SAR 2 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
12-13-2021	Head 5250	e'	36.8800	Relative Permittivity (ϵ_r):	36.88	35.93	2.64	5
		e"	15.8200	Conductivity (σ):	4.62	4.70	-1.79	5
	Head 5260	e'	36.8700	Relative Permittivity (ϵ_r):	36.87	35.92	2.64	5
		e"	15.8300	Conductivity (σ):	4.63	4.71	-1.75	5
	Head 5600	e'	36.2700	Relative Permittivity (ϵ_r):	36.27	35.53	2.07	5
		e"	16.0000	Conductivity (σ):	4.98	5.06	-1.55	5
	Head 5750	e'	36.0200	Relative Permittivity (ϵ_r):	36.02	35.36	1.86	5
		e"	16.0900	Conductivity (σ):	5.14	5.21	-1.33	5
	Head 5800	e'	35.9400	Relative Permittivity (ϵ_r):	35.94	35.30	1.81	5
		e"	16.1100	Conductivity (σ):	5.20	5.27	-1.41	5
	Head 5925	e'	35.7400	Relative Permittivity (ϵ_r):	35.74	35.20	1.53	5
		e"	16.1700	Conductivity (σ):	5.33	5.40	-1.35	5

SAR 3 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9-13-2021	Head 1750	e'	40.9900	Relative Permittivity (ϵ_r):	40.99	40.07	2.29	5
		e''	13.7400	Conductivity (σ):	1.34	1.37	-2.51	5
	Head 1710	e'	41.0600	Relative Permittivity (ϵ_r):	41.06	40.13	2.32	5
		e''	13.7300	Conductivity (σ):	1.31	1.35	-3.20	5
	Head 1755	e'	40.9800	Relative Permittivity (ϵ_r):	40.98	40.06	2.29	5
		e''	13.7300	Conductivity (σ):	1.34	1.37	-2.51	5
9-13-2021	Head 1900	e'	40.6200	Relative Permittivity (ϵ_r):	40.62	40.00	1.55	5
		e''	13.5400	Conductivity (σ):	1.43	1.40	2.17	5
	Head 1850	e'	40.7500	Relative Permittivity (ϵ_r):	40.75	40.00	1.88	5
		e''	13.6200	Conductivity (σ):	1.40	1.40	0.07	5
	Head 1910	e'	40.5900	Relative Permittivity (ϵ_r):	40.59	40.00	1.48	5
		e''	13.5200	Conductivity (σ):	1.44	1.40	2.56	5
9-16-2021	Head 1750	e'	39.3300	Relative Permittivity (ϵ_r):	39.33	40.07	-1.85	5
		e''	13.4700	Conductivity (σ):	1.31	1.37	-4.43	5
	Head 1710	e'	39.3600	Relative Permittivity (ϵ_r):	39.36	40.13	-1.92	5
		e''	13.5100	Conductivity (σ):	1.28	1.35	-4.75	5
	Head 1755	e'	39.3200	Relative Permittivity (ϵ_r):	39.32	40.06	-1.86	5
		e''	13.4600	Conductivity (σ):	1.31	1.37	-4.42	5
9-16-2021	Head 1900	e'	38.9900	Relative Permittivity (ϵ_r):	38.99	40.00	-2.53	5
		e''	13.2800	Conductivity (σ):	1.40	1.40	0.21	5
	Head 1850	e'	39.1100	Relative Permittivity (ϵ_r):	39.11	40.00	-2.23	5
		e''	13.3400	Conductivity (σ):	1.37	1.40	-1.98	5
	Head 1910	e'	38.9600	Relative Permittivity (ϵ_r):	38.96	40.00	-2.60	5
		e''	13.2700	Conductivity (σ):	1.41	1.40	0.66	5
9-26-2021	Head 1750	e'	39.3500	Relative Permittivity (ϵ_r):	39.35	40.07	-1.80	5
		e''	13.9500	Conductivity (σ):	1.36	1.37	-1.02	5
	Head 1710	e'	39.3700	Relative Permittivity (ϵ_r):	39.37	40.13	-1.89	5
		e''	14.0300	Conductivity (σ):	1.33	1.35	-1.08	5
	Head 1755	e'	39.3500	Relative Permittivity (ϵ_r):	39.35	40.06	-1.78	5
		e''	13.9400	Conductivity (σ):	1.36	1.37	-1.02	5
9-26-2021	Head 1900	e'	39.1500	Relative Permittivity (ϵ_r):	39.15	40.00	-2.13	5
		e''	13.7100	Conductivity (σ):	1.45	1.40	3.46	5
	Head 1850	e'	39.2300	Relative Permittivity (ϵ_r):	39.23	40.00	-1.93	5
		e''	13.7900	Conductivity (σ):	1.42	1.40	1.32	5
	Head 1910	e'	39.1200	Relative Permittivity (ϵ_r):	39.12	40.00	-2.20	5
		e''	13.6900	Conductivity (σ):	1.45	1.40	3.85	5
9-29-2021	Head 2450	e'	39.1800	Relative Permittivity (ϵ_r):	39.18	39.20	-0.05	5
		e''	13.1800	Conductivity (σ):	1.80	1.80	-0.25	5
	Head 2400	e'	39.3300	Relative Permittivity (ϵ_r):	39.33	39.29	0.11	5
		e''	13.1800	Conductivity (σ):	1.76	1.76	0.18	5
	Head 2480	e'	39.1000	Relative Permittivity (ϵ_r):	39.10	39.16	-0.15	5
		e''	13.1800	Conductivity (σ):	1.82	1.83	-0.79	5
10-5-2021	Head 2450	e'	38.5900	Relative Permittivity (ϵ_r):	38.59	39.20	-1.56	5
		e''	13.0600	Conductivity (σ):	1.78	1.80	-1.16	5
	Head 2400	e'	38.6800	Relative Permittivity (ϵ_r):	38.68	39.29	-1.54	5
		e''	13.0900	Conductivity (σ):	1.75	1.76	-0.51	5
	Head 2480	e'	38.5400	Relative Permittivity (ϵ_r):	38.54	39.16	-1.58	5
		e''	13.0500	Conductivity (σ):	1.80	1.83	-1.77	5

SAR 3 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-26-2021	Head 1750	e'	39.1800	Relative Permittivity (ϵ_r):	39.18	40.08	-2.26	5
		e"	13.7800	Conductivity (σ):	1.34	1.37	-2.05	5
	Head 1710	e'	39.3600	Relative Permittivity (ϵ_r):	39.36	40.15	-1.96	5
		e"	13.9300	Conductivity (σ):	1.32	1.35	-1.63	5
	Head 1755	e'	39.1600	Relative Permittivity (ϵ_r):	39.16	40.08	-2.29	5
		e"	13.7600	Conductivity (σ):	1.34	1.37	-2.12	5
10-26-2021	Head 2450	e'	38.4000	Relative Permittivity (ϵ_r):	38.40	39.20	-2.04	5
		e"	12.8600	Conductivity (σ):	1.75	1.80	-2.67	5
	Head 2400	e'	38.4600	Relative Permittivity (ϵ_r):	38.46	39.30	-2.13	5
		e"	12.9000	Conductivity (σ):	1.72	1.75	-1.72	5
	Head 2480	e'	38.3400	Relative Permittivity (ϵ_r):	38.34	39.16	-2.10	5
		e"	12.9400	Conductivity (σ):	1.78	1.83	-2.62	5
10-29-2021	Head 2600	e'	37.6900	Relative Permittivity (ϵ_r):	37.69	39.01	-3.39	5
		e"	13.6600	Conductivity (σ):	1.97	1.96	0.64	5
	Head 2500	e'	37.9200	Relative Permittivity (ϵ_r):	37.92	39.14	-3.11	5
		e"	13.5700	Conductivity (σ):	1.89	1.85	1.74	5
	Head 2700	e'	37.4300	Relative Permittivity (ϵ_r):	37.43	38.88	-3.74	5
		e"	13.5500	Conductivity (σ):	2.03	2.07	-1.74	5
11-3-2021	Head 835	e'	40.6200	Relative Permittivity (ϵ_r):	40.62	41.50	-2.12	5
		e"	19.7700	Conductivity (σ):	0.92	0.90	1.99	5
	Head 820	e'	40.6800	Relative Permittivity (ϵ_r):	40.68	41.60	-2.22	5
		e"	20.0300	Conductivity (σ):	0.91	0.90	1.65	5
	Head 850	e'	40.5900	Relative Permittivity (ϵ_r):	40.59	41.50	-2.19	5
		e"	19.5100	Conductivity (σ):	0.92	0.92	0.78	5
11-3-2021	Head 1750	e'	40.6300	Relative Permittivity (ϵ_r):	40.63	40.08	1.36	5
		e"	13.5500	Conductivity (σ):	1.32	1.37	-3.69	5
	Head 1710	e'	40.6600	Relative Permittivity (ϵ_r):	40.66	40.15	1.28	5
		e"	13.6500	Conductivity (σ):	1.30	1.35	-3.61	5
	Head 1755	e'	40.6200	Relative Permittivity (ϵ_r):	40.62	40.08	1.36	5
		e"	13.5400	Conductivity (σ):	1.32	1.37	-3.68	5
11-3-2021	Head 1900	e'	40.3900	Relative Permittivity (ϵ_r):	40.39	40.00	0.98	5
		e"	13.3800	Conductivity (σ):	1.41	1.40	0.97	5
	Head 1850	e'	40.4900	Relative Permittivity (ϵ_r):	40.49	40.00	1.23	5
		e"	13.4600	Conductivity (σ):	1.38	1.40	-1.10	5
	Head 1910	e'	40.3800	Relative Permittivity (ϵ_r):	40.38	40.00	0.95	5
		e"	13.3700	Conductivity (σ):	1.42	1.40	1.42	5
12-20-2021	Head 1750	e'	40.3600	Relative Permittivity (ϵ_r):	40.36	40.08	0.69	5
		e"	13.8900	Conductivity (σ):	1.35	1.37	-1.27	5
	Head 1710	e'	40.4900	Relative Permittivity (ϵ_r):	40.49	40.15	0.86	5
		e"	14.0100	Conductivity (σ):	1.33	1.35	-1.06	5
	Head 1755	e'	40.3500	Relative Permittivity (ϵ_r):	40.35	40.08	0.68	5
		e"	13.8800	Conductivity (σ):	1.35	1.37	-1.26	5
12-22-2021	Head 1900	e'	39.6600	Relative Permittivity (ϵ_r):	39.66	40.00	-0.85	5
		e"	13.4700	Conductivity (σ):	1.42	1.40	1.65	5
	Head 1850	e'	39.6900	Relative Permittivity (ϵ_r):	39.69	40.00	-0.78	5
		e"	13.4900	Conductivity (σ):	1.39	1.40	-0.88	5
	Head 1910	e'	39.6600	Relative Permittivity (ϵ_r):	39.66	40.00	-0.85	5
		e"	13.4700	Conductivity (σ):	1.43	1.40	2.18	5

SAR 4 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9-23-2021	Head 2600	e'	38.2900	Relative Permittivity (ϵ_r):	38.29	39.00	-1.82	5
		e''	13.3900	Conductivity (σ):	1.94	1.96	-1.24	5
	Head 2500	e'	38.4600	Relative Permittivity (ϵ_r):	38.46	39.13	-1.72	5
		e''	13.4300	Conductivity (σ):	1.87	1.85	0.73	5
	Head 2700	e'	38.1000	Relative Permittivity (ϵ_r):	38.10	38.88	-1.99	5
		e''	13.3900	Conductivity (σ):	2.01	2.07	-2.89	5
9-27-2021	Head 2600	e'	40.0500	Relative Permittivity (ϵ_r):	40.05	39.00	2.69	5
		e''	13.1700	Conductivity (σ):	1.90	1.96	-2.86	5
	Head 2500	e'	40.2200	Relative Permittivity (ϵ_r):	40.22	39.13	2.78	5
		e''	13.1300	Conductivity (σ):	1.83	1.85	-1.52	5
	Head 2700	e'	39.7400	Relative Permittivity (ϵ_r):	39.74	38.88	2.23	5
		e''	13.2100	Conductivity (σ):	1.98	2.07	-4.19	5
9-29-2021	Head 2600	e'	39.4400	Relative Permittivity (ϵ_r):	39.44	39.00	1.13	5
		e''	13.2400	Conductivity (σ):	1.91	1.96	-2.34	5
	Head 2500	e'	39.6200	Relative Permittivity (ϵ_r):	39.62	39.13	1.24	5
		e''	13.3000	Conductivity (σ):	1.85	1.85	-0.24	5
	Head 2700	e'	39.0900	Relative Permittivity (ϵ_r):	39.09	38.88	0.55	5
		e''	13.3400	Conductivity (σ):	2.00	2.07	-3.25	5
10-4-2021	Head 2450	e'	37.7700	Relative Permittivity (ϵ_r):	37.77	39.20	-3.65	5
		e''	13.2800	Conductivity (σ):	1.81	1.80	0.51	5
	Head 2400	e'	37.8500	Relative Permittivity (ϵ_r):	37.85	39.29	-3.65	5
		e''	13.2800	Conductivity (σ):	1.77	1.76	0.94	5
	Head 2480	e'	37.7200	Relative Permittivity (ϵ_r):	37.72	39.16	-3.68	5
		e''	13.2600	Conductivity (σ):	1.83	1.83	-0.19	5
10-7-2021	Head 2450	e'	37.9300	Relative Permittivity (ϵ_r):	37.93	39.20	-3.24	5
		e''	13.2800	Conductivity (σ):	1.81	1.80	0.51	5
	Head 2400	e'	38.0300	Relative Permittivity (ϵ_r):	38.03	39.29	-3.20	5
		e''	13.3000	Conductivity (σ):	1.77	1.76	1.09	5
	Head 2480	e'	37.8800	Relative Permittivity (ϵ_r):	37.88	39.16	-3.27	5
		e''	13.2600	Conductivity (σ):	1.83	1.83	-0.19	5
10-11-2021	Head 2450	e'	39.3200	Relative Permittivity (ϵ_r):	39.32	39.20	0.31	5
		e''	13.3100	Conductivity (σ):	1.81	1.80	0.73	5
	Head 2400	e'	39.3500	Relative Permittivity (ϵ_r):	39.35	39.29	0.16	5
		e''	13.3600	Conductivity (σ):	1.78	1.76	1.55	5
	Head 2480	e'	39.2900	Relative Permittivity (ϵ_r):	39.29	39.16	0.33	5
		e''	13.2800	Conductivity (σ):	1.83	1.83	-0.04	5
10-18-2021	Head 2600	e'	38.6600	Relative Permittivity (ϵ_r):	38.66	39.01	-0.90	5
		e''	13.1600	Conductivity (σ):	1.90	1.96	-3.04	5
	Head 2500	e'	38.7700	Relative Permittivity (ϵ_r):	38.77	39.14	-0.94	5
		e''	13.1500	Conductivity (σ):	1.83	1.85	-1.41	5
	Head 2700	e'	38.5500	Relative Permittivity (ϵ_r):	38.55	38.88	-0.86	5
		e''	13.3000	Conductivity (σ):	2.00	2.07	-3.55	5
10-21-2021	Head 2450	e'	37.9000	Relative Permittivity (ϵ_r):	37.90	39.20	-3.32	5
		e''	13.7400	Conductivity (σ):	1.87	1.80	3.99	5
	Head 2400	e'	37.9700	Relative Permittivity (ϵ_r):	37.97	39.30	-3.38	5
		e''	13.7400	Conductivity (σ):	1.83	1.75	4.68	5
	Head 2480	e'	37.8500	Relative Permittivity (ϵ_r):	37.85	39.16	-3.35	5
		e''	13.7300	Conductivity (σ):	1.89	1.83	3.32	5

SAR 4 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-21-2021	Head 2600	e'	37.9300	Relative Permittivity (ϵ_r):	37.93	39.01	-2.77	5
		e''	13.8600	Conductivity (σ):	2.00	1.96	2.12	5
	Head 2500	e'	38.0700	Relative Permittivity (ϵ_r):	38.07	39.14	-2.73	5
		e''	13.8100	Conductivity (σ):	1.92	1.85	3.54	5
	Head 2700	e'	37.7200	Relative Permittivity (ϵ_r):	37.72	38.88	-3.00	5
		e''	13.9100	Conductivity (σ):	2.09	2.07	0.87	5
10-24-2021	Head 2450	e'	37.7100	Relative Permittivity (ϵ_r):	37.71	39.20	-3.80	5
		e''	13.5300	Conductivity (σ):	1.84	1.80	2.40	5
	Head 2400	e'	37.8200	Relative Permittivity (ϵ_r):	37.82	39.30	-3.76	5
		e''	13.5700	Conductivity (σ):	1.81	1.75	3.38	5
	Head 2480	e'	37.6900	Relative Permittivity (ϵ_r):	37.69	39.16	-3.76	5
		e''	13.5200	Conductivity (σ):	1.86	1.83	1.74	5
10-24-2021	Head 2600	e'	37.6700	Relative Permittivity (ϵ_r):	37.67	39.01	-3.44	5
		e''	13.5300	Conductivity (σ):	1.96	1.96	-0.31	5
	Head 2500	e'	37.7000	Relative Permittivity (ϵ_r):	37.70	39.14	-3.67	5
		e''	13.5200	Conductivity (σ):	1.88	1.85	1.37	5
	Head 2700	e'	37.5600	Relative Permittivity (ϵ_r):	37.56	38.88	-3.41	5
		e''	13.5700	Conductivity (σ):	2.04	2.07	-1.60	5
10-27-2021	Head 2600	e'	40.2900	Relative Permittivity (ϵ_r):	40.29	39.01	3.28	5
		e''	13.1700	Conductivity (σ):	1.90	1.96	-2.97	5
	Head 2500	e'	40.2900	Relative Permittivity (ϵ_r):	40.29	39.14	2.95	5
		e''	13.2000	Conductivity (σ):	1.83	1.85	-1.03	5
	Head 2700	e'	40.2500	Relative Permittivity (ϵ_r):	40.25	38.88	3.51	5
		e''	13.3000	Conductivity (σ):	2.00	2.07	-3.55	5
12-6-2021	Head 2450	e'	39.3400	Relative Permittivity (ϵ_r):	39.34	39.20	0.36	5
		e''	13.2500	Conductivity (σ):	1.81	1.80	0.28	5
	Head 2400	e'	39.4600	Relative Permittivity (ϵ_r):	39.46	39.30	0.42	5
		e''	13.2600	Conductivity (σ):	1.77	1.75	1.02	5
	Head 2480	e'	39.2800	Relative Permittivity (ϵ_r):	39.28	39.16	0.30	5
		e''	13.2500	Conductivity (σ):	1.83	1.83	-0.29	5
12-8-2021	Head 2450	e'	38.3400	Relative Permittivity (ϵ_r):	38.34	39.20	-2.19	5
		e''	13.2800	Conductivity (σ):	1.81	1.80	0.51	5
	Head 2400	e'	38.4300	Relative Permittivity (ϵ_r):	38.43	39.30	-2.21	5
		e''	13.2900	Conductivity (σ):	1.77	1.75	1.25	5
	Head 2480	e'	38.3600	Relative Permittivity (ϵ_r):	38.36	39.16	-2.05	5
		e''	13.2900	Conductivity (σ):	1.83	1.83	0.01	5
12-13-2021	Head 2450	e'	39.6700	Relative Permittivity (ϵ_r):	39.67	39.20	1.20	5
		e''	12.9500	Conductivity (σ):	1.76	1.80	-1.99	5
	Head 2400	e'	39.8100	Relative Permittivity (ϵ_r):	39.81	39.30	1.31	5
		e''	12.9000	Conductivity (σ):	1.72	1.75	-1.72	5
	Head 2480	e'	39.6100	Relative Permittivity (ϵ_r):	39.61	39.16	1.14	5
		e''	13.0400	Conductivity (σ):	1.80	1.83	-1.87	5
12-15-2021	Head 2450	e'	37.7400	Relative Permittivity (ϵ_r):	37.74	39.20	-3.72	5
		e''	13.4900	Conductivity (σ):	1.84	1.80	2.10	5
	Head 2400	e'	37.8400	Relative Permittivity (ϵ_r):	37.84	39.30	-3.71	5
		e''	13.5100	Conductivity (σ):	1.80	1.75	2.92	5
	Head 2480	e'	37.6800	Relative Permittivity (ϵ_r):	37.68	39.16	-3.78	5
		e''	13.4900	Conductivity (σ):	1.86	1.83	1.52	5

SAR 5 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9-13-2021	Head 750	e'	41.1500	Relative Permittivity (ϵ_r):	41.15	41.96	-1.93	5
		e"	21.7600	Conductivity (σ):	0.91	0.89	1.61	5
	Head 700	e'	41.3000	Relative Permittivity (ϵ_r):	41.30	42.22	-2.17	5
		e"	21.8900	Conductivity (σ):	0.85	0.89	-4.19	5
	Head 790	e'	41.0400	Relative Permittivity (ϵ_r):	41.04	41.76	-1.72	5
		e"	20.9500	Conductivity (σ):	0.92	0.90	2.69	5
9-16-2021	Head 750	e'	40.4200	Relative Permittivity (ϵ_r):	40.42	41.90	-3.53	5
		e"	21.1000	Conductivity (σ):	0.88	0.89	-1.13	5
	Head 700	e'	40.5800	Relative Permittivity (ϵ_r):	40.58	42.17	-3.76	5
		e"	22.2300	Conductivity (σ):	0.87	0.89	-2.42	5
	Head 790	e'	40.3300	Relative Permittivity (ϵ_r):	40.33	41.71	-3.31	5
		e"	20.3200	Conductivity (σ):	0.89	0.89	-0.24	5
9-23-2021	Head 750	e'	40.7200	Relative Permittivity (ϵ_r):	40.72	41.90	-2.82	5
		e"	21.7500	Conductivity (σ):	0.91	0.89	1.91	5
	Head 700	e'	40.7800	Relative Permittivity (ϵ_r):	40.78	42.17	-3.29	5
		e"	22.8400	Conductivity (σ):	0.89	0.89	0.26	5
	Head 790	e'	40.6500	Relative Permittivity (ϵ_r):	40.65	41.71	-2.55	5
		e"	20.9100	Conductivity (σ):	0.92	0.89	2.66	5
9-23-2021	Head 835	e'	40.5300	Relative Permittivity (ϵ_r):	40.53	41.50	-2.34	5
		e"	20.0100	Conductivity (σ):	0.93	0.90	3.23	5
	Head 820	e'	40.5700	Relative Permittivity (ϵ_r):	40.57	41.57	-2.41	5
		e"	20.3000	Conductivity (σ):	0.93	0.90	3.04	5
	Head 850	e'	40.5000	Relative Permittivity (ϵ_r):	40.50	41.50	-2.41	5
		e"	19.7500	Conductivity (σ):	0.93	0.92	1.89	5
9-27-2021	Head 835	e'	40.7000	Relative Permittivity (ϵ_r):	40.70	41.50	-1.93	5
		e"	19.9400	Conductivity (σ):	0.93	0.90	2.87	5
	Head 820	e'	40.7400	Relative Permittivity (ϵ_r):	40.74	41.57	-2.00	5
		e"	20.2200	Conductivity (σ):	0.92	0.90	2.64	5
	Head 850	e'	40.6800	Relative Permittivity (ϵ_r):	40.68	41.50	-1.98	5
		e"	19.6600	Conductivity (σ):	0.93	0.92	1.42	5
10-14-2021	Head 835	e'	41.4900	Relative Permittivity (ϵ_r):	41.49	41.50	-0.02	5
		e"	19.7200	Conductivity (σ):	0.92	0.90	1.73	5
	Head 820	e'	41.5400	Relative Permittivity (ϵ_r):	41.54	41.57	-0.07	5
		e"	19.9700	Conductivity (σ):	0.91	0.90	1.37	5
	Head 850	e'	41.4900	Relative Permittivity (ϵ_r):	41.49	41.50	-0.02	5
		e"	19.5000	Conductivity (σ):	0.92	0.92	0.60	5
10-18-2021	Head 835	e'	40.9100	Relative Permittivity (ϵ_r):	40.91	41.50	-1.42	5
		e"	19.9100	Conductivity (σ):	0.92	0.90	2.71	5
	Head 820	e'	41.0100	Relative Permittivity (ϵ_r):	41.01	41.60	-1.42	5
		e"	20.2100	Conductivity (σ):	0.92	0.90	2.56	5
	Head 850	e'	40.8600	Relative Permittivity (ϵ_r):	40.86	41.50	-1.54	5
		e"	19.6300	Conductivity (σ):	0.93	0.92	1.40	5
10-19-2021	Head 1750	e'	39.7000	Relative Permittivity (ϵ_r):	39.70	40.08	-0.96	5
		e"	14.0900	Conductivity (σ):	1.37	1.37	0.15	5
	Head 1710	e'	39.8100	Relative Permittivity (ϵ_r):	39.81	40.15	-0.84	5
		e"	14.1700	Conductivity (σ):	1.35	1.35	0.07	5
	Head 1755	e'	39.6900	Relative Permittivity (ϵ_r):	39.69	40.08	-0.97	5
		e"	14.0800	Conductivity (σ):	1.37	1.37	0.16	5

SAR 5 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-19-2021	Head 1900	e'	39.4100	Relative Permittivity (ϵ_r):	39.41	40.00	-1.48	5
		e"	13.7700	Conductivity (σ):	1.45	1.40	3.91	5
	Head 1850	e'	39.5200	Relative Permittivity (ϵ_r):	39.52	40.00	-1.20	5
		e"	13.8600	Conductivity (σ):	1.43	1.40	1.84	5
	Head 1910	e'	39.3900	Relative Permittivity (ϵ_r):	39.39	40.00	-1.53	5
		e"	13.7500	Conductivity (σ):	1.46	1.40	4.31	5
10-21-2021	Head 1750	e'	38.6000	Relative Permittivity (ϵ_r):	38.60	40.08	-3.70	5
		e"	14.1500	Conductivity (σ):	1.38	1.37	0.58	5
	Head 1710	e'	38.7400	Relative Permittivity (ϵ_r):	38.74	40.15	-3.50	5
		e"	14.2300	Conductivity (σ):	1.35	1.35	0.49	5
	Head 1755	e'	38.5900	Relative Permittivity (ϵ_r):	38.59	40.08	-3.71	5
		e"	14.1300	Conductivity (σ):	1.38	1.37	0.51	5
10-24-2021	Head 1750	e'	39.4200	Relative Permittivity (ϵ_r):	39.42	40.08	-1.66	5
		e"	13.8300	Conductivity (σ):	1.35	1.37	-1.70	5
	Head 1710	e'	39.6200	Relative Permittivity (ϵ_r):	39.62	40.15	-1.31	5
		e"	13.9400	Conductivity (σ):	1.33	1.35	-1.56	5
	Head 1755	e'	39.3900	Relative Permittivity (ϵ_r):	39.39	40.08	-1.71	5
		e"	13.8200	Conductivity (σ):	1.35	1.37	-1.69	5
10-24-2021	Head 1900	e'	39.1900	Relative Permittivity (ϵ_r):	39.19	40.00	-2.03	5
		e"	13.4000	Conductivity (σ):	1.42	1.40	1.12	5
	Head 1850	e'	39.2400	Relative Permittivity (ϵ_r):	39.24	40.00	-1.90	5
		e"	13.4900	Conductivity (σ):	1.39	1.40	-0.88	5
	Head 1910	e'	39.1900	Relative Permittivity (ϵ_r):	39.19	40.00	-2.03	5
		e"	13.4000	Conductivity (σ):	1.42	1.40	1.65	5
10-27-2021	Head 1750	e'	39.2800	Relative Permittivity (ϵ_r):	39.28	40.08	-2.01	5
		e"	13.6600	Conductivity (σ):	1.33	1.37	-2.91	5
	Head 1710	e'	39.4600	Relative Permittivity (ϵ_r):	39.46	40.15	-1.71	5
		e"	13.7100	Conductivity (σ):	1.30	1.35	-3.18	5
	Head 1755	e'	39.2700	Relative Permittivity (ϵ_r):	39.27	40.08	-2.01	5
		e"	13.6700	Conductivity (σ):	1.33	1.37	-2.76	5
10-27-2021	Head 1900	e'	39.1000	Relative Permittivity (ϵ_r):	39.10	40.00	-2.25	5
		e"	13.3300	Conductivity (σ):	1.41	1.40	0.59	5
	Head 1850	e'	39.2400	Relative Permittivity (ϵ_r):	39.24	40.00	-1.90	5
		e"	13.3300	Conductivity (σ):	1.37	1.40	-2.06	5
	Head 1910	e'	39.1100	Relative Permittivity (ϵ_r):	39.11	40.00	-2.23	5
		e"	13.3400	Conductivity (σ):	1.42	1.40	1.20	5
12-13-2021	Head 1750	e'	39.8200	Relative Permittivity (ϵ_r):	39.82	40.08	-0.66	5
		e"	13.6000	Conductivity (σ):	1.32	1.37	-3.33	5
	Head 1710	e'	40.0000	Relative Permittivity (ϵ_r):	40.00	40.15	-0.36	5
		e"	13.7200	Conductivity (σ):	1.30	1.35	-3.11	5
	Head 1755	e'	39.8000	Relative Permittivity (ϵ_r):	39.80	40.08	-0.69	5
		e"	13.6000	Conductivity (σ):	1.33	1.37	-3.26	5
12-15-2021	Head 1750	e'	40.1700	Relative Permittivity (ϵ_r):	40.17	40.08	0.21	5
		e"	14.1700	Conductivity (σ):	1.38	1.37	0.72	5
	Head 1710	e'	40.3600	Relative Permittivity (ϵ_r):	40.36	40.15	0.53	5
		e"	14.2900	Conductivity (σ):	1.36	1.35	0.91	5
	Head 1755	e'	40.1500	Relative Permittivity (ϵ_r):	40.15	40.08	0.18	5
		e"	14.1500	Conductivity (σ):	1.38	1.37	0.66	5
12-15-2021	Head 1900	e'	39.9200	Relative Permittivity (ϵ_r):	39.92	40.00	-0.20	5
		e"	13.7100	Conductivity (σ):	1.45	1.40	3.46	5
	Head 1850	e'	39.9900	Relative Permittivity (ϵ_r):	39.99	40.00	-0.02	5
		e"	13.8200	Conductivity (σ):	1.42	1.40	1.54	5
	Head 1910	e'	39.9200	Relative Permittivity (ϵ_r):	39.92	40.00	-0.20	5
		e"	13.7000	Conductivity (σ):	1.45	1.40	3.93	5

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 2.5 mm.
For 5 GHz band - Distance between probe sensors and phantom surface was set to 1.4 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

Reference Target SAR Values

The reference SAR values can be obtained from the calibration certificate of system validation dipoles.

System Dipole	Serial No.	Cal. Date	Cal. Due Date	Target SAR Values (W/kg)	
				1g/10g	Head
D750V3	1122	2-24-2020	2-24-2022	1g	8.54
				10g	5.59
D835V2	4d194	3-20-2020	3-20-2022	1g	9.76
				10g	6.42
D1750V2	1125	2-21-2020	2-21-2022	1g	36.50
				10g	19.20
D1900V2	5d199	3-19-2020	3-19-2022	1g	40.50
				10g	21.00
D2450V2	960	3-20-2020	3-20-2022	1g	53.20
				10g	24.80
D2600V2	1178	4-21-2021	4-21-2023	1g	56.60
				10g	25.40
D5GHzV2	1209	2-27-2020	2-27-2022	1g	79.90
				10g	22.60
				1g	83.60
				10g	23.60
				1g	80.20
				10g	22.60
D5GHzV2	1184	12-3-2020	12-3-2022	1g	79.10
				10g	22.70
				1g	82.40
				10g	23.30
				1g	79.90
				10g	22.60
D5GHzV2 (5800)	1094	11-23-2019	11-23-2021	1g	81.20
				10g	22.80
D5GHzV2 (5800)	1209	11-24-2021	11-24-2023	1g	79.00
				10g	22.40

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations.
3. All equipments were used until Cal.Due data.

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 1 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
10-4-2021	D5GHzV2 (5250)	1209	Head	1g	8.02	80.2	79.90	0.38	
				10g	2.33	23.3	22.60	3.10	
10-4-2021	D5GHzV2 (5600)	1209	Head	1g	8.78	87.8	83.60	5.02	
				10g	2.52	25.2	23.60	6.78	
10-4-2021	D5GHzV2 (5750)	1209	Head	1g	8.06	80.6	80.20	0.50	
				10g	2.32	23.2	22.60	2.65	
10-7-2021	D5GHzV2 (5250)	1209	Head	1g	7.94	79.4	79.90	-0.63	
				10g	2.30	23.0	22.60	1.77	
10-7-2021	D5GHzV2 (5600)	1209	Head	1g	8.33	83.3	83.60	-0.36	
				10g	2.37	23.7	23.60	0.42	
10-7-2021	D5GHzV2 (5750)	1209	Head	1g	7.52	75.2	80.20	-6.23	1,2
				10g	2.15	21.5	22.60	-4.87	
10-18-2021	D1750V2	1125	Head	1g	3.54	35.4	36.50	-3.01	
				10g	1.89	18.9	19.20	-1.56	
10-19-2021	D5GHzV2 (5250)	1209	Head	1g	7.57	75.7	79.90	-5.26	
				10g	2.20	22.0	22.60	-2.65	
10-19-2021	D5GHzV2 (5600)	1209	Head	1g	8.42	84.2	83.60	0.72	
				10g	2.41	24.1	23.60	2.12	
10-19-2021	D5GHzV2 (5750)	1209	Head	1g	8.20	82.0	80.20	2.24	
				10g	2.36	23.6	22.60	4.42	
10-19-2021	D5GHzV2 (5800)	1094	Head	1g	7.54	75.4	81.20	-7.14	3,4
				10g	2.17	21.7	22.80	-4.82	
10-22-2021	D5GHzV2 (5250)	1209	Head	1g	7.53	75.3	79.90	-5.76	
				10g	2.18	21.8	22.60	-3.54	
10-22-2021	D5GHzV2 (5600)	1209	Head	1g	8.53	85.3	83.60	2.03	
				10g	2.45	24.5	23.60	3.81	
10-22-2021	D5GHzV2 (5750)	1209	Head	1g	8.11	81.1	80.20	1.12	
				10g	2.33	23.3	22.60	3.10	
10-25-2021	D5GHzV2 (5250)	1209	Head	1g	7.52	75.2	79.90	-5.88	
				10g	2.19	21.9	22.60	-3.10	
10-25-2021	D5GHzV2 (5600)	1209	Head	1g	8.39	83.9	83.60	0.36	
				10g	2.40	24.0	23.60	1.69	
10-25-2021	D5GHzV2 (5750)	1209	Head	1g	7.88	78.8	80.20	-1.75	
				10g	2.28	22.8	22.60	0.88	
10-25-2021	D5GHzV2 (5800)	1094	Head	1g	8.11	81.1	81.20	-0.12	
				10g	2.34	23.4	22.80	2.63	
10-28-2021	D835V2	4d194	Head	1g	1.00	10.0	9.76	2.46	
				10g	0.65	6.5	6.42	1.71	
10-28-2021	D1750V2	1125	Head	1g	3.61	36.1	36.50	-1.10	
				10g	1.92	19.2	19.20	0.00	
10-28-2021	D1900V2	5d199	Head	1g	3.94	39.4	40.50	-2.72	
				10g	2.03	20.3	21.00	-3.33	
10-28-2021	D2450V2	960	Head	1g	4.91	49.1	53.20	-7.71	5,6
				10g	2.29	22.9	24.80	-7.66	
10-28-2021	D2600V2	1178	Head	1g	5.47	54.7	56.60	-3.36	
				10g	2.47	24.7	25.40	-2.76	
10/31/2021	D835V2	4d194	Head	1g	1.00	10.0	9.76	2.15	
				10g	0.65	6.5	6.42	0.93	
11-3-2021	D1750V2	1125	Head	1g	3.53	35.3	36.50	-3.29	
				10g	1.87	18.7	19.20	-2.60	
11-3-2021	D1900V2	5d199	Head	1g	3.88	38.8	40.50	-4.20	
				10g	1.99	19.9	21.00	-5.24	

SAR 1 Room (Continued)

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
12-6-2021	D5GHzV2 (5250)	1184	Head	1g	7.81	78.1	79.10	-1.26	
				10g	2.33	23.3	22.70	2.64	
12-6-2021	D5GHzV2 (5600)	1184	Head	1g	8.63	86.3	82.40	4.73	7,8
				10g	2.52	25.2	23.30	8.15	
12-6-2021	D5GHzV2 (5750)	1184	Head	1g	7.86	78.6	79.90	-1.63	
				10g	2.31	23.1	22.60	2.21	
12-9-2021	D5GHzV2 (5600)	1184	Head	1g	8.32	83.2	82.40	0.97	
				10g	2.44	24.4	23.30	4.72	
12-9-2021	D5GHzV2 (5750)	1184	Head	1g	8.02	80.2	79.90	0.38	
				10g	2.37	23.7	22.60	4.87	
2021-12-13	D5GHzV2 (5750)	1184	Head	1g	8.25	82.5	79.90	3.25	
				10g	2.41	24.1	22.60	6.64	
2021-12-16	D5GHzV2 (5600)	1184	Head	1g	8.35	83.5	82.40	1.33	
				10g	2.46	24.6	23.30	5.58	

SAR 2 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
12-13-2021	D5GHzV2 (5800)	1209	Head	1g	7.60	76.0	79.00	-3.80	9,10
				10g	2.14	21.4	22.40	-4.46	

SAR 3 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
9-13-2021	D1750V2	1125	Head	1g	3.44	34.4	36.50	-5.75	
				10g	1.84	18.4	19.20	-4.17	
9-13-2021	D1900V2	5d199	Head	1g	3.92	39.2	40.50	-3.21	
				10g	2.05	20.5	21.00	-2.38	
9-16-2021	D1750V2	1125	Head	1g	3.46	34.6	36.50	-5.21	
				10g	1.85	18.5	19.20	-3.65	
9-16-2021	D1900V2	5d199	Head	1g	4.04	40.4	40.50	-0.25	
				10g	2.11	21.1	21.00	0.48	
9-26-2021	D1750V2	1125	Head	1g	3.61	36.1	36.50	-1.10	
				10g	1.93	19.3	19.20	0.52	
9-26-2021	D1900V2	5d199	Head	1g	4.18	41.8	40.50	3.21	
				10g	2.18	21.8	21.00	3.81	
9-29-2021	D2450V2	960	Head	1g	5.49	54.9	53.20	3.20	
				10g	2.58	25.8	24.80	4.03	
10-5-2021	D2450V2	960	Head	1g	5.27	52.7	53.20	-0.94	
				10g	2.49	24.9	24.80	0.40	
10-25-2021	D5GHzV2 (5750)	1209	Head	1g	8.07	80.7	80.20	0.62	
				10g	2.27	22.7	22.60	0.44	
10-26-2021	D1750V2	1125	Head	1g	3.38	33.8	36.50	-7.40	11,12
				10g	1.81	18.1	19.20	-5.73	
10-26-2021	D2450V2	960	Head	1g	5.04	50.4	53.20	-5.26	
				10g	2.36	23.6	24.80	-4.84	
10-29-2021	D2600V2	1178	Head	1g	5.68	56.8	56.60	0.35	
				10g	2.58	25.8	25.40	1.57	
11-2-2021	D835V2	4d194	Head	1g	1.01	10.1	9.76	3.48	
				10g	0.67	6.7	6.42	4.05	
11-3-2021	D1750V2	1125	Head	1g	3.74	37.4	36.50	2.47	
				10g	2.01	20.1	19.20	4.69	
11-3-2021	D1900V2	5d199	Head	1g	4.07	40.7	40.50	0.49	
				10g	2.14	21.4	21.00	1.90	
12-20-2021	D1750V2	1125	Head	1g	3.74	37.4	36.50	2.47	
				10g	2.05	20.5	19.20	6.77	
12-22-2021	D1900V2	5d199	Head	1g	3.87	38.7	40.50	-4.44	
				10g	2.04	20.4	21.00	-2.86	

SAR 4 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
9-23-2021	D2600V2	1178	Head	1g	5.76	57.6	56.60	1.77	
				10g	2.56	25.6	25.40	0.79	
9-27-2021	D2600V2	1178	Head	1g	5.72	57.2	56.60	1.06	
				10g	2.55	25.5	25.40	0.39	
9-29-2021	D2600V2	1178	Head	1g	5.48	54.8	56.60	-3.18	
				10g	2.44	24.4	25.40	-3.94	
10-4-2021	D2450V2	960	Head	1g	5.29	52.9	53.20	-0.56	
				10g	2.42	24.2	24.80	-2.42	
10-7-2021	D2450V2	960	Head	1g	5.26	52.6	53.20	-1.13	
				10g	2.40	24.0	24.80	-3.23	
10-11-2021	D2450V2	960	Head	1g	5.43	54.3	53.20	2.07	
				10g	2.48	24.8	24.80	0.00	
10-18-2021	D2600V2	1178	Head	1g	5.14	51.4	56.60	-9.19	13,14
				10g	2.31	23.1	25.40	-9.06	
10-21-2021	D2450V2	960	Head	1g	5.54	55.4	53.20	4.14	
				10g	2.55	25.5	24.80	2.82	
10-21-2021	D2600V2	1178	Head	1g	5.57	55.7	56.60	-1.59	
				10g	2.49	24.9	25.40	-1.97	
10-24-2021	D2450V2	960	Head	1g	5.21	52.1	53.20	-2.07	
				10g	2.40	24.0	24.80	-3.23	
10-24-2021	D2600V2	1178	Head	1g	5.32	53.2	56.60	-6.01	
				10g	2.38	23.8	25.40	-6.30	
10-27-2021	D2600V2	1178	Head	1g	5.24	52.4	56.60	-7.42	
				10g	2.34	23.4	25.40	-7.87	
12-6-2021	D2450V2	960	Head	1g	5.06	50.6	53.20	-4.89	
				10g	2.33	23.3	24.80	-6.05	
12-8-2021	D2450V2	960	Head	1g	5.00	50.0	53.20	-6.02	
				10g	2.30	23.0	24.80	-7.26	
12-13-2021	D2450V2	960	Head	1g	5.07	50.7	53.20	-4.70	
				10g	2.33	23.3	24.80	-6.05	
12-15-2021	D2450V2	960	Head	1g	5.13	51.3	53.20	-3.57	
				10g	2.36	23.6	24.80	-4.84	

SAR 5 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
9-13-2021	D750V3	1122	Head	1g	0.87	8.7	8.54	1.41	
				10g	0.57	5.7	5.59	1.97	
9-16-2021	D750V3	1122	Head	1g	0.86	8.6	8.54	0.23	
				10g	0.56	5.6	5.59	0.89	
9-23-2021	D750V3	1122	Head	1g	0.90	9.0	8.54	5.50	15,16
				10g	0.59	5.9	5.59	5.72	
9-23-2021	D835V2	4d194	Head	1g	1.03	10.3	9.76	5.53	
				10g	0.67	6.7	6.42	4.83	
9-27-2021	D835V2	4d194	Head	1g	1.03	10.3	9.76	5.53	17,18
				10g	0.67	6.7	6.42	4.98	
10-14-2021	D835V2	4d194	Head	1g	1.00	10.0	9.76	2.46	
				10g	0.65	6.5	6.42	1.40	
10-18-2021	D835V2	4d194	Head	1g	1.02	10.2	9.76	4.51	
				10g	0.67	6.7	6.42	4.36	
10-19-2021	D1750V2	1125	Head	1g	3.67	36.7	36.50	0.55	
				10g	1.93	19.3	19.20	0.52	
10-19-2021	D1900V2	5d199	Head	1g	3.96	39.6	40.50	-2.22	
				10g	2.03	20.3	21.00	-3.33	
10-21-2021	D1750V2	1125	Head	1g	3.96	39.6	36.50	8.49	19,20
				10g	2.07	20.7	19.20	7.81	
10-24-2021	D1750V2	1125	Head	1g	3.60	36.0	36.50	-1.37	
				10g	1.90	19.0	19.20	-1.04	
10-24-2021	D1900V2	5d199	Head	1g	4.07	40.7	40.50	0.49	
				10g	2.09	20.9	21.00	-0.48	
10-27-2021	D1750V2	1125	Head	1g	3.39	33.9	36.50	-7.12	
				10g	1.77	17.7	19.20	-7.81	
10-27-2021	D1900V2	5d199	Head	1g	3.85	38.5	40.50	-4.94	21,22
				10g	1.97	19.7	21.00	-6.19	
12-13-2021	D1750V2	1125	Head	1g	3.78	37.8	36.50	3.56	
				10g	2.05	20.5	19.20	6.77	
12-15-2021	D1750V2	1125	Head	1g	3.86	38.6	36.50	5.75	
				10g	2.08	20.8	19.20	8.33	
12-15-2021	D1900V2	5d199	Head	1g	4.22	42.2	40.50	4.20	
				10g	2.22	22.2	21.00	5.71	

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

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			
					Measured		Tune-up Limit	
					Burst Pw r	Frame Pw r	Burst Pw r	Frame Pw r
GSM (Voice)	CS1	1	128	824.2	34.1	25.0	34.5	25.5
			190	836.6	34.1	25.1		
			251	848.8	34.2	25.2		
GPRS (GMSK)	CS1	1	128	824.2	34.0	25.0	34.5	25.5
			190	836.6	33.3	24.2		
			251	848.8	33.2	24.2		
		2	128	824.2	31.2	25.2	32.5	26.5
			190	836.6	31.2	25.2		
			251	848.8	31.0	24.9		
		3	128	824.2	29.5	25.3	30.5	26.2
			190	836.6	29.9	25.6		
			251	848.8	29.5	25.2		
		4	128	824.2	27.9	24.9	28.5	25.5
			190	836.6	27.8	24.8		
			251	848.8	27.6	24.6		
EGPRS (8PSK)	MCS5	1	128	824.2	27.2	18.2	27.5	18.5
			190	836.6	27.2	18.1		
			251	848.8	26.9	17.9		
		2	128	824.2	24.9	18.8	26.0	20.0
			190	836.6	24.9	18.9		
			251	848.8	24.6	18.6		
		3	128	824.2	23.2	19.0	24.0	19.7
			190	836.6	23.6	19.3		
			251	848.8	23.3	19.0		
		4	128	824.2	21.8	18.8	23.0	20.0
			190	836.6	21.8	18.8		
			251	848.8	21.5	18.5		

Notes:

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

- GMSK (GPRS) mode with 2 time slots for Max power, based on the Tune-up Procedure. Refer to §6.3.
- SAR is not required for EGPRS (8PSK) mode because the maximum output power and tune-up limit is $\leq 1/4$ dB higher than GMSK GPRS or the adjusted SAR of the highest reported SAR of GMSK GPRS is ≤ 1.2 W/kg.

GSM1900 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)				Reduced Average Power (dBm) Hotspot back-off				Reduced Average Power (dBm) Proximity sensor back-off			
					Measured		Tune-up Limit		Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	512	1850.2	31.4	22.3	32.0	23.0	28.3	19.2	29.0	20.0	28.1	19.1	29.0	20.0
			661	1880.0	31.2	22.1			28.2	19.2			28.0	19.0		
			810	1909.8	31.1	22.0			28.2	19.2			28.0	19.0		
GPRS (GMSK)	CS1	1	512	1850.2	31.4	22.3	32.0	23.0	28.3	19.3	29.0	20.0	28.2	19.2	29.0	20.0
			661	1880.0	31.2	22.1			28.2	19.1			28.1	19.0		
			810	1909.8	31.0	22.0			27.9	18.8			27.9	18.9		
		2	512	1850.2	28.5	22.4	29.5	23.5	26.6	20.6	27.0	21.0	26.6	20.6	27.0	21.0
			661	1880.0	28.4	22.4			26.1	20.1			26.2	20.2		
			810	1909.8	28.1	22.1			26.0	19.9			26.0	20.0		
		3	512	1850.2	26.5	22.3	27.5	23.2	25.2	20.9	25.5	21.2	25.1	20.9	25.5	21.2
			661	1880.0	26.0	21.8			24.9	20.6			24.9	20.6		
			810	1909.8	25.7	21.5			24.5	20.3			24.4	20.2		
		4	512	1850.2	25.1	22.1	25.5	22.5	22.7	19.7	23.5	20.5	22.7	19.7	23.5	20.5
			661	1880.0	24.6	21.6			22.0	19.0			22.0	19.0		
			810	1909.8	23.9	20.9			21.3	18.3			21.4	18.4		
EGPRS (8PSK)	MCS5	1	512	1850.2	26.8	17.8	27.5	18.5	26.5	17.4	27.5	18.5	26.3	17.2	27.5	18.5
			661	1880.0	26.7	17.7			26.5	17.4			26.3	17.3		
			810	1909.8	27.0	17.9			26.7	17.6			26.5	17.5		
		2	512	1850.2	24.6	18.5	25.5	19.5	24.1	18.1	25.5	19.5	23.9	17.9	25.5	19.5
			661	1880.0	24.3	18.3			23.9	17.9			23.8	17.8		
			810	1909.8	24.9	18.9			24.5	18.5			24.4	18.4		
		3	512	1850.2	22.9	18.6	23.5	19.2	22.5	18.2	23.5	19.2	22.4	18.1	23.5	19.2
			661	1880.0	22.6	18.4			22.3	18.0			22.1	17.9		
			810	1909.8	22.6	18.3			22.2	17.9			22.1	17.8		
		4	512	1850.2	21.3	18.3	22.5	19.5	21.0	18.0	22.5	19.5	20.9	17.8	22.5	19.5
			661	1880.0	20.8	17.8			20.4	17.4			20.3	17.3		
			810	1909.8	20.6	17.6			20.3	17.3			20.2	17.2		

Notes:

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

- GMSK (GPRS) mode with 2 time slots for Max power, based on the Tune-up Procedure. Refer to §6.3.
- GMSK (GPRS) mode with 3 time slots for Reduced power, based on the Tune-up Procedure. Refer to §6.3.
- SAR is not required for EGPRS (8PSK) mode because the maximum output power and tune-up limit is ≤ 1/4dB higher than GMSK GPRS or the adjusted SAR of the highest reported SAR of GMSK GPRS is ≤ 1.2W/kg.

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
	β_c/β_d	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			
	β_c	2/15	11/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	11/15	15/8	15/4
	β_{hs}	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			
	$A_{hs}=\beta_{hs}/\beta_c$	30/15			

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

The following 5 Sub-tests were completed according to Release 6 procedures in table C,11.1.3 of 3GPP TS 34.121-1 v13. 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
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	0
	β_{ec}	209/225	12/15	30/15	2/15	5/15
	β_c/β_d	11/15	6/15	15/9	2/15	-
	β_{hs}	22/15	12/15	30/15	4/15	5/15
	β_{ed}	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				
	A _{hs} = β_{hs}/β_c	30/15				
HSUPA Specific Settings	E-DPDCH	6	8	8	5	0
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	12
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	67
	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	

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	Proces ses	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.		

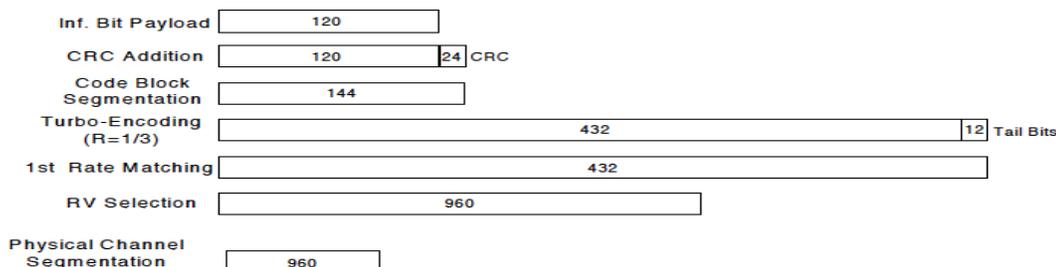


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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 12			
	Power Control Algorithm	Algorithm2			
	β_c	2/15	11/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_d (SF)	64			
	β_c/β_d	2/15	11/15	15/8	15/4
HSDPA Specific Settings	β_{hs}	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
CQI Repetition Factor	2				
$A_{hs} = \beta_{hs}/\beta_c$	30/15				

HSPA+

HSPA+ is only supported to down link. Therefore, the RF conducted power is not measured.

W-CDMA Band II Measured Results

Mode	UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			Reduced Average Power (dBm) Hotspot back-off			Reduced Average Power (dBm) Proximity sensor back-off			
			Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit	
Release 99	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	22.9	NA	24.0	19.8	NA	20.5	19.8	NA	20.5
		9400	1880.0	23.2			20.0			19.9		
		9538	1907.6	23.3			20.1			20.1		
HSDPA	Subtest 1	9262	1852.4	22.9	0.0	24.0	19.7	0.0	20.5	19.8	0.0	20.5
		9400	1880.0	23.1			19.9			19.9		
		9538	1907.6	23.3			20.1			20.1		
	Subtest 2	9262	1852.4	22.3	0.0	24.0	19.7	0.0	20.5	19.8	0.0	20.5
		9400	1880.0	22.5			19.9			19.9		
		9538	1907.6	22.7			20.0			20.1		
	Subtest 3	9262	1852.4	21.4	1.0	23.0	19.7	0.0	20.5	19.8	0.0	20.5
		9400	1880.0	21.5			19.9			19.9		
		9538	1907.6	21.7			20.0			20.1		
	Subtest 4	9262	1852.4	21.3	1.0	23.0	19.7	0.0	20.5	19.8	0.0	20.5
		9400	1880.0	21.5			19.9			20.0		
		9538	1907.6	21.7			20.0			20.1		
HSUPA	Subtest 1	9262	1852.4	21.8	1.0	23.0	18.7	0.0	20.5	18.8	0.0	20.5
		9400	1880.0	21.9			18.8			18.9		
		9538	1907.6	22.0			19.0			19.1		
	Subtest 2	9262	1852.4	20.2	2.0	22.0	18.7	0.0	20.5	18.8	0.0	20.5
		9400	1880.0	20.3			18.8			19.0		
		9538	1907.6	20.5			19.0			19.1		
	Subtest 3	9262	1852.4	21.3	1.0	23.0	18.7	0.0	20.5	18.8	0.0	20.5
		9400	1880.0	21.4			18.8			19.0		
		9538	1907.6	21.5			19.0			19.1		
	Subtest 4	9262	1852.4	20.2	2.0	22.0	18.7	0.0	20.5	18.8	0.0	20.5
		9400	1880.0	20.3			18.8			18.9		
		9538	1907.6	20.5			19.0			19.1		
	Subtest 5	9262	1852.4	22.9	0.0	24.0	19.9	0.0	20.5	20.0	0.0	20.5
		9400	1880.0	23.1			20.0			20.1		
		9538	1907.6	23.2			20.2			20.3		
DC-HSDPA	Subtest 1	9262	1852.4	22.9	0.0	24.0	19.7	0.0	20.5	19.9	0.0	20.5
		9400	1880.0	22.8			19.7			19.9		
		9538	1907.6	22.9			19.9			20.0		
	Subtest 2	9262	1852.4	22.2	0.0	24.0	19.7	0.0	20.5	19.9	0.0	20.5
		9400	1880.0	22.2			19.7			19.9		
		9538	1907.6	22.4			19.9			20.0		
	Subtest 3	9262	1852.4	21.3	1.0	23.0	19.7	0.0	20.5	19.9	0.0	20.5
		9400	1880.0	21.2			19.7			19.9		
		9538	1907.6	21.4			19.9			20.0		
	Subtest 4	9262	1852.4	21.3	1.0	23.0	19.7	0.0	20.5	19.8	0.0	20.5
		9400	1880.0	21.2			19.7			19.8		
		9538	1907.6	21.4			19.9			20.0		

W-CDMA Band IV Measured Results

Mode	UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			Reduced Average Power (dBm) Hotspot back-off			Reduced Average Power (dBm) Proximity sensor back-off			
			Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit	
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	23.4	NA	24.0	19.4	NA	20.5	19.7	NA	20.5
		1413	1732.6	23.7			19.7			20.0		
		1513	1752.6	23.1			19.1			19.4		
HSDPA	Subtest 1	1312	1712.4	23.3	0.0	24.0	19.5	0.0	20.5	19.7	0.0	20.5
		1413	1732.6	23.6			19.7			19.9		
		1513	1752.6	23.1			19.2			19.3		
	Subtest 2	1312	1712.4	22.7	0.0	24.0	19.5	0.0	20.5	19.6	0.0	20.5
		1413	1732.6	23.0			19.8			19.9		
		1513	1752.6	22.5			19.2			19.4		
	Subtest 3	1312	1712.4	21.8	1.0	23.0	19.5	0.0	20.5	19.6	0.0	20.5
		1413	1732.6	22.0			19.8			19.9		
		1513	1752.6	21.5			19.2			19.4		
	Subtest 4	1312	1712.4	21.8	1.0	23.0	19.5	0.0	20.5	19.6	0.0	20.5
		1413	1732.6	22.0			19.8			19.9		
		1513	1752.6	21.5			19.2			19.3		
HSUPA	Subtest 1	1312	1712.4	22.2	1.0	23.0	18.5	0.0	20.5	18.6	0.0	20.5
		1413	1732.6	22.3			18.7			18.8		
		1513	1752.6	21.8			18.2			18.3		
	Subtest 2	1312	1712.4	20.7	2.0	22.0	18.5	0.0	20.5	18.6	0.0	20.5
		1413	1732.6	20.9			18.7			18.7		
		1513	1752.6	20.4			18.2			18.3		
	Subtest 3	1312	1712.4	21.7	1.0	23.0	18.5	0.0	20.5	18.6	0.0	20.5
		1413	1732.6	21.9			18.6			18.7		
		1513	1752.6	21.4			18.2			18.2		
	Subtest 4	1312	1712.4	20.7	2.0	22.0	18.5	0.0	20.5	18.5	0.0	20.5
		1413	1732.6	20.9			18.7			18.7		
		1513	1752.6	20.3			18.2			18.2		
	Subtest 5	1312	1712.4	23.5	0.0	24.0	19.7	0.0	20.5	19.8	0.0	20.5
		1413	1732.6	23.6			19.9			20.0		
		1513	1752.6	23.0			19.3			19.4		
DC-HSDPA	Subtest 1	1312	1712.4	23.3	0.0	24.0	19.5	0.0	20.5	20.0	0.0	20.5
		1413	1732.6	23.7			19.8			20.2		
		1513	1752.6	23.3			19.7			19.8		
	Subtest 2	1312	1712.4	22.7	0.0	24.0	19.7	0.0	20.5	19.8	0.0	20.5
		1413	1732.6	23.0			20.0			20.0		
		1513	1752.6	22.7			19.6			19.7		
	Subtest 3	1312	1712.4	21.7	0.5	23.5	19.7	0.0	20.5	19.7	0.0	20.5
		1413	1732.6	22.0			20.0			20.0		
		1513	1752.6	21.7			19.7			19.7		
	Subtest 4	1312	1712.4	21.7	0.5	23.5	19.7	0.0	20.5	19.7	0.0	20.5
		1413	1732.6	22.0			20.0			20.0		
		1513	1752.6	21.7			19.7			19.7		

W-CDMA Band V Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.1	N/A	25.5
		4183	836.6	24.3		
		4233	846.6	24.3		
HSDPA	Subtest 1	4132	826.4	24.1	0	25.5
		4183	836.6	24.3		
		4233	846.6	24.2		
	Subtest 2	4132	826.4	22.6	1.0	24.5
		4183	836.6	22.7		
		4233	846.6	22.6		
	Subtest 3	4132	826.4	21.6	2.0	23.5
		4183	836.6	21.7		
		4233	846.6	21.6		
	Subtest 4	4132	826.4	21.6	2.0	23.5
		4183	836.6	21.7		
		4233	846.6	21.6		
HSUPA	Subtest 1	4132	826.4	23.0	1.0	24.5
		4183	836.6	23.1		
		4233	846.6	22.9		
	Subtest 2	4132	826.4	20.4	3.0	22.5
		4183	836.6	20.5		
		4233	846.6	20.3		
	Subtest 3	4132	826.4	21.4	2.0	23.5
		4183	836.6	21.5		
		4233	846.6	21.4		
	Subtest 4	4132	826.4	20.3	3.0	22.5
		4183	836.6	20.5		
		4233	846.6	20.3		
	Subtest 5	4132	826.4	24.2	0.0	25.5
		4183	836.6	24.4		
		4233	846.6	24.3		
DC-HSDPA	Subtest 1	4132	826.4	24.2	0.0	25.5
		4183	836.6	24.1		
		4233	846.6	24.0		
	Subtest 2	4132	826.4	22.5	1.0	24.5
		4183	836.6	22.6		
		4233	846.6	22.6		
	Subtest 3	4132	826.4	21.6	2.0	23.5
		4183	836.6	21.6		
		4233	846.6	21.6		
	Subtest 4	4132	826.4	21.5	2.0	23.5
		4183	836.6	21.6		
		4233	846.6	21.5		

9.3. LTE

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

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

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

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

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

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

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

Maximum Output Power (Tune-up Limit) for LTE

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

- a) The maximum output power, including tolerance, for the smaller band must be ≤ the larger band to qualify for the SAR test exclusion.
- b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.
 - LTE Band 2 (1850 – 1910 MHz) is covered by LTE Band 25 (1850 – 1915 MHz) in Main 1 Ant.
 - LTE Band 4 (1710 – 1755 MHz) is covered by LTE Band 66 (1710 – 1780 MHz) in Main 1 Ant.
 - LTE Band 5 (824 – 849 MHz) is covered by LTE Band 26 (814 – 849 MHz)
 - LTE Band 17 (704 – 716 MHz) is covered by LTE Band 12 (699 – 716 MHz)

Maximum bandwidth does not support at least three non-overlapping channels in certain channel bandwidths.

When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

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

SAR measurement is not required for Higher order modulations. When the highest maximum output power for Higher order modulations are ≤ 0.5 dB higher than the QPSK or when the reported SAR for QPSK configuration is ≤ 1.45 W/kg.

1. Max power

LTE Band 2 (Ant.3) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				18700	18900	19100		
				1860 MHz	1880 MHz	1900 MHz		
20 MHz	QPSK	1	0	21.7	21.7	21.6	0.0	22.5
		1	49	21.7	21.8	21.8	0.0	22.5
		1	99	21.8	21.8	21.8	0.0	22.5
		50	0	20.7	20.6	20.6	1.0	21.5
		50	24	20.7	20.6	20.6	1.0	21.5
		50	50	20.7	20.6	20.6	1.0	21.5
	16QAM	100	0	20.6	20.6	20.7	1.0	21.5
		1	0	20.5	20.6	20.5	1.0	21.5
		1	49	20.6	20.5	20.6	1.0	21.5
		1	99	20.5	20.4	20.5	1.0	21.5
		50	0	19.3	19.3	19.4	2.0	20.5
		50	24	19.2	19.3	19.4	2.0	20.5
	64QAM	50	50	19.2	19.3	19.4	2.0	20.5
		100	0	19.3	19.3	19.5	2.0	20.5
		1	0	19.2	19.4	19.2	2.0	20.5
		1	49	19.3	19.4	19.3	2.0	20.5
		1	99	19.5	19.4	19.2	2.0	20.5
		50	0	18.2	18.3	18.3	3.0	19.5
	256QAM	50	24	18.2	18.3	18.4	3.0	19.5
		50	50	18.2	18.3	18.3	3.0	19.5
		100	0	18.2	18.3	18.4	3.0	19.5
		1	0	16.4	16.5	16.6	5.0	17.5
		1	49	16.5	16.7	16.7	5.0	17.5
		1	99	16.5	16.5	16.6	5.0	17.5
15 MHz	QPSK	50	0	16.2	16.3	16.3	5.0	17.5
		50	24	16.2	16.3	16.3	5.0	17.5
		50	50	16.2	16.3	16.3	5.0	17.5
		100	0	16.3	16.4	16.4	5.0	17.5
		1	0	21.9	21.9	21.8	0.0	22.5
		1	37	21.9	21.8	21.8	0.0	22.5
	16QAM	1	74	21.9	21.8	21.7	0.0	22.5
		36	0	20.9	20.8	20.8	1.0	21.5
		36	20	20.9	20.8	20.9	1.0	21.5
		36	39	20.9	20.8	20.8	1.0	21.5
		75	0	20.9	20.8	20.8	1.0	21.5
		1	0	20.7	20.9	20.7	1.0	21.5
	64QAM	1	37	20.7	20.6	20.6	1.0	21.5
		1	74	20.7	20.5	20.5	1.0	21.5
		36	0	19.5	19.5	19.5	2.0	20.5
		36	20	19.5	19.5	19.5	2.0	20.5
		36	39	19.5	19.5	19.5	2.0	20.5
		75	0	19.4	19.4	19.5	2.0	20.5
256QAM	1	0	19.6	19.6	19.4	2.0	20.5	
	1	37	19.3	19.4	19.3	2.0	20.5	
	1	74	19.4	19.3	19.3	2.0	20.5	
	36	0	18.5	18.6	18.6	3.0	19.5	
	36	20	18.5	18.5	18.5	3.0	19.5	
	36	39	18.5	18.4	18.5	3.0	19.5	
15 MHz	256QAM	75	0	18.5	18.5	18.5	3.0	19.5
		1	0	16.7	16.6	16.7	5.0	17.5
		1	37	16.4	16.7	16.5	5.0	17.5
	256QAM	1	74	16.7	16.5	16.6	5.0	17.5
		36	0	16.5	16.3	16.4	5.0	17.5
		36	20	16.4	16.3	16.4	5.0	17.5
	256QAM	36	39	16.4	16.3	16.4	5.0	17.5
		75	0	16.4	16.4	16.4	5.0	17.5

LTE Band 2 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				18650	18900	19150		
				1855 MHz	1880 MHz	1905 MHz		
10 MHz	QPSK	1	0	21.8	21.7	21.9	0.0	22.5
		1	25	21.8	21.7	21.8	0.0	22.5
		1	49	21.7	21.7	21.8	0.0	22.5
		25	0	20.6	20.5	20.5	1.0	21.5
		25	12	20.7	20.5	20.5	1.0	21.5
		25	25	20.7	20.5	20.5	1.0	21.5
	16QAM	50	0	20.7	20.5	20.5	1.0	21.5
		1	0	20.8	20.8	20.8	1.0	21.5
		1	25	20.7	20.7	20.5	1.0	21.5
		1	49	20.8	20.7	20.5	1.0	21.5
		25	0	19.8	19.6	19.6	2.0	20.5
		25	12	19.7	19.6	19.6	2.0	20.5
	64QAM	25	25	19.7	19.5	19.6	2.0	20.5
		50	0	19.7	19.5	19.5	2.0	20.5
		1	0	19.7	19.5	19.5	2.0	20.5
		1	25	19.7	19.5	19.4	2.0	20.5
		1	49	19.7	19.5	19.4	2.0	20.5
		25	0	18.7	18.5	18.5	3.0	19.5
	256QAM	25	12	18.6	18.5	18.5	3.0	19.5
		25	25	18.6	18.4	18.5	3.0	19.5
		50	0	18.6	18.4	18.5	3.0	19.5
		1	0	16.6	16.5	16.4	5.0	17.5
		1	25	16.7	16.5	16.4	5.0	17.5
		1	49	16.7	16.5	16.5	5.0	17.5
5 MHz	QPSK	25	0	16.5	16.4	16.4	5.0	17.5
		25	12	16.6	16.4	16.4	5.0	17.5
		25	25	16.5	16.3	16.4	5.0	17.5
		50	0	16.5	16.3	16.4	5.0	17.5
		1	0	21.9	21.8	21.8	0.0	22.5
		1	12	21.9	21.7	21.9	0.0	22.5
	16QAM	1	24	21.8	21.8	21.8	0.0	22.5
		12	0	20.8	20.7	20.7	1.0	21.5
		12	7	20.8	20.6	20.6	1.0	21.5
		12	13	20.8	20.5	20.6	1.0	21.5
		25	0	20.8	20.5	20.6	1.0	21.5
		1	0	20.9	20.8	20.6	1.0	21.5
	64QAM	1	12	21.0	20.8	20.6	1.0	21.5
		1	24	20.8	20.5	20.4	1.0	21.5
		12	0	19.8	19.6	19.6	2.0	20.5
		12	7	19.8	19.6	19.6	2.0	20.5
		12	13	19.8	19.5	19.5	2.0	20.5
		25	0	19.8	19.6	19.6	2.0	20.5
256QAM	1	0	19.9	19.8	19.8	2.0	20.5	
	1	12	19.9	19.7	19.7	2.0	20.5	
	1	24	19.9	19.6	19.5	2.0	20.5	
	12	0	18.8	18.6	18.5	3.0	19.5	
	12	7	18.8	18.5	18.5	3.0	19.5	
	12	13	18.7	18.4	18.5	3.0	19.5	
256QAM	25	0	18.7	18.5	18.5	3.0	19.5	
	1	0	16.5	16.4	16.4	5.0	17.5	
	1	12	16.6	16.6	16.5	5.0	17.5	
	1	24	16.6	16.5	16.4	5.0	17.5	
	12	0	16.5	16.4	16.4	5.0	17.5	
	12	7	16.5	16.4	16.4	5.0	17.5	
256QAM	12	13	16.6	16.5	16.4	5.0	17.5	
	25	0	16.5	16.4	16.3	5.0	17.5	

LTE Band 2 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				18615	18900	19185		
				1851.5 MHz	1880 MHz	1908.5 MHz		
3 MHz	QPSK	1	0	21.9	21.8	21.9	0.0	22.5
		1	8	21.9	21.6	21.7	0.0	22.5
		1	14	21.8	21.7	21.8	0.0	22.5
		8	0	20.8	20.7	20.8	1.0	21.5
		8	4	20.7	20.6	20.7	1.0	21.5
		8	7	20.8	20.6	20.7	1.0	21.5
	16QAM	15	0	20.8	20.6	20.7	1.0	21.5
		1	0	20.9	20.9	20.9	1.0	21.5
		1	8	20.8	20.8	20.9	1.0	21.5
		1	14	20.9	20.7	20.9	1.0	21.5
		8	0	19.8	19.6	19.6	2.0	20.5
		8	4	19.9	19.6	19.5	2.0	20.5
	64QAM	8	7	19.9	19.5	19.5	2.0	20.5
		15	0	19.9	19.6	19.6	2.0	20.5
		1	0	19.9	19.9	19.7	2.0	20.5
		1	8	19.5	19.6	19.7	2.0	20.5
		1	14	19.6	19.6	19.7	2.0	20.5
		8	0	18.6	18.5	18.5	3.0	19.5
	256QAM	8	4	18.7	18.5	18.6	3.0	19.5
		8	7	18.7	18.4	18.5	3.0	19.5
		15	0	18.6	18.4	18.4	3.0	19.5
		1	0	16.6	16.6	16.5	5.0	17.5
		1	8	16.6	16.6	16.4	5.0	17.5
		1	14	16.7	16.4	16.5	5.0	17.5
1.4 MHz	QPSK	8	0	16.7	16.4	16.4	5.0	17.5
		8	4	16.7	16.5	16.4	5.0	17.5
		8	7	16.6	16.4	16.4	5.0	17.5
		15	0	16.6	16.5	16.4	5.0	17.5
		1	0	21.9	21.7	21.8	0.0	22.5
		1	3	21.9	21.7	21.8	0.0	22.5
	16QAM	1	5	21.9	21.7	21.9	0.0	22.5
		3	0	21.8	21.6	21.7	0.0	22.5
		3	1	21.9	21.7	21.8	0.0	22.5
		3	3	21.9	21.6	21.8	0.0	22.5
		6	0	20.9	20.7	20.8	1.0	21.5
		1	0	20.9	20.8	20.9	1.0	21.5
	64QAM	1	3	20.8	20.6	20.6	1.0	21.5
		1	5	20.9	20.5	20.6	1.0	21.5
		3	0	20.8	20.7	20.8	1.0	21.5
		3	1	20.8	20.8	20.8	1.0	21.5
		3	3	20.9	20.6	20.7	1.0	21.5
		6	0	19.8	19.4	19.5	2.0	20.5
	256QAM	1	0	19.9	19.7	19.8	2.0	20.5
		1	3	19.9	19.5	19.5	2.0	20.5
		1	5	19.9	19.6	19.7	2.0	20.5
		3	0	19.7	19.7	19.8	2.0	20.5
		3	1	19.9	19.6	19.7	2.0	20.5
		3	3	19.7	19.6	19.7	2.0	20.5
16QAM	6	0	18.9	18.6	18.7	3.0	19.5	
	1	0	16.8	16.3	16.4	5.0	17.5	
	1	3	16.7	16.4	16.4	5.0	17.5	
	1	5	16.8	16.6	16.5	5.0	17.5	
	3	0	16.5	16.4	16.5	5.0	17.5	
	3	1	16.4	16.3	16.3	5.0	17.5	
256QAM	3	3	16.5	16.4	16.4	5.0	17.5	
	6	0	16.5	16.3	16.3	5.0	17.5	

LTE Band 4 (Ant.3) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					
				Measured Pwr (dBm)			MPR	Tune-up Limit	
				20050 1720 MHz	20175 1732.5 MHz	20300 1745 MHz			
20 MHz	QPSK	1	0		21.0		0.0	22.5	
		1	49		21.5		0.0	22.5	
		1	99		21.5		0.0	22.5	
		50	0		20.7		1.0	21.5	
		50	24		20.7		1.0	21.5	
		50	50		20.7		1.0	21.5	
	16QAM	100	0		20.9		1.0	21.5	
		1	0		20.6		1.0	21.5	
		1	49		20.7		1.0	21.5	
		1	99		20.4		1.0	21.5	
		50	0		19.3		2.0	20.5	
		50	24		19.3		2.0	20.5	
	64QAM	50	50		19.3		2.0	20.5	
		100	0		19.3		2.0	20.5	
		1	0		19.3		2.0	20.5	
		1	49		19.3		2.0	20.5	
		1	99		19.3		2.0	20.5	
		50	0		18.3		3.0	19.5	
	256QAM	50	24		18.3		3.0	19.5	
		50	50		18.0		3.0	19.5	
		100	0		18.9		3.0	19.5	
		1	0		16.2		5.0	17.5	
		1	49		16.4		5.0	17.5	
		1	99		16.3		5.0	17.5	
15 MHz	QPSK	50	0		16.2		5.0	17.5	
		50	24		16.2		5.0	17.5	
		50	50		16.2		5.0	17.5	
		100	0		16.2		5.0	17.5	
		1	0		21.9	20.6	21.8	0.0	22.5
		1	37		21.8	21.5	21.7	0.0	22.5
	16QAM	1	74		21.6	21.5	21.7	0.0	22.5
		36	0		20.8	20.3	20.9	1.0	21.5
		36	20		20.9	20.4	20.8	1.0	21.5
		36	39		20.9	20.4	20.8	1.0	21.5
		75	0		20.9	20.4	20.8	1.0	21.5
		75	0		20.9	20.4	20.8	1.0	21.5
	64QAM	1	0		20.8	20.3	20.8	1.0	21.5
		1	37		20.8	20.5	20.8	1.0	21.5
		1	74		20.9	20.5	20.8	1.0	21.5
		36	0		19.7	19.3	19.7	2.0	20.5
		36	20		19.7	19.3	19.7	2.0	20.5
		36	39		19.7	19.3	19.7	2.0	20.5
	256QAM	75	0		19.7	19.3	19.7	2.0	20.5
		1	0		19.5	19.1	19.7	2.0	20.5
		1	37		19.5	19.5	19.7	2.0	20.5
		1	74		19.6	19.6	19.7	2.0	20.5
		36	0		18.7	18.3	18.8	3.0	19.5
		36	20		18.7	18.3	18.8	3.0	19.5
QPSK	36	39		18.7	19.3	18.7	3.0	19.5	
	75	0		18.7	19.3	18.8	3.0	19.5	
	1	0		16.3	16.2	16.3	5.0	17.5	
	1	37		16.4	16.5	16.5	5.0	17.5	
	1	74		16.4	16.3	16.3	5.0	17.5	
	36	0		16.3	16.2	16.3	5.0	17.5	
16QAM	36	20		16.2	16.1	16.3	5.0	17.5	
	36	39		16.2	16.1	16.3	5.0	17.5	
	75	0		16.3	16.2	16.3	5.0	17.5	

LTE Band 4 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20000	20175	20350		
				1715 MHz	1732.5 MHz	1750 MHz		
10 MHz	QPSK	1	0	21.9	21.5	21.6	0.0	22.5
		1	25	21.8	21.4	21.6	0.0	22.5
		1	49	21.6	21.4	21.7	0.0	22.5
		25	0	20.9	20.3	21.0	1.0	21.5
		25	12	20.9	20.3	21.0	1.0	21.5
		25	25	20.9	20.3	21.0	1.0	21.5
	16QAM	50	0	20.9	20.2	21.0	1.0	21.5
		1	0	21.0	20.6	21.1	1.0	21.5
		1	25	21.1	20.4	21.0	1.0	21.5
		1	49	21.1	20.3	21.1	1.0	21.5
		25	0	20.0	19.3	20.1	2.0	20.5
		25	12	20.0	19.3	20.1	2.0	20.5
	64QAM	25	25	20.0	19.3	20.1	2.0	20.5
		50	0	19.9	19.3	20.0	2.0	20.5
		1	0	19.9	19.5	20.0	2.0	20.5
		1	25	20.0	19.5	19.8	2.0	20.5
		1	49	20.0	19.4	19.8	2.0	20.5
		25	0	18.9	18.2	19.0	3.0	19.5
	256QAM	25	12	18.9	18.3	19.0	3.0	19.5
		25	25	18.9	18.2	19.0	3.0	19.5
		50	0	18.9	18.2	19.0	3.0	19.5
		1	0	16.2	16.2	16.6	5.0	17.5
		1	25	16.3	16.3	16.5	5.0	17.5
		1	49	16.3	16.4	16.6	5.0	17.5
5 MHz	QPSK	25	0	16.2	16.1	16.3	5.0	17.5
		25	12	16.1	16.1	16.3	5.0	17.5
		25	25	16.1	16.1	16.3	5.0	17.5
		50	0	16.2	16.2	16.3	5.0	17.5
		1	0	21.9	21.5	21.8	0.0	22.5
		1	12	21.9	21.3	21.7	0.0	22.5
	16QAM	1	24	21.7	21.7	21.7	0.0	22.5
		12	0	20.7	20.5	20.7	1.0	21.5
		12	7	20.7	20.4	20.6	1.0	21.5
		12	13	20.7	20.4	20.6	1.0	21.5
		25	0	20.6	20.2	20.4	1.0	21.5
		1	0	20.9	20.5	20.8	1.0	21.5
64QAM	1	12	20.7	20.5	20.7	1.0	21.5	
	1	24	20.6	20.5	20.7	1.0	21.5	
	12	0	19.6	19.3	19.5	2.0	20.5	
	12	7	19.6	19.2	19.4	2.0	20.5	
	12	13	19.6	19.2	19.5	2.0	20.5	
	25	0	19.6	19.3	19.5	2.0	20.5	
256QAM	1	0	19.6	19.3	19.5	2.0	20.5	
	1	12	19.5	19.3	19.3	2.0	20.5	
	1	24	19.5	19.3	19.5	2.0	20.5	
	12	0	18.4	18.3	18.5	3.0	19.5	
	12	7	18.4	18.3	18.4	3.0	19.5	
	12	13	18.4	18.2	18.4	3.0	19.5	
QPSK	25	0	18.4	18.1	18.4	3.0	19.5	
	1	0	16.1	16.0	16.2	5.0	17.5	
	1	12	16.2	16.4	16.5	5.0	17.5	
	1	24	16.2	16.2	16.4	5.0	17.5	
	12	0	16.1	16.1	16.3	5.0	17.5	
	12	7	16.1	16.2	16.3	5.0	17.5	
16QAM	12	13	16.2	16.1	16.3	5.0	17.5	
	25	0	16.1	16.1	16.3	5.0	17.5	
	1	0	16.1	16.0	16.2	5.0	17.5	
	1	12	16.2	16.4	16.5	5.0	17.5	
	1	24	16.2	16.2	16.4	5.0	17.5	
	12	0	16.1	16.1	16.3	5.0	17.5	
64QAM	12	7	16.1	16.2	16.3	5.0	17.5	
	12	13	16.2	16.1	16.3	5.0	17.5	
	25	0	16.1	16.1	16.3	5.0	17.5	
	1	0	16.1	16.0	16.2	5.0	17.5	
	1	12	16.2	16.4	16.5	5.0	17.5	
	1	24	16.2	16.2	16.4	5.0	17.5	
256QAM	12	0	16.1	16.1	16.3	5.0	17.5	
	12	7	16.1	16.2	16.3	5.0	17.5	
	12	13	16.2	16.1	16.3	5.0	17.5	
	25	0	16.1	16.1	16.3	5.0	17.5	
	1	0	16.1	16.0	16.2	5.0	17.5	
	1	12	16.2	16.4	16.5	5.0	17.5	

LTE Band 4 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19965	20175	20385		
				1711.5 MHz	1732.5 MHz	1753.5 MHz		
3 MHz	QPSK	1	0	21.5	21.4	21.6	0.0	22.5
		1	8	21.5	21.3	21.5	0.0	22.5
		1	14	21.6	21.4	21.7	0.0	22.5
		8	0	20.4	20.4	20.6	1.0	21.5
		8	4	20.4	20.3	20.5	1.0	21.5
		8	7	20.5	20.3	20.6	1.0	21.5
	16QAM	15	0	20.5	20.3	20.5	1.0	21.5
		1	0	20.4	20.5	20.6	1.0	21.5
		1	8	20.3	20.4	20.5	1.0	21.5
		1	14	20.4	20.4	20.7	1.0	21.5
		8	0	19.3	19.2	19.3	2.0	20.5
		8	4	19.4	19.2	19.4	2.0	20.5
	64QAM	8	7	19.3	19.1	19.4	2.0	20.5
		15	0	19.3	19.3	19.5	2.0	20.5
		1	0	19.6	19.5	19.5	2.0	20.5
		1	8	19.5	19.4	19.4	2.0	20.5
		1	14	19.5	19.3	19.6	2.0	20.5
		8	0	18.3	18.3	18.4	3.0	19.5
	256QAM	8	4	18.3	18.2	18.3	3.0	19.5
		8	7	18.2	18.1	18.3	3.0	19.5
		15	0	18.2	19.1	18.3	3.0	19.5
		1	0	16.1	16.4	16.5	5.0	17.5
		1	8	16.1	16.3	16.4	5.0	17.5
		1	14	16.2	16.3	16.5	5.0	17.5
1.4 MHz	QPSK	8	0	16.1	16.1	16.2	5.0	17.5
		8	4	16.1	16.2	16.2	5.0	17.5
		8	7	16.1	16.1	16.2	5.0	17.5
		15	0	16.2	16.1	16.3	5.0	17.5
		1	0	21.5	21.5	21.6	0.0	22.5
		1	3	21.4	21.3	21.7	0.0	22.5
	16QAM	1	5	21.5	21.3	21.7	0.0	22.5
		3	0	21.4	21.3	21.5	0.0	22.5
		3	1	21.4	21.3	21.6	0.0	22.5
		3	3	21.4	21.3	21.6	0.0	22.5
		6	0	20.5	20.3	20.6	1.0	21.5
		1	0	20.7	20.6	20.9	1.0	21.5
	64QAM	1	3	20.6	20.4	20.7	1.0	21.5
		1	5	20.5	20.3	20.6	1.0	21.5
		3	0	20.5	20.5	20.7	1.0	21.5
		3	1	20.4	20.5	20.7	1.0	21.5
		3	3	20.5	20.3	20.7	1.0	21.5
		6	0	19.3	19.2	19.3	2.0	20.5
	256QAM	1	0	19.2	19.4	19.6	2.0	20.5
		1	3	19.5	19.2	19.5	2.0	20.5
		1	5	19.6	19.3	19.7	2.0	20.5
		3	0	19.4	19.3	19.5	2.0	20.5
		3	1	19.4	19.3	19.6	2.0	20.5
		3	3	19.4	19.2	19.6	2.0	20.5
16QAM	6	0	18.3	18.3	18.5	3.0	19.5	
	1	0	16.2	16.5	16.3	5.0	17.5	
	1	3	16.1	16.4	16.4	5.0	17.5	
	1	5	16.3	16.6	16.7	5.0	17.5	
	3	0	16.0	16.3	16.3	5.0	17.5	
	3	1	16.0	16.3	16.4	5.0	17.5	
QPSK	3	3	16.2	16.4	16.4	5.0	17.5	
	6	0	16.0	16.1	16.3	5.0	17.5	

LTE Band 5 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20415	20525	20635		
				825.5 MHz	836.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.0	23.9	23.7	0.0	25.0
		1	8	23.7	23.9	23.7	0.0	25.0
		1	14	24.0	23.9	23.7	0.0	25.0
		8	0	22.0	22.0	21.6	2.0	23.0
		8	4	22.0	22.0	21.7	2.0	23.0
		8	7	22.0	22.0	21.7	2.0	23.0
	16QAM	15	0	21.9	22.0	21.6	2.0	23.0
		1	0	21.9	22.3	22.0	2.0	23.0
		1	8	21.9	22.2	22.0	2.0	23.0
		1	14	21.8	22.3	21.9	2.0	23.0
		8	0	20.9	21.1	20.7	3.0	22.0
		8	4	20.9	21.0	20.7	3.0	22.0
	64QAM	8	7	20.9	21.0	20.7	3.0	22.0
		15	0	20.8	20.9	20.7	3.0	22.0
		1	0	20.9	20.9	20.6	3.0	22.0
		1	8	20.8	20.8	20.6	3.0	22.0
		1	14	21.0	20.8	20.7	3.0	22.0
		8	0	19.9	19.9	19.5	4.0	21.0
	256QAM	8	4	19.8	19.9	19.5	4.0	21.0
		8	7	19.9	19.9	19.5	4.0	21.0
		15	0	19.9	19.9	19.5	4.0	21.0
1		0	20.0	20.0	19.7	4.0	21.0	
1		8	20.0	20.0	19.5	4.0	21.0	
1		14	20.0	20.0	19.6	4.0	21.0	
1.4 MHz	QPSK	8	0	18.8	18.9	18.6	5.0	20.0
		8	4	18.8	18.9	18.6	5.0	20.0
		8	7	18.8	18.9	18.6	5.0	20.0
		15	0	18.9	19.0	18.6	5.0	20.0
		1	0	23.9	24.0	23.7	0.0	25.0
		1	3	23.8	23.8	23.5	0.0	25.0
	16QAM	1	5	23.9	24.0	23.7	0.0	25.0
		3	0	24.0	24.2	23.7	0.0	25.0
		3	1	24.0	24.0	23.6	0.0	25.0
		3	3	24.0	23.9	23.7	0.0	25.0
		6	0	22.0	22.0	21.6	2.0	23.0
		1	0	21.9	22.3	21.6	2.0	23.0
	64QAM	1	3	21.9	22.3	22.0	2.0	23.0
		1	5	21.9	22.4	21.7	2.0	23.0
		3	0	22.0	22.1	22.0	2.0	23.0
		3	1	21.9	22.1	21.8	2.0	23.0
		3	3	22.0	22.1	21.8	2.0	23.0
		6	0	21.0	21.0	20.7	3.0	22.0
	256QAM	1	0	20.7	21.2	20.8	3.0	22.0
		1	3	21.1	21.2	20.6	3.0	22.0
		1	5	20.9	21.1	20.7	3.0	22.0
3		0	20.8	21.1	20.7	3.0	22.0	
3		1	20.7	21.0	20.6	3.0	22.0	
3		3	20.7	21.0	20.5	3.0	22.0	
QPSK	6	0	19.9	19.9	19.6	4.0	21.0	
	1	0	20.0	19.8	19.7	4.0	21.0	
	1	3	19.9	20.0	19.7	4.0	21.0	
	1	5	20.0	19.8	19.9	4.0	21.0	
	3	0	19.9	19.9	19.6	5.0	20.0	
	3	1	19.8	19.8	19.4	5.0	20.0	
16QAM	3	3	19.7	19.7	19.4	5.0	20.0	
	6	0	18.8	18.8	18.5	5.0	20.0	
	1	0	23.9	24.0	23.7	0.0	25.0	
	1	3	23.8	23.8	23.5	0.0	25.0	
	1	5	23.9	24.0	23.7	0.0	25.0	
	3	0	24.0	24.2	23.7	0.0	25.0	
64QAM	3	1	24.0	24.0	23.6	0.0	25.0	
	3	3	24.0	23.9	23.7	0.0	25.0	
	6	0	22.0	22.0	21.6	2.0	23.0	
	1	0	21.9	22.3	21.6	2.0	23.0	
	1	3	21.9	22.3	22.0	2.0	23.0	
	1	5	21.9	22.4	21.7	2.0	23.0	
256QAM	3	0	22.0	22.1	22.0	2.0	23.0	
	3	1	21.9	22.1	21.8	2.0	23.0	
	3	3	22.0	22.1	21.8	2.0	23.0	
	6	0	21.0	21.0	20.7	3.0	22.0	
	1	0	20.7	21.2	20.8	3.0	22.0	
	1	3	21.1	21.2	20.6	3.0	22.0	
QPSK	1	5	20.9	21.1	20.7	3.0	22.0	
	3	0	20.8	21.1	20.7	3.0	22.0	
	3	1	20.7	21.0	20.6	3.0	22.0	
	3	3	20.7	21.0	20.5	3.0	22.0	
	6	0	19.9	19.9	19.6	4.0	21.0	
	1	0	20.0	19.8	19.7	4.0	21.0	
16QAM	1	3	19.9	20.0	19.7	4.0	21.0	
	1	5	20.0	19.8	19.9	4.0	21.0	
	3	0	19.9	19.9	19.6	5.0	20.0	
	3	1	19.8	19.8	19.4	5.0	20.0	
	3	3	19.7	19.7	19.4	5.0	20.0	
	6	0	18.8	18.8	18.5	5.0	20.0	

LTE Band 12 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				23060 704 MHz	23095 707.5 MHz	23130 711 MHz		
10 MHz	QPSK	1	0		23.8		0.0	25.0
		1	25		23.9		0.0	25.0
		1	49		23.7		0.0	25.0
		25	0		21.8		2.0	23.0
		25	12		21.7		2.0	23.0
		25	25		21.7		2.0	23.0
	16QAM	1	0		22.1		2.0	23.0
		1	25		22.1		2.0	23.0
		1	49		22.0		2.0	23.0
		25	0		20.8		3.0	22.0
		25	12		20.8		3.0	22.0
		25	25		20.7		3.0	22.0
	64QAM	1	0		20.8		3.0	22.0
		1	25		20.8		3.0	22.0
		1	49		20.7		3.0	22.0
		25	0		19.8		4.0	21.0
		25	12		19.7		4.0	21.0
		25	25		19.7		4.0	21.0
	256QAM	1	0		19.7		4.0	21.0
		1	25		19.9		4.0	21.0
1		49		19.8		4.0	21.0	
25		0		18.8		5.0	20.0	
25		12		18.8		5.0	20.0	
25		25		18.7		5.0	20.0	
5 MHz	QPSK	1	0	23.7	23.7	23.6	0.0	25.0
		1	12	23.8	23.8	23.5	0.0	25.0
		1	24	23.7	23.7	23.6	0.0	25.0
		12	0	21.8	21.7	21.8	2.0	23.0
		12	7	21.8	21.7	21.7	2.0	23.0
		12	13	21.8	21.7	21.7	2.0	23.0
	16QAM	25	0	21.8	21.7	21.7	2.0	23.0
		1	0	22.0	22.0	22.2	2.0	23.0
		1	12	22.0	21.9	22.1	2.0	23.0
		1	24	22.0	21.9	22.1	2.0	23.0
		12	0	20.8	20.8	20.9	3.0	22.0
		12	7	20.8	20.7	20.9	3.0	22.0
	64QAM	12	13	20.7	20.7	20.8	3.0	22.0
		25	0	20.7	20.7	20.8	3.0	22.0
		1	0	21.0	20.7	20.9	3.0	22.0
		1	12	21.0	20.6	20.8	3.0	22.0
		1	24	21.1	20.6	20.8	3.0	22.0
		12	0	19.9	19.7	19.8	4.0	21.0
	256QAM	12	7	19.8	19.7	19.8	4.0	21.0
		12	13	19.8	19.6	19.7	4.0	21.0
25		0	19.7	19.7	19.7	4.0	21.0	
1		0	19.9	19.7	20.1	4.0	21.0	
1		12	19.8	19.5	20.1	4.0	21.0	
1		24	19.9	19.7	20.0	5.0	20.0	
	256QAM	12	0	18.9	18.8	18.8	5.0	20.0
		12	7	18.8	18.7	18.8	5.0	20.0
		12	13	18.9	18.7	18.8	5.0	20.0
		25	0	18.8	18.8	18.7	5.0	20.0
		25	0	18.8	18.8	18.7	5.0	20.0

LTE Band 12 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	23.9	23.7	23.7	0.0	25.0
		1	8	23.6	23.7	23.7	0.0	25.0
		1	14	23.9	23.6	23.8	0.0	25.0
		8	0	21.8	21.7	21.7	2.0	23.0
		8	4	21.8	21.7	21.7	2.0	23.0
		8	7	21.8	21.7	21.8	2.0	23.0
	16QAM	15	0	21.8	21.7	21.7	2.0	23.0
		1	0	21.9	22.1	22.2	2.0	23.0
		1	8	21.9	22.1	22.2	2.0	23.0
		1	14	21.8	22.1	22.1	2.0	23.0
		8	0	20.8	20.8	20.8	3.0	22.0
		8	4	20.9	20.8	20.7	3.0	22.0
	64QAM	8	7	20.8	20.7	20.7	3.0	22.0
		15	0	20.7	20.7	20.7	3.0	22.0
		1	0	20.8	20.8	20.8	3.0	22.0
		1	8	20.7	20.8	20.8	3.0	22.0
		1	14	20.7	20.9	20.8	3.0	22.0
		8	0	19.9	19.8	19.7	4.0	21.0
	256QAM	8	4	19.8	19.8	19.8	4.0	21.0
		8	7	19.8	19.8	19.8	4.0	21.0
		15	0	19.8	19.6	19.7	4.0	21.0
		1	0	19.9	19.9	19.9	4.0	21.0
		1	8	20.0	19.6	19.8	4.0	21.0
		1	14	20.0	19.8	19.9	5.0	20.0
1.4 MHz	QPSK	8	0	18.9	18.8	18.7	5.0	20.0
		8	4	18.9	18.8	18.7	5.0	20.0
		8	7	18.9	18.8	18.7	5.0	20.0
		15	0	18.9	18.8	18.8	5.0	20.0
		1	0	23.8	23.8	23.7	0.0	25.0
		1	3	23.7	23.8	23.4	0.0	25.0
	16QAM	1	5	23.8	23.8	23.7	0.0	25.0
		3	0	23.8	23.8	23.8	0.0	25.0
		3	1	23.7	23.7	23.8	0.0	25.0
		3	3	23.7	23.7	23.6	0.0	25.0
		6	0	21.7	21.7	21.8	2.0	23.0
		1	0	21.7	21.8	22.1	2.0	23.0
	64QAM	1	3	22.0	21.8	22.1	2.0	23.0
		1	5	21.8	21.9	22.1	2.0	23.0
		3	0	22.0	21.8	21.8	2.0	23.0
		3	1	21.9	21.7	21.8	2.0	23.0
		3	3	21.9	21.7	21.7	2.0	23.0
		6	0	20.8	20.8	20.7	3.0	22.0
	256QAM	1	0	20.5	21.0	21.0	3.0	22.0
		1	3	20.9	20.9	20.8	3.0	22.0
		1	5	20.7	20.9	20.9	3.0	22.0
		3	0	20.7	20.8	20.8	3.0	22.0
		3	1	20.7	20.7	20.7	3.0	22.0
		3	3	20.6	20.7	20.7	3.0	22.0
QPSK	6	0	19.7	19.6	19.8	4.0	21.0	
	1	0	19.8	19.6	19.8	4.0	21.0	
	1	3	19.8	19.7	19.8	4.0	21.0	
	1	5	19.8	19.6	19.8	4.0	21.0	
	3	0	19.9	19.7	19.7	4.0	21.0	
	3	1	19.9	19.6	19.7	4.0	21.0	
16QAM	3	3	19.8	19.6	19.6	5.0	20.0	
	6	0	18.8	18.7	18.8	5.0	20.0	

LTE Band 13 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				23205	23230	23255		
				782 MHz				
10 MHz	QPSK	1	0		23.1		0.0	25.0
		1	25		23.0		0.0	25.0
		1	49		23.1		0.0	25.0
		25	0		20.7		2.0	23.0
		25	12		20.7		2.0	23.0
		25	25		20.7		2.0	23.0
	16QAM	50	0		20.7		2.0	23.0
		1	0		21.1		2.0	23.0
		1	25		21.1		2.0	23.0
		1	49		21.0		2.0	23.0
		25	0		19.8		3.0	22.0
		25	12		19.7		3.0	22.0
	64QAM	25	25		19.7		3.0	22.0
		50	0		19.7		3.0	22.0
		1	0		19.7		3.0	22.0
		1	25		19.6		3.0	22.0
		1	49		19.6		3.0	22.0
		25	0		18.8		4.0	21.0
	256QAM	25	12		18.7		4.0	21.0
		25	25		18.7		4.0	21.0
		50	0		18.7		4.0	21.0
		1	0		18.8		4.0	21.0
		1	25		18.9		4.0	21.0
		1	49		18.7		5.0	20.0
	25	0		17.8		5.0	20.0	
	25	12		17.8		5.0	20.0	
	25	25		17.7		5.0	20.0	
	50	0		17.7		5.0	20.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23205	23230	23255		
							779.5 MHz	782 MHz
5 MHz	QPSK	1	0		23.1		0.0	25.0
		1	12		23.2		0.0	25.0
		1	24		23.1		0.0	25.0
		12	0		20.7		2.0	23.0
		12	7		20.7		2.0	23.0
		12	13		20.6		2.0	23.0
	16QAM	25	0		20.7		2.0	23.0
		1	0		21.0		2.0	23.0
		1	12		21.0		2.0	23.0
		1	24		21.0		2.0	23.0
		12	0		19.7		3.0	22.0
		12	7		19.7		3.0	22.0
	64QAM	12	13		19.7		3.0	22.0
		25	0		19.6		3.0	22.0
		1	0		20.0		3.0	22.0
		1	12		19.8		3.0	22.0
		1	24		19.8		3.0	22.0
		12	0		18.7		4.0	21.0
	256QAM	12	7		18.7		4.0	21.0
		12	13		18.7		4.0	21.0
		25	0		18.7		4.0	21.0
		1	0		18.9		4.0	21.0
		1	12		18.9		4.0	21.0
		1	24		18.9		5.0	20.0
	12	0		17.8		5.0	20.0	
	12	7		17.8		5.0	20.0	
	12	13		17.7		5.0	20.0	
	25	0		17.7		5.0	20.0	

LTE Band 25 (Main 1 Ant.) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590		
				1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	22.7	23.0	23.2	0.0	24.5
		1	49	22.8	23.1	23.1	0.0	24.5
		1	99	23.0	23.0	23.0	0.0	24.5
		50	0	21.2	21.1	21.3	2.0	22.5
		50	24	21.2	21.1	21.1	2.0	22.5
		50	50	21.1	21.0	21.1	2.0	22.5
	16QAM	100	0	21.2	21.0	21.1	2.0	22.5
		1	0	21.5	21.2	21.5	2.0	22.5
		1	49	21.5	20.9	21.4	2.0	22.5
		1	99	21.4	21.1	21.2	2.0	22.5
		50	0	20.3	20.0	20.2	3.0	21.5
		50	24	20.2	20.0	20.1	3.0	21.5
	64QAM	50	50	20.2	20.0	20.1	3.0	21.5
		100	0	20.2	20.0	20.2	3.0	21.5
		1	0	20.1	20.0	20.4	3.0	21.5
		1	49	20.1	20.2	20.5	3.0	21.5
		1	99	19.9	20.0	20.2	3.0	21.5
		50	0	19.0	19.1	19.3	4.0	20.5
	256QAM	50	24	19.0	19.1	19.3	4.0	20.5
		50	50	18.9	19.1	19.2	4.0	20.5
		100	0	18.9	19.0	19.2	4.0	20.5
		1	0	19.2	18.8	19.4	4.0	20.5
		1	49	19.4	19.1	19.4	4.0	20.5
		1	99	19.1	18.9	19.2	4.0	20.5
15 MHz	QPSK	50	0	17.9	17.9	18.0	5.0	19.5
		50	24	17.8	17.9	17.9	5.0	19.5
		50	50	17.8	17.9	17.9	5.0	19.5
		100	0	17.8	17.9	18.0	5.0	19.5
		1	0	22.6	22.6	22.9	0.0	24.5
		1	37	22.7	22.7	22.8	0.0	24.5
	16QAM	1	74	22.5	22.6	22.7	0.0	24.5
		36	0	20.7	20.7	20.9	2.0	22.5
		36	20	20.7	20.7	20.9	2.0	22.5
		36	39	20.7	20.7	20.8	2.0	22.5
		75	0	20.7	20.7	20.9	2.0	22.5
		1	0	21.0	21.1	21.4	2.0	22.5
64QAM	1	37	21.1	21.2	21.5	2.0	22.5	
	1	74	20.9	21.1	21.2	2.0	22.5	
	36	0	19.7	19.7	20.0	3.0	21.5	
	36	20	19.7	19.7	19.9	3.0	21.5	
	36	39	19.7	19.7	19.9	3.0	21.5	
	75	0	19.7	19.7	19.9	3.0	21.5	
256QAM	1	0	19.9	19.8	20.2	3.0	21.5	
	1	37	19.6	20.2	19.8	3.0	21.5	
	1	74	19.7	19.9	20.0	3.0	21.5	
	36	0	18.9	18.8	19.1	4.0	20.5	
	36	20	18.9	18.8	19.0	4.0	20.5	
	36	39	18.8	18.8	18.9	4.0	20.5	
256QAM	75	0	18.7	18.8	19.0	4.0	20.5	
	1	0	18.6	18.7	19.0	4.0	20.5	
	1	37	18.7	18.7	19.1	4.0	20.5	
	1	74	18.5	18.7	18.5	4.0	20.5	
	36	0	17.5	17.6	17.8	5.0	19.5	
	36	20	17.5	17.6	17.7	5.0	19.5	
256QAM	36	39	17.4	17.6	17.7	5.0	19.5	
	75	0	17.5	17.6	17.8	5.0	19.5	

LTE Band 25 (Main 1 Ant.) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				26090	26365	26640			
				1855 MHz	1882.5 MHz	1910 MHz			
10 MHz	QPSK	1	0	22.7	22.5	22.8	0.0	24.5	
		1	25	22.6	22.6	22.9	0.0	24.5	
		1	49	22.6	22.5	22.8	0.0	24.5	
		25	0	20.7	20.7	20.8	2.0	22.5	
		25	12	20.7	20.7	20.8	2.0	22.5	
		25	25	20.7	20.7	20.8	2.0	22.5	
	16QAM	50	0	20.7	20.7	20.8	2.0	22.5	
		1	0	20.9	21.0	21.2	2.0	22.5	
		1	25	20.8	21.0	20.9	2.0	22.5	
		1	49	20.8	21.0	21.0	2.0	22.5	
		25	0	19.8	19.7	19.9	3.0	21.5	
		25	12	19.7	19.7	19.9	3.0	21.5	
	64QAM	25	25	19.7	19.7	19.8	3.0	21.5	
		50	0	19.7	19.7	19.9	3.0	21.5	
		1	0	20.0	19.9	19.9	3.0	21.5	
		1	25	19.7	20.0	20.0	3.0	21.5	
		1	49	19.8	20.0	20.0	3.0	21.5	
		25	0	19.0	19.0	19.1	4.0	20.5	
	256QAM	25	12	18.9	18.9	19.1	4.0	20.5	
		25	25	18.9	18.9	19.1	4.0	20.5	
		50	0	18.9	18.9	19.1	4.0	20.5	
		1	0	18.8	18.9	18.8	4.0	20.5	
		1	25	18.7	18.8	18.7	4.0	20.5	
		1	49	18.7	18.9	18.7	4.0	20.5	
256QAM	25	0	17.7	17.8	17.8	5.0	19.5		
	25	12	17.7	17.8	17.8	5.0	19.5		
	25	25	17.6	17.8	17.8	5.0	19.5		
	50	0	17.6	17.7	17.8	5.0	19.5		
	5 MHz	QPSK	1	0	22.6	22.6	22.7	0.0	24.5
			1	12	22.8	22.6	22.8	0.0	24.5
1			24	22.6	22.6	22.8	0.0	24.5	
12			0	20.7	20.7	20.8	2.0	22.5	
12			7	20.7	20.7	20.8	2.0	22.5	
12			13	20.6	20.7	20.8	2.0	22.5	
16QAM		25	0	20.6	20.7	20.8	2.0	22.5	
		1	0	21.1	21.0	21.2	2.0	22.5	
		1	12	20.7	21.2	21.2	2.0	22.5	
		1	24	21.0	21.0	21.1	2.0	22.5	
		12	0	19.8	19.7	19.9	3.0	21.5	
		12	7	19.7	19.7	19.9	3.0	21.5	
64QAM		12	13	19.7	19.7	19.9	3.0	21.5	
		25	0	19.7	19.7	19.8	3.0	21.5	
		1	0	20.2	20.0	20.0	3.0	21.5	
		1	12	20.0	20.3	20.3	3.0	21.5	
		1	24	20.0	20.1	20.2	3.0	21.5	
		12	0	18.9	18.9	19.0	4.0	20.5	
256QAM		12	7	18.9	18.9	19.0	4.0	20.5	
		12	13	18.8	18.9	19.0	4.0	20.5	
		25	0	18.9	18.9	19.0	4.0	20.5	
		1	0	18.8	18.7	18.8	4.0	20.5	
		1	12	18.6	18.8	18.6	4.0	20.5	
		1	24	18.7	18.6	18.6	4.0	20.5	
256QAM	12	0	17.7	17.7	17.7	5.0	19.5		
	12	7	17.6	17.7	17.5	5.0	19.5		
	12	13	17.7	17.7	17.2	5.0	19.5		
	25	0	17.5	17.7	17.4	5.0	19.5		

LTE Band 25 (Main 1 Ant.) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26055	26365	26675		
				1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	22.7	22.6	22.8	0.0	24.5
		1	8	22.7	22.7	22.8	0.0	24.5
		1	14	22.7	22.5	22.8	0.0	24.5
		8	0	20.7	20.7	20.8	2.0	22.5
		8	4	20.6	20.6	20.8	2.0	22.5
		8	7	20.7	20.7	20.8	2.0	22.5
	16QAM	15	0	20.6	20.7	20.8	2.0	22.5
		1	0	20.8	21.0	21.0	2.0	22.5
		1	8	20.9	21.1	21.2	2.0	22.5
		1	14	20.7	21.0	21.0	2.0	22.5
		8	0	19.7	19.8	19.9	3.0	21.5
		8	4	19.7	19.8	19.9	3.0	21.5
	64QAM	8	7	19.7	19.8	19.9	3.0	21.5
		15	0	19.7	19.7	19.8	3.0	21.5
		1	0	20.0	20.0	19.9	3.0	21.5
		1	8	20.0	19.8	20.0	3.0	21.5
		1	14	19.8	20.1	20.1	3.0	21.5
		8	0	19.0	18.9	19.1	4.0	20.5
	256QAM	8	4	18.8	18.9	19.1	4.0	20.5
		8	7	18.9	18.9	19.1	4.0	20.5
		15	0	18.8	18.9	19.1	4.0	20.5
		1	0	18.5	18.9	18.8	4.0	20.5
		1	8	18.5	18.9	18.9	4.0	20.5
		1	14	18.5	18.8	18.8	4.0	20.5
3 MHz	256QAM	8	0	17.6	17.7	17.8	5.0	19.5
		8	4	17.6	17.7	17.8	5.0	19.5
		8	7	17.6	17.7	17.9	5.0	19.5
		15	0	17.6	17.7	17.9	5.0	19.5
		1	0	22.6	22.7	22.8	0.0	24.5
		1	3	22.4	22.5	22.7	0.0	24.5
1.4 MHz	QPSK	1	5	22.5	22.6	22.8	0.0	24.5
		3	0	22.7	22.7	22.7	0.0	24.5
		3	1	22.6	22.6	22.8	0.0	24.5
		3	3	22.5	22.6	22.9	0.0	24.5
		6	0	20.6	20.6	20.7	2.0	22.5
		1	0	20.6	20.9	20.8	2.0	22.5
	16QAM	1	3	20.9	20.9	20.7	2.0	22.5
		1	5	20.7	21.0	20.9	2.0	22.5
		3	0	20.7	20.8	21.0	2.0	22.5
		3	1	20.7	20.7	20.9	2.0	22.5
		3	3	20.8	20.7	20.9	2.0	22.5
		6	0	19.7	19.5	19.9	3.0	21.5
	64QAM	1	0	20.1	19.7	19.8	3.0	21.5
		1	3	20.0	19.6	19.8	3.0	21.5
		1	5	20.0	19.6	19.9	3.0	21.5
		3	0	19.9	19.8	20.0	3.0	21.5
		3	1	19.8	19.8	20.0	3.0	21.5
		3	3	19.9	19.7	20.0	3.0	21.5
	256QAM	6	0	18.6	18.8	18.9	4.0	20.5
		1	0	18.5	18.3	18.8	4.0	20.5
		1	3	18.5	18.4	18.8	4.0	20.5
		1	5	18.5	18.3	18.6	4.0	20.5
		3	0	18.5	18.7	18.6	5.0	19.5
		3	1	18.5	18.6	18.6	5.0	19.5
1.4 MHz	256QAM	3	3	18.4	18.6	18.5	5.0	19.5
		6	0	17.4	17.7	17.4	5.0	19.5

LTE Band 26 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				26765 831.5 MHz	26865 831.5 MHz	26965 841.5 MHz		
15 MHz	QPSK	1	0		23.7		0.0	25.0
		1	37		23.7		0.0	25.0
		1	74		23.6		0.0	25.0
		36	0		21.8		2.0	23.0
		36	20		21.7		2.0	23.0
		36	39		21.7		2.0	23.0
		75	0		21.7		2.0	23.0
	16QAM	1	0		22.1		2.0	23.0
		1	37		22.1		2.0	23.0
		1	74		22.0		2.0	23.0
		36	0		20.7		3.0	22.0
		36	20		20.7		3.0	22.0
		36	39		20.7		3.0	22.0
		75	0		20.7		3.0	22.0
	64QAM	1	0		20.7		3.0	22.0
		1	37		20.5		3.0	22.0
		1	74		20.7		3.0	22.0
		36	0		19.7		4.0	21.0
		36	20		19.6		4.0	21.0
		36	39		19.6		4.0	21.0
		75	0		19.6		4.0	21.0
256QAM	1	0		19.8		4.0	21.0	
	1	37		19.7		4.0	21.0	
	1	74		19.6		4.0	21.0	
	36	0		18.6		5.0	20.0	
	36	20		18.6		5.0	20.0	
	36	39		18.6		5.0	20.0	
	75	0		18.6		5.0	20.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26740 819 MHz	26865 831.5 MHz	26990 844 MHz		
				10 MHz	QPSK	1	0	23.1
1	25	23.1	23.2			22.8	0.0	25.0
1	49	23.0	23.0			22.8	0.0	25.0
25	0	21.1	21.1			20.9	2.0	23.0
25	12	21.1	21.1			20.9	2.0	23.0
25	25	21.0	21.1			20.9	2.0	23.0
50	0	21.1	21.1			20.9	2.0	23.0
16QAM	1	0	21.2		21.3	21.2	2.0	23.0
	1	25	21.3		21.4	21.3	2.0	23.0
	1	49	21.0		21.3	21.1	2.0	23.0
	25	0	20.1		20.1	19.9	3.0	22.0
	25	12	20.0		20.1	19.8	3.0	22.0
	25	25	20.0		20.1	19.8	3.0	22.0
	50	0	20.0		20.0	19.9	3.0	22.0
64QAM	1	0	20.0		20.1	19.6	3.0	22.0
	1	25	20.2		20.0	19.6	3.0	22.0
	1	49	19.9		20.1	19.6	3.0	22.0
	25	0	19.1		19.0	18.6	4.0	21.0
	25	12	19.0		19.0	18.5	4.0	21.0
	25	25	19.0		19.0	18.5	4.0	21.0
	50	0	19.0		19.0	18.5	4.0	21.0
256QAM	1	0	19.3	19.3	18.6	4.0	21.0	
	1	25	19.3	19.4	18.6	4.0	21.0	
	1	49	19.2	19.1	18.5	4.0	21.0	
	25	0	18.1	18.0	17.6	5.0	20.0	
	25	12	18.1	18.0	17.5	5.0	20.0	
	25	25	18.0	17.9	17.5	5.0	20.0	
	50	0	18.0	17.8	17.5	5.0	20.0	

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26715	26865	27015		
				816.5 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	23.0	23.1	22.7	0.0	25.0
		1	12	23.1	23.2	22.8	0.0	25.0
		1	24	23.0	23.1	22.7	0.0	25.0
		12	0	21.1	21.1	20.9	2.0	23.0
		12	7	21.1	21.1	20.9	2.0	23.0
		12	13	21.1	21.1	20.8	2.0	23.0
	16QAM	25	0	21.1	21.1	20.8	2.0	23.0
		1	0	21.3	21.4	21.3	2.0	23.0
		1	12	21.4	21.4	21.3	2.0	23.0
		1	24	21.3	21.3	21.3	2.0	23.0
		12	0	20.1	20.1	19.9	3.0	22.0
		12	7	20.0	20.1	19.9	3.0	22.0
	64QAM	12	13	20.0	20.1	19.9	3.0	22.0
		25	0	20.0	20.0	19.8	3.0	22.0
		1	0	20.2	20.0	19.5	3.0	22.0
		1	12	20.1	20.1	19.7	3.0	22.0
		1	24	20.1	20.0	19.5	3.0	22.0
		12	0	19.0	19.0	18.7	4.0	21.0
	256QAM	12	7	19.0	19.0	18.7	4.0	21.0
		12	13	19.0	19.0	18.7	4.0	21.0
		25	0	19.0	19.0	18.7	4.0	21.0
		1	0	19.2	19.1	18.7	4.0	21.0
		1	12	19.1	19.2	18.5	4.0	21.0
		1	24	19.2	19.1	18.6	4.0	21.0
5 MHz	256QAM	12	0	18.0	18.0	17.7	5.0	20.0
		12	7	18.0	18.0	17.7	5.0	20.0
		12	13	18.0	18.0	17.7	5.0	20.0
		25	0	18.0	18.0	17.8	5.0	20.0
		1	0	23.1	23.0	22.8	0.0	25.0
		1	8	23.0	23.1	22.9	0.0	25.0
3 MHz	QPSK	1	14	23.2	23.0	22.8	0.0	25.0
		8	0	21.1	21.1	20.9	2.0	23.0
		8	4	21.1	21.1	20.8	2.0	23.0
		8	7	21.1	21.1	20.8	2.0	23.0
		15	0	21.0	21.1	20.8	2.0	23.0
		1	0	21.1	21.3	21.1	2.0	23.0
	16QAM	1	8	21.2	21.4	21.3	2.0	23.0
		1	14	21.0	21.4	21.1	2.0	23.0
		8	0	20.1	20.1	19.9	3.0	22.0
		8	4	20.1	20.1	19.8	3.0	22.0
		8	7	20.1	20.1	19.8	3.0	22.0
		15	0	20.0	20.0	19.8	3.0	22.0
	64QAM	1	0	20.0	20.1	19.9	3.0	22.0
		1	8	20.1	20.0	20.0	3.0	22.0
		1	14	20.1	20.0	20.0	3.0	22.0
		8	0	19.0	19.1	18.9	4.0	21.0
		8	4	19.0	19.1	18.8	4.0	21.0
		8	7	19.0	19.1	18.8	4.0	21.0
	256QAM	15	0	19.0	19.0	18.7	4.0	21.0
		1	0	19.0	19.0	19.1	4.0	21.0
		1	8	18.9	19.1	18.9	4.0	21.0
		1	14	19.0	19.0	19.0	4.0	21.0
		8	0	18.1	18.1	17.8	5.0	20.0
		8	4	18.1	18.1	17.8	5.0	20.0
3 MHz	256QAM	8	7	18.1	18.1	17.8	5.0	20.0
		8	0	18.1	18.1	17.8	5.0	20.0
		15	0	18.1	18.1	17.8	5.0	20.0

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26697	26865	27033		
				814.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	23.0	23.1	22.8	0.0	25.0
		1	3	22.9	22.9	22.6	0.0	25.0
		1	5	23.0	23.0	22.8	0.0	25.0
		3	0	23.0	23.2	23.0	0.0	25.0
		3	1	23.0	23.1	22.9	0.0	25.0
		3	3	23.1	23.0	22.8	0.0	25.0
		6	0	21.0	21.1	20.8	2.0	23.0
	16QAM	1	0	21.0	21.1	21.1	2.0	23.0
		1	3	21.2	21.3	21.2	2.0	23.0
		1	5	21.1	21.2	21.1	2.0	23.0
		3	0	21.2	21.1	20.9	2.0	23.0
		3	1	21.1	21.0	20.8	2.0	23.0
		3	3	21.1	21.1	20.8	2.0	23.0
	64QAM	6	0	20.1	20.1	19.7	3.0	22.0
		1	0	20.2	19.9	20.1	3.0	22.0
		1	3	20.0	20.3	20.1	3.0	22.0
		1	5	20.1	20.0	20.0	3.0	22.0
		3	0	20.1	20.1	20.0	3.0	22.0
		3	1	20.0	20.1	19.9	3.0	22.0
	256QAM	3	3	20.0	20.0	19.9	3.0	22.0
		6	0	19.1	19.1	18.8	4.0	21.0
		1	0	19.0	19.0	18.8	4.0	21.0
		1	3	19.2	19.1	19.0	4.0	21.0
		1	5	19.0	19.0	18.8	4.0	21.0
		3	0	19.2	19.1	18.9	5.0	20.0
		3	1	19.1	19.1	18.8	5.0	20.0
		3	3	19.1	19.1	18.8	5.0	20.0
6		0	18.1	18.1	17.7	5.0	20.0	

LTE Band 66 (Main 1 Ant.) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	22.6	22.9	22.7	0.0	24.5
		1	49	23.3	23.0	22.8	0.0	24.5
		1	99	23.1	22.8	22.6	0.0	24.5
		50	0	21.4	21.0	20.8	2.0	22.5
		50	24	21.3	20.9	20.7	2.0	22.5
		50	50	21.2	20.8	20.7	2.0	22.5
	16QAM	100	0	21.3	20.7	20.7	2.0	22.5
		1	0	21.6	20.8	21.2	2.0	22.5
		1	49	21.5	20.6	21.1	2.0	22.5
		1	99	21.4	20.7	21.0	2.0	22.5
		50	0	20.5	19.7	19.8	3.0	21.5
		50	24	20.4	19.7	19.8	3.0	21.5
	64QAM	50	50	20.3	19.7	19.7	3.0	21.5
		100	0	20.4	19.6	19.7	3.0	21.5
		1	0	20.3	19.7	19.7	3.0	21.5
		1	49	20.3	19.9	19.9	3.0	21.5
		1	99	20.1	19.6	19.7	3.0	21.5
		50	0	19.1	18.7	18.7	4.0	20.5
	256QAM	50	24	19.0	18.6	18.7	4.0	20.5
		50	50	18.9	18.6	18.7	4.0	20.5
		100	0	18.9	18.6	18.7	4.0	20.5
		1	0	18.9	18.7	18.8	4.0	20.5
		1	49	19.1	19.0	18.9	4.0	20.5
		1	99	18.8	18.8	18.6	4.0	20.5
15 MHz	QPSK	50	0	17.9	17.5	17.7	5.0	19.5
		50	24	17.9	17.5	17.7	5.0	19.5
		50	50	17.9	17.5	17.7	5.0	19.5
		100	0	17.9	17.6	17.7	5.0	19.5
		1	0	22.3	22.1	22.3	0.0	24.5
		1	37	22.4	22.6	22.4	0.0	24.5
	16QAM	1	74	22.3	22.5	22.2	0.0	24.5
		36	0	20.5	20.2	20.4	2.0	22.5
		36	20	20.5	20.2	20.4	2.0	22.5
		36	39	20.4	20.1	20.3	2.0	22.5
		75	0	20.5	20.1	20.4	2.0	22.5
		1	0	20.8	20.3	20.8	2.0	22.5
64QAM	1	37	20.9	20.3	20.8	2.0	22.5	
	1	74	20.7	20.3	20.6	2.0	22.5	
	36	0	19.5	19.2	19.4	3.0	21.5	
	36	20	19.5	19.2	19.4	3.0	21.5	
	36	39	19.5	19.1	19.4	3.0	21.5	
	75	0	19.5	19.1	19.4	3.0	21.5	
256QAM	1	0	19.6	19.4	19.6	3.0	21.5	
	1	37	19.6	19.2	19.6	3.0	21.5	
	1	74	19.5	19.4	19.4	3.0	21.5	
	36	0	18.6	18.2	18.6	4.0	20.5	
	36	20	18.6	18.2	18.5	4.0	20.5	
	36	39	18.5	18.2	18.5	4.0	20.5	
15 MHz	256QAM	75	0	18.5	18.2	18.4	4.0	20.5
		1	0	18.4	18.2	18.7	4.0	20.5
		1	37	18.4	18.2	18.6	4.0	20.5
		1	74	18.4	18.2	18.6	4.0	20.5
		36	0	17.5	17.1	17.5	5.0	19.5
		36	20	17.5	17.1	17.4	5.0	19.5
15 MHz	QPSK	36	39	17.5	17.1	17.4	5.0	19.5
		75	0	17.5	17.2	17.5	5.0	19.5
		1	0	22.3	22.1	22.3	0.0	24.5
		1	37	22.4	22.6	22.4	0.0	24.5
		1	74	22.3	22.5	22.2	0.0	24.5
		36	0	20.5	20.2	20.4	2.0	22.5
	16QAM	36	20	20.5	20.2	20.4	2.0	22.5
		36	39	20.4	20.1	20.3	2.0	22.5
		75	0	20.5	20.1	20.4	2.0	22.5
		1	0	20.8	20.3	20.8	2.0	22.5
		1	37	20.9	20.3	20.8	2.0	22.5
		1	74	20.7	20.3	20.6	2.0	22.5
64QAM	36	0	19.5	19.2	19.4	3.0	21.5	
	36	20	19.5	19.2	19.4	3.0	21.5	
	36	39	19.5	19.1	19.4	3.0	21.5	
	75	0	19.5	19.1	19.4	3.0	21.5	
	1	0	19.6	19.4	19.6	3.0	21.5	
	1	37	19.6	19.2	19.6	3.0	21.5	
256QAM	1	74	19.5	19.4	19.4	3.0	21.5	
	36	0	18.6	18.2	18.6	4.0	20.5	
	36	20	18.6	18.2	18.5	4.0	20.5	
	36	39	18.5	18.2	18.5	4.0	20.5	
	75	0	18.5	18.2	18.4	4.0	20.5	
	1	0	18.4	18.2	18.7	4.0	20.5	
15 MHz	QPSK	1	37	18.4	18.2	18.6	4.0	20.5
		1	74	18.4	18.2	18.6	4.0	20.5
		36	0	17.5	17.1	17.5	5.0	19.5
		36	20	17.5	17.1	17.4	5.0	19.5
		36	39	17.5	17.1	17.4	5.0	19.5
		75	0	17.5	17.2	17.5	5.0	19.5
	16QAM	1	0	20.8	20.3	20.8	2.0	22.5
		1	37	20.9	20.3	20.8	2.0	22.5
		1	74	20.7	20.3	20.6	2.0	22.5
		36	0	19.5	19.2	19.4	3.0	21.5
		36	20	19.5	19.2	19.4	3.0	21.5
		36	39	19.5	19.1	19.4	3.0	21.5
64QAM	75	0	19.5	19.1	19.4	3.0	21.5	
	1	0	19.6	19.4	19.6	3.0	21.5	
	1	37	19.6	19.2	19.6	3.0	21.5	
	1	74	19.5	19.4	19.4	3.0	21.5	
	36	0	18.6	18.2	18.6	4.0	20.5	
	36	20	18.6	18.2	18.5	4.0	20.5	
256QAM	36	39	18.5	18.2	18.5	4.0	20.5	
	75	0	18.5	18.2	18.4	4.0	20.5	
	1	0	18.4	18.2	18.7	4.0	20.5	
	1	37	18.4	18.2	18.6	4.0	20.5	
	1	74	18.4	18.2	18.6	4.0	20.5	
	36	0	17.5	17.1	17.5	5.0	19.5	
15 MHz	QPSK	36	20	17.5	17.1	17.4	5.0	19.5
		36	39	17.5	17.1	17.4	5.0	19.5
		75	0	17.5	17.2	17.5	5.0	19.5
		1	0	22.3	22.1	22.3	0.0	24.5
		1	37	22.4	22.6	22.4	0.0	24.5
		1	74	22.3	22.5	22.2	0.0	24.5
	16QAM	36	0	20.5	20.2	20.4	2.0	22.5
		36	20	20.5	20.2	20.4	2.0	22.5
		36	39	20.4	20.1	20.3	2.0	22.5
		75	0	20.5	20.1	20.4	2.0	22.5
		1	0	20.8	20.3	20.8	2.0	22.5
		1	37	20.9	20.3	20.8	2.0	22.5
64QAM	1	74	20.7	20.3	20.6	2.0	22.5	
	36	0	19.5	19.2	19.4	3.0	21.5	
	36	20	19.5	19.2	19.4	3.0	21.5	
	36	39	19.5	19.1	19.4	3.0	21.5	
	75	0	19.5	19.1	19.4	3.0	21.5	
	1	0	19.6	19.4	19.6	3.0	21.5	
256QAM	1	37	19.6	19.2	19.6	3.0	21.5	
	1	74	19.5	19.4	19.4	3.0	21.5	
	36	0	18.6	18.2	18.6	4.0	20.5	
	36	20	18.6	18.2	18.5	4.0	20.5	
	36	39	18.5	18.2	18.5	4.0	20.5	
	75	0	18.5	18.2	18.4	4.0	20.5	

LTE Band 66 (Main 1 Ant.) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	22.3	22.0	22.4	0.0	24.5
		1	25	22.2	22.1	22.4	0.0	24.5
		1	49	22.3	22.0	22.3	0.0	24.5
		25	0	20.5	20.1	20.5	2.0	22.5
		25	12	20.5	20.1	20.4	2.0	22.5
		25	25	20.5	20.1	20.4	2.0	22.5
	16QAM	50	0	20.5	20.1	20.5	2.0	22.5
		1	0	20.8	20.4	20.7	2.0	22.5
		1	25	20.7	20.6	20.8	2.0	22.5
		1	49	20.8	20.3	20.6	2.0	22.5
		25	0	19.5	19.2	19.6	3.0	21.5
		25	12	19.5	19.2	19.6	3.0	21.5
	64QAM	25	25	19.5	19.2	19.5	3.0	21.5
		50	0	19.5	19.2	19.6	3.0	21.5
		1	0	19.7	19.1	19.8	3.0	21.5
		1	25	19.9	19.1	19.6	3.0	21.5
		1	49	19.6	19.0	19.6	3.0	21.5
		25	0	18.7	18.3	18.7	4.0	20.5
	256QAM	25	12	18.6	18.3	18.6	4.0	20.5
		25	25	18.6	18.3	18.6	4.0	20.5
		50	0	18.6	18.3	18.6	4.0	20.5
		1	0	18.4	18.3	18.3	4.0	20.5
		1	25	18.5	18.3	18.4	4.0	20.5
		1	49	18.5	18.3	18.2	4.0	20.5
5 MHz	QPSK	25	0	17.6	17.2	17.5	5.0	19.5
		25	12	17.6	17.2	17.5	5.0	19.5
		25	25	17.6	17.2	17.4	5.0	19.5
		50	0	17.5	17.2	17.5	5.0	19.5
		1	0	22.4	22.1	22.4	0.0	24.5
		1	12	22.5	22.2	22.4	0.0	24.5
	16QAM	1	24	22.5	22.2	22.3	0.0	24.5
		12	0	20.5	20.2	20.5	2.0	22.5
		12	7	20.6	20.2	20.5	2.0	22.5
		12	13	20.6	20.2	20.5	2.0	22.5
		25	0	20.5	20.2	20.5	2.0	22.5
		1	0	20.7	20.7	20.8	2.0	22.5
64QAM	1	12	20.8	20.7	20.7	2.0	22.5	
	1	24	20.8	20.6	20.7	2.0	22.5	
	12	0	19.6	19.3	19.7	3.0	21.5	
	12	7	19.6	19.3	19.7	3.0	21.5	
	12	13	19.6	19.3	19.6	3.0	21.5	
	25	0	19.6	19.2	19.6	3.0	21.5	
256QAM	1	0	19.7	19.2	19.4	3.0	21.5	
	1	12	19.6	19.1	19.4	3.0	21.5	
	1	24	19.7	19.2	19.4	3.0	21.5	
	12	0	18.6	18.2	18.6	4.0	20.5	
	12	7	18.6	18.2	18.6	4.0	20.5	
	12	13	18.6	18.2	18.6	4.0	20.5	
5 MHz	QPSK	25	0	18.6	18.2	18.6	4.0	20.5
		1	0	18.6	18.1	18.5	4.0	20.5
		1	12	18.7	18.2	18.5	4.0	20.5
		1	24	18.7	18.2	18.5	4.0	20.5
		12	0	17.5	17.1	17.5	5.0	19.5
		12	7	17.6	17.1	17.5	5.0	19.5
	16QAM	12	13	17.6	17.1	17.5	5.0	19.5
		25	0	17.5	17.2	17.5	5.0	19.5
		1	0	19.7	19.2	19.4	3.0	21.5
		1	12	19.6	19.1	19.4	3.0	21.5
		1	24	19.7	19.2	19.4	3.0	21.5
		12	0	18.6	18.2	18.6	4.0	20.5
64QAM	12	7	18.6	18.2	18.6	4.0	20.5	
	12	13	18.6	18.2	18.6	4.0	20.5	
	25	0	18.6	18.2	18.6	4.0	20.5	
	1	0	18.6	18.1	18.5	4.0	20.5	
	1	12	18.7	18.2	18.5	4.0	20.5	
	1	24	18.7	18.2	18.5	4.0	20.5	
256QAM	12	0	17.5	17.1	17.5	5.0	19.5	
	12	7	17.6	17.1	17.5	5.0	19.5	
	12	13	17.6	17.1	17.5	5.0	19.5	
	25	0	17.5	17.2	17.5	5.0	19.5	
	1	0	19.7	19.2	19.4	3.0	21.5	
	1	12	19.6	19.1	19.4	3.0	21.5	

LTE Band 66 (Main 1 Ant.) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit		
				131987	132322	132657				
				1711.5 MHz	1745 MHz	1778.5 MHz				
3 MHz	QPSK	1	0	22.5	22.2	22.5	0.0	24.5		
		1	8	22.5	22.1	22.6	0.0	24.5		
		1	14	22.6	22.3	22.4	0.0	24.5		
		8	0	20.6	20.2	20.6	2.0	22.5		
		8	4	20.5	20.2	20.6	2.0	22.5		
		8	7	20.6	20.2	20.6	2.0	22.5		
	16QAM	15	0	20.6	20.2	20.6	2.0	22.5		
		1	0	20.8	20.3	21.0	2.0	22.5		
		1	8	20.9	20.4	21.0	2.0	22.5		
		1	14	20.8	20.3	20.9	2.0	22.5		
		8	0	19.7	19.3	19.7	3.0	21.5		
		8	4	19.7	19.3	19.6	3.0	21.5		
	64QAM	8	7	19.7	19.3	19.6	3.0	21.5		
		15	0	19.7	19.3	19.6	3.0	21.5		
		1	0	19.5	19.4	19.8	3.0	21.5		
		1	8	19.5	19.4	19.8	3.0	21.5		
		1	14	19.5	19.2	19.8	3.0	21.5		
		8	0	18.6	18.3	18.7	4.0	20.5		
	256QAM	8	4	18.6	18.3	18.6	4.0	20.5		
		8	7	18.6	18.2	18.6	4.0	20.5		
		15	0	18.6	18.2	18.5	4.0	20.5		
		1	0	18.7	18.0	18.8	4.0	20.5		
		1	8	18.7	18.1	18.5	4.0	20.5		
		1	14	18.8	18.1	18.7	4.0	20.5		
		8	0	17.6	17.2	17.5	5.0	19.5		
		8	4	17.6	17.2	17.5	5.0	19.5		
		8	7	17.6	17.2	17.6	5.0	19.5		
		15	0	17.6	17.2	17.5	5.0	19.5		
						Measured Pwr (dBm)			MPR	Tune-up Limit
		BW (MHz)	Mode	RB Allocation	RB offset	131979	132322	132665		
1710.7 MHz	1745 MHz					1779.3 MHz				
1.4 MHz	QPSK					1	0	22.4	22.2	22.6
		1	3	22.1	22.1	22.4	0.0	24.5		
		1	5	22.5	22.2	22.5	0.0	24.5		
		3	0	22.6	22.2	22.7	0.0	24.5		
		3	1	22.6	22.2	22.6	0.0	24.5		
		3	3	22.5	22.3	22.5	0.0	24.5		
	16QAM	6	0	20.6	20.2	20.5	2.0	22.5		
		1	0	20.8	20.2	20.5	2.0	22.5		
		1	3	21.0	20.4	20.5	2.0	22.5		
		1	5	20.8	20.3	20.5	2.0	22.5		
		3	0	20.7	20.5	20.7	2.0	22.5		
		3	1	20.6	20.4	20.6	2.0	22.5		
	64QAM	3	3	20.6	20.4	20.7	2.0	22.5		
		6	0	19.5	19.4	19.5	3.0	21.5		
		1	0	19.5	19.3	20.1	3.0	21.5		
		1	3	19.4	19.7	20.0	3.0	21.5		
		1	5	19.5	19.4	19.9	3.0	21.5		
		3	0	19.6	19.5	19.8	3.0	21.5		
	256QAM	3	1	19.6	19.4	19.7	3.0	21.5		
		3	3	19.5	19.3	19.6	3.0	21.5		
		6	0	18.6	18.2	18.5	4.0	20.5		
		1	0	18.4	18.1	18.5	4.0	20.5		
		1	3	18.6	18.1	18.7	4.0	20.5		
		1	5	18.4	18.2	18.6	4.0	20.5		
		3	0	18.6	18.3	18.6	5.0	19.5		
		3	1	18.6	18.3	18.6	5.0	19.5		
		3	3	18.7	18.2	18.5	5.0	19.5		
		3	3	18.7	18.2	18.5	5.0	19.5		
		6	0	17.7	17.3	17.4	5.0	19.5		

LTE Band 41-Power Class 3 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						
				Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	23.5	23.1	23.8	23.7	23.7	0.0	25.0
		1	49	23.6	23.1	23.5	23.6	23.6	0.0	25.0
		1	99	23.4	23.0	23.5	23.5	23.6	0.0	25.0
		50	0	22.5	22.1	22.7	22.6	22.6	1.0	24.0
		50	24	22.5	22.0	22.7	22.6	22.6	1.0	24.0
		50	50	22.5	22.0	22.6	22.6	22.6	1.0	24.0
	16QAM	100	0	22.5	22.1	22.6	22.6	22.6	1.0	24.0
		1	0	22.3	22.1	22.7	22.6	22.7	1.0	24.0
		1	49	22.4	21.9	22.6	22.6	22.7	1.0	24.0
		1	99	22.4	22.2	22.6	22.5	22.6	1.0	24.0
		50	0	21.4	21.0	21.6	21.6	21.5	2.0	23.0
		50	24	21.4	21.0	21.6	21.6	21.5	2.0	23.0
	64QAM	50	50	21.4	21.0	21.5	21.5	21.5	2.0	23.0
		100	0	21.4	21.1	21.6	21.6	21.5	2.0	23.0
		1	0	21.3	20.7	21.7	21.5	21.4	2.0	23.0
		1	49	21.2	21.1	21.8	21.3	21.5	2.0	23.0
		1	99	21.4	20.7	21.7	21.6	21.3	2.0	23.0
		50	0	20.4	20.1	20.7	20.7	20.6	3.0	22.0
	256QAM	50	24	20.4	20.2	20.6	20.6	20.7	3.0	22.0
		50	50	20.4	20.1	20.6	20.6	20.6	3.0	22.0
		100	0	20.5	20.1	20.6	20.7	20.6	3.0	22.0
		1	0	18.6	18.3	18.6	18.9	19.1	5.0	20.0
		1	49	18.5	18.7	18.7	18.6	18.9	5.0	20.0
		1	99	18.5	18.2	18.9	18.9	19.0	5.0	20.0
15 MHz	QPSK	50	0	18.7	18.2	18.8	18.8	18.8	5.0	20.0
		50	24	18.6	18.2	18.8	18.8	18.8	5.0	20.0
		50	50	18.6	18.2	18.8	18.8	18.8	5.0	20.0
		100	0	18.6	18.2	18.8	18.8	18.8	5.0	20.0
		1	0	23.5	23.0	23.7	23.7	23.7	0.0	25.0
		1	37	23.6	23.1	23.9	23.7	23.6	0.0	25.0
	16QAM	1	74	23.4	23.1	23.7	23.6	23.6	0.0	25.0
		36	0	22.6	22.1	22.8	22.7	22.8	1.0	24.0
		36	20	22.6	22.1	22.8	22.7	22.8	1.0	24.0
		36	39	22.6	22.1	22.8	22.7	22.8	1.0	24.0
		75	0	22.6	22.1	22.8	22.7	22.8	1.0	24.0
		1	0	22.2	21.9	22.5	22.7	22.4	1.0	24.0
	64QAM	1	37	22.5	22.2	22.8	22.9	22.7	1.0	24.0
		1	74	22.4	21.8	22.5	22.6	22.6	1.0	24.0
		36	0	21.5	21.1	21.7	21.7	21.6	2.0	23.0
		36	20	21.6	21.1	21.7	21.7	21.7	2.0	23.0
		36	39	21.5	21.1	21.7	21.7	21.7	2.0	23.0
		75	0	21.5	21.1	21.7	21.6	21.7	2.0	23.0
	256QAM	1	0	21.5	20.8	21.4	21.6	21.2	2.0	23.0
		1	37	21.4	20.6	21.3	21.4	21.4	2.0	23.0
		1	74	21.6	20.7	21.7	21.6	21.4	2.0	23.0
		36	0	20.6	20.2	20.9	20.7	20.8	3.0	22.0
		36	20	20.6	20.1	20.8	20.7	20.7	3.0	22.0
		36	39	20.6	20.1	20.8	20.7	20.7	3.0	22.0
256QAM	75	0	20.5	20.1	20.8	20.7	20.7	3.0	22.0	
	1	0	18.4	17.9	18.8	18.9	18.6	5.0	20.0	
	1	37	18.5	18.3	18.5	18.8	18.9	5.0	20.0	
	1	74	18.3	18.2	18.7	18.8	18.9	5.0	20.0	
	36	0	18.6	18.2	18.8	18.8	18.7	5.0	20.0	
	36	20	18.5	18.2	18.8	18.7	18.7	5.0	20.0	
256QAM	36	39	18.5	18.1	18.8	18.7	18.7	5.0	20.0	
	75	0	18.6	18.2	18.8	18.7	18.8	5.0	20.0	

LTE Band 41-Power Class 3 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	23.6	23.1	23.7	23.7	23.7	0.0	25.0
		1	25	23.5	23.2	23.6	23.5	23.8	0.0	25.0
		1	49	23.4	23.0	23.7	23.5	23.6	0.0	25.0
		25	0	22.5	22.0	22.6	22.6	22.6	1.0	24.0
		25	12	22.5	22.0	22.6	22.6	22.6	1.0	24.0
		25	25	22.5	22.0	22.6	22.6	22.6	1.0	24.0
	50	0	22.5	22.1	22.7	22.6	22.6	1.0	24.0	
	16QAM	1	0	22.2	22.2	22.6	22.3	22.6	1.0	24.0
		1	25	22.2	22.2	22.5	22.2	22.6	1.0	24.0
		1	49	22.2	22.2	22.5	22.3	22.7	1.0	24.0
		25	0	21.3	21.0	21.6	21.5	21.4	2.0	23.0
		25	12	21.3	20.9	21.6	21.5	21.4	2.0	23.0
		25	25	21.3	20.9	21.6	21.5	21.4	2.0	23.0
	50	0	21.4	21.0	21.5	21.5	21.5	2.0	23.0	
	64QAM	1	0	21.4	20.8	21.5	21.4	21.5	2.0	23.0
		1	25	21.4	20.8	21.5	21.5	21.3	2.0	23.0
		1	49	21.4	20.9	21.5	21.5	21.4	2.0	23.0
		25	0	20.4	20.0	20.6	20.6	20.5	3.0	22.0
		25	12	20.4	20.0	20.6	20.6	20.5	3.0	22.0
		25	25	20.4	20.0	20.6	20.5	20.5	3.0	22.0
50	0	20.4	20.1	20.6	20.6	20.5	3.0	22.0		
256QAM	1	0	18.4	18.0	18.7	18.5	18.7	5.0	20.0	
	1	25	18.2	17.8	18.6	18.4	18.6	5.0	20.0	
	1	49	18.3	17.9	18.7	18.4	18.6	5.0	20.0	
	25	0	18.6	18.1	18.8	18.7	18.8	5.0	20.0	
	25	12	18.6	18.1	18.8	18.7	18.8	5.0	20.0	
	25	25	18.6	18.2	18.8	18.7	18.7	5.0	20.0	
50	0	18.6	18.2	18.8	18.7	18.8	5.0	20.0		
5 MHz	QPSK	1	0	23.6	23.0	23.7	23.6	23.6	0.0	25.0
		1	12	23.7	23.1	23.6	23.8	23.7	0.0	25.0
		1	24	23.5	22.9	23.6	23.5	23.5	0.0	25.0
		12	0	22.5	22.0	22.6	22.6	22.5	1.0	24.0
		12	7	22.5	22.0	22.6	22.6	22.5	1.0	24.0
		12	13	22.4	22.0	22.6	22.6	22.5	1.0	24.0
	25	0	22.4	22.0	22.6	22.5	22.5	1.0	24.0	
	16QAM	1	0	22.5	22.0	22.5	22.5	22.6	1.0	24.0
		1	12	22.6	22.3	22.7	22.6	22.8	1.0	24.0
		1	24	22.5	22.1	22.6	22.5	22.6	1.0	24.0
		12	0	21.4	21.0	21.5	21.6	21.5	2.0	23.0
		12	7	21.4	21.0	21.5	21.6	21.5	2.0	23.0
		12	13	21.4	21.0	21.5	21.6	21.5	2.0	23.0
	25	0	21.3	21.0	21.5	21.5	21.5	2.0	23.0	
	64QAM	1	0	21.3	21.1	21.6	21.4	21.5	2.0	23.0
		1	12	21.4	21.1	21.4	21.3	21.6	2.0	23.0
		1	24	21.2	21.2	21.5	21.3	21.6	2.0	23.0
		12	0	20.3	20.1	20.6	20.6	20.5	3.0	22.0
		12	7	20.3	20.0	20.6	20.5	20.5	3.0	22.0
		12	13	20.3	20.1	20.6	20.5	20.5	3.0	22.0
25	0	20.3	20.0	20.5	20.6	20.5	3.0	22.0		
256QAM	1	0	18.6	18.2	18.8	18.8	18.8	5.0	20.0	
	1	12	18.5	18.2	18.7	18.5	18.7	5.0	20.0	
	1	24	18.5	18.2	18.8	18.7	18.8	5.0	20.0	
	12	0	18.5	18.2	18.7	18.7	18.7	5.0	20.0	
	12	7	18.5	18.1	18.7	18.7	18.7	5.0	20.0	
	12	13	18.5	18.2	18.7	18.7	18.7	5.0	20.0	
25	0	18.4	18.0	18.7	18.6	18.6	5.0	20.0		

LTE Band 41-Power Class 2 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						
				Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	25.2	24.9	25.3	25.3	25.8	0.0	26.0
		1	49	25.3	25.0	25.5	25.5	25.8	0.0	26.0
		1	99	25.1	24.8	25.3	25.3	25.7	0.0	26.0
		50	0	24.0	23.7	24.2	24.2	24.5	1.0	25.0
		50	24	24.0	23.7	24.1	24.1	24.4	1.0	25.0
		50	50	24.0	23.7	24.1	24.1	24.4	1.0	25.0
	16QAM	100	0	24.0	23.7	24.2	24.2	24.5	1.0	25.0
		1	0	24.2	24.1	24.5	24.6	24.8	1.0	25.0
		1	49	24.0	24.0	24.1	24.3	25.0	1.0	25.0
		1	99	24.1	24.0	24.3	24.4	24.7	1.0	25.0
		50	0	22.9	22.7	23.1	23.2	23.4	2.0	24.0
		50	24	23.0	22.7	23.1	23.2	23.3	2.0	24.0
	64QAM	50	50	22.9	22.7	23.1	23.1	23.3	2.0	24.0
		100	0	22.9	22.7	23.1	23.1	23.3	2.0	24.0
		1	0	23.3	23.0	23.3	23.1	23.6	2.0	24.0
		1	49	23.5	23.2	23.4	23.2	23.7	2.0	24.0
		1	99	23.2	23.0	23.3	23.0	23.5	2.0	24.0
		50	0	21.9	21.8	22.2	22.2	22.2	3.0	23.0
	256QAM	50	24	21.9	21.8	22.1	22.1	22.2	3.0	23.0
		50	50	21.9	21.7	22.1	22.1	22.2	3.0	23.0
		100	0	21.9	21.7	22.1	22.1	22.1	3.0	23.0
		1	0	20.3	20.1	20.8	20.5	20.8	5.0	21.0
		1	49	20.3	20.2	20.8	20.6	20.9	5.0	21.0
		1	99	20.2	20.2	20.9	20.4	20.7	5.0	21.0
15 MHz	QPSK	50	0	20.1	19.9	20.3	20.2	20.4	5.0	21.0
		50	24	20.1	19.9	20.3	20.2	20.3	5.0	21.0
		50	50	20.1	19.8	20.3	20.2	20.3	5.0	21.0
		100	0	20.1	19.8	20.3	20.2	20.3	5.0	21.0
		1	0	25.2	24.8	25.3	25.2	25.4	0.0	26.0
		1	37	25.0	24.6	25.3	25.0	25.2	0.0	26.0
	16QAM	1	74	25.0	24.7	25.2	25.1	25.3	0.0	26.0
		36	0	24.2	23.8	24.4	24.3	24.4	1.0	25.0
		36	20	24.2	23.8	24.4	24.2	24.4	1.0	25.0
		36	39	24.1	23.8	24.3	24.2	24.3	1.0	25.0
		75	0	24.1	23.8	24.4	24.2	24.4	1.0	25.0
		1	0	24.0	24.0	24.5	24.6	24.4	1.0	25.0
64QAM	1	37	23.9	23.9	24.3	24.5	24.3	1.0	25.0	
	1	74	23.8	23.9	24.4	24.4	24.3	1.0	25.0	
	36	0	23.0	22.8	23.3	23.2	23.2	2.0	24.0	
	36	20	23.0	22.8	23.3	23.2	23.2	2.0	24.0	
	36	39	23.0	22.8	23.3	23.1	23.2	2.0	24.0	
	75	0	23.0	22.8	23.2	23.1	23.2	2.0	24.0	
256QAM	1	0	23.1	23.2	23.3	23.3	23.2	2.0	24.0	
	1	37	23.1	23.2	23.4	23.3	23.3	2.0	24.0	
	1	74	23.0	23.1	23.4	23.2	23.2	2.0	24.0	
	36	0	22.0	21.7	22.2	22.1	22.2	3.0	23.0	
	36	20	22.0	21.7	22.3	22.1	22.2	3.0	23.0	
	36	39	22.0	21.7	22.2	22.1	22.2	3.0	23.0	
256QAM	75	0	22.0	21.7	22.3	22.2	22.2	3.0	23.0	
	1	0	20.4	20.1	20.0	20.3	20.6	5.0	21.0	
	1	37	20.4	19.9	19.6	20.4	20.5	5.0	21.0	
	1	74	20.2	20.0	19.8	20.3	20.6	5.0	21.0	
	36	0	20.0	19.7	20.3	20.2	20.3	5.0	21.0	
	36	20	20.0	19.8	20.2	20.2	20.3	5.0	21.0	
256QAM	36	39	20.0	19.7	20.2	20.1	20.3	5.0	21.0	
	75	0	20.1	19.7	20.2	20.2	20.3	5.0	21.0	

LTE Band 41-Power Class 2 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	25.1	24.9	25.4	25.1	25.4	0.0	26.0
		1	25	25.4	24.7	25.5	25.4	25.4	0.0	26.0
		1	49	25.1	24.8	25.3	25.2	25.3	0.0	26.0
		25	0	23.9	23.7	24.2	24.1	24.2	1.0	25.0
		25	12	23.9	23.7	24.2	24.1	24.1	1.0	25.0
		25	25	23.9	23.7	24.2	24.1	24.2	1.0	25.0
	16QAM	1	0	24.3	24.3	24.6	24.3	24.5	1.0	25.0
		1	25	24.6	24.4	24.9	24.5	24.6	1.0	25.0
		1	49	24.4	24.3	24.6	24.3	24.4	1.0	25.0
		25	0	22.9	22.7	23.1	23.1	23.0	2.0	24.0
		25	12	22.9	22.6	23.0	23.0	23.0	2.0	24.0
		25	25	22.9	22.6	23.0	23.0	23.0	2.0	24.0
	64QAM	1	0	23.0	22.7	23.3	23.3	23.3	2.0	24.0
		1	25	23.2	22.6	23.3	23.6	23.2	2.0	24.0
		1	49	23.0	22.7	23.3	23.4	23.3	2.0	24.0
		25	0	21.9	21.7	22.2	22.1	22.1	3.0	23.0
		25	12	21.9	21.6	22.1	22.1	22.1	3.0	23.0
		25	25	21.9	21.7	22.1	22.1	22.1	3.0	23.0
	256QAM	1	0	20.1	20.2	20.4	20.5	20.6	5.0	21.0
		1	25	20.3	20.1	20.5	20.6	20.5	5.0	21.0
		1	49	20.1	20.1	20.3	20.5	20.5	5.0	21.0
		25	0	20.1	19.7	20.3	20.3	20.4	5.0	21.0
		25	12	20.1	19.7	20.3	20.2	20.3	5.0	21.0
		25	25	20.1	19.7	20.3	20.2	20.3	5.0	21.0
	5 MHz	QPSK	1	0	25.1	24.9	25.4	25.2	25.3	0.0
1			12	25.0	24.8	25.4	25.1	25.2	0.0	26.0
1			24	25.1	24.7	25.3	25.1	25.1	0.0	26.0
12			0	23.9	23.7	24.2	24.1	24.1	1.0	25.0
12			7	23.9	23.7	24.2	24.1	24.1	1.0	25.0
12			13	23.9	23.7	24.2	24.1	24.2	1.0	25.0
16QAM		1	0	24.2	23.8	24.2	24.3	24.1	1.0	25.0
		1	12	24.3	23.9	24.1	24.4	24.3	1.0	25.0
		1	24	24.1	23.9	24.0	24.2	24.2	1.0	25.0
		12	0	22.8	22.8	23.1	23.1	23.1	2.0	24.0
		12	7	22.8	22.7	23.1	23.1	23.1	2.0	24.0
		12	13	22.9	22.8	23.1	23.1	23.1	2.0	24.0
64QAM		1	0	22.9	22.6	23.1	23.0	23.0	2.0	24.0
		1	12	22.9	22.8	22.8	23.1	23.3	2.0	24.0
		1	24	22.9	22.9	23.2	23.1	23.3	2.0	24.0
		12	0	21.8	21.6	22.1	22.1	22.0	3.0	23.0
		12	7	21.8	21.6	22.1	22.1	22.0	3.0	23.0
		12	13	21.8	21.7	22.1	22.1	22.1	3.0	23.0
256QAM		25	0	21.9	21.7	22.0	22.1	22.0	3.0	23.0
		1	0	20.5	20.2	20.7	20.9	20.6	5.0	21.0
		1	12	20.2	20.1	20.6	20.7	20.5	5.0	21.0
		1	24	20.5	20.1	20.6	21.0	20.4	5.0	21.0
		12	0	20.1	19.7	20.2	20.3	20.2	5.0	21.0
		12	7	20.1	19.7	20.2	20.3	20.2	5.0	21.0
		12	13	20.1	19.7	20.2	20.3	20.3	5.0	21.0
	25	0	20.0	19.7	20.3	20.2	20.2	5.0	21.0	

2. Reduced power

LTE Band 2 (Ant.3) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) RCV back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				18700	18900	19100			18700	18900	19100		
				1860 MHz	1880 MHz	1900 MHz			1860 MHz	1880 MHz	1900 MHz		
20 MHz	QPSK	1	0	17.5	17.4	17.3	0.0	18.5	17.5	17.4	17.5	0.0	18.5
		1	49	17.4	17.3	17.3	0.0	18.5	17.4	17.4	17.6	0.0	18.5
		1	99	17.5	17.3	17.3	0.0	18.5	17.6	17.3	17.4	0.0	18.5
		50	0	17.4	17.3	17.3	0.0	18.5	17.5	17.3	17.4	0.0	18.5
		50	24	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.3	0.0	18.5
		50	50	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.4	0.0	18.5
	16QAM	100	0	17.3	17.3	17.3	0.0	18.5	17.4	17.3	17.4	0.0	18.5
		1	0	17.5	17.5	17.4	0.0	18.5	17.5	17.5	17.4	0.0	18.5
		1	49	17.6	17.6	17.7	0.0	18.5	17.5	17.5	17.7	0.0	18.5
		1	99	17.7	17.4	17.4	0.0	18.5	17.6	17.3	17.4	0.0	18.5
		50	0	17.3	17.3	17.2	0.0	18.5	17.3	17.2	17.3	0.0	18.5
		50	24	17.3	17.2	17.2	0.0	18.5	17.3	17.2	17.3	0.0	18.5
	64QAM	50	50	17.3	17.2	17.2	0.0	18.5	17.2	17.2	17.3	0.0	18.5
		100	0	17.3	17.3	17.3	0.0	18.5	17.3	17.2	17.3	0.0	18.5
		1	0	17.2	17.2	17.0	0.0	18.5	17.2	17.2	17.1	0.0	18.5
		1	49	17.1	17.1	17.0	0.0	18.5	17.1	17.1	17.1	0.0	18.5
		1	99	17.3	17.0	17.0	0.0	18.5	17.2	17.0	17.0	0.0	18.5
		50	0	17.3	17.3	17.2	0.0	18.5	17.3	17.2	17.3	0.0	18.5
	256QAM	50	24	17.3	17.3	17.2	0.0	18.5	17.3	17.2	17.3	0.0	18.5
		50	50	17.3	17.2	17.2	0.0	18.5	17.3	17.2	17.3	0.0	18.5
		100	0	17.3	17.3	17.2	0.0	18.5	17.3	17.3	17.3	0.0	18.5
1		0	16.5	16.5	16.4	1.0	17.5	16.5	16.6	16.4	1.0	17.5	
1		49	16.6	16.5	16.6	1.0	17.5	16.6	16.6	16.6	1.0	17.5	
1		99	16.5	16.4	16.4	1.0	17.5	16.5	16.5	16.4	1.0	17.5	
15 MHz	QPSK	50	0	16.1	16.1	16.1	1.0	17.5	16.0	16.0	16.1	1.0	17.5
		50	24	16.0	16.0	16.1	1.0	17.5	16.0	16.0	16.1	1.0	17.5
		50	50	16.1	16.0	16.1	1.0	17.5	16.0	16.0	16.1	1.0	17.5
		100	0	16.1	16.1	16.1	1.0	17.5	16.1	16.1	16.1	1.0	17.5
		1	0	17.4	17.3	17.3	0.0	18.5	17.3	17.3	17.3	0.0	18.5
		1	37	17.3	17.3	17.3	0.0	18.5	17.3	17.3	17.3	0.0	18.5
	16QAM	1	74	17.4	17.1	17.2	0.0	18.5	17.3	17.1	17.2	0.0	18.5
		36	0	17.2	17.3	17.2	0.0	18.5	17.2	17.2	17.2	0.0	18.5
		36	20	17.3	17.3	17.2	0.0	18.5	17.3	17.2	17.2	0.0	18.5
		36	39	17.3	17.3	17.2	0.0	18.5	17.3	17.2	17.2	0.0	18.5
		75	0	17.2	17.3	17.2	0.0	18.5	17.3	17.2	17.2	0.0	18.5
		1	0	17.3	17.5	17.3	0.0	18.5	17.3	17.5	17.3	0.0	18.5
	64QAM	1	37	17.1	17.2	17.1	0.0	18.5	17.0	17.1	17.1	0.0	18.5
		1	74	17.3	17.2	17.2	0.0	18.5	17.3	17.2	17.2	0.0	18.5
		36	0	17.3	17.3	17.2	0.0	18.5	17.3	17.2	17.2	0.0	18.5
		36	20	17.3	17.4	17.2	0.0	18.5	17.2	17.2	17.2	0.0	18.5
		36	39	17.2	17.3	17.2	0.0	18.5	17.3	17.1	17.2	0.0	18.5
		75	0	17.2	17.2	17.1	0.0	18.5	17.2	17.2	17.1	0.0	18.5
	256QAM	1	0	17.5	17.6	17.4	0.0	18.5	17.7	17.5	17.4	0.0	18.5
		1	37	17.5	17.4	17.4	0.0	18.5	17.7	17.3	17.3	0.0	18.5
		1	74	17.6	17.2	17.3	0.0	18.5	17.7	17.1	17.3	0.0	18.5
36		0	17.3	17.3	17.2	0.0	18.5	17.3	17.3	17.2	0.0	18.5	
36		20	17.2	17.3	17.1	0.0	18.5	17.2	17.2	17.2	0.0	18.5	
36		39	17.2	17.2	17.2	0.0	18.5	17.3	17.2	17.2	0.0	18.5	
256QAM	75	0	17.2	17.3	17.2	0.0	18.5	17.3	17.2	17.2	0.0	18.5	
	1	0	16.4	16.6	16.5	1.0	17.5	16.4	16.5	16.5	1.0	17.5	
	1	37	16.5	16.5	16.6	1.0	17.5	16.5	16.4	16.6	1.0	17.5	
	1	74	16.4	16.5	16.4	1.0	17.5	16.5	16.4	16.4	1.0	17.5	
	36	0	16.2	16.2	16.2	1.0	17.5	16.1	16.1	16.2	1.0	17.5	
	36	20	16.1	16.2	16.2	1.0	17.5	16.1	16.1	16.2	1.0	17.5	
256QAM	36	39	16.1	16.2	16.2	1.0	17.5	16.1	16.1	16.2	1.0	17.5	
	75	0	16.1	16.2	16.2	1.0	17.5	16.1	16.2	16.2	1.0	17.5	
	75	0	16.1	16.2	16.2	1.0	17.5	16.1	16.2	16.2	1.0	17.5	

LTE Band 2 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				18650	18900	19150			18650	18900	19150		
				1855 MHz	1880 MHz	1905 MHz			1855 MHz	1880 MHz	1905 MHz		
10 MHz	QPSK	1	0	17.4	17.3	17.4	0.0	18.5	17.4	17.3	17.3	0.0	18.5
		1	25	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.2	0.0	18.5
		1	49	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.2	0.0	18.5
		25	0	17.4	17.2	17.3	0.0	18.5	17.4	17.2	17.2	0.0	18.5
		25	12	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.3	0.0	18.5
		25	25	17.4	17.2	17.3	0.0	18.5	17.4	17.2	17.3	0.0	18.5
	16QAM	50	0	17.4	17.2	17.3	0.0	18.5	17.4	17.2	17.3	0.0	18.5
		1	0	17.5	17.5	17.5	0.0	18.5	17.6	17.4	17.5	0.0	18.5
		1	25	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.3	0.0	18.5
		1	49	17.5	17.3	17.4	0.0	18.5	17.6	17.3	17.3	0.0	18.5
		25	0	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.2	0.0	18.5
		25	12	17.4	17.3	17.3	0.0	18.5	17.4	17.3	17.3	0.0	18.5
	64QAM	25	25	17.4	17.2	17.3	0.0	18.5	17.4	17.3	17.3	0.0	18.5
		50	0	17.4	17.2	17.3	0.0	18.5	17.3	17.2	17.2	0.0	18.5
		1	0	17.5	17.4	17.5	0.0	18.5	17.8	17.3	17.5	0.0	18.5
		1	25	17.3	17.2	17.2	0.0	18.5	17.7	17.2	17.3	0.0	18.5
		1	49	17.4	17.2	17.3	0.0	18.5	17.8	17.2	17.3	0.0	18.5
		25	0	17.3	17.2	17.2	0.0	18.5	17.8	17.2	17.2	0.0	18.5
	256QAM	25	12	17.3	17.2	17.3	0.0	18.5	17.8	17.2	17.2	0.0	18.5
		25	25	17.3	17.2	17.3	0.0	18.5	17.8	17.2	17.3	0.0	18.5
50		0	17.3	17.2	17.3	0.0	18.5	17.8	17.2	17.3	0.0	18.5	
1		0	16.5	16.4	16.6	1.0	17.5	16.5	16.4	16.5	1.0	17.5	
1		25	16.4	16.4	16.4	1.0	17.5	16.4	16.3	16.3	1.0	17.5	
1		49	16.5	16.4	16.4	1.0	17.5	16.5	16.4	16.3	1.0	17.5	
5 MHz	QPSK	25	0	16.2	16.1	16.1	1.0	17.5	16.3	16.1	16.0	1.0	17.5
		25	12	16.2	16.1	16.1	1.0	17.5	16.2	16.1	16.1	1.0	17.5
		25	25	16.2	16.0	16.1	1.0	17.5	16.2	16.0	16.1	1.0	17.5
		50	0	16.2	16.1	16.1	1.0	17.5	16.2	16.1	16.1	1.0	17.5
		1	0	17.9	17.6	17.3	0.0	18.5	17.9	17.6	17.4	0.0	18.5
		1	12	17.7	17.5	17.2	0.0	18.5	17.6	17.4	17.3	0.0	18.5
	16QAM	1	24	17.9	17.6	17.3	0.0	18.5	17.9	17.6	17.4	0.0	18.5
		12	0	17.6	17.4	17.3	0.0	18.5	17.6	17.4	17.3	0.0	18.5
		12	7	17.7	17.4	17.3	0.0	18.5	17.6	17.4	17.3	0.0	18.5
		12	13	17.7	17.4	17.2	0.0	18.5	17.6	17.3	17.2	0.0	18.5
		25	0	17.6	17.4	17.2	0.0	18.5	17.6	17.4	17.2	0.0	18.5
		1	0	17.7	17.4	17.3	0.0	18.5	17.7	17.4	17.3	0.0	18.5
	64QAM	1	12	17.7	17.4	17.2	0.0	18.5	17.6	17.3	17.2	0.0	18.5
		1	24	17.5	17.2	17.2	0.0	18.5	17.5	17.2	17.2	0.0	18.5
12		0	17.6	17.4	17.2	0.0	18.5	17.6	17.3	17.2	0.0	18.5	
12		7	17.6	17.4	17.2	0.0	18.5	17.6	17.3	17.2	0.0	18.5	
12		13	17.6	17.3	17.2	0.0	18.5	17.6	17.2	17.1	0.0	18.5	
25		0	17.7	17.3	17.2	0.0	18.5	17.6	17.4	17.3	0.0	18.5	
256QAM	1	0	17.7	17.4	17.4	0.0	18.5	17.7	17.4	17.4	0.0	18.5	
	1	12	17.6	17.3	17.4	0.0	18.5	17.5	17.3	17.3	0.0	18.5	
	12	0	17.6	17.4	17.2	0.0	18.5	17.6	17.4	17.2	0.0	18.5	
	12	7	17.6	17.3	17.2	0.0	18.5	17.6	17.3	17.2	0.0	18.5	
	12	13	17.6	17.3	17.2	0.0	18.5	17.6	17.2	17.1	0.0	18.5	
	25	0	17.6	17.3	17.3	0.0	18.5	17.6	17.3	17.2	0.0	18.5	
256QAM	1	0	16.6	16.3	16.3	1.0	17.5	16.6	16.3	16.3	1.0	17.5	
	1	12	16.8	16.5	16.5	1.0	17.5	16.7	16.5	16.5	1.0	17.5	
	1	24	16.6	16.3	16.2	1.0	17.5	16.6	16.3	16.2	1.0	17.5	
	12	0	16.4	16.2	16.1	1.0	17.5	16.4	16.2	16.1	1.0	17.5	
	12	7	16.4	16.2	16.1	1.0	17.5	16.4	16.1	16.1	1.0	17.5	
	12	13	16.4	16.1	16.1	1.0	17.5	16.4	16.1	16.1	1.0	17.5	
25	0	16.3	16.1	16.0	1.0	17.5	16.3	16.0	16.0	1.0	17.5		

LTE Band 2 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				18615	18900	19185			18615	18900	19185		
				1851.5 MHz	1880 MHz	1908.5 MHz			1851.5 MHz	1880 MHz	1908.5 MHz		
3 MHz	QPSK	1	0	17.8	17.4	17.4	0.0	18.5	17.8	17.4	17.4	0.0	18.5
		1	8	17.7	17.3	17.3	0.0	18.5	17.7	17.3	17.4	0.0	18.5
		1	14	17.7	17.3	17.4	0.0	18.5	17.7	17.2	17.3	0.0	18.5
		8	0	17.6	17.3	17.3	0.0	18.5	17.6	17.3	17.3	0.0	18.5
		8	4	17.6	17.2	17.3	0.0	18.5	17.6	17.2	17.3	0.0	18.5
		8	7	17.6	17.3	17.3	0.0	18.5	17.6	17.3	17.3	0.0	18.5
	16QAM	15	0	17.7	17.3	17.3	0.0	18.5	17.7	17.3	17.3	0.0	18.5
		1	0	17.9	17.7	17.6	0.0	18.5	18.0	17.6	17.5	0.0	18.5
		1	8	17.9	17.6	17.5	0.0	18.5	17.8	17.6	17.5	0.0	18.5
		1	14	17.6	17.6	17.5	0.0	18.5	17.9	17.5	17.5	0.0	18.5
		8	0	17.5	17.3	17.3	0.0	18.5	17.5	17.2	17.3	0.0	18.5
		8	4	17.5	17.2	17.2	0.0	18.5	17.5	17.2	17.1	0.0	18.5
	64QAM	8	7	17.6	17.2	17.2	0.0	18.5	17.7	17.2	17.2	0.0	18.5
		15	0	17.6	17.3	17.3	0.0	18.5	17.7	17.3	17.3	0.0	18.5
		1	0	17.6	17.4	17.3	0.0	18.5	17.6	17.4	17.3	0.0	18.5
		1	8	17.5	17.3	17.2	0.0	18.5	17.7	17.2	17.1	0.0	18.5
		1	14	17.7	17.2	17.2	0.0	18.5	17.8	17.2	17.2	0.0	18.5
		8	0	17.7	17.5	17.3	0.0	18.5	17.7	17.5	17.3	0.0	18.5
	256QAM	8	4	17.7	17.4	17.3	0.0	18.5	17.7	17.4	17.3	0.0	18.5
		8	7	17.7	17.4	17.3	0.0	18.5	17.6	17.3	17.3	0.0	18.5
		15	0	17.6	17.3	17.2	0.0	18.5	17.6	17.3	17.2	0.0	18.5
1		0	16.6	16.4	16.3	1.0	17.5	16.5	16.4	16.4	1.0	17.5	
1		8	16.5	16.4	16.2	1.0	17.5	16.5	16.3	16.2	1.0	17.5	
1		14	16.5	16.3	16.2	1.0	17.5	16.5	16.3	16.2	1.0	17.5	
1.4 MHz	QPSK	8	0	16.3	16.1	16.0	1.0	17.5	16.2	16.1	16.0	1.0	17.5
		8	4	16.3	16.1	16.0	1.0	17.5	16.3	16.0	16.0	1.0	17.5
		8	7	16.3	16.1	16.0	1.0	17.5	16.2	16.0	16.0	1.0	17.5
		15	0	16.3	16.1	16.0	1.0	17.5	16.3	16.1	16.0	1.0	17.5
		1	0	17.7	17.7	17.4	0.0	18.5	17.6	17.7	17.4	0.0	18.5
		1	3	17.8	17.5	17.4	0.0	18.5	17.6	17.5	17.4	0.0	18.5
	16QAM	1	5	17.8	17.5	17.4	0.0	18.5	17.7	17.5	17.4	0.0	18.5
		3	0	17.6	17.5	17.4	0.0	18.5	17.6	17.5	17.4	0.0	18.5
		3	1	17.6	17.5	17.4	0.0	18.5	17.6	17.5	17.4	0.0	18.5
		3	3	17.7	17.4	17.4	0.0	18.5	17.6	17.4	17.4	0.0	18.5
		6	0	17.7	17.5	17.4	0.0	18.5	17.6	17.4	17.4	0.0	18.5
		1	0	17.8	17.8	17.5	0.0	18.5	17.9	17.7	17.6	0.0	18.5
	64QAM	1	3	17.9	17.8	17.5	0.0	18.5	17.8	17.7	17.5	0.0	18.5
		1	5	17.8	17.7	17.6	0.0	18.5	17.9	17.7	17.6	0.0	18.5
		3	0	17.6	17.4	17.3	0.0	18.5	17.5	17.5	17.3	0.0	18.5
		3	1	17.4	17.5	17.3	0.0	18.5	17.4	17.6	17.3	0.0	18.5
		3	3	17.5	17.4	17.3	0.0	18.5	17.5	17.3	17.2	0.0	18.5
		6	0	17.6	17.3	17.3	0.0	18.5	17.6	17.3	17.3	0.0	18.5
	256QAM	1	0	17.5	17.5	17.3	0.0	18.5	17.4	17.4	17.3	0.0	18.5
		1	3	17.4	17.3	17.3	0.0	18.5	17.4	17.2	17.2	0.0	18.5
		1	5	17.5	17.2	17.3	0.0	18.5	17.5	17.3	17.3	0.0	18.5
3		0	17.7	17.5	17.4	0.0	18.5	17.7	17.6	17.4	0.0	18.5	
3		1	17.7	17.5	17.4	0.0	18.5	17.5	17.4	17.4	0.0	18.5	
3		3	17.7	17.4	17.4	0.0	18.5	17.7	17.4	17.3	0.0	18.5	
256QAM	6	0	17.7	17.4	17.4	0.0	18.5	17.6	17.5	17.5	0.0	18.5	
	1	0	16.7	16.3	16.2	1.0	17.5	16.6	16.5	16.2	1.0	17.5	
	1	3	16.6	16.4	16.1	1.0	17.5	16.5	16.3	16.1	1.0	17.5	
	1	5	16.7	16.3	16.2	1.0	17.5	16.6	16.4	16.2	1.0	17.5	
	3	0	16.3	15.9	16.0	1.0	17.5	16.3	15.8	16.0	1.0	17.5	
	3	1	16.2	15.9	15.9	1.0	17.5	16.2	15.8	15.9	1.0	17.5	
256QAM	3	3	16.2	16.0	15.8	1.0	17.5	16.2	15.8	15.8	1.0	17.5	
	6	0	16.3	15.8	15.9	1.0	17.5	16.3	15.8	15.9	1.0	17.5	

LTE Band 4 (Ant.3) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) RCV back-off					
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				20050 1720 MHz	20175 1732.5 MHz	20300 1745 MHz			20050 1720 MHz	20175 1732.5 MHz	20300 1745 MHz			
20 MHz	QPSK	1	0		18.1		0.0	18.5		18.0		0.0	18.5	
		1	49		17.7		0.0	18.5		17.6		0.0	18.5	
		1	99		17.9		0.0	18.5		17.8		0.0	18.5	
		50	0		17.6		0.0	18.5		17.6		0.0	18.5	
		50	24		17.8		0.0	18.5		17.9		0.0	18.5	
		50	50		17.7		0.0	18.5		17.6		0.0	18.5	
	16QAM	100	0		17.6		0.0	18.5		17.6		0.0	18.5	
		1	0		17.8		0.0	18.5		17.8		0.0	18.5	
		1	49		17.7		0.0	18.5		17.6		0.0	18.5	
		1	99		17.6		0.0	18.5		17.6		0.0	18.5	
		50	0		17.6		0.0	18.5		17.6		0.0	18.5	
		50	24		17.6		0.0	18.5		17.6		0.0	18.5	
	64QAM	50	50		17.6		0.0	18.5		17.6		0.0	18.5	
		100	0		17.6		0.0	18.5		17.6		0.0	18.5	
		1	0		17.8		0.0	18.5		17.8		0.0	18.5	
		1	49		17.5		0.0	18.5		17.5		0.0	18.5	
		1	99		17.5		0.0	18.5		17.4		0.0	18.5	
		50	0		17.6		0.0	18.5		17.6		0.0	18.5	
	256QAM	50	24		17.6		0.0	18.5		17.6		0.0	18.5	
		50	50		17.6		0.0	18.5		17.6		0.0	18.5	
100		0		17.5		0.0	18.5		17.5		0.0	18.5		
1		0		16.7		1.0	17.5		16.6		1.0	17.5		
1		49		16.5		1.0	17.5		16.4		1.0	17.5		
1		99		16.5		1.0	17.5		16.4		1.0	17.5		
15 MHz	QPSK	50	0		16.2		1.0	17.5		16.2		1.0	17.5	
		50	24		16.2		1.0	17.5		16.2		1.0	17.5	
		50	50		16.2		1.0	17.5		16.2		1.0	17.5	
		100	0		16.3		1.0	17.5		16.2		1.0	17.5	
		1	0		18.1	17.7	18.0	0.0	18.5	18.1	17.5	18.1	0.0	18.5
		1	37		18.0	17.6	17.9	0.0	18.5	18.0	17.6	17.9	0.0	18.5
	16QAM	1	74		18.0	17.7	18.1	0.0	18.5	18.0	17.5	18.1	0.0	18.5
		36	0		18.1	17.7	18.0	0.0	18.5	18.1	17.5	18.1	0.0	18.5
		36	20		18.0	17.7	18.0	0.0	18.5	18.0	17.5	18.0	0.0	18.5
		36	39		18.0	17.6	18.0	0.0	18.5	18.0	17.5	18.0	0.0	18.5
75		0		18.0	17.7	17.9	0.0	18.5	18.0	17.5	18.0	0.0	18.5	
1		0		18.3	17.9	18.1	0.0	18.5	18.4	17.7	18.2	0.0	18.5	
64QAM	1	37		18.0	17.3	17.9	0.0	18.5	18.1	17.3	18.0	0.0	18.5	
	1	74		18.2	17.8	18.2	0.0	18.5	18.2	17.6	18.2	0.0	18.5	
	36	0		18.0	17.7	18.0	0.0	18.5	18.0	17.7	18.0	0.0	18.5	
	36	20		18.0	17.7	17.9	0.0	18.5	18.0	17.7	18.0	0.0	18.5	
	36	39		18.0	17.6	18.0	0.0	18.5	18.0	17.7	18.0	0.0	18.5	
	75	0		18.0	17.7	18.0	0.0	18.5	18.0	17.6	18.0	0.0	18.5	
256QAM	1	0		18.0	17.6	17.7	0.0	18.5	18.0	17.8	17.9	0.0	18.5	
	1	37		17.9	17.4	17.6	0.0	18.5	18.0	17.6	17.9	0.0	18.5	
	1	74		17.8	17.5	17.7	0.0	18.5	17.9	17.6	18.0	0.0	18.5	
	36	0		18.0	17.7	17.9	0.0	18.5	18.0	17.1	18.0	0.0	18.5	
	36	20		18.0	17.7	18.0	0.0	18.5	18.0	17.4	18.0	0.0	18.5	
	36	39		18.0	17.7	18.0	0.0	18.5	18.0	17.5	18.0	0.0	18.5	
256QAM	75	0		18.0	17.7	18.0	0.0	18.5	18.0	17.5	18.0	0.0	18.5	
	1	0		16.7	16.6	16.6	1.0	17.5	16.7	16.6	16.6	1.0	17.5	
	1	37		16.7	16.5	16.6	1.0	17.5	16.7	16.5	16.6	1.0	17.5	
	1	74		16.7	16.5	16.6	1.0	17.5	16.7	16.5	16.6	1.0	17.5	
	36	0		16.4	16.2	16.4	1.0	17.5	16.4	16.2	16.4	1.0	17.5	
	36	20		16.3	16.2	16.3	1.0	17.5	16.3	16.2	16.3	1.0	17.5	

LTE Band 4 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				20000	20175	20350			20000	20175	20350		
				1715 MHz	1732.5 MHz	1750 MHz			1715 MHz	1732.5 MHz	1750 MHz		
10 MHz	QPSK	1	0	17.6	17.4	17.5	0.0	18.5	17.4	17.4	17.5	0.0	18.5
		1	25	17.4	17.2	17.5	0.0	18.5	17.3	17.2	17.5	0.0	18.5
		1	49	17.6	17.3	17.6	0.0	18.5	17.5	17.2	17.6	0.0	18.5
		25	0	17.5	17.4	17.6	0.0	18.5	17.5	17.3	17.6	0.0	18.5
		25	12	17.4	17.4	17.6	0.0	18.5	17.4	17.4	17.6	0.0	18.5
		25	25	17.4	17.4	17.6	0.0	18.5	17.4	17.3	17.6	0.0	18.5
	50	0	17.5	17.3	17.6	0.0	18.5	17.5	17.3	17.6	0.0	18.5	
	16QAM	1	0	17.3	17.5	17.6	0.0	18.5	17.6	17.5	17.6	0.0	18.5
		1	25	17.0	17.3	17.6	0.0	18.5	17.4	17.3	17.6	0.0	18.5
		1	49	17.2	17.4	17.8	0.0	18.5	17.7	17.3	17.8	0.0	18.5
		25	0	17.4	17.4	17.6	0.0	18.5	17.5	17.4	17.6	0.0	18.5
		25	12	17.5	17.4	17.5	0.0	18.5	17.5	17.3	17.5	0.0	18.5
		25	25	17.4	17.3	17.6	0.0	18.5	17.5	17.3	17.6	0.0	18.5
	50	0	17.4	17.3	17.5	0.0	18.5	17.5	17.3	17.5	0.0	18.5	
	64QAM	1	0	17.5	17.6	17.4	0.0	18.5	17.6	17.6	17.5	0.0	18.5
		1	25	17.3	17.3	17.4	0.0	18.5	17.4	17.2	17.5	0.0	18.5
		1	49	17.5	17.3	17.6	0.0	18.5	17.6	17.3	17.6	0.0	18.5
		25	0	17.4	17.3	17.5	0.0	18.5	17.5	17.3	17.5	0.0	18.5
		25	12	17.4	17.3	17.5	0.0	18.5	17.5	17.3	17.5	0.0	18.5
		25	25	17.3	17.3	17.5	0.0	18.5	17.4	17.3	17.5	0.0	18.5
	50	0	17.4	17.3	17.6	0.0	18.5	17.5	17.3	17.5	0.0	18.5	
	256QAM	1	0	16.3	16.5	16.7	1.0	17.5	16.5	16.5	16.7	1.0	17.5
		1	25	16.3	16.2	16.6	1.0	17.5	16.4	16.3	16.7	1.0	17.5
		1	49	16.4	16.3	16.7	1.0	17.5	16.4	16.3	16.7	1.0	17.5
25		0	16.1	16.1	16.4	1.0	17.5	16.2	16.1	16.4	1.0	17.5	
25		12	16.1	16.1	16.4	1.0	17.5	16.2	16.1	16.4	1.0	17.5	
25		25	16.1	16.1	16.3	1.0	17.5	16.1	16.1	16.4	1.0	17.5	
50	0	16.1	16.1	16.4	1.0	17.5	16.1	16.1	16.4	1.0	17.5		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				19975	20175	20375			19975	20175	20375		
				1712.5 MHz	1732.5 MHz	1752.5 MHz			1712.5 MHz	1732.5 MHz	1752.5 MHz		
5 MHz	QPSK	1	0	17.7	17.5	17.8	0.0	18.5	17.8	17.5	17.8	0.0	18.5
		1	12	17.8	17.4	17.7	0.0	18.5	17.9	17.5	17.6	0.0	18.5
		1	24	17.6	17.4	17.7	0.0	18.5	17.7	17.4	17.6	0.0	18.5
		12	0	17.6	17.4	17.6	0.0	18.5	17.6	17.5	17.6	0.0	18.5
		12	7	17.6	17.3	17.6	0.0	18.5	17.6	17.4	17.6	0.0	18.5
		12	13	17.6	17.4	17.6	0.0	18.5	17.6	17.4	17.6	0.0	18.5
	25	0	17.6	17.4	17.6	0.0	18.5	17.6	17.4	17.6	0.0	18.5	
	16QAM	1	0	17.8	17.5	17.7	0.0	18.5	17.8	17.4	17.7	0.0	18.5
		1	12	17.5	16.9	17.4	0.0	18.5	17.5	17.2	17.4	0.0	18.5
		1	24	17.7	17.3	17.6	0.0	18.5	17.6	17.3	17.6	0.0	18.5
		12	0	17.5	17.4	17.5	0.0	18.5	17.5	17.3	17.6	0.0	18.5
		12	7	17.6	17.3	17.5	0.0	18.5	17.5	17.3	17.5	0.0	18.5
		12	13	17.5	17.4	17.5	0.0	18.5	17.5	17.3	17.6	0.0	18.5
	25	0	17.6	17.4	17.6	0.0	18.5	17.6	17.5	17.6	0.0	18.5	
	64QAM	1	0	17.5	17.3	17.4	0.0	18.5	17.7	17.3	17.5	0.0	18.5
		1	12	17.7	17.3	17.4	0.0	18.5	17.8	17.2	17.4	0.0	18.5
		1	24	17.4	17.3	17.4	0.0	18.5	17.5	17.3	17.5	0.0	18.5
		12	0	17.4	17.3	17.5	0.0	18.5	17.4	17.2	17.5	0.0	18.5
		12	7	17.5	17.2	17.4	0.0	18.5	17.5	17.2	17.5	0.0	18.5
		12	13	17.4	17.2	17.5	0.0	18.5	17.5	17.2	17.5	0.0	18.5
	25	0	17.6	17.4	17.6	0.0	18.5	17.5	17.3	17.6	0.0	18.5	
	256QAM	1	0	16.4	16.4	16.7	1.0	17.5	16.5	16.5	16.7	1.0	17.5
		1	12	16.6	16.5	16.6	1.0	17.5	16.7	16.4	16.6	1.0	17.5
		1	24	16.4	16.5	16.7	1.0	17.5	16.4	16.6	16.7	1.0	17.5
12		0	16.2	16.4	16.5	1.0	17.5	16.3	16.4	16.5	1.0	17.5	
12		7	16.3	16.2	16.4	1.0	17.5	16.3	16.3	16.4	1.0	17.5	
12		13	16.3	16.3	16.5	1.0	17.5	16.3	16.3	16.4	1.0	17.5	
25	0	16.2	16.2	16.4	1.0	17.5	16.2	16.2	16.4	1.0	17.5		

LTE Band 4 (Ant.3) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				19965	20175	20385			19965	20175	20385		
				1711.5 MHz	1732.5 MHz	1753.5 MHz			1711.5 MHz	1732.5 MHz	1753.5 MHz		
3 MHz	QPSK	1	0	17.6	17.7	17.6	0.0	18.5	17.5	17.6	17.6	0.0	18.5
		1	8	17.5	17.4	17.5	0.0	18.5	17.4	17.2	17.4	0.0	18.5
		1	14	17.5	17.6	17.5	0.0	18.5	17.6	17.4	17.5	0.0	18.5
		8	0	17.4	17.5	17.5	0.0	18.5	17.5	17.4	17.4	0.0	18.5
		8	4	17.4	17.4	17.5	0.0	18.5	17.4	17.2	17.4	0.0	18.5
		8	7	17.5	17.4	17.6	0.0	18.5	17.5	17.3	17.6	0.0	18.5
	16QAM	15	0	17.6	17.4	17.6	0.0	18.5	17.5	17.3	17.5	0.0	18.5
		1	0	17.6	17.6	17.6	0.0	18.5	17.5	17.5	17.6	0.0	18.5
		1	8	17.6	17.4	17.6	0.0	18.5	17.5	17.3	17.6	0.0	18.5
		1	14	17.7	17.7	17.7	0.0	18.5	17.6	17.5	17.6	0.0	18.5
		8	0	17.5	17.4	17.4	0.0	18.5	17.4	17.3	17.4	0.0	18.5
		8	4	17.4	17.4	17.4	0.0	18.5	17.4	17.1	17.4	0.0	18.5
	64QAM	8	7	17.4	17.4	17.4	0.0	18.5	17.4	17.0	17.4	0.0	18.5
		15	0	17.5	17.4	17.5	0.0	18.5	17.5	17.3	17.5	0.0	18.5
		1	0	17.4	17.6	17.4	0.0	18.5	17.4	17.0	17.3	0.0	18.5
		1	8	17.2	17.2	17.3	0.0	18.5	17.2	17.3	17.3	0.0	18.5
		1	14	17.4	17.5	17.5	0.0	18.5	17.4	17.4	17.5	0.0	18.5
		8	0	17.4	17.4	17.5	0.0	18.5	17.4	17.2	17.5	0.0	18.5
	256QAM	8	4	17.4	17.3	17.6	0.0	18.5	17.4	17.3	17.5	0.0	18.5
		8	7	17.5	17.4	17.6	0.0	18.5	17.5	17.3	17.6	0.0	18.5
		15	0	17.4	17.3	17.4	0.0	18.5	17.3	17.2	17.4	0.0	18.5
1		0	16.6	16.6	16.7	1.0	17.5	16.6	16.5	16.6	1.0	17.5	
1		8	16.5	16.3	16.7	1.0	17.5	16.5	16.3	16.6	1.0	17.5	
1		14	16.6	16.6	16.7	1.0	17.5	16.6	16.5	16.6	1.0	17.5	
1.4 MHz	QPSK	8	0	16.2	16.2	16.3	1.0	17.5	16.2	16.2	16.3	1.0	17.5
		8	4	16.2	16.1	16.4	1.0	17.5	16.2	16.1	16.4	1.0	17.5
		8	7	16.2	16.1	16.4	1.0	17.5	16.3	16.1	16.5	1.0	17.5
		15	0	16.3	16.3	16.5	1.0	17.5	16.3	16.2	16.5	1.0	17.5
		1	0	17.5	17.4	17.7	0.0	18.5	17.7	17.4	17.7	0.0	18.5
		1	3	17.4	17.3	17.7	0.0	18.5	17.6	17.3	17.7	0.0	18.5
	16QAM	1	5	17.6	17.5	17.7	0.0	18.5	17.7	17.4	17.7	0.0	18.5
		3	0	17.4	17.3	17.7	0.0	18.5	17.6	17.3	17.7	0.0	18.5
		3	1	17.5	17.3	17.7	0.0	18.5	17.6	17.2	17.6	0.0	18.5
		3	3	17.5	17.3	17.7	0.0	18.5	17.6	17.3	17.7	0.0	18.5
		6	0	17.5	17.3	17.7	0.0	18.5	17.5	17.3	17.6	0.0	18.5
		1	0	17.6	17.6	17.9	0.0	18.5	17.8	17.6	17.7	0.0	18.5
	64QAM	1	3	17.6	17.5	17.9	0.0	18.5	17.7	17.5	17.9	0.0	18.5
		1	5	17.6	17.5	17.8	0.0	18.5	17.7	17.5	17.9	0.0	18.5
		3	0	17.4	17.2	17.6	0.0	18.5	17.4	17.2	17.6	0.0	18.5
		3	1	17.3	17.1	17.5	0.0	18.5	17.4	17.1	17.5	0.0	18.5
		3	3	17.3	17.1	17.4	0.0	18.5	17.3	17.1	17.4	0.0	18.5
		6	0	17.4	17.3	17.6	0.0	18.5	17.5	17.2	17.6	0.0	18.5
	256QAM	1	0	17.1	17.1	17.4	0.0	18.5	17.2	17.2	17.5	0.0	18.5
		1	3	17.0	17.0	17.3	0.0	18.5	17.1	17.0	17.3	0.0	18.5
		1	5	17.1	17.2	17.4	0.0	18.5	17.2	17.2	17.4	0.0	18.5
3		0	17.5	17.3	17.7	0.0	18.5	17.2	17.3	17.7	0.0	18.5	
3		1	17.4	17.2	17.6	0.0	18.5	17.5	17.2	17.6	0.0	18.5	
3		3	17.4	17.2	17.6	0.0	18.5	17.5	17.2	17.6	0.0	18.5	
256QAM	6	0	17.6	17.3	17.7	0.0	18.5	17.6	17.3	17.8	0.0	18.5	
	1	0	16.5	16.6	16.8	1.0	17.5	16.6	16.5	16.8	1.0	17.5	
	1	3	16.4	16.3	16.7	1.0	17.5	16.4	16.4	16.7	1.0	17.5	
	1	5	16.4	16.5	16.8	1.0	17.5	16.5	16.5	16.7	1.0	17.5	
	3	0	16.3	16.4	16.6	1.0	17.5	16.4	16.4	16.6	1.0	17.5	
	3	1	16.3	16.1	16.6	1.0	17.5	16.3	16.3	16.6	1.0	17.5	
256QAM	3	3	16.3	16.3	16.5	1.0	17.5	16.3	16.3	16.6	1.0	17.5	
	6	0	16.3	16.2	16.6	1.0	17.5	16.3	16.2	16.5	1.0	17.5	

LTE Band 25 (Main 1 Ant.) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) Proximity sensor back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590			26140	26365	26590		
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	20.1	20.0	20.3	0.0	21.0	20.1	20.1	20.4	0.0	21.0
		1	49	20.0	20.0	20.2	0.0	21.0	20.1	20.0	20.3	0.0	21.0
		1	99	20.0	20.0	20.1	0.0	21.0	19.9	20.1	20.1	0.0	21.0
		50	0	20.1	20.0	20.4	0.0	21.0	20.2	20.1	20.4	0.0	21.0
		50	24	20.0	20.1	20.2	0.0	21.0	20.1	20.1	20.3	0.0	21.0
		50	50	20.0	20.1	20.1	0.0	21.0	20.1	20.1	20.2	0.0	21.0
	100	0	20.0	20.0	20.3	0.0	21.0	20.1	20.1	20.3	0.0	21.0	
	16QAM	1	0	20.3	20.3	20.8	0.0	21.0	20.3	20.4	20.7	0.0	21.0
		1	49	20.3	20.4	20.6	0.0	21.0	20.0	20.5	20.6	0.0	21.0
		1	99	20.1	20.3	20.5	0.0	21.0	20.1	20.4	20.5	0.0	21.0
		50	0	20.1	20.1	20.3	0.0	21.0	20.2	20.1	20.4	0.0	21.0
		50	24	20.0	20.1	20.3	0.0	21.0	20.2	20.2	20.3	0.0	21.0
		50	50	20.0	20.1	20.2	0.0	21.0	20.1	20.1	20.2	0.0	21.0
	100	0	20.1	20.1	20.3	0.0	21.0	20.1	20.2	20.3	0.0	21.0	
	64QAM	1	0	20.3	20.3	20.4	0.0	21.0	20.2	20.4	20.7	0.0	21.0
		1	49	20.2	20.4	20.2	0.0	21.0	20.1	20.4	20.6	0.0	21.0
		1	99	20.1	20.4	20.1	0.0	21.0	20.0	20.5	20.4	0.0	21.0
		50	0	19.2	19.2	19.4	1.0	20.0	19.3	19.2	19.4	1.0	20.0
		50	24	19.2	19.2	19.3	1.0	20.0	19.2	19.2	19.3	1.0	20.0
		50	50	19.1	19.2	19.3	1.0	20.0	19.2	19.2	19.2	1.0	20.0
	100	0	19.1	19.2	19.3	1.0	20.0	19.2	19.1	19.3	1.0	20.0	
	256QAM	1	0	19.0	19.2	19.6	1.0	20.0	19.4	19.2	19.2	1.0	20.0
		1	49	18.9	19.4	19.4	1.0	20.0	19.4	19.3	18.9	1.0	20.0
		1	99	18.8	19.2	19.4	1.0	20.0	19.3	19.2	19.0	1.0	20.0
50		0	17.9	17.9	18.1	2.0	19.0	18.0	17.9	18.1	2.0	19.0	
50		24	17.9	18.0	18.0	2.0	19.0	17.9	17.9	18.0	2.0	19.0	
50		50	17.9	18.0	18.0	2.0	19.0	17.9	18.0	17.9	2.0	19.0	
100	0	17.9	18.0	18.1	2.0	19.0	17.9	17.9	18.0	2.0	19.0		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					Measured Pwr (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115	26365	26615			26115	26365	26615		
				1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	QPSK	1	0	19.7	19.6	19.9	0.0	21.0	19.8	19.7	19.9	0.0	21.0
		1	37	19.8	19.9	19.8	0.0	21.0	19.8	19.7	19.9	0.0	21.0
		1	74	19.5	19.7	19.8	0.0	21.0	19.6	19.7	19.8	0.0	21.0
		36	0	19.8	19.7	20.0	0.0	21.0	19.8	19.7	19.9	0.0	21.0
		36	20	19.7	19.7	19.9	0.0	21.0	19.7	19.7	19.9	0.0	21.0
		36	39	19.7	19.7	19.9	0.0	21.0	19.7	19.7	19.9	0.0	21.0
	75	0	19.7	19.7	20.0	0.0	21.0	19.7	19.7	19.9	0.0	21.0	
	16QAM	1	0	20.1	20.0	20.3	0.0	21.0	20.1	20.0	20.3	0.0	21.0
		1	37	20.2	20.2	20.4	0.0	21.0	20.0	19.9	20.1	0.0	21.0
		1	74	19.9	20.0	20.2	0.0	21.0	19.9	20.0	20.1	0.0	21.0
		36	0	19.8	19.8	20.0	0.0	21.0	19.8	19.8	20.0	0.0	21.0
		36	20	19.7	19.8	20.0	0.0	21.0	19.7	19.7	19.9	0.0	21.0
		36	39	19.7	19.8	19.9	0.0	21.0	19.7	19.7	19.9	0.0	21.0
	75	0	19.8	19.7	19.9	0.0	21.0	19.7	19.8	19.9	0.0	21.0	
	64QAM	1	0	19.9	19.9	20.0	0.0	21.0	19.9	19.9	20.1	0.0	21.0
		1	37	20.1	19.7	19.6	0.0	21.0	19.7	19.6	20.3	0.0	21.0
		1	74	19.7	19.9	19.8	0.0	21.0	19.7	19.9	20.0	0.0	21.0
		36	0	18.8	18.8	19.1	1.0	20.0	19.0	18.9	19.0	1.0	20.0
		36	20	18.7	18.8	19.0	1.0	20.0	18.9	18.9	18.9	1.0	20.0
		36	39	18.7	18.8	19.0	1.0	20.0	18.9	18.9	18.9	1.0	20.0
	75	0	18.8	18.8	19.0	1.0	20.0	18.8	18.9	19.0	1.0	20.0	
	256QAM	1	0	18.7	18.8	18.8	1.0	20.0	18.5	18.8	19.0	1.0	20.0
		1	37	18.6	19.0	18.8	1.0	20.0	18.6	18.9	18.9	1.0	20.0
		1	74	18.5	18.8	17.9	1.0	20.0	18.4	18.8	18.2	1.0	20.0
36		0	17.5	17.6	17.7	2.0	19.0	17.6	17.7	17.8	2.0	19.0	
36		20	17.5	17.6	17.7	2.0	19.0	17.6	17.7	17.7	2.0	19.0	
36		39	17.5	17.6	17.5	2.0	19.0	17.5	17.7	17.6	2.0	19.0	
75	0	17.5	17.6	17.7	2.0	19.0	17.6	17.7	17.7	2.0	19.0		

LTE Band 25 (Main 1 Ant.) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				26055	26365	26675			26055	26365	26675		
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	19.6	19.7	19.9	0.0	21.0	19.8	19.7	19.8	0.0	21.0
		1	8	19.8	19.8	20.1	0.0	21.0	19.9	19.7	19.9	0.0	21.0
		1	14	19.6	19.8	20.0	0.0	21.0	19.8	19.6	19.8	0.0	21.0
		8	0	19.7	19.7	19.9	0.0	21.0	19.7	19.7	19.8	0.0	21.0
		8	4	19.7	19.7	19.8	0.0	21.0	19.7	19.7	19.8	0.0	21.0
		8	7	19.7	19.7	19.9	0.0	21.0	19.7	19.7	19.8	0.0	21.0
	16QAM	15	0	19.7	19.7	19.8	0.0	21.0	19.7	19.7	19.8	0.0	21.0
		1	0	20.0	20.1	20.0	0.0	21.0	19.9	20.0	20.1	0.0	21.0
		1	8	20.1	20.3	20.2	0.0	21.0	20.0	19.9	20.4	0.0	21.0
		1	14	20.1	20.0	19.9	0.0	21.0	19.7	20.0	20.1	0.0	21.0
		8	0	19.8	19.8	19.9	0.0	21.0	19.7	19.8	19.8	0.0	21.0
		8	4	19.8	19.7	19.8	0.0	21.0	19.7	19.8	19.8	0.0	21.0
	64QAM	8	7	19.7	19.8	19.9	0.0	21.0	19.7	19.8	19.9	0.0	21.0
		15	0	19.7	19.8	19.8	0.0	21.0	19.7	19.7	19.9	0.0	21.0
		1	0	19.6	19.8	19.8	0.0	21.0	20.0	19.9	19.9	0.0	21.0
		1	8	19.7	19.7	19.8	0.0	21.0	19.7	20.0	19.8	0.0	21.0
		1	14	19.5	19.9	20.0	0.0	21.0	20.0	19.8	20.0	0.0	21.0
		8	0	18.7	18.8	18.9	1.0	20.0	18.9	19.0	18.9	1.0	20.0
	256QAM	8	4	18.7	18.7	18.9	1.0	20.0	18.9	18.9	18.9	1.0	20.0
		8	7	18.7	18.7	19.0	1.0	20.0	18.8	18.9	18.9	1.0	20.0
		15	0	18.7	18.7	18.9	1.0	20.0	18.8	18.8	19.0	1.0	20.0
1		0	18.5	18.7	18.8	1.0	20.0	18.8	18.6	18.8	1.0	20.0	
1		8	18.6	18.7	19.0	1.0	20.0	19.0	18.6	18.9	1.0	20.0	
1		14	18.5	18.7	18.9	1.0	20.0	18.7	18.6	18.9	1.0	20.0	
1.4 MHz	QPSK	8	0	17.4	17.5	17.8	2.0	19.0	17.6	17.6	17.9	2.0	19.0
		8	4	17.4	17.5	17.8	2.0	19.0	17.6	17.6	17.8	2.0	19.0
		8	7	17.4	17.5	17.9	2.0	19.0	17.6	17.6	17.9	2.0	19.0
		15	0	17.5	17.5	17.8	2.0	19.0	17.6	17.7	17.8	2.0	19.0
		1	0	19.6	19.7	19.9	0.0	21.0	19.6	19.7	19.9	0.0	21.0
		1	3	19.3	19.6	19.9	0.0	21.0	19.6	19.7	19.9	0.0	21.0
	16QAM	1	5	19.6	19.7	19.8	0.0	21.0	19.6	19.7	19.8	0.0	21.0
		3	0	19.7	19.8	19.8	0.0	21.0	19.7	19.8	19.7	0.0	21.0
		3	1	19.6	19.7	19.8	0.0	21.0	19.7	19.7	19.7	0.0	21.0
		3	3	19.5	19.6	19.9	0.0	21.0	19.6	19.6	19.8	0.0	21.0
		6	0	19.6	19.6	19.8	0.0	21.0	19.6	19.7	19.8	0.0	21.0
		1	0	19.6	20.0	20.0	0.0	21.0	19.6	20.0	19.9	0.0	21.0
	64QAM	1	3	19.9	20.0	20.0	0.0	21.0	19.9	20.0	19.8	0.0	21.0
		1	5	19.7	20.1	20.1	0.0	21.0	19.7	20.0	20.0	0.0	21.0
		3	0	19.6	19.9	20.1	0.0	21.0	19.7	19.8	20.0	0.0	21.0
		3	1	19.7	19.8	20.1	0.0	21.0	19.7	19.8	20.0	0.0	21.0
		3	3	19.7	19.8	20.1	0.0	21.0	19.8	19.9	20.0	0.0	21.0
		6	0	19.7	19.7	19.9	0.0	21.0	19.7	19.7	19.8	0.0	21.0
	256QAM	1	0	20.1	20.0	19.8	0.0	21.0	19.9	20.1	19.6	0.0	21.0
		1	3	20.0	19.9	19.9	0.0	21.0	19.8	20.1	19.7	0.0	21.0
		1	5	19.9	20.0	19.9	0.0	21.0	19.8	20.1	19.7	0.0	21.0
3		0	19.8	19.9	20.0	1.0	20.0	19.9	19.9	20.0	1.0	20.0	
3		1	19.8	19.9	20.0	1.0	20.0	19.9	19.8	20.0	1.0	20.0	
3		3	19.9	19.7	20.0	1.0	20.0	19.7	20.0	20.0	1.0	20.0	
256QAM	6	0	18.8	19.0	19.0	1.0	20.0	18.9	18.9	18.9	1.0	20.0	
	1	0	18.7	18.8	18.6	1.0	20.0	18.6	18.5	19.0	1.0	20.0	
	1	3	18.7	18.8	18.3	1.0	20.0	18.6	18.5	18.9	1.0	20.0	
	1	5	18.6	18.8	18.1	1.0	20.0	18.6	18.5	19.0	1.0	20.0	
	3	0	18.6	18.6	18.4	2.0	19.0	18.6	18.5	18.7	2.0	19.0	
	3	1	18.6	18.6	18.4	2.0	19.0	18.6	18.5	18.7	2.0	19.0	
256QAM	3	3	18.6	18.7	18.4	2.0	19.0	18.7	18.6	18.7	2.0	19.0	
	6	0	17.5	17.7	17.5	2.0	19.0	17.6	17.6	17.7	2.0	19.0	

LTE Band 66 (Main 1 Ant.) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) Proximity sensor back-off				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572			132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	19.6	19.4	19.5	0.0	21	19.6	19.4	19.3	0.0	21
		1	49	19.7	19.4	19.6	0.0	21	19.7	19.3	19.4	0.0	21
		1	99	19.5	19.3	19.3	0.0	21	19.5	19.3	19.2	0.0	21
		50	0	19.7	19.4	19.6	0.0	21	19.7	19.4	19.5	0.0	21
		50	24	19.7	19.4	19.6	0.0	21	19.7	19.4	19.5	0.0	21
		50	50	19.6	19.4	19.5	0.0	21	19.6	19.3	19.4	0.0	21
	16QAM	1	0	19.9	19.7	19.6	0.0	21	20.0	19.7	19.5	0.0	21
		1	49	19.9	19.6	19.5	0.0	21	19.9	19.6	19.4	0.0	21
		1	99	19.7	19.7	19.4	0.0	21	19.8	19.7	19.3	0.0	21
		50	0	19.8	19.5	19.6	0.0	21	19.7	19.4	19.5	0.0	21
		50	24	19.7	19.5	19.6	0.0	21	19.7	19.4	19.5	0.0	21
		50	50	19.6	19.4	19.6	0.0	21	19.6	19.4	19.5	0.0	21
	64QAM	1	0	20.1	19.9	20.0	0.0	21	20.0	20.0	20.1	0.0	21
		1	49	20.1	19.9	20.0	0.0	21	20.1	19.9	20.2	0.0	21
		1	99	19.8	19.7	19.8	0.0	21	19.9	19.8	19.9	0.0	21
		50	0	19.5	19.2	19.3	1.0	20	19.5	19.3	19.5	1.0	20
		50	24	19.5	19.2	19.3	1.0	20	19.5	19.2	19.5	1.0	20
		50	50	19.4	19.1	19.2	1.0	20	19.4	19.2	19.4	1.0	20
	256QAM	1	0	19.4	19.2	19.3	1.0	20	19.6	19.1	19.5	1.0	20
		1	49	19.5	19.3	19.5	1.0	20	19.7	19.2	19.6	1.0	20
1		99	19.3	19.2	19.2	1.0	20	19.6	19.2	19.3	1.0	20	
50		0	18.4	18.1	18.2	2.0	19	18.5	18.1	18.3	2.0	19	
50		24	18.4	18.1	18.2	2.0	19	18.4	18.2	18.3	2.0	19	
50		50	18.3	18.1	18.1	2.0	19	18.4	18.2	18.2	2.0	19	
15 MHz	QPSK	1	0	19.6	19.3	19.5	0.0	21	19.5	19.3	19.5	0.0	21
		1	37	19.8	19.5	19.6	0.0	21	19.7	19.4	19.6	0.0	21
		1	74	19.5	19.3	19.3	0.0	21	19.5	19.2	19.3	0.0	21
		36	0	19.7	19.4	19.6	0.0	21	19.7	19.3	19.5	0.0	21
		36	20	19.7	19.3	19.5	0.0	21	19.6	19.3	19.5	0.0	21
		36	39	19.6	19.3	19.5	0.0	21	19.6	19.3	19.5	0.0	21
	16QAM	75	0	19.6	19.4	19.6	0.0	21	19.6	19.3	19.5	0.0	21
		1	0	20.0	19.7	19.9	0.0	21	19.8	19.6	20.0	0.0	21
		1	37	20.2	19.9	20.1	0.0	21	20.0	19.8	19.9	0.0	21
		1	74	19.9	19.7	19.8	0.0	21	19.7	19.6	19.8	0.0	21
		36	0	19.7	19.4	19.7	0.0	21	19.6	19.4	19.7	0.0	21
		36	20	19.7	19.4	19.6	0.0	21	19.6	19.4	19.6	0.0	21
	64QAM	36	39	19.6	19.4	19.6	0.0	21	19.6	19.3	19.6	0.0	21
		75	0	19.7	19.4	19.6	0.0	21	19.6	19.3	19.6	0.0	21
		1	0	20.1	19.7	20.0	0.0	21	20.0	19.5	20.1	0.0	21
		1	37	20.0	19.4	20.2	0.0	21	19.8	19.3	19.9	0.0	21
		1	74	19.9	19.6	19.8	0.0	21	19.9	19.4	19.8	0.0	21
		36	0	19.5	19.2	19.3	1.0	20	19.5	19.2	19.6	1.0	20
	256QAM	36	20	19.5	19.1	19.2	1.0	20	19.4	19.2	19.5	1.0	20
		36	39	19.4	19.1	19.2	1.0	20	19.4	19.2	19.4	1.0	20
75		0	19.4	19.0	19.2	1.0	20	19.4	19.1	19.4	1.0	20	
1		0	19.2	19.1	19.3	1.0	20	19.5	19.3	19.4	1.0	20	
1		37	19.4	19.3	19.4	1.0	20	19.5	19.5	19.5	1.0	20	
1		74	19.1	19.1	19.2	1.0	20	19.4	19.3	19.2	1.0	20	
15 MHz	256QAM	36	0	18.4	18.1	18.3	2.0	19	18.4	18.3	18.4	2.0	19
		36	20	18.3	18.1	18.2	2.0	19	18.4	18.3	18.4	2.0	19
		36	39	18.3	18.1	18.2	2.0	19	18.4	18.3	18.3	2.0	19
		75	0	18.4	18.1	18.2	2.0	19	18.5	18.3	18.4	2.0	19

LTE Band 66 (Main 1 Ant.) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MFR	Tune-up Limit	Measured Pwr (dBm)			MFR	Tune-up Limit
				132022	132322	132622			132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	19.6	19.4	19.6	0.0	21	19.5	19.3	19.5	0.0	21
		1	25	19.7	19.4	19.7	0.0	21	19.6	19.3	19.5	0.0	21
		1	49	19.6	19.3	19.4	0.0	21	19.5	19.2	19.4	0.0	21
		25	0	19.7	19.4	19.7	0.0	21	19.6	19.4	19.6	0.0	21
		25	12	19.7	19.4	19.6	0.0	21	19.6	19.3	19.6	0.0	21
		25	25	19.7	19.4	19.6	0.0	21	19.6	19.3	19.5	0.0	21
	16QAM	50	0	19.7	19.4	19.6	0.0	21	19.7	19.4	19.6	0.0	21
		1	0	19.8	19.7	19.6	0.0	21	20.0	19.6	20.0	0.0	21
		1	25	19.7	19.6	20.2	0.0	21	19.9	19.6	19.8	0.0	21
		1	49	19.8	19.7	20.0	0.0	21	19.9	19.6	19.7	0.0	21
		25	0	19.7	19.5	19.7	0.0	21	19.7	19.4	19.7	0.0	21
		25	12	19.7	19.5	19.7	0.0	21	19.7	19.4	19.6	0.0	21
	64QAM	25	25	19.7	19.4	19.6	0.0	21	19.7	19.4	19.6	0.0	21
		50	0	19.8	19.4	19.6	0.0	21	19.7	19.4	19.7	0.0	21
		1	0	20.0	19.7	20.1	0.0	21	19.8	19.8	19.9	0.0	21
		1	25	20.1	19.8	19.9	0.0	21	19.8	19.8	19.9	0.0	21
		1	49	20.0	19.7	19.8	0.0	21	19.7	19.7	19.7	0.0	21
		25	0	19.5	19.1	19.4	1.0	20	19.4	19.3	19.5	1.0	20
	256QAM	25	12	19.4	19.1	19.3	1.0	20	19.4	19.3	19.5	1.0	20
		25	25	19.4	19.1	19.3	1.0	20	19.4	19.2	19.4	1.0	20
		50	0	19.4	19.1	19.3	1.0	20	19.4	19.2	19.4	1.0	20
		1	0	19.3	19.1	19.2	1.0	20	19.3	19.5	19.4	1.0	20
		1	25	19.5	19.3	19.1	1.0	20	19.4	19.5	19.5	1.0	20
		1	49	19.3	19.1	19.1	1.0	20	19.3	19.4	19.2	1.0	20
5 MHz	QPSK	25	0	18.4	18.1	18.3	2.0	19	18.4	18.2	18.4	2.0	19
		25	12	18.4	18.1	18.3	2.0	19	18.4	18.2	18.4	2.0	19
		25	25	18.4	18.1	18.3	2.0	19	18.4	18.2	18.3	2.0	19
		50	0	18.3	18.0	18.3	2.0	19	18.4	18.2	18.4	2.0	19
		1	0	19.6	19.3	19.6	0.0	21	19.6	19.3	19.5	0.0	21
		1	12	19.8	19.5	19.6	0.0	21	19.9	19.4	19.5	0.0	21
	16QAM	1	24	19.7	19.3	19.5	0.0	21	19.6	19.3	19.5	0.0	21
		12	0	19.7	19.4	19.7	0.0	21	19.7	19.3	19.7	0.0	21
		12	7	19.7	19.3	19.7	0.0	21	19.7	19.4	19.6	0.0	21
		12	13	19.7	19.4	19.7	0.0	21	19.7	19.3	19.6	0.0	21
		25	0	19.7	19.4	19.7	0.0	21	19.7	19.3	19.6	0.0	21
		1	0	20.1	19.7	20.1	0.0	21	20.1	19.8	20.0	0.0	21
	64QAM	1	12	20.2	19.2	20.0	0.0	21	20.0	19.8	20.2	0.0	21
		1	24	20.1	19.7	20.0	0.0	21	20.0	19.7	19.9	0.0	21
		12	0	19.9	19.5	19.7	0.0	21	19.8	19.4	19.7	0.0	21
		12	7	19.9	19.5	19.7	0.0	21	19.9	19.4	19.7	0.0	21
		12	13	19.9	19.5	19.7	0.0	21	19.9	19.4	19.6	0.0	21
		25	0	19.8	19.5	19.7	0.0	21	19.8	19.3	19.6	0.0	21
256QAM	1	0	19.9	20.0	19.8	0.0	21	20.1	19.6	19.9	0.0	21	
	1	12	19.7	19.8	20.0	0.0	21	20.0	19.8	20.0	0.0	21	
	1	24	19.8	19.8	19.7	0.0	21	20.0	19.6	19.8	0.0	21	
	12	0	19.5	19.1	19.2	1.0	20	19.3	19.1	19.3	1.0	20	
	12	7	19.5	19.1	19.2	1.0	20	19.3	19.1	19.3	1.0	20	
	12	13	19.4	19.1	19.2	1.0	20	19.3	19.0	19.3	1.0	20	
256QAM	25	0	19.4	19.0	19.2	1.0	20	19.3	19.0	19.3	1.0	20	
	1	0	19.2	19.3	19.1	1.0	20	19.5	18.8	19.2	1.0	20	
	1	12	19.3	19.2	19.2	1.0	20	19.5	19.0	19.3	1.0	20	
	1	24	19.3	19.3	19.0	1.0	20	19.5	18.9	19.1	1.0	20	
	12	0	18.4	18.0	18.2	2.0	19	18.4	17.9	18.3	2.0	19	
	12	7	18.4	18.0	18.2	2.0	19	18.3	17.9	18.2	2.0	19	
256QAM	12	13	18.4	18.1	18.2	2.0	19	18.4	18.0	18.3	2.0	19	
	25	0	18.4	18.0	18.3	2.0	19	18.3	18.0	18.3	2.0	19	
	25	0	18.4	18.0	18.3	2.0	19	18.3	18.0	18.3	2.0	19	

LTE Band 66 (Main 1 Ant.) Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987	132322	132657			131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	19.7	19.3	19.7	0.0	21	19.6	19.4	19.7	0.0	21
		1	8	19.9	19.4	19.8	0.0	21	19.9	19.6	19.8	0.0	21
		1	14	19.8	19.2	19.7	0.0	21	19.6	19.4	19.7	0.0	21
		8	0	19.7	19.3	19.7	0.0	21	19.7	19.4	19.8	0.0	21
		8	4	19.6	19.3	19.7	0.0	21	19.7	19.3	19.7	0.0	21
		8	7	19.7	19.3	19.6	0.0	21	19.7	19.3	19.6	0.0	21
	16QAM	15	0	19.7	19.3	19.7	0.0	21	19.7	19.4	19.7	0.0	21
		1	0	19.8	19.8	20.1	0.0	21	20.1	19.6	20.1	0.0	21
		1	8	20.0	19.9	19.4	0.0	21	19.3	19.7	19.6	0.0	21
		1	14	19.7	19.8	20.0	0.0	21	19.4	19.5	19.9	0.0	21
		8	0	19.7	19.5	19.8	0.0	21	19.9	19.4	19.8	0.0	21
		8	4	19.8	19.4	19.7	0.0	21	19.8	19.4	19.8	0.0	21
	64QAM	8	7	19.7	19.4	19.7	0.0	21	19.8	19.4	19.8	0.0	21
		15	0	19.7	19.3	19.7	0.0	21	19.8	19.4	19.8	0.0	21
		1	0	20.1	19.9	19.9	0.0	21	19.8	20.0	20.1	0.0	21
		1	8	20.0	19.5	19.9	0.0	21	19.9	19.8	20.0	0.0	21
		1	14	20.1	19.9	19.7	0.0	21	19.7	20.0	20.0	0.0	21
		8	0	19.5	19.0	19.4	1.0	20	19.3	19.0	19.4	1.0	20
	256QAM	8	4	19.4	19.0	19.3	1.0	20	19.3	18.9	19.3	1.0	20
		8	7	19.4	19.0	19.3	1.0	20	19.3	19.0	19.3	1.0	20
		15	0	19.5	18.9	19.3	1.0	20	19.4	18.9	19.4	1.0	20
		1	0	19.4	19.0	19.2	1.0	20	19.1	19.2	19.4	1.0	20
		1	8	19.6	19.2	19.1	1.0	20	19.2	19.3	19.5	1.0	20
		1	14	19.5	19.0	19.1	1.0	20	19.2	19.3	19.3	1.0	20
1.4 MHz	QPSK	8	0	18.3	18.0	18.3	2.0	19	18.4	18.0	18.2	2.0	19
		8	4	18.3	18.0	18.3	2.0	19	18.4	18.0	18.2	2.0	19
		8	7	18.4	18.0	18.3	2.0	19	18.4	18.0	18.3	2.0	19
		15	0	18.5	18.0	18.4	2.0	19	18.5	18.0	18.4	2.0	19
		1	0	19.7	19.4	19.7	0.0	21	19.8	19.5	19.7	0.0	21
		1	3	19.7	19.2	19.6	0.0	21	19.7	19.5	19.7	0.0	21
	16QAM	1	5	19.7	19.3	19.6	0.0	21	19.8	19.5	19.7	0.0	21
		3	0	19.6	19.5	19.8	0.0	21	19.9	19.3	19.8	0.0	21
		3	1	19.7	19.4	19.7	0.0	21	19.9	19.4	19.7	0.0	21
		3	3	19.7	19.3	19.6	0.0	21	19.8	19.5	19.7	0.0	21
		6	0	19.7	19.3	19.7	0.0	21	19.8	19.4	19.7	0.0	21
		6	3	19.9	19.4	19.7	0.0	21	19.9	19.5	19.8	0.0	21
	64QAM	3	3	19.9	19.4	19.8	0.0	21	19.9	19.5	19.9	0.0	21
		6	0	19.8	19.5	19.6	0.0	21	19.9	19.6	19.7	0.0	21
		1	0	20.1	19.9	19.6	0.0	21	19.9	19.7	19.8	0.0	21
		1	3	20.0	19.9	19.8	0.0	21	19.6	19.5	19.7	0.0	21
		1	5	20.0	19.7	19.7	0.0	21	19.8	19.6	19.8	0.0	21
		3	0	20.0	19.6	19.9	1.0	20	19.7	19.7	19.9	1.0	20
	256QAM	3	1	19.9	19.5	19.8	1.0	20	19.6	19.6	19.8	1.0	20
		3	3	19.8	19.6	19.7	1.0	20	19.6	19.5	19.6	1.0	20
		6	0	19.5	19.0	19.2	1.0	20	19.4	19.2	19.2	1.0	20
		1	0	19.4	18.8	19.2	1.0	20	19.3	19.0	19.2	1.0	20
		1	3	19.5	19.0	19.2	1.0	20	19.4	19.1	19.3	1.0	20
		1	5	19.3	18.9	19.3	1.0	20	19.3	19.1	19.2	1.0	20
256QAM	3	0	19.3	19.0	19.4	1.0	20	19.2	18.9	19.3	1.0	20	
	3	1	19.3	19.1	19.3	1.0	20	19.3	18.9	19.3	1.0	20	
	3	3	19.3	19.1	19.2	1.0	20	19.3	19.0	19.3	1.0	20	
	6	0	18.4	17.9	18.2	1.0	20	18.3	17.9	18.2	1.0	20	

LTE Band 41-Power Class 3 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off							Reduced Average Power (dBm) Proximity sensor back-off						
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	22.5	21.8	22.5	22.5	22.4	0.0	24.0	22.5	22.1	22.8	22.6	22.7	0.0	24.0
		1	49	22.3	21.8	22.4	22.5	22.3	0.0	24.0	22.6	22.2	22.5	22.6	22.8	0.0	24.0
		1	99	22.2	21.8	22.5	22.4	22.4	0.0	24.0	22.4	22.0	22.6	22.5	22.6	0.0	24.0
		50	0	22.4	21.9	22.5	22.5	22.5	0.0	24.0	22.5	22.1	22.7	22.7	22.6	0.0	24.0
		50	24	22.4	21.9	22.5	22.5	22.5	0.0	24.0	22.5	22.1	22.6	22.6	22.6	0.0	24.0
		50	50	22.3	21.9	22.4	22.5	22.5	0.0	24.0	22.5	22.1	22.6	22.6	22.6	0.0	24.0
	16QAM	1	0	22.3	22.2	22.6	22.8	22.6	0.0	24.0	22.6	21.7	22.7	22.6	22.6	0.0	24.0
		1	49	22.7	22.1	22.9	22.4	22.6	0.0	24.0	22.6	22.2	22.4	22.6	22.6	0.0	24.0
		1	99	22.6	21.9	22.6	22.7	22.3	0.0	24.0	22.4	22.0	22.6	22.6	22.7	0.0	24.0
		50	0	21.3	20.9	21.5	21.5	21.4	1.0	23.0	21.5	21.0	21.6	21.6	21.5	1.0	23.0
		50	24	21.4	20.9	21.5	21.5	21.4	1.0	23.0	21.4	21.1	21.5	21.6	21.6	1.0	23.0
		50	50	21.3	20.9	21.4	21.4	21.4	1.0	23.0	21.4	21.0	21.6	21.6	21.6	1.0	23.0
	64QAM	1	0	21.1	20.7	21.6	21.4	21.4	1.0	23.0	21.6	20.9	21.7	21.5	21.4	1.0	23.0
		1	49	21.2	20.9	21.3	21.5	21.2	1.0	23.0	21.7	20.7	21.3	21.8	21.4	1.0	23.0
		1	99	21.4	20.9	21.3	21.6	21.1	1.0	23.0	21.4	20.8	21.6	21.6	21.3	1.0	23.0
		50	0	20.3	19.9	20.5	20.5	20.4	2.0	22.0	20.4	20.0	20.5	20.5	20.5	2.0	22.0
		50	24	20.3	19.9	20.5	20.4	20.4	2.0	22.0	20.4	20.0	20.5	20.5	20.5	2.0	22.0
		50	50	20.3	19.9	20.5	20.4	20.4	2.0	22.0	20.3	20.0	20.5	20.5	20.5	2.0	22.0
	256QAM	100	0	20.3	19.9	20.5	20.5	20.4	2.0	22.0	20.3	20.0	20.5	20.5	20.5	2.0	22.0
		1	0	18.5	17.8	19.0	18.7	18.6	4.0	20.0	18.7	18.4	18.8	18.5	18.7	4.0	20.0
		1	49	18.5	17.9	19.0	18.6	18.6	4.0	20.0	18.3	18.4	18.7	18.3	19.0	4.0	20.0
		1	99	18.3	17.8	18.5	18.5	18.4	4.0	20.0	18.2	18.3	18.3	18.6	18.8	4.0	20.0
		50	0	18.5	18.0	18.6	18.6	18.6	4.0	20.0	18.5	18.1	18.7	18.6	18.7	4.0	20.0
		50	24	18.5	18.0	18.6	18.6	18.6	4.0	20.0	18.5	18.0	18.6	18.6	18.6	4.0	20.0
15 MHz	QPSK	1	0	22.4	21.8	22.6	22.5	22.6	0.0	24.0	22.5	22.1	22.7	22.8	22.8	0.0	24.0
		1	37	22.5	22.0	22.6	22.6	22.8	0.0	24.0	22.8	22.1	22.9	22.8	22.7	0.0	24.0
		1	74	22.4	21.9	22.5	22.4	22.4	0.0	24.0	22.5	22.0	22.7	22.6	22.7	0.0	24.0
		36	0	22.5	22.0	22.7	22.6	22.7	0.0	24.0	22.7	22.2	22.8	22.8	22.8	0.0	24.0
		36	20	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.7	22.2	22.8	22.8	22.8	0.0	24.0
		36	39	22.5	22.0	22.6	22.6	22.6	0.0	24.0	22.6	22.2	22.8	22.7	22.8	0.0	24.0
	16QAM	75	0	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.7	22.2	22.8	22.8	22.8	0.0	24.0
		1	0	22.2	21.6	22.5	22.4	22.5	0.0	24.0	22.9	21.8	22.5	22.3	22.4	0.0	24.0
		1	37	22.0	21.6	22.3	22.2	22.0	0.0	24.0	22.8	21.8	22.6	22.6	22.7	0.0	24.0
		1	74	22.2	21.9	22.0	22.5	22.5	0.0	24.0	22.8	21.7	22.4	22.6	22.5	0.0	24.0
		36	0	21.4	21.0	21.6	21.6	21.6	1.0	23.0	21.6	21.1	21.8	21.8	21.7	1.0	23.0
		36	20	21.4	21.0	21.6	21.5	21.6	1.0	23.0	21.6	21.2	21.8	21.7	21.7	1.0	23.0
	64QAM	36	39	21.4	21.0	21.5	21.5	21.6	1.0	23.0	21.6	21.1	21.7	21.7	21.7	1.0	23.0
		75	0	21.4	21.0	21.6	21.5	21.5	1.0	23.0	21.5	21.1	21.7	21.7	21.7	1.0	23.0
		1	0	21.4	20.9	21.6	21.6	21.2	1.0	23.0	21.2	20.7	21.3	21.3	21.6	1.0	23.0
		1	37	21.4	20.5	21.8	21.5	21.4	1.0	23.0	21.3	21.3	21.6	21.5	21.6	1.0	23.0
		1	74	21.5	20.9	21.3	21.5	21.4	1.0	23.0	21.4	21.1	21.4	21.6	21.6	1.0	23.0
		36	0	20.4	20.0	20.6	20.6	20.6	2.0	22.0	20.5	20.0	20.7	20.6	20.6	2.0	22.0
	256QAM	36	20	20.4	20.0	20.6	20.6	20.6	2.0	22.0	20.5	19.9	20.6	20.6	20.5	2.0	22.0
		36	39	20.4	20.0	20.6	20.5	20.6	2.0	22.0	20.4	19.9	20.6	20.6	20.5	2.0	22.0
		75	0	20.4	19.9	20.6	20.6	20.5	2.0	22.0	20.4	20.0	20.6	20.6	20.5	2.0	22.0
		1	0	18.4	17.8	18.2	18.8	18.6	4.0	20.0	18.4	18.3	18.2	18.6	18.5	4.0	20.0
		1	37	18.2	17.8	18.3	18.6	18.8	4.0	20.0	18.7	17.8	18.4	18.5	18.6	4.0	20.0
		1	74	18.5	17.9	18.6	18.5	18.3	4.0	20.0	18.6	17.9	18.3	18.5	18.7	4.0	20.0

LTE Band 41-Power Class 3 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.7	22.2	22.9	22.8	22.8	0.0	24.0
		1	25	22.4	21.8	22.5	22.5	22.6	0.0	24.0	22.7	22.2	22.8	22.7	22.8	0.0	24.0
		1	49	22.4	21.9	22.5	22.5	22.5	0.0	24.0	22.6	22.1	22.8	22.6	22.7	0.0	24.0
		25	0	22.4	21.9	22.5	22.5	22.5	0.0	24.0	22.5	22.1	22.7	22.7	22.7	0.0	24.0
		25	12	22.3	21.9	22.5	22.5	22.5	0.0	24.0	22.5	22.1	22.7	22.6	22.6	0.0	24.0
		25	25	22.3	21.9	22.5	22.5	22.4	0.0	24.0	22.5	22.1	22.7	22.6	22.6	0.0	24.0
	16QAM	1	0	22.5	22.0	22.6	22.6	22.6	0.0	24.0	22.7	22.3	22.5	22.3	22.8	0.0	24.0
		1	25	22.7	22.2	22.8	22.7	22.8	0.0	24.0	22.2	22.2	22.4	22.2	22.7	0.0	24.0
		1	49	22.5	22.0	22.6	22.6	22.7	0.0	24.0	22.4	22.3	22.4	22.4	22.8	0.0	24.0
		25	0	21.3	20.9	21.4	21.4	21.3	1.0	23.0	21.5	21.1	21.6	21.6	21.5	1.0	23.0
		25	12	21.3	20.9	21.4	21.4	21.3	1.0	23.0	21.4	21.0	21.6	21.6	21.5	1.0	23.0
		25	25	21.3	20.9	21.4	21.4	21.3	1.0	23.0	21.4	21.0	21.6	21.6	21.5	1.0	23.0
	64QAM	1	0	21.1	20.7	21.4	21.5	21.5	1.0	23.0	21.3	20.8	21.4	21.4	21.3	1.0	23.0
		1	25	21.1	20.8	21.5	21.4	21.6	1.0	23.0	21.3	20.9	21.5	21.5	21.3	1.0	23.0
		1	49	21.1	20.8	21.5	21.3	21.4	1.0	23.0	21.2	20.9	21.4	21.4	21.3	1.0	23.0
		25	0	20.3	19.9	20.5	20.5	20.4	2.0	22.0	20.4	19.9	20.5	20.5	20.4	2.0	22.0
		25	12	20.3	19.9	20.5	20.5	20.4	2.0	22.0	20.3	19.9	20.5	20.5	20.4	2.0	22.0
		25	25	20.2	19.9	20.5	20.5	20.3	2.0	22.0	20.3	19.9	20.4	20.4	20.3	2.0	22.0
	256QAM	1	0	18.3	18.0	18.6	18.5	18.3	4.0	20.0	18.5	17.9	18.6	18.4	18.5	4.0	20.0
		1	25	18.3	18.0	18.6	18.6	18.3	4.0	20.0	18.3	18.0	18.5	18.4	18.5	4.0	20.0
		1	49	18.3	17.9	18.5	18.5	18.3	4.0	20.0	18.4	17.9	18.5	18.4	18.4	4.0	20.0
		25	0	18.4	18.0	18.6	18.6	18.6	4.0	20.0	18.5	18.0	18.6	18.6	18.5	4.0	20.0
		25	12	18.4	18.0	18.6	18.6	18.6	4.0	20.0	18.4	18.0	18.6	18.6	18.6	4.0	20.0
		25	25	18.4	18.0	18.6	18.6	18.6	4.0	20.0	18.4	18.0	18.6	18.6	18.5	4.0	20.0
5 MHz	QPSK	1	0	22.4	22.0	22.5	22.6	22.8	0.0	24.0	22.6	22.1	22.7	22.8	22.7	0.0	24.0
		1	12	22.4	22.2	22.7	22.4	22.8	0.0	24.0	22.7	22.0	22.7	22.8	22.5	0.0	24.0
		1	24	22.3	22.0	22.4	22.4	22.7	0.0	24.0	22.5	22.1	22.6	22.7	22.6	0.0	24.0
		12	0	22.4	21.9	22.6	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.7	22.6	0.0	24.0
		12	7	22.4	21.9	22.6	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.7	22.6	0.0	24.0
		12	13	22.4	21.9	22.6	22.5	22.6	0.0	24.0	22.5	22.2	22.7	22.7	22.6	0.0	24.0
	16QAM	1	0	22.2	21.9	22.5	22.4	22.6	0.0	24.0	22.5	22.1	22.7	22.7	22.5	0.0	24.0
		1	12	22.3	21.9	22.7	22.5	22.7	0.0	24.0	22.5	22.2	23.0	22.7	22.6	0.0	24.0
		1	24	22.2	21.9	22.5	22.4	22.5	0.0	24.0	22.4	22.1	22.8	22.6	22.6	0.0	24.0
		12	0	21.3	21.0	21.5	21.5	21.5	1.0	23.0	21.5	21.1	21.7	21.6	21.5	1.0	23.0
		12	7	21.3	20.9	21.5	21.5	21.5	1.0	23.0	21.5	21.0	21.6	21.6	21.5	1.0	23.0
		12	13	21.3	20.9	21.5	21.4	21.4	1.0	23.0	21.5	21.1	21.7	21.6	21.6	1.0	23.0
	64QAM	25	0	21.3	20.9	21.5	21.4	21.4	1.0	23.0	21.4	21.1	21.7	21.5	21.5	1.0	23.0
		1	0	21.3	20.9	21.5	21.4	21.5	1.0	23.0	21.2	20.9	21.5	21.4	21.4	1.0	23.0
		1	12	21.3	21.0	21.7	21.6	21.5	1.0	23.0	21.4	21.0	21.5	21.4	21.4	1.0	23.0
		1	24	21.1	21.0	21.4	21.3	21.6	1.0	23.0	21.2	20.8	21.6	21.3	21.3	1.0	23.0
		12	0	20.3	19.9	20.5	20.5	20.4	2.0	22.0	20.3	19.9	20.5	20.5	20.3	2.0	22.0
		12	7	20.3	19.9	20.5	20.5	20.4	2.0	22.0	20.3	19.9	20.5	20.4	20.3	2.0	22.0
	256QAM	12	13	20.2	19.9	20.5	20.4	20.4	2.0	22.0	20.3	19.9	20.5	20.4	20.4	2.0	22.0
		25	0	20.3	19.9	20.4	20.5	20.4	2.0	22.0	20.3	19.8	20.5	20.5	20.3	2.0	22.0
		1	0	18.5	18.0	18.8	18.6	18.6	4.0	20.0	18.5	18.2	18.7	18.6	18.7	4.0	20.0
		1	12	18.5	18.0	18.8	18.8	18.7	4.0	20.0	18.6	18.1	18.7	18.6	18.5	4.0	20.0
		1	24	18.4	17.9	18.8	18.6	18.5	4.0	20.0	18.5	18.1	18.6	18.5	18.6	4.0	20.0
		12	0	18.4	18.0	18.5	18.5	18.6	4.0	20.0	18.4	17.9	18.6	18.6	18.4	4.0	20.0

LTE Band 41-Power Class 2 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off							Reduced Average Power (dBm) Proximity sensor back-off						
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	22.6	22.4	22.7	22.8	22.9	0.0	24.0	22.6	22.2	22.7	22.8	22.9	0.0	24.0
		1	49	22.6	22.0	22.8	22.8	22.7	0.0	24.0	22.6	22.0	22.6	22.8	22.7	0.0	24.0
		1	99	22.5	22.2	22.7	22.7	22.8	0.0	24.0	22.5	22.1	22.7	22.7	22.7	0.0	24.0
		50	0	22.5	22.1	22.6	22.6	22.7	0.0	24.0	22.5	22.0	22.6	22.6	22.7	0.0	24.0
		50	24	22.5	22.1	22.6	22.6	22.6	0.0	24.0	22.5	22.0	22.6	22.6	22.6	0.0	24.0
		50	50	22.5	22.0	22.6	22.6	22.6	0.0	24.0	22.4	22.0	22.6	22.6	22.6	0.0	24.0
	16QAM	100	0	22.5	22.0	22.6	22.6	22.6	0.0	24.0	22.5	22.0	22.6	22.6	22.6	0.0	24.0
		1	0	22.8	22.7	23.1	22.8	23.1	0.0	24.0	22.8	22.6	23.1	22.9	23.0	0.0	24.0
		1	49	22.5	22.3	22.8	22.5	22.8	0.0	24.0	22.6	22.3	22.7	22.8	22.7	0.0	24.0
		1	99	22.8	22.6	23.0	22.7	23.0	0.0	24.0	22.9	22.5	23.0	22.9	23.0	0.0	24.0
		50	0	22.4	22.0	22.6	22.6	22.5	0.0	24.0	22.4	22.0	22.6	22.6	22.5	0.0	24.0
		50	24	22.4	22.0	22.6	22.6	22.5	0.0	24.0	22.3	22.0	22.6	22.5	22.5	0.0	24.0
	64QAM	50	50	22.4	22.0	22.5	22.5	22.5	0.0	24.0	22.3	22.0	22.6	22.5	22.5	0.0	24.0
		100	0	22.4	22.0	22.5	22.6	22.5	0.0	24.0	22.3	21.9	22.5	22.5	22.5	0.0	24.0
		1	0	22.7	21.9	23.0	22.8	22.6	0.0	24.0	22.7	22.1	22.9	22.8	22.6	0.0	24.0
		1	49	22.6	22.0	22.9	22.6	22.7	0.0	24.0	22.4	22.2	22.6	22.7	22.6	0.0	24.0
		1	99	22.7	21.9	22.9	22.7	22.6	0.0	24.0	22.6	22.1	22.8	22.7	22.7	0.0	24.0
		50	0	22.4	22.1	22.6	22.6	22.5	0.0	24.0	22.4	22.1	22.6	22.6	22.6	0.0	24.0
	256QAM	50	24	22.4	22.1	22.5	22.6	22.5	0.0	24.0	22.4	22.0	22.6	22.6	22.5	0.0	24.0
		50	50	22.4	22.0	22.5	22.5	22.5	0.0	24.0	22.4	22.0	22.5	22.6	22.5	0.0	24.0
		100	0	22.4	22.0	22.5	22.6	22.5	1.0	23.0	22.4	22.0	22.5	22.6	22.5	1.0	23.0
		1	0	21.7	21.6	22.0	21.9	22.2	0.0	24.0	22.1	21.8	22.0	22.0	22.1	0.0	24.0
		1	49	21.5	21.6	22.0	21.6	21.9	0.0	24.0	22.1	21.8	21.9	22.1	22.1	0.0	24.0
		1	99	21.6	21.7	21.9	21.9	22.1	0.0	24.0	22.0	21.7	22.0	21.9	22.1	0.0	24.0
15 MHz	QPSK	50	0	21.5	21.2	21.8	21.7	21.7	1.0	23.0	21.5	21.2	21.8	21.7	21.8	1.0	23.0
		50	24	21.6	21.1	21.8	21.7	21.7	1.0	23.0	21.5	21.1	21.7	21.6	21.7	1.0	23.0
		50	50	21.5	21.1	21.7	21.6	21.7	1.0	23.0	21.5	21.1	21.7	21.6	21.7	1.0	23.0
		100	0	21.6	21.1	21.7	21.7	21.7	1.0	23.0	21.5	21.1	21.7	21.7	21.7	1.0	23.0
		1	0	22.6	22.0	22.7	22.7	22.7	0.0	24.0	22.5	22.1	22.7	22.6	22.8	0.0	24.0
		1	37	22.7	22.1	22.8	22.5	22.9	0.0	24.0	22.6	22.2	22.9	22.7	22.9	0.0	24.0
	16QAM	1	74	22.5	22.0	22.6	22.5	22.6	0.0	24.0	22.4	22.1	22.7	22.5	22.7	0.0	24.0
		36	0	22.6	22.1	22.8	22.7	22.8	0.0	24.0	22.6	22.1	22.8	22.7	22.8	0.0	24.0
		36	20	22.6	22.1	22.8	22.7	22.7	0.0	24.0	22.6	22.1	22.7	22.7	22.7	0.0	24.0
		36	39	22.6	22.1	22.7	22.6	22.7	0.0	24.0	22.5	22.1	22.7	22.7	22.7	0.0	24.0
		75	0	22.6	22.1	22.8	22.7	22.7	0.0	24.0	22.6	22.1	22.7	22.7	22.7	0.0	24.0
		75	0	22.6	22.1	22.8	22.7	22.7	0.0	24.0	22.6	22.1	22.7	22.7	22.7	0.0	24.0
	64QAM	1	0	22.6	22.3	23.0	22.8	22.9	0.0	24.0	22.7	22.3	23.0	23.1	22.8	0.0	24.0
		1	37	22.7	22.5	23.0	22.8	23.0	0.0	24.0	22.8	22.4	23.0	23.0	22.9	0.0	24.0
		1	74	22.4	22.2	22.9	22.7	22.8	0.0	24.0	22.6	22.2	22.9	22.9	22.7	0.0	24.0
		36	0	22.5	22.1	22.8	22.6	22.7	0.0	24.0	22.6	22.1	22.8	22.7	22.6	0.0	24.0
		36	20	22.5	22.0	22.7	22.6	22.7	0.0	24.0	22.6	22.1	22.7	22.7	22.6	0.0	24.0
		36	39	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.6	22.6	0.0	24.0
	256QAM	75	0	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.6	22.6	0.0	24.0
		1	0	22.5	22.0	23.0	22.9	22.9	0.0	24.0	22.9	22.4	22.9	22.9	22.7	0.0	24.0
		1	37	22.4	22.1	23.2	22.8	22.8	0.0	24.0	22.9	22.2	23.0	22.8	22.5	0.0	24.0
		1	74	22.4	21.9	23.0	22.8	22.9	0.0	24.0	22.9	22.4	22.9	22.9	22.7	0.0	24.0
		36	0	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.6	22.6	0.0	24.0
		36	20	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.6	22.6	0.0	24.0
256QAM	36	39	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.4	22.1	22.7	22.5	22.6	0.0	24.0	
	75	0	22.5	22.0	22.6	22.6	22.6	1.0	23.0	22.5	22.0	22.7	22.6	22.6	1.0	23.0	
	1	0	21.8	21.6	21.9	21.9	22.0	1.0	23.0	21.9	21.4	21.8	22.3	21.9	1.0	23.0	
	1	37	21.9	21.8	21.9	22.1	22.2	1.0	23.0	22.0	21.5	21.7	22.4	21.9	1.0	23.0	
	1	74	21.8	21.6	21.9	21.8	22.0	1.0	23.0	21.9	21.4	21.7	22.2	21.9	1.0	23.0	
	36	0	21.5	21.1	21.7	21.7	21.7	1.0	23.0	21.5	21.1	21.7	21.7	21.7	1.0	23.0	

LTE Band 41-Power Class 2 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	22.4	22.2	22.7	22.5	22.9	0.0	24.0	22.6	22.3	22.7	22.5	22.9	0.0	24.0
		1	25	22.3	22.1	22.8	22.6	22.8	0.0	24.0	22.6	22.3	22.9	22.6	23.0	0.0	24.0
		1	49	22.5	22.1	22.7	22.6	22.7	0.0	24.0	22.6	22.1	22.6	22.6	22.7	0.0	24.0
		25	0	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.6	22.6	0.0	24.0
		25	12	22.4	22.0	22.6	22.6	22.5	0.0	24.0	22.4	22.0	22.6	22.6	22.6	0.0	24.0
		25	25	22.5	22.0	22.7	22.6	22.5	0.0	24.0	22.5	22.0	22.7	22.6	22.6	0.0	24.0
	16QAM	50	0	22.4	22.0	22.6	22.6	22.6	0.0	24.0	22.5	22.0	22.7	22.6	22.6	0.0	24.0
		1	0	22.4	22.4	22.8	23.0	22.8	0.0	24.0	22.8	22.6	22.7	23.0	23.0	0.0	24.0
		1	25	22.4	22.5	22.7	23.0	22.6	0.0	24.0	22.9	22.6	22.5	23.1	23.2	0.0	24.0
		1	49	22.5	22.3	22.8	23.1	22.8	0.0	24.0	22.9	22.5	22.7	23.0	23.0	0.0	24.0
		25	0	22.4	22.0	22.5	22.6	22.5	0.0	24.0	22.4	22.0	22.5	22.6	22.5	0.0	24.0
		25	12	22.3	22.0	22.5	22.6	22.5	0.0	24.0	22.4	22.0	22.5	22.5	22.4	0.0	24.0
	64QAM	25	25	22.3	22.0	22.5	22.6	22.4	0.0	24.0	22.4	22.0	22.5	22.5	22.5	0.0	24.0
		50	0	22.3	22.0	22.5	22.6	22.4	0.0	24.0	22.4	22.0	22.6	22.6	22.4	0.0	24.0
		1	0	22.4	22.5	22.8	23.0	22.8	0.0	24.0	22.3	22.3	22.8	22.8	22.6	0.0	24.0
		1	25	22.5	22.6	22.7	23.0	22.9	0.0	24.0	22.4	22.5	22.6	22.8	22.5	0.0	24.0
		1	49	22.4	22.4	22.7	23.0	22.8	0.0	24.0	22.3	22.3	22.8	22.8	22.5	0.0	24.0
		25	0	22.3	22.0	22.5	22.5	22.5	0.0	24.0	22.4	21.9	22.6	22.5	22.5	0.0	24.0
	256QAM	25	12	22.3	22.0	22.5	22.5	22.5	0.0	24.0	22.3	22.0	22.6	22.4	22.5	0.0	24.0
		25	25	22.3	22.0	22.5	22.5	22.5	0.0	24.0	22.3	21.9	22.6	22.4	22.5	0.0	24.0
		50	0	22.4	21.9	22.5	22.5	22.4	0.0	24.0	22.3	22.0	22.5	22.5	22.4	0.0	24.0
		1	0	21.8	21.2	21.6	21.8	22.0	1.0	23.0	21.8	21.4	21.7	22.1	22.1	1.0	23.0
		1	25	21.6	20.8	21.6	21.7	21.9	1.0	23.0	21.7	21.5	21.8	22.0	21.9	1.0	23.0
		1	49	21.7	21.3	21.6	21.8	22.0	1.0	23.0	21.7	21.3	21.6	22.0	22.1	1.0	23.0
	5 MHz	QPSK	25	0	21.5	21.1	21.8	21.6	21.7	1.0	23.0	21.5	21.1	21.7	21.7	21.6	1.0
25			12	21.5	21.1	21.7	21.6	21.7	1.0	23.0	21.5	21.1	21.7	21.7	21.7	1.0	23.0
25			25	21.5	21.1	21.7	21.6	21.6	1.0	23.0	21.5	21.1	21.7	21.7	21.6	1.0	23.0
50			0	21.5	21.1	21.6	21.7	21.6	1.0	23.0	21.5	21.1	21.6	21.7	21.7	1.0	23.0
1			0	22.6	22.2	23.0	22.8	22.8	0.0	24.0	22.7	22.2	22.9	23.1	23.0	0.0	24.0
1			12	22.6	22.1	23.0	22.7	22.7	0.0	24.0	22.7	22.0	22.8	22.9	23.0	0.0	24.0
16QAM		1	24	22.6	22.0	22.9	22.7	22.6	0.0	24.0	22.6	22.2	22.7	22.9	23.0	0.0	24.0
		12	0	22.5	22.1	22.7	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.7	22.9	0.0	24.0
		12	7	22.4	22.1	22.6	22.6	22.6	0.0	24.0	22.4	22.1	22.7	22.7	22.9	0.0	24.0
		12	13	22.5	22.0	22.7	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.7	22.9	0.0	24.0
	25	0	22.5	22.0	22.6	22.6	22.6	0.0	24.0	22.5	22.1	22.7	22.7	22.9	0.0	24.0	
	1	0	22.9	22.3	22.9	22.9	22.7	0.0	24.0	22.8	22.1	22.9	23.1	22.8	0.0	24.0	
64QAM	1	12	23.1	22.5	22.8	23.1	22.8	0.0	24.0	22.7	22.2	23.1	22.9	22.7	0.0	24.0	
	1	24	22.9	22.4	22.7	22.9	22.8	0.0	24.0	22.7	22.1	23.0	22.9	22.8	0.0	24.0	
	12	0	22.4	22.1	22.6	22.6	22.5	0.0	24.0	22.4	22.0	22.6	22.6	22.7	0.0	24.0	
	12	7	22.4	22.0	22.6	22.6	22.5	0.0	24.0	22.4	22.0	22.6	22.6	22.7	0.0	24.0	
	12	13	22.4	22.0	22.5	22.6	22.5	0.0	24.0	22.4	22.1	22.6	22.6	22.7	0.0	24.0	
	25	0	22.4	22.0	22.6	22.6	22.5	0.0	24.0	22.4	22.1	22.6	22.6	22.7	0.0	24.0	
256QAM	1	0	22.6	22.4	22.8	22.9	22.8	0.0	24.0	22.3	22.3	23.0	22.7	22.9	0.0	24.0	
	1	12	22.5	22.5	22.6	22.5	22.8	0.0	24.0	21.9	22.5	22.9	22.6	23.1	0.0	24.0	
	1	24	22.5	22.6	22.6	22.7	23.0	0.0	24.0	22.2	22.5	22.8	22.6	23.1	0.0	24.0	
	12	0	22.3	22.1	22.6	22.5	22.5	0.0	24.0	22.3	22.0	22.5	22.6	22.5	0.0	24.0	
	12	7	22.3	22.1	22.6	22.5	22.5	0.0	24.0	22.3	22.0	22.5	22.5	22.5	0.0	24.0	
	12	13	22.3	22.1	22.5	22.4	22.5	0.0	24.0	22.3	22.0	22.5	22.5	22.5	0.0	24.0	
	25	0	22.4	21.9	22.4	22.5	22.4	0.0	24.0	22.3	21.9	22.4	22.6	22.5	0.0	24.0	
	1	0	21.9	21.1	21.7	22.2	22.0	1.0	23.0	21.8	21.3	22.0	21.9	21.8	1.0	23.0	
256QAM	1	12	21.7	20.7	21.3	22.2	21.7	1.0	23.0	21.6	20.9	21.8	21.6	21.4	1.0	23.0	
	1	24	21.9	21.2	21.7	22.2	22.0	1.0	23.0	21.7	21.4	22.0	21.8	21.7	1.0	23.0	
	12	0	21.5	21.2	21.7	21.7	21.7	1.0	23.0	21.5	21.0	21.7	21.7	21.6	1.0	23.0	
	12	7	21.5	21.2	21.7	21.7	21.7	1.0	23.0	21.5	21.0	21.7	21.7	21.6	1.0	23.0	
	12	13	21.5	21.2	21.7	21.6	21.7	1.0	23.0	21.5	21.0	21.7	21.7	21.6	1.0	23.0	
	25	0	21.5	21.1	21.7	21.7	21.6	1.0	23.0	21.5	21.0	21.7	21.7	21.6	1.0	23.0	

9.4. NR (Sub 6GHz)

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS 138.521-1 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 TS138.521-1.

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

Modulation	MPR (dB)		
	Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM Pi/2 BPSK	≤ 3.5 ¹	≤ 1.2 ¹	≤ 0.2 ¹
DFT-s-OFDM QPSK	≤ 1	≤ 0.5 ²	0 ²
DFT-s-OFDM 16 QAM	≤ 2	≤ 2.5	≤ 1
DFT-s-OFDM 64 QAM		≤ 4.5	
DFT-s-OFDM 256 QAM		≤ 3	≤ 1.5
CP-OFDM QPSK	≤ 3	≤ 3	≤ 2
CP-OFDM 16 QAM		≤ 3.5	
CP-OFDM 64 QAM		≤ 6.5	
CP-OFDM 256 QAM			

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0dB MPR is 26dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40% of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 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 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network Signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources Blocks (N _{RB})	A-MPR (dB)
NS_01		Table 5.2-1	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Table 5.3.2-1	N/A

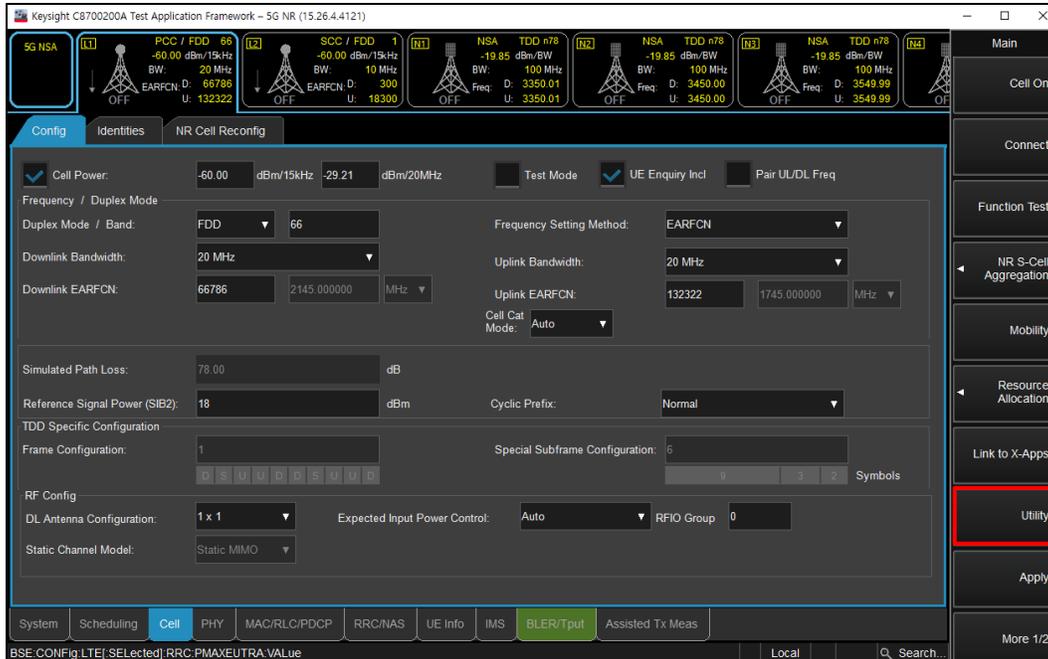
Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1.

Channel Bandwidth	SCS(kHz)	OFDM	RB allocation							
			Edge_Full_Left	Edge_Full_Right	Edge_1RB_Left	Edge_1RB_Right	Outer_Full	Inner_Full	Inner_1RB_Left	Inner_1RB_Right
5MHz	15	DFT-s	2@0	2@23	1@0	1@24	25@0	12@6	1@1	1@23
		CP	2@0	2@23	1@0	1@24	25@0	13@6	1@1	1@23
	30	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2 ¹	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2 ¹	1@1	1@9
	60	DFT-s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		CP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10MHz	15	DFT-s	2@0	2@50	1@0	1@51	50@0	25@12	1@1	1@50
		CP	2@0	2@50	1@0	1@51	52@0	26@13	1@1	1@50
	30	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
	60	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2 ¹	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2 ¹	1@1	1@9
15MHz	15	DFT-s	2@0	2@77	1@0	1@78	75@0	38@18	1@1	1@77
		CP	2@0	2@77	1@0	1@78	79@0	39@19 ¹	1@1	1@77
	30	DFT-s	2@0	2@36	1@0	1@37	36@0	18@9	1@1	1@36
		CP	2@0	2@36	1@0	1@37	38@0	19@9	1@1	1@36
	60	DFT-s	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
		CP	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
20MHz	15	DFT-s	2@0	2@104	1@0	1@105	100@0	50@25	1@1	1@104
		CP	2@0	2@104	1@0	1@105	106@0	53@26	1@1	1@104
	30	DFT-s	2@0	2@49	1@0	1@50	50@0	25@12	1@1	1@49
		CP	2@0	2@49	1@0	1@50	51@0	25@12 ¹	1@1	1@49
	60	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22

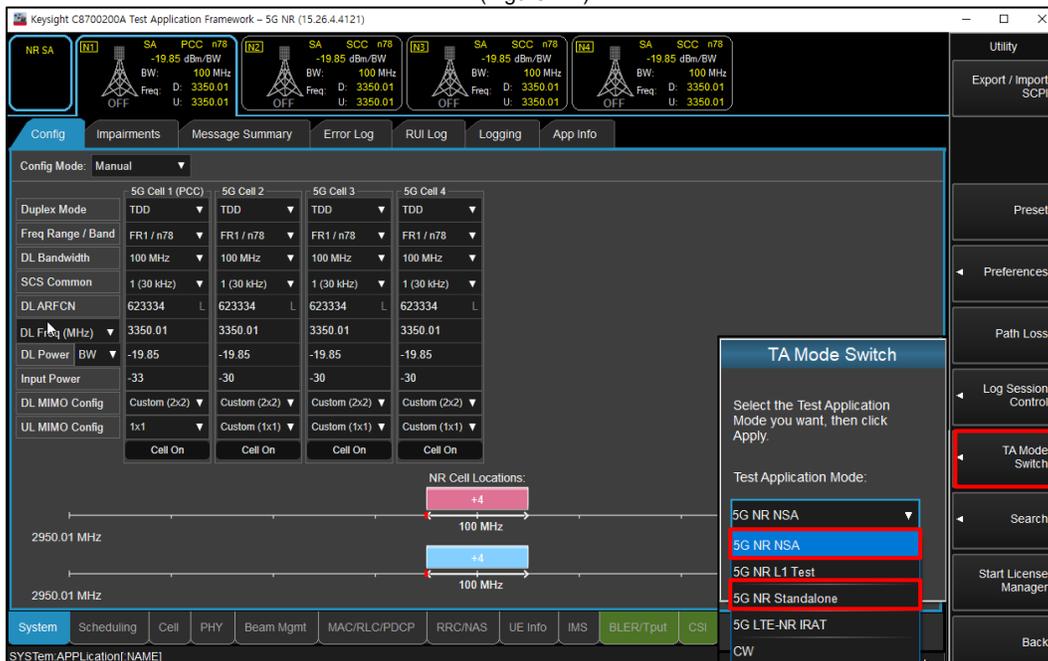
Procedures used to establish power measurement for NR Bands

Switching to NSA mode or SA mode

- Click the “Utility” button in the right of Test application screen
- Select “5G NR NSA” in the “TA Mode Switch” for NSA mode
- Select “5G NR Standalone” in the “TA Mode Switch” for SA mode



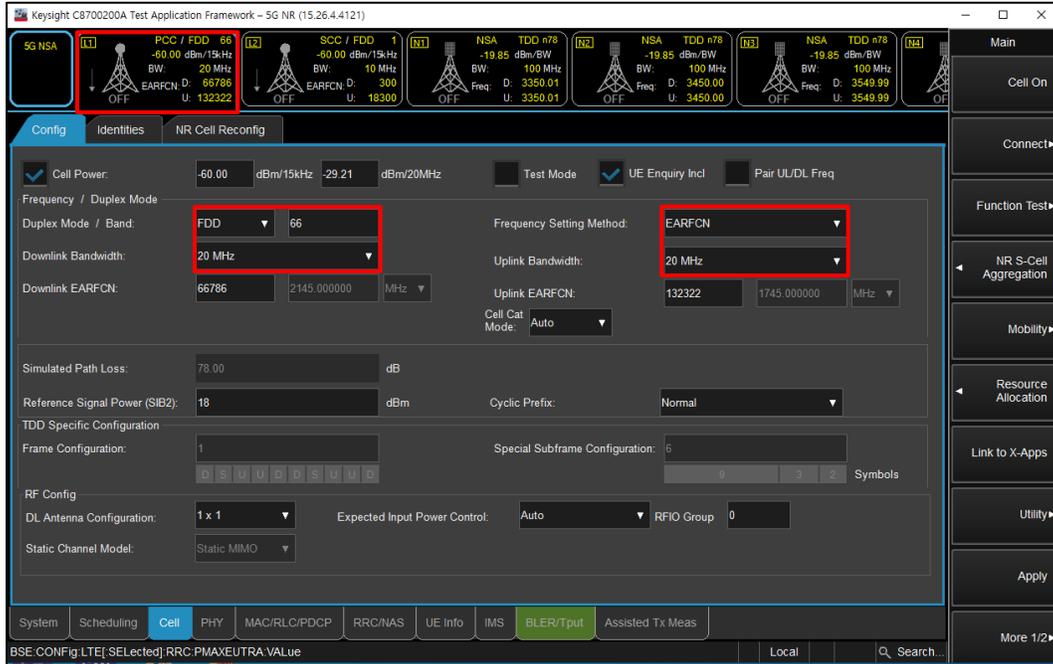
(Figure 1-1)



(Figure 1-2)

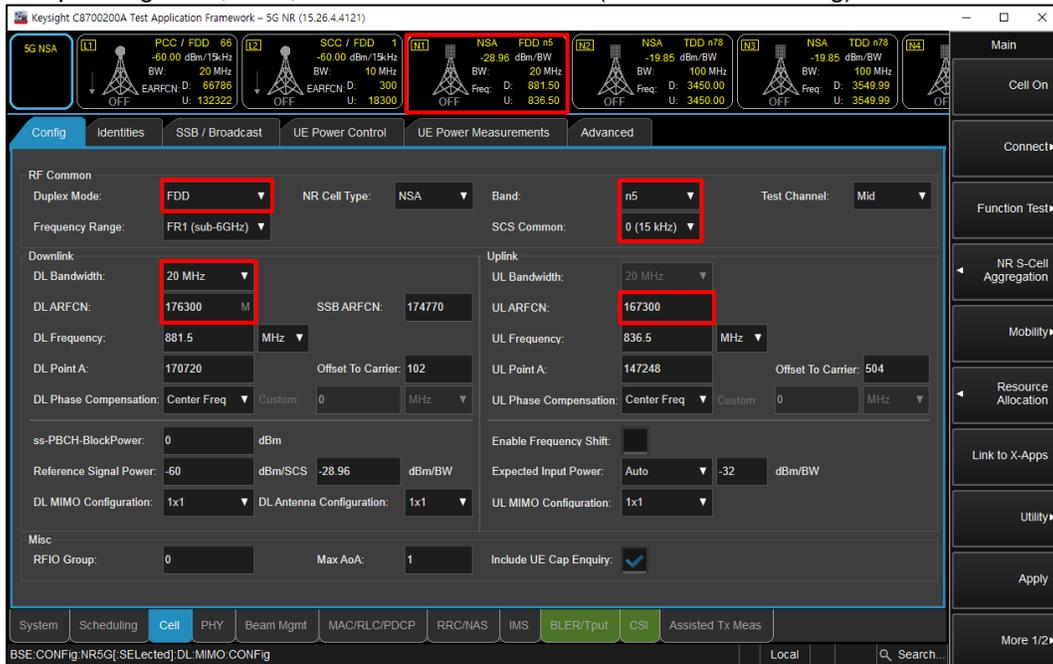
NSA Mode

- Select operating band, BW and Channel for LTE (LTE -> Cell -> Config)



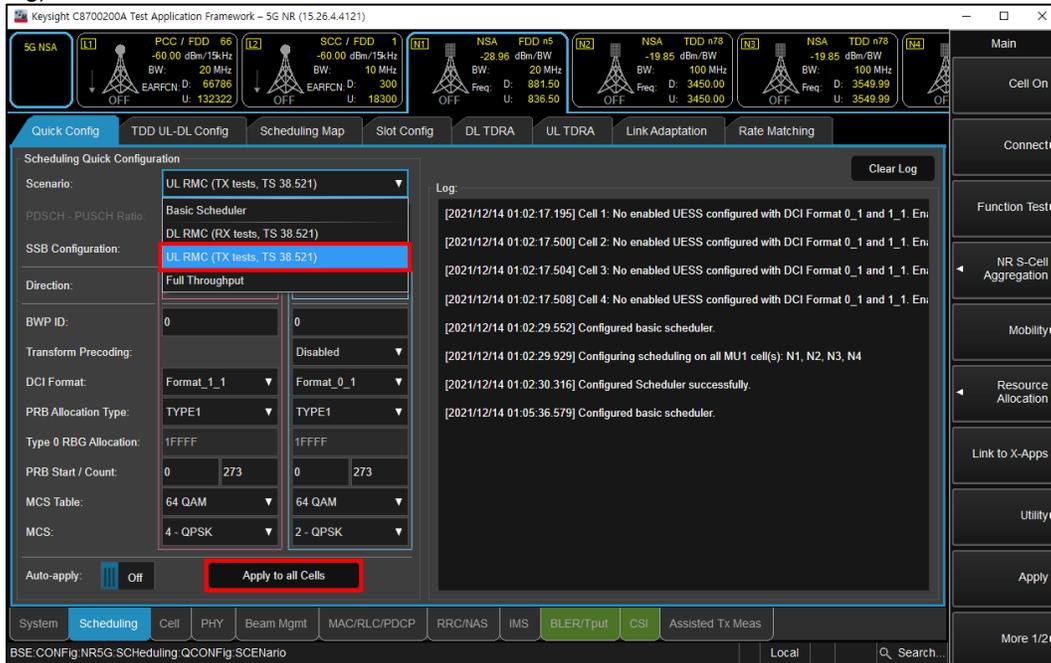
(Figure 2-1)

- Select operating band, SCS, BW and Channel for NR (NR -> Cell -> Config)



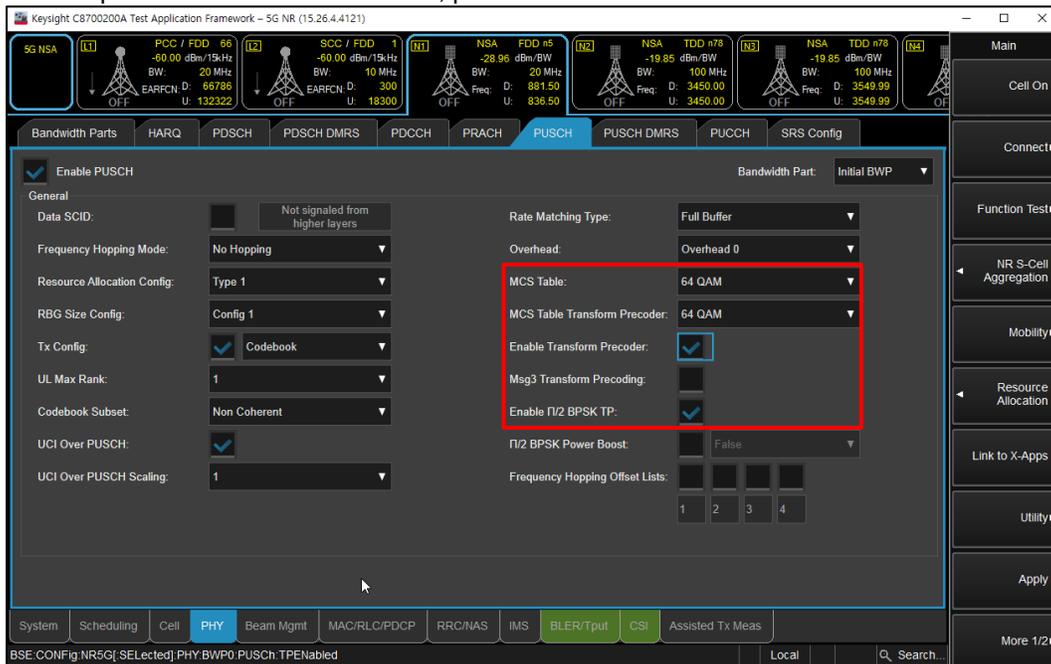
(Figure 2-2)

- Select “UL RMC (TX tests, TS 38.521)” for maximum power RB scheduling (NR -> Scheduling -> Quick Config)



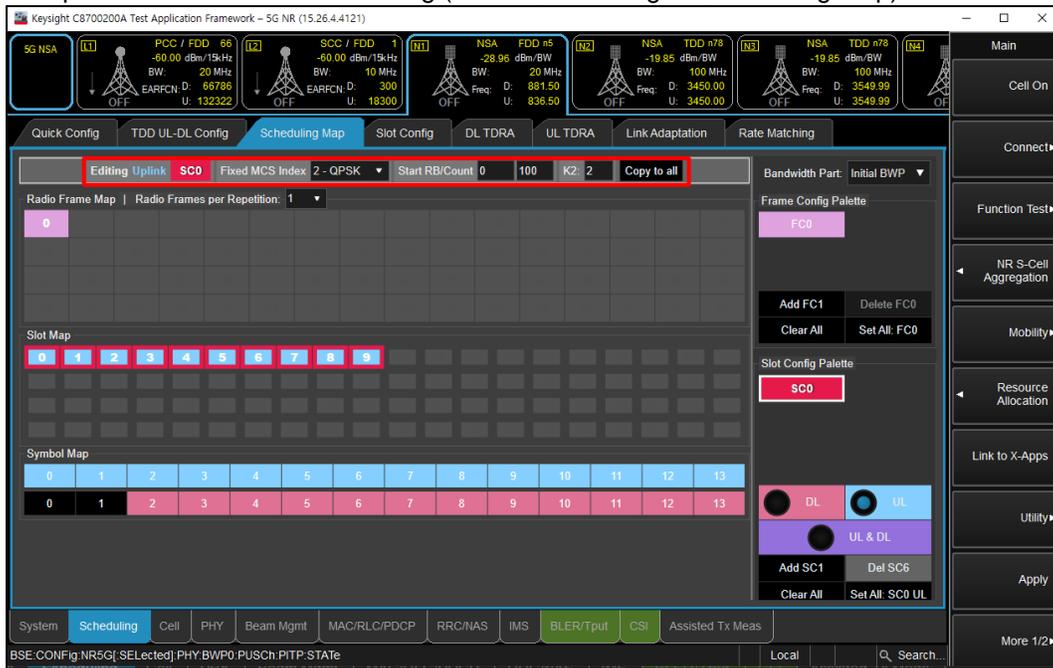
(Figure 2-3)

- To set waveform for NR Band (NR -> PHY -> PUSCH)
 - Select highest modulation in the MCS Table and MCS Table Transform Precoder
 - Enable Transform Precoder: DFT-s-OFDM / disable for CP-OFDM
 - Enable pi/2 BPSK TP: DFT-s-OFDM, pi/2 BPSK modulation



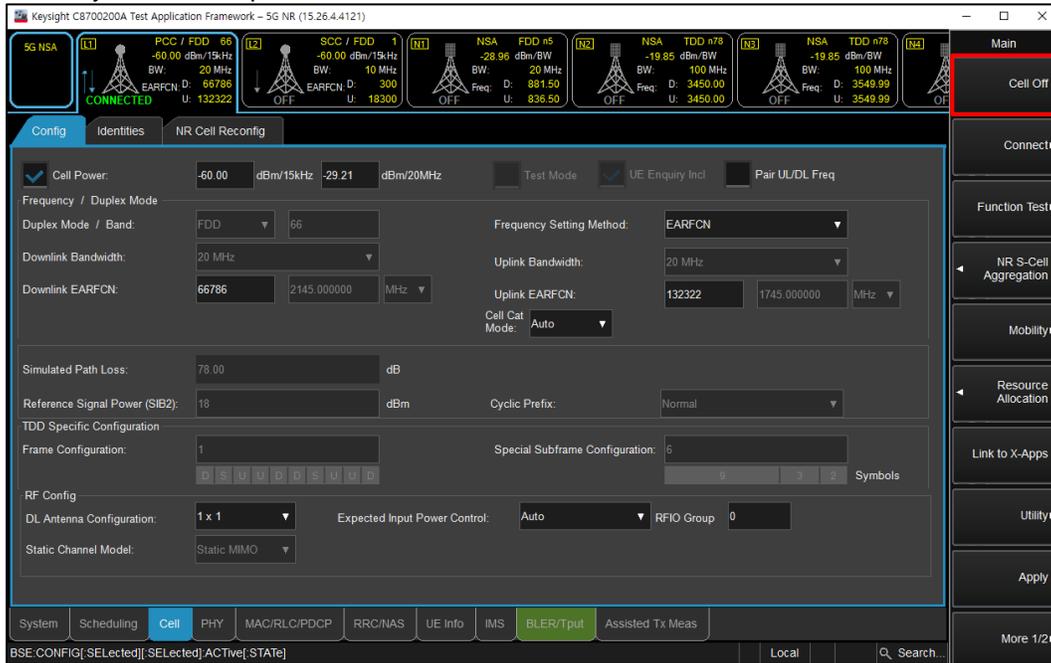
(Figure 2-4)

- Select Uplink Modulation and RB setting (NR -> Scheduling -> Scheduling Map)



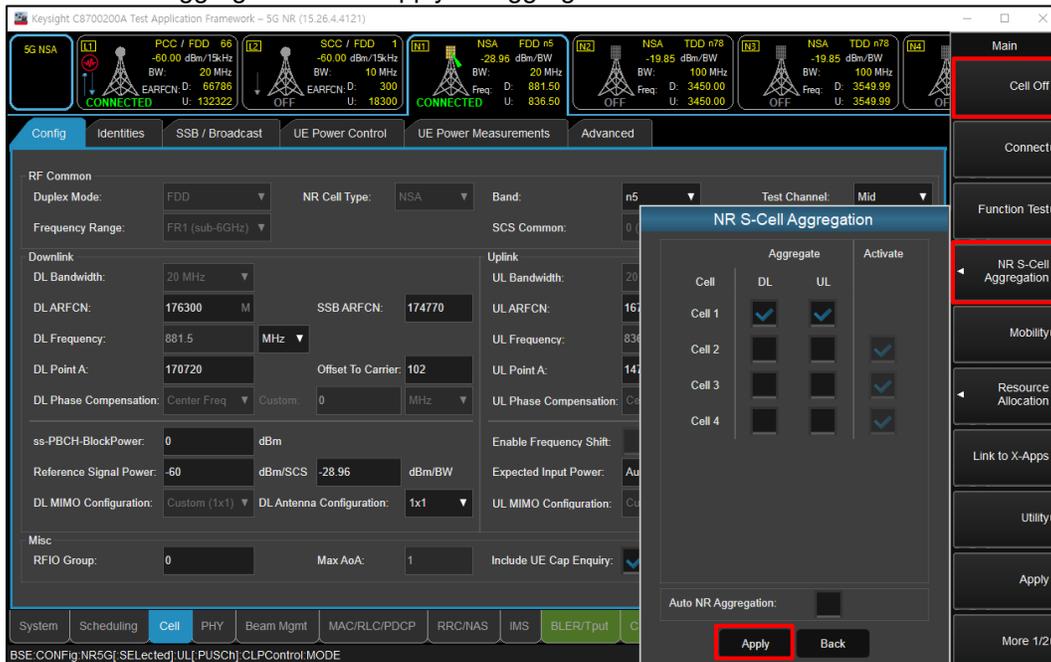
(Figure 2-5)

- Click “Cell On” button in the right of Test application screen in the LTE tab
- If necessary, turn the Airplane Mode on/off in the DUT



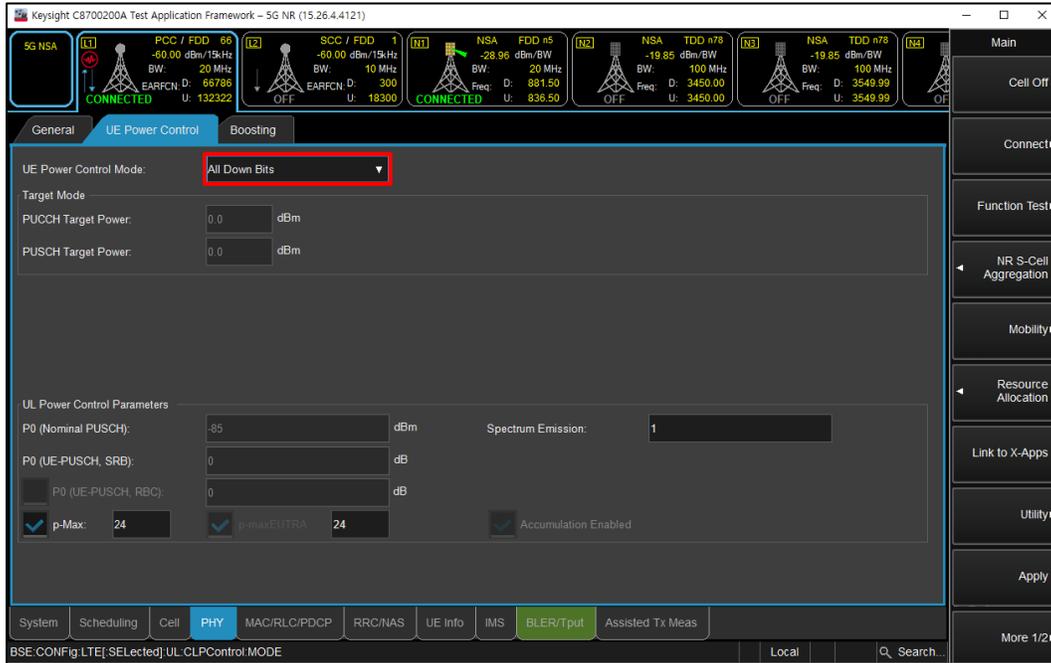
(Figure 2-6)

- Click “Cell On” button in the right of Test application screen in the NR tab
- Click “NR S-Cell Aggregation” and “Apply” to aggregate NR band



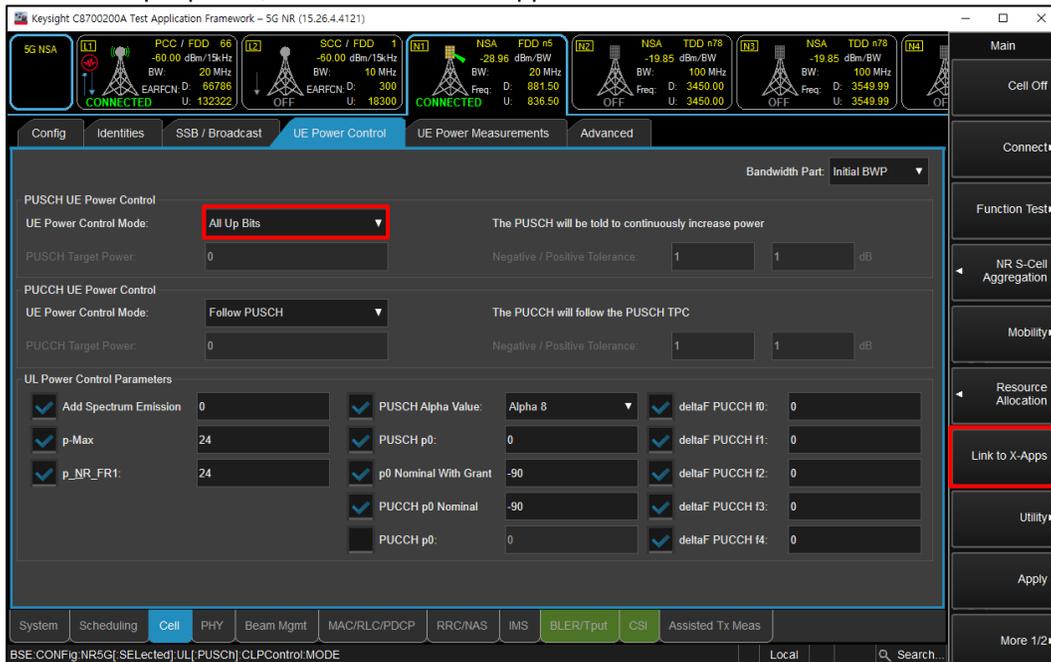
(Figure 2-7)

- Select “All Down Bits” of UL Power control Mode in LTE tab for NR maximum power (LTE -> PHY -> UE Power Control)



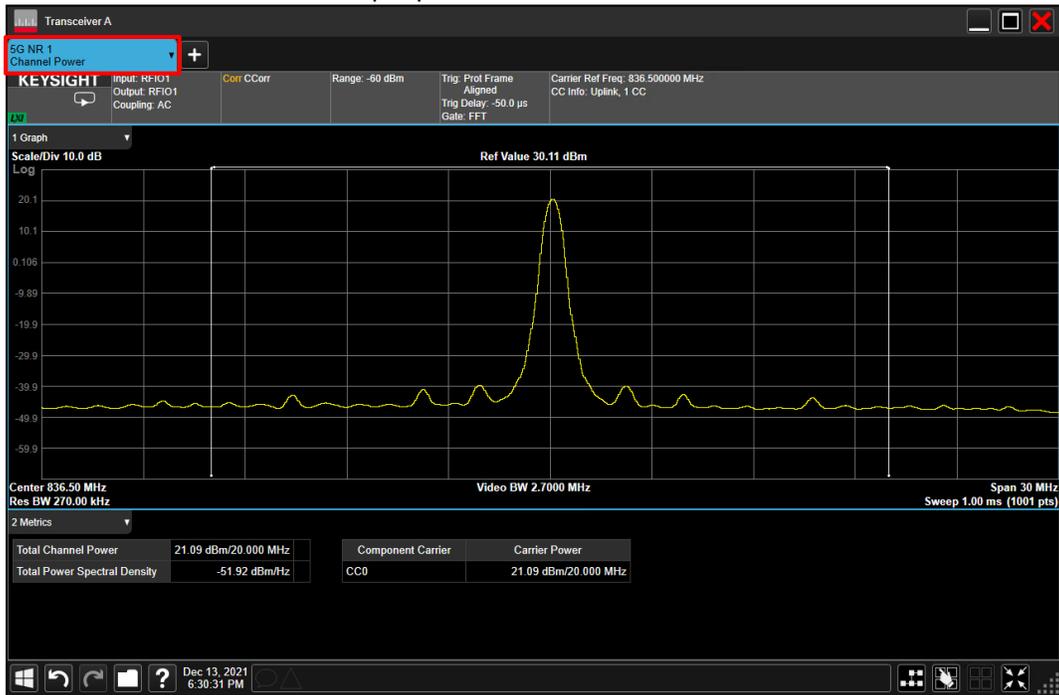
(Figure 2-8)

- Select “All Up Bits” of UL Power control Mode in NR tab for NR maximum power (NR -> Cell -> UE Power Control)
- To read the output power, click the “Link to X-Apps”



(Figure 2-9)

- Select “Channel Power” for NR output power



(Figure 2-10)

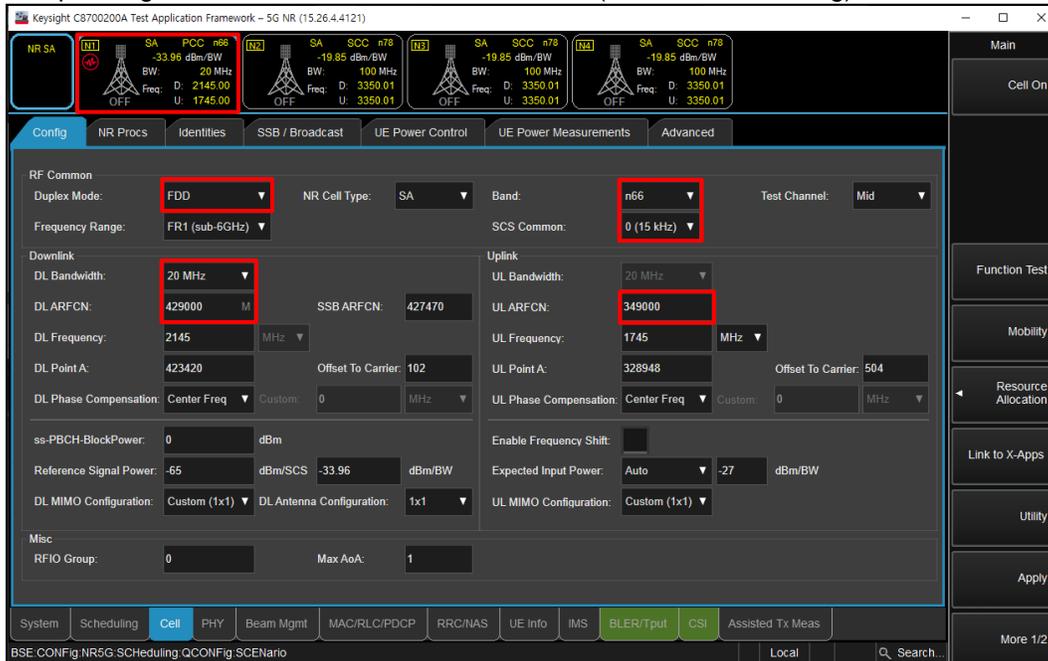
- Select “Channel Power” for LTE output power



(Figure 2-11)

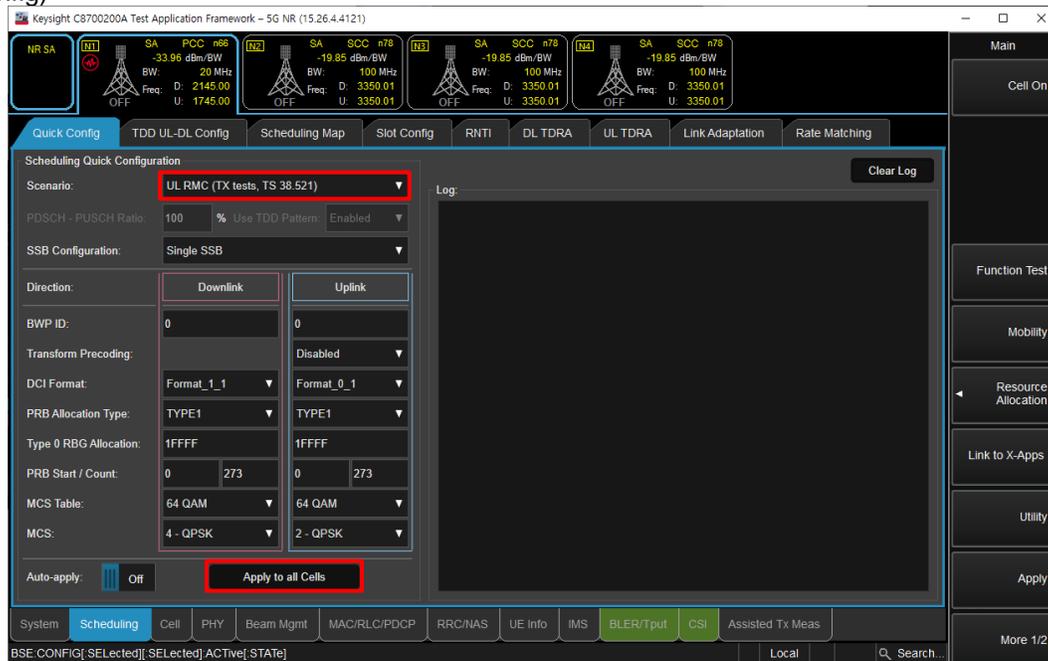
SA Mode

- Select operating band, SCS, BW and Channel for NR (NR -> Cell -> Config)



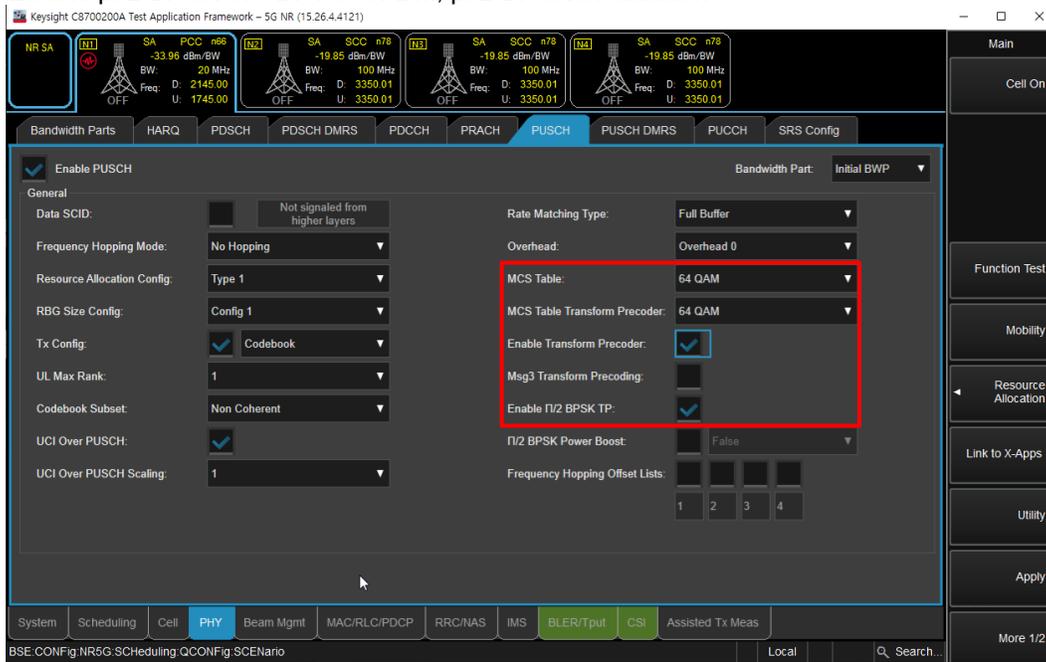
(Figure 3-1)

- Select "UL RMC (TX tests, TS 38.521)" for maximum power RB scheduling (NR -> Scheduling -> Quick Config)



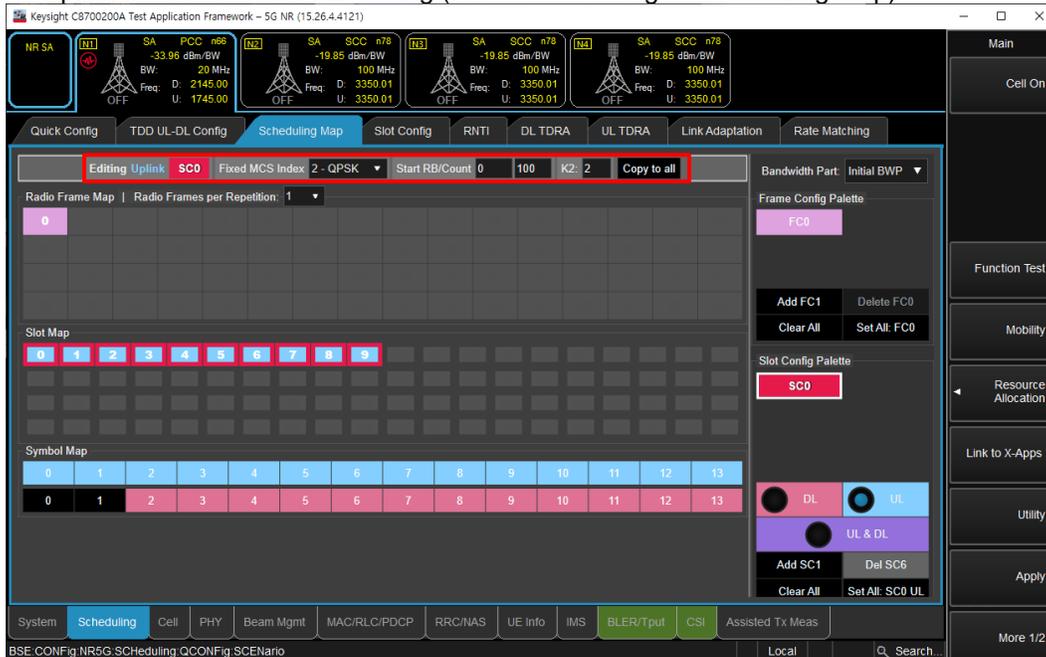
(Figure 3-2)

- To set waveform for NR Band (NR -> PHY -> PUSCH)
 - Select highest modulation in the MCS Table and MCS Table Transform Precoder
 - Enable Transform Precoder: DFT-s-OFDM / disable for CP-OFDM
 - Enable pi/2 BPSK TP: DFT-s-OFDM, pi/2 BPSK modulation



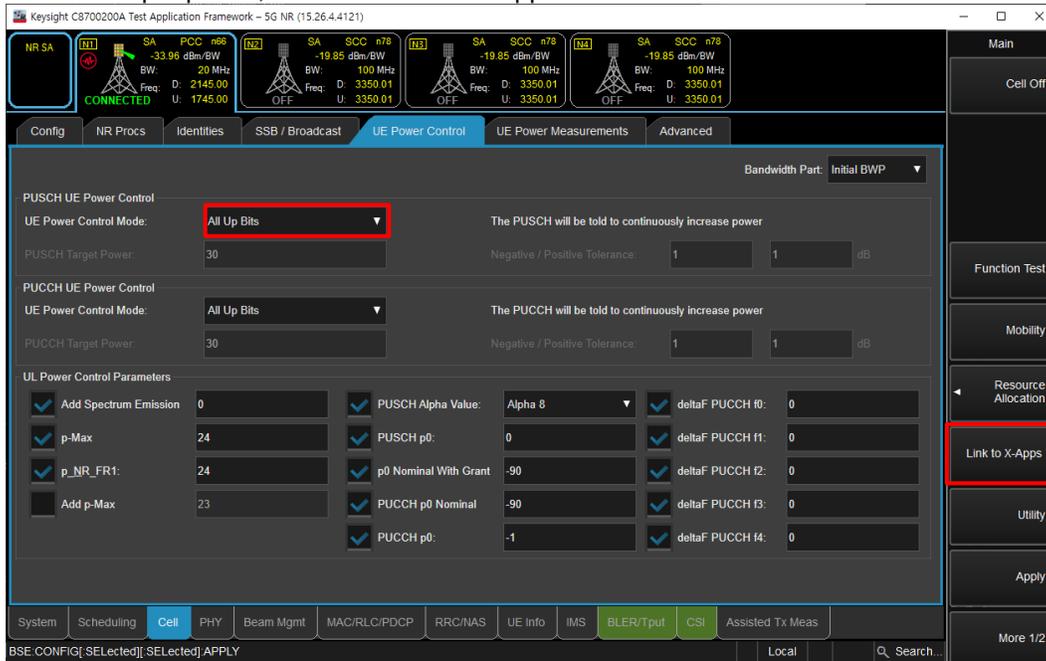
(Figure 3-3)

- Select Uplink Modulation and RB setting (NR -> Scheduling -> Scheduling Map)



(Figure 3-4)

- Click “Cell On” button in the right of Test application screen
- If necessary, turn the Airplane Mode on/off in the DUT
- Select “All Up Bits” of UL Power control Mode (Cell -> UE Power Control)
- To read the output power, click the “Link to X-Apps”



(Figure 3-5)

- Select “Channel Power”



(Figure 3-6)

1. Max power

NR Band n5 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					166800	167300	167800		
					834 MHz	836.5 MHz	839 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1		24.2		0.0	25.0
			1	53		24.2		0.0	25.0
			1	104		23.9		0.0	25.0
			50	0		23.7		0.5	24.5
			50	25		24.2		0.0	25.0
			50	54		23.7		0.5	24.5
			100	0		23.7		0.5	24.5
		QPSK	1	1		24.2		0.0	25.0
			1	53		24.4		0.0	25.0
			1	104		24.1		0.0	25.0
			50	0		23.2		1.0	24.0
			50	25		24.2		0.0	25.0
			50	54		23.2		1.0	24.0
		100	0		23.3		1.0	24.0	
	16QAM	1	1		23.2		1.0	24.0	
64QAM	1	1		21.6		2.5	22.5		
256QAM	1	1		19.8		4.5	20.5		
CP-OFDM	QPSK	1	1		22.8		1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					166300	167300	168300		
					831.5 MHz	836.5 MHz	841.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1		24.3		0.0	25.0
			1	40		24.3		0.0	25.0
			1	77		24.3		0.0	25.0
			36	0		23.8		0.5	24.5
			36	22		24.4		0.0	25.0
			36	43		23.9		0.5	24.5
			75	0		23.9		0.5	24.5
		QPSK	1	1		24.4		0.0	25.0
			1	40		24.3		0.0	25.0
			1	77		24.2		0.0	25.0
			36	0		23.4		1.0	24.0
			36	22		24.3		0.0	25.0
			36	43		23.4		1.0	24.0
		75	0		23.4		1.0	24.0	
	16QAM	1	1		23.6		1.0	24.0	
64QAM	1	1		22.0		2.5	22.5		
256QAM	1	1		20.0		4.5	20.5		
CP-OFDM	QPSK	1	1		22.8		1.5	23.5	

NR Band n5 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					165800	167300	168800		
					829 MHz	836.5 MHz	844 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1		24.4		0.0	25.0
			1	26		24.3		0.0	25.0
			1	50		24.4		0.0	25.0
			25	0		23.9		0.5	24.5
			25	14		24.3		0.0	25.0
			25	27		23.8		0.5	24.5
		50	0		23.9		0.5	24.5	
		QPSK	1	1		24.3		0.0	25.0
			1	26		24.4		0.0	25.0
			1	50		24.3		0.0	25.0
			25	0		23.4		1.0	24.0
			25	14		24.3		0.0	25.0
			25	27		23.3		1.0	24.0
	50	0		23.4		1.0	24.0		
	16QAM	1	1		23.5		1.0	24.0	
	64QAM	1	1		21.9		2.5	22.5	
256QAM	1	1		19.9		4.5	20.5		
CP-OFDM	QPSK	1	1		22.8		1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					165300	167300	169300		
					826.5 MHz	836.5 MHz	846.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.2	24.5	24.4	0.0	25.0
			1	13	24.4	24.4	24.4	0.0	25.0
			1	23	24.3	24.4	24.2	0.0	25.0
			12	0	23.8	23.9	23.8	0.5	24.5
			12	7	24.4	24.4	24.4	0.0	25.0
			12	13	23.9	23.9	23.8	0.5	24.5
		25	0	23.9	23.9	23.8	0.5	24.5	
		QPSK	1	1	24.3	24.4	24.3	0.0	25.0
			1	13	24.4	24.3	24.4	0.0	25.0
			1	23	24.2	24.3	24.2	0.0	25.0
			12	0	23.3	23.3	23.3	1.0	24.0
			12	7	24.4	24.4	24.4	0.0	25.0
			12	13	23.3	23.4	23.2	1.0	24.0
	25	0	23.4	23.4	23.4	1.0	24.0		
	16QAM	1	1	23.3	23.6	23.3	1.0	24.0	
	64QAM	1	1	21.9	21.8	22.0	2.5	22.5	
256QAM	1	1	19.8	20.0	20.0	4.5	20.5		
CP-OFDM	QPSK	1	1	22.8	22.9	22.8	1.5	23.5	

NR Band n66 (Main Ant.1) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000		
					1720 MHz	1745 MHz	1770 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.2	23.2	22.9	0.0	24.5
			1	53	23.1	23.0	23.1	0.0	24.5
			1	104	23.2	22.8	23.2	0.0	24.5
			50	0	22.7	22.6	22.5	0.5	24
			50	25	23.2	23.0	23.1	0.0	24.5
			50	54	22.7	22.4	22.7	0.5	24
		100	0	22.7	22.5	22.6	0.5	24	
		QPSK	1	1	23.3	23.3	22.9	0.0	24.5
			1	53	23.3	23.0	23.0	0.0	24.5
			1	104	23.2	22.8	23.2	0.0	24.5
			50	0	22.2	22.1	22.0	0.0	24.5
			50	25	23.2	23.0	23.1	0.0	24.5
			50	54	22.2	22.1	22.1	1.0	23.5
	100		0	22.1	22.0	22.1	1.0	23.5	
16QAM	1	1	22.2	22.2	21.9	1.0	23.5		
64QAM	1	1	20.9	20.4	20.0	2.5	22		
256QAM	1	1	18.8	18.5	18.0	4.5	20		
CP-OFDM	QPSK	1	1	21.9	21.7	21.4	1.5	23	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500	349000	354500		
					1717.5 MHz	1745 MHz	1772.5 MHz		
					15 MHz	DFT-s-OFDM	π/2 BPSK	1	1
1	40	23.1	22.9	23.0				0.0	24.5
1	77	23.2	22.8	23.2				0.0	24.5
36	0	22.7	22.6	22.6				0.5	24
36	18	23.2	23.0	23.1				0.0	24.5
36	43	22.7	22.4	22.7				0.5	24
75	0	22.7	22.5	22.6				0.5	24
QPSK	1	1	23.3	23.2			23.0	0.0	24.5
	1	40	23.1	23.0			23.1	0.0	24.5
	1	77	23.2	22.8			23.2	0.0	24.5
	36	0	22.2	22.1			22.1	1.0	23.5
	36	18	23.2	23.0			23.1	0.0	24.5
	36	43	22.2	21.9			22.2	1.0	23.5
75	0	22.2	22.0	22.1		1.0	23.5		
16QAM	1	1	22.3	22.1	21.5	1.0	23.5		
64QAM	1	1	20.8	20.5	20.6	2.5	22		
256QAM	1	1	18.8	18.6	18.7	4.5	20		
CP-OFDM	QPSK	1	1	21.9	21.7	21.5	1.5	23	

NR Band n66 (Main Ant.1) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000		
					1715 MHz	1745 MHz	1775 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.2	23.1	23.1	0.0	24.5
			1	26	23.2	23.0	23.1	0.0	24.5
			1	50	23.1	22.8	23.2	0.0	24.5
			25	0	22.7	22.5	22.6	0.5	24
			25	12	23.2	23.0	23.2	0.0	24.5
			25	27	22.7	22.4	22.8	0.5	24
		50	0	22.7	22.5	22.7	0.5	24	
		QPSK	1	1	23.3	23.2	23.2	0.0	24.5
			1	26	23.2	23.1	23.2	0.0	24.5
			1	50	23.2	22.9	23.2	0.0	24.5
			25	0	22.2	22.0	22.1	1.0	23.5
			25	12	23.2	23.0	23.2	0.0	24.5
			25	27	22.1	21.9	22.2	1.0	23.5
	50	0	22.2	22.0	22.1	1.0	23.5		
16QAM	1	1	22.5	22.1	22.3	1.0	23.5		
64QAM	1	1	20.9	20.5	20.8	2.5	22		
256QAM	1	1	18.8	18.5	18.7	4.5	20		
CP-OFDM	QPSK	1	1	22.0	21.8	21.7	1.5	23	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500	349000	355500		
					1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.3	23.0	23.2	0.0	24.5
			1	13	23.2	22.8	23.1	0.0	24.5
			1	23	23.3	22.9	23.2	0.0	24.5
			12	0	22.8	22.5	22.7	0.5	24
			12	6	23.3	23.0	23.2	0.0	24.5
			12	13	22.7	22.4	22.7	0.5	24
		25	0	22.7	22.4	22.7	0.5	24	
		QPSK	1	1	23.2	23.1	23.2	0.0	24.5
			1	13	23.2	22.9	23.2	0.0	24.5
			1	23	23.1	22.9	23.2	0.0	24.5
			12	0	22.2	22.0	22.2	1.0	23.5
			12	6	23.2	22.9	23.2	0.0	24.5
			12	13	22.2	21.9	22.2	1.0	23.5
	25	0	22.2	22.0	22.2	1.0	23.5		
16QAM	1	1	22.2	22.1	22.3	1.0	23.5		
64QAM	1	1	20.7	20.7	21.0	2.5	22		
256QAM	1	1	19.0	18.7	18.7	4.5	20		
CP-OFDM	QPSK	1	1	21.9	21.6	21.7	1.5	23	

NR Band n66 (Main Ant.3) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000		
					1720 MHz	1745 MHz	1770 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.4	21.3	21.4	0.0	22.4
			1	53	21.4	21.4	21.5	0.0	22.4
			1	104	21.4	21.4	21.5	0.0	22.4
			50	0	20.9	20.8	21.0	0.5	21.9
			50	25	21.5	21.5	21.6	0.0	22.4
			50	54	21.0	21.1	21.1	0.5	21.9
			100	0	21.0	21.0	21.1	0.5	21.9
		QPSK	1	1	21.3	21.3	21.4	0.0	22.4
			1	53	21.4	21.5	21.6	0.0	22.4
			1	104	21.4	21.4	21.5	0.0	22.4
			50	0	20.5	20.4	20.5	1.0	21.4
			50	25	21.5	21.5	21.6	0.0	22.4
			50	54	20.5	20.6	20.6	1.0	21.4
			100	0	20.5	20.5	20.6	1.0	21.4
16QAM	1	1	20.1	20.5	20.6	1.0	21.4		
64QAM	1	1	18.9	18.8	19.1	2.5	19.9		
256QAM	1	1	17.0	16.8	17.0	4.5	17.9		
CP-OFDM	QPSK	1	1	20.0	19.9	20.1	1.5	20.9	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500	349000	354500		
					1717.5 MHz	1745 MHz	1772.5 MHz		
					15 MHz	DFT-s-OFDM	π/2 BPSK	1	1
1	40	21.5	21.5	21.5				0.0	22.4
1	77	21.6	21.5	21.5				0.0	22.4
36	0	21.0	21.0	21.1				0.5	21.9
36	22	21.6	21.6	21.6				0.0	22.4
36	43	21.1	21.1	21.1				0.5	21.9
75	0	21.1	21.0	21.1				0.5	21.9
QPSK	1	1	21.3	21.4			21.4	0.0	22.4
	1	40	21.5	21.4			21.5	0.0	22.4
	1	77	21.6	21.5			21.5	0.0	22.4
	36	0	20.5	20.5			20.6	1.0	21.4
	36	22	21.6	21.6			21.6	0.0	22.4
	36	43	20.6	20.6			20.6	1.0	21.4
	75	0	20.6	20.6			20.6	1.0	21.4
16QAM	1	1	20.4	20.5	20.6	1.0	21.4		
64QAM	1	1	18.9	19.1	18.8	2.5	19.9		
256QAM	1	1	17.0	16.9	17.1	4.5	17.9		
CP-OFDM	QPSK	1	1	20.0	20.0	20.1	1.5	20.9	

NR Band n66 (Main Ant.3) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					343000	349000	355000			
					1715 MHz	1745 MHz	1775 MHz			
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.5	21.5	21.6	0.0	22.4	
			1	26	21.5	21.5	21.6	0.0	22.4	
			1	50	21.6	21.7	21.6	0.0	22.4	
			25	0	21.0	21.0	21.1	0.5	21.9	
			25	14	21.5	21.5	21.6	0.0	22.4	
			25	27	21.1	21.1	21.1	0.5	21.9	
		QPSK	1	1	21.4	21.4	21.6	0.0	22.4	
			1	26	21.5	21.5	21.5	0.0	22.4	
			1	50	21.6	21.6	21.5	0.0	22.4	
			25	0	20.5	20.6	20.6	1.0	21.4	
			25	14	21.5	21.6	21.6	0.0	22.4	
			25	27	20.6	20.6	20.6	1.0	21.4	
		CP-OFDM	16QAM	1	1	20.4	20.5	20.7	1.0	21.4
			64QAM	1	1	19.0	19.1	19.1	2.5	19.9
256QAM	1		1	17.1	17.1	17.1	4.5	17.9		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.5	21.6	21.6	0.0	22.4	
			1	13	21.5	21.5	21.5	0.0	22.4	
			1	23	21.6	21.6	21.5	0.0	22.4	
			12	0	21.0	21.0	21.1	0.5	21.9	
			12	7	21.5	21.5	21.6	0.0	22.4	
			12	13	21.0	21.1	21.0	0.5	21.9	
		QPSK	25	0	21.0	21.1	21.0	0.5	21.9	
			1	1	21.4	21.5	21.5	0.0	22.4	
			1	13	21.4	21.4	21.4	0.0	22.4	
			1	23	21.5	21.6	21.5	0.0	22.4	
			12	0	20.5	20.5	20.6	1.0	21.4	
			12	7	21.5	21.5	21.6	0.0	22.4	
		CP-OFDM	12	13	20.5	20.6	20.5	1.0	21.4	
			25	0	20.5	20.6	20.6	1.0	21.4	
16QAM	1		1	20.5	20.5	20.7	1.0	21.4		
CP-OFDM	64QAM	1	1	19.1	19.1	19.2	2.5	19.9		
	256QAM	1	1	17.0	17.2	17.2	4.5	17.9		
	QPSK	1	1	20.0	20.1	20.2	1.5	20.9		

2. Reduced power

NR Band n66 (Main Ant.1) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) Proximity sensor back-off				
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000			344000	349000	354000		
					1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.8	19.6	19.3	0.0	21	19.8	19.6	19.3	0.0	21
			1	53	19.7	19.4	19.5	0.0	21	19.7	19.4	19.5	0.0	21
			1	104	19.8	19.1	19.5	0.0	21	19.7	19.1	19.6	0.0	21
			50	0	19.7	19.5	19.4	0.0	21	19.7	19.5	19.4	0.0	21
			50	25	19.8	19.5	19.5	0.0	21	19.8	19.5	19.6	0.0	21
			50	54	19.7	19.2	19.6	0.0	21	19.7	19.3	19.6	0.0	21
			100	0	19.7	19.4	19.5	0.0	21	19.7	19.5	19.5	0.0	21
		QPSK	1	1	19.7	19.6	19.3	0.0	21	19.7	19.6	19.3	0.0	21
			1	53	19.7	19.4	19.5	0.0	21	19.7	19.4	19.5	0.0	21
			1	104	19.7	19.1	19.5	0.0	21	19.7	19.2	19.5	0.0	21
			50	0	19.7	19.5	19.5	0.0	21	19.7	19.5	19.4	0.0	21
			50	25	19.8	19.4	19.6	0.0	21	19.8	19.4	19.5	0.0	21
			50	54	19.7	19.3	19.6	0.0	21	19.7	19.3	19.5	0.0	21
			100	0	19.7	19.4	19.5	0.0	21	19.7	19.5	19.5	0.0	21
	16QAM	1	1	19.7	19.7	19.6	0.0	21	19.7	19.7	19.6	0.0	21	
	64QAM	1	1	19.7	19.5	19.6	0.0	21	19.6	19.4	19.6	0.0	21	
	256QAM	1	1	18.5	18.5	18.7	0.0	21	18.5	18.5	18.6	0.0	21	
	CP-OFDM	QPSK	1	1	20.0	19.8	19.5	0.0	21	20.0	19.8	19.4	0.0	21
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.8	19.7	19.5	0.0	21	19.9	19.7	19.6	0.0	21
			1	40	19.7	19.4	19.5	0.0	21	19.7	19.4	19.6	0.0	21
			1	77	19.8	19.3	19.7	0.0	21	19.8	19.3	19.7	0.0	21
			36	0	19.9	19.7	19.6	0.0	21	19.9	19.7	19.7	0.0	21
			36	18	19.9	19.6	19.7	0.0	21	19.9	19.6	19.7	0.0	21
			36	43	19.9	19.4	19.8	0.0	21	19.9	19.5	19.8	0.0	21
			75	0	19.9	19.6	19.7	0.0	21	19.9	19.6	19.7	0.0	21
		QPSK	1	1	19.9	19.7	19.5	0.0	21	19.9	19.7	19.5	0.0	21
			1	40	19.7	19.4	19.5	0.0	21	19.8	19.5	19.5	0.0	21
			1	77	19.8	19.3	19.7	0.0	21	19.9	19.3	19.7	0.0	21
			36	0	19.9	19.7	19.7	0.0	21	19.9	19.7	19.7	0.0	21
			36	18	19.9	19.6	19.7	0.0	21	19.9	19.6	19.7	0.0	21
			36	43	19.8	19.4	19.8	0.0	21	19.9	19.5	19.8	0.0	21
			75	0	19.9	19.6	19.7	0.0	21	19.9	19.6	19.7	0.0	21
	16QAM	1	1	19.9	19.7	19.4	0.0	21	20.0	19.8	19.6	0.0	21	
	64QAM	1	1	19.9	20.0	19.6	0.0	21	20.1	19.8	19.3	0.0	21	
	256QAM	1	1	18.9	18.7	18.5	0.0	21	19.1	18.7	18.7	0.0	21	
	CP-OFDM	QPSK	1	1	19.9	19.9	19.6	0.0	21	20.0	19.9	19.6	0.0	21

NR Band n66 (Main Ant.1) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000			342500	349000	355500		
					1715 MHz	1745 MHz	1775 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.9	19.7	19.7	0.0	21	19.9	19.7	19.7	0.0	21
			1	26	19.9	19.6	19.7	0.0	21	19.9	19.6	19.7	0.0	21
			1	50	19.8	19.4	19.8	0.0	21	19.8	19.4	19.8	0.0	21
			25	0	19.9	19.6	19.7	0.0	21	19.9	19.7	19.7	0.0	21
			25	12	19.9	19.6	19.7	0.0	21	19.9	19.6	19.8	0.0	21
			25	27	19.9	19.5	19.8	0.0	21	19.9	19.5	19.8	0.0	21
			50	0	19.9	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
		QPSK	1	1	19.9	19.7	19.7	0.0	21	19.9	19.7	19.7	0.0	21
			1	26	19.9	19.5	19.7	0.0	21	19.9	19.6	19.8	0.0	21
			1	50	19.8	19.4	19.8	0.0	21	19.8	19.5	19.8	0.0	21
			25	0	19.9	19.6	19.7	0.0	21	19.9	19.7	19.7	0.0	21
			25	12	19.9	19.6	19.7	0.0	21	19.9	19.6	19.8	0.0	21
			25	27	19.9	19.5	19.8	0.0	21	19.9	19.5	19.8	0.0	21
			50	0	19.9	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
16QAM	1	1	19.9	19.7	19.7	0.0	21	19.9	19.7	19.6	0.0	21		
64QAM	1	1	20.0	19.6	19.8	0.0	21	19.9	19.8	19.8	0.0	21		
256QAM	1	1	18.9	18.7	18.7	0.0	21	19.0	18.7	18.7	0.0	21		
CP-OFDM	QPSK	1	1	20.0	19.8	19.8	0.0	21	20.0	19.8	19.8	0.0	21	
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.0	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
			1	13	19.9	19.5	19.7	0.0	21	19.8	19.4	19.7	0.0	21
			1	23	20.0	19.5	19.8	0.0	21	19.9	19.5	19.8	0.0	21
			12	0	20.0	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
			12	6	19.9	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
			12	13	19.9	19.5	19.8	0.0	21	19.9	19.5	19.8	0.0	21
			25	0	19.9	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
		QPSK	1	1	19.9	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
			1	13	19.8	19.5	19.7	0.0	21	19.8	19.5	19.7	0.0	21
			1	23	19.8	19.5	19.8	0.0	21	19.8	19.5	19.8	0.0	21
			12	0	19.9	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
			12	6	19.9	19.6	19.8	0.0	21	19.9	19.6	19.8	0.0	21
			12	13	19.9	19.5	19.8	0.0	21	19.9	19.5	19.9	0.0	21
			25	0	19.9	19.5	19.8	0.0	21	19.9	19.6	19.8	0.0	21
16QAM	1	1	20.0	19.6	19.7	0.0	21	20.0	19.8	19.8	0.0	21		
64QAM	1	1	20.0	19.9	19.9	0.0	21	20.1	19.7	20.1	0.0	21		
256QAM	1	1	19.0	18.6	18.8	0.0	21	19.0	18.7	18.8	0.0	21		
CP-OFDM	QPSK	1	1	20.0	19.7	19.8	0.0	21	20.0	19.8	19.8	0.0	21	

NR Band n66 (Main Ant.3) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) RCV back-off				
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000			343500	349000	354500		
					1720 MHz	1745 MHz	1770 MHz			1717.5 MHz	1745 MHz	1772.5 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.9	19.0	19.0	0.0	20	19.0	19.0	19.0	0.0	20
			1	53	19.1	19.1	19.5	0.0	20	19.2	19.2	19.5	0.0	20
			1	104	19.1	19.1	19.0	0.0	20	19.1	19.1	19.0	0.0	20
			50	0	19.1	18.9	19.1	0.0	20	19.1	18.9	19.1	0.0	20
			50	28	19.1	19.1	19.6	0.0	20	19.2	19.1	19.6	0.0	20
			50	56	19.2	19.1	19.1	0.0	20	19.2	19.2	19.1	0.0	20
			100	0	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
		QPSK	1	1	18.9	18.9	18.9	0.0	20	18.9	19.0	19.0	0.0	20
			1	53	19.1	19.1	19.5	0.0	20	19.1	19.1	19.5	0.0	20
			1	104	19.1	19.0	18.9	0.0	20	19.1	19.0	18.9	0.0	20
			50	0	19.1	18.9	19.1	0.0	20	19.1	19.0	19.1	0.0	20
			50	28	19.1	19.1	19.6	0.0	20	19.2	19.1	19.6	0.0	20
			50	56	19.2	19.1	19.1	0.0	20	19.2	19.2	19.1	0.0	20
		16QAM	1	1	18.9	19.0	18.9	0.0	20	19.0	18.9	19.1	0.0	20
	64QAM		1	1	18.9	18.9	19.1	0.0	20	19.0	19.0	19.0	0.0	20
	256QAM		1	1	17.5	17.5	17.6	0.0	20	17.6	17.5	17.6	0.0	20
	CP-OFDM	QPSK	1	1	19.0	19.1	19.1	0.0	20	19.0	19.1	19.1	0.0	20
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.0	18.9	19.0	0.0	20	19.0	18.9	19.0	0.0	20
			1	40	19.0	19.0	19.0	0.0	20	19.1	19.0	19.1	0.0	20
			1	77	19.1	19.1	18.9	0.0	20	19.2	19.1	19.0	0.0	20
			36	0	19.5	19.0	19.0	0.0	20	19.5	19.0	19.1	0.0	20
			36	22	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
			36	43	19.1	19.1	19.1	0.0	20	19.2	19.1	19.1	0.0	20
			75	0	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
		QPSK	1	1	18.9	18.9	19.0	0.0	20	18.9	18.9	19.0	0.0	20
			1	40	19.0	19.0	19.0	0.0	20	19.0	19.0	19.1	0.0	20
			1	77	19.1	19.1	18.9	0.0	20	19.1	19.1	19.0	0.0	20
			36	0	19.5	19.0	19.1	0.0	20	19.5	19.0	19.1	0.0	20
			36	22	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
			36	43	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
			75	0	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
	16QAM	1	1	19.0	18.9	19.0	0.0	20	19.0	19.0	19.1	0.0	20	
		64QAM	1	1	18.9	18.9	19.1	0.0	20	19.0	19.0	19.0	0.0	20
		256QAM	1	1	17.5	17.5	17.6	0.0	20	17.5	17.5	17.5	0.0	20
CP-OFDM	QPSK	1	1	19.0	19.0	19.1	0.0	20	19.0	19.0	19.2	0.0	20	

NR Band n66 (Main Ant.3) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000			343000	349000	355000		
					1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.0	19.0	19.1	0.0	20	19.0	19.1	19.1	0.0	20
			1	26	19.1	19.1	19.1	0.0	20	19.1	19.1	19.2	0.0	20
			1	50	19.1	19.2	19.0	0.0	20	19.1	19.2	19.1	0.0	20
			25	0	19.0	19.0	19.1	0.0	20	19.1	19.0	19.1	0.0	20
			25	14	19.1	19.0	19.1	0.0	20	19.1	19.1	19.2	0.0	20
			25	27	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
			50	0	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
		QPSK	1	1	18.9	19.0	19.0	0.0	20	18.9	19.0	19.1	0.0	20
			1	26	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
			1	50	19.1	19.1	19.0	0.0	20	19.1	19.1	19.0	0.0	20
			25	0	19.0	19.0	19.1	0.0	20	19.1	19.1	19.1	0.0	20
			25	14	19.1	19.1	19.1	0.0	20	19.1	19.1	19.2	0.0	20
			25	27	19.1	19.1	19.1	0.0	20	19.1	19.1	19.1	0.0	20
			50	0	19.1	19.0	19.1	0.0	20	19.1	19.1	19.1	0.0	20
16QAM	1	1	19.0	19.1	19.1	0.0	20	19.0	19.0	19.1	0.0	20		
64QAM	1	1	19.0	19.0	19.1	0.0	20	19.0	19.0	19.1	0.0	20		
256QAM	1	1	17.6	17.5	17.6	0.0	20	17.6	17.5	17.7	0.0	20		
CP-OFDM	QPSK	1	1	19.0	19.1	19.2	0.0	20	19.1	19.1	19.2	0.0	20	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500	349000	355500			342500	349000	355500		
					1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.0	19.1	19.2	0.0	20	19.0	19.1	19.2	0.0	20
			1	13	19.0	19.0	19.1	0.0	20	19.0	19.0	19.1	0.0	20
			1	23	19.0	19.1	19.0	0.0	20	19.0	19.1	19.1	0.0	20
			12	0	19.0	19.0	19.1	0.0	20	19.0	19.1	19.1	0.0	20
			12	7	19.0	19.0	19.1	0.0	20	19.0	19.1	19.1	0.0	20
			12	13	19.5	19.1	19.0	0.0	20	19.5	19.1	19.1	0.0	20
			25	0	19.0	19.1	19.1	0.0	20	19.0	19.1	19.1	0.0	20
		QPSK	1	1	18.9	19.0	19.1	0.0	20	18.9	19.1	19.1	0.0	20
			1	13	18.9	19.0	19.0	0.0	20	19.0	19.0	19.0	0.0	20
			1	23	19.0	19.0	19.0	0.0	20	19.0	19.1	19.0	0.0	20
			12	0	19.0	19.0	19.1	0.0	20	19.0	19.1	19.1	0.0	20
			12	7	19.0	19.0	19.1	0.0	20	19.0	19.1	19.1	0.0	20
			12	13	19.5	19.1	19.0	0.0	20	19.5	19.1	19.1	0.0	20
			25	0	19.0	19.0	19.1	0.0	20	19.0	19.1	19.1	0.0	20
16QAM	1	1	19.0	19.1	19.2	0.0	20	19.0	19.1	19.2	0.0	20		
64QAM	1	1	19.0	19.1	19.2	0.0	20	18.9	19.2	19.2	0.0	20		
256QAM	1	1	17.5	17.7	17.7	0.0	20	17.6	17.6	17.6	0.0	20		
CP-OFDM	QPSK	1	1	19.1	19.2	19.2	0.0	20	19.0	19.2	19.2	0.0	20	

9.5. Wi-Fi 2.4 GHz (DTS Band)

Normal WLAN SISO output power results

Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
					Max.Average Power			Reduced Average Power		
					Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 2.4G Ant.1	802.11b	1 Mbps	1	2412.0	18.8	20.0	Yes	15.7	17.0	Yes
			6	2437.0	18.8			15.7		
			11	2462.0	18.8			15.7		
			12	2467.0	Not Required	12.0	No	Not Required	12.0	No
			13	2472.0	Not Required	10.0	No	Not Required	10.0	No
WiFi 2.4G Ant.2	802.11b	1 Mbps	1	2412.0	18.9	20.0	Yes	15.9	17.0	Yes
			6	2437.0	18.9			15.9		
			11	2462.0	18.9			15.9		
			12	2467.0	Not Required	12.0	No	Not Required	12.0	No
			13	2472.0	Not Required	10.0	No	Not Required	10.0	No

Normal WLAN MIMO output power results

Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
					Max.Average Power			Reduced Average Power		
					Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 2.4G Ant.1	802.11g	6 Mbps	1	2412.0	16.8	18.0	Yes	[REDACTED]		
			6	2437.0	17.0					
			11	2462.0	16.8					
			12	2467.0	Not Required	12.0	No			
			13	2472.0	Not Required	10.0	No			
	802.11n	6.5 Mbps	1	2412.0	Not Required	18.0	Yes			
			6	2437.0						
			11	2462.0		12.0	No			
			12	2467.0						
	13	2472.0	10.0	No						
	802.11ax	7.3 Mbps	1	2412.0	Not Required	18.0	Yes			
			6	2437.0						
			11	2462.0		12.0	No			
12			2467.0							
13	2472.0	10.0	No							
WiFi 2.4G Ant.2	802.11g	6 Mbps	1	2412.0	16.5	18.0	Yes			
			6	2437.0	17.0					
			11	2462.0	16.9					
			12	2467.0	Not Required	12.0	No			
			13	2472.0	Not Required	10.0	No			
	802.11n	6.5 Mbps	1	2412.0	Not Required	18.0	Yes			
			6	2437.0						
			11	2462.0		12.0	No			
			12	2467.0						
	13	2472.0	10.0	No						
	802.11ax	7.3 Mbps	1	2412.0	Not Required	18.0	Yes			
			6	2437.0						
			11	2462.0		12.0	No			
12			2467.0							
13	2472.0	10.0	No							

RSDB WLAN SISO output power results

Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
					Max.Average Power			Reduced Average Power		
					Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 2.4G Ant.1	802.11b	1 Mbps	1	2412.0	[REDACTED]	[REDACTED]	[REDACTED]	12.7	14.0	Yes
			6	2437.0				12.7		
			11	2462.0				12.7		
			12	2467.0				Not Required	12.0	No
			13	2472.0				Not Required	10.0	No
WiFi 2.4G Ant.2	802.11b	1 Mbps	1	2412.0	[REDACTED]	[REDACTED]	[REDACTED]	12.7	14.0	Yes
			6	2437.0				12.8		
			11	2462.0				12.9		
			12	2467.0				Not Required	12.0	No
13	2472.0	Not Required	10.0	No						

Note(s):

- SAR is not required for 802.11g/n modes when the adjusted SAR for 802.11b is < 1.2 W/kg.
- 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 802.11n/g/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.
- Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels. Refer to §6.3.
- Normal WLAN MIMO SAR & RSDB WLAN SISO SAR additionally were evaluated for satisfy to simultaneous transmission analysis.

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

Normal WLAN MIMO Ant.1 output power Results

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
						Max. Average Power			Reduced Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.1	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260	16.9	18.0	Yes	Not Required	15.0	No
				56	5280	16.9					
				60	5300	16.8					
				64	5320	17.0					
		802.11n (HT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	16.0	No	14.1	15.0	Yes
		802.11ac (VHT160)	58.5 Mbps	50	5250.0	Not Required	15.0	No	13.8	15.0	No
	802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	15.0	NO	
	802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	15.0	No	
	802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	15.0	No	
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500	16.5	18.0	Yes	Not Required	15.0	No
				120	5600	16.7					
				124	5620	16.8					
				144	5720	16.7					
		802.11n (HT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
802.11ac (VHT20)		6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No	
802.11ac (VHT40)		13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No	
802.11ac (VHT80)		29.3 Mbps	106	5530.0	Not Required	16.0	No	13.6	15.0	Yes	
		122	5610.0	Not Required	13.8						
	138	5690.0	Not Required	13.9							
802.11ac (VHT160)	58.5 Mbps	114	5570.0	Not Required	15.0	No	14.2	15.0	No		
802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No		
802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	15.0	No		
802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	15.0	No		
802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	15.0	No		

Note(s):

- 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.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
 - ≤ 1.2 W/kg, SAR is not required for UNII band I
 - > 1.2 W/kg, both bands should be tested independently for SAR.

Normal WLAN MIMO Ant.1 output power Results (continued)

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
						Max. Average Power			Reduced Average Power		
						Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.1	5.8 (UNII 3)	802.11a	6 Mbps	149	5745	16.1	18.0	Yes	Not Required	15.0	No
				157	5785	16.1					
				165	5825	16.0					
		802.11n (HT20)	6.5 Mbps	149	5745	16.2	18.0	Yes	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	16.0	No	13.3	15.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No
	802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	15.0	NO	
	802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	15.0	No	
	5.9 (UNII 4)	802.11a	6 Mbps	169	5845	15.8	18.0	Yes	Not Required	15.0	No
				173	5865	16.0					
				177	5885	16.2					
		802.11n (HT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT80)	29.3 Mbps	171	5855.0	Not Required	16.0	No	13.1	15.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No
802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	15.0	No		
802.11ax (HE80)	30.6 Mbps	Not Required			16.0	No	Not Required	15.0	No		
UNII 3 & UNII 4	802.11ac (VHT160)	58.5 Mbps	163	5815.0	Not Required	16.0	No	12.9	15.0	No	
	802.11ax (HE160)	72.0 Mbps	Not Required			16.0	No	Not Required	15.0	No	

Note(s):

- 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.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band 1 and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
 - ≤ 1.2 W/kg, SAR is not required for UNII band 1
 - > 1.2 W/kg, both bands should be tested independently for SAR.
- For Hotspot exposure condition, SAR test additionally required for 802.11n HT20 because 802.11mode is over 1.2 W/kg.

Normal WLAN MIMO Ant.2 output power Results

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
						Max. Average Power			Reduced Average Power		
						Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.2	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260	17.1	18.0	Yes	Not Required	15.0	No
				56	5280	17.0					
				60	5300	16.8					
				64	5320	16.7					
		802.11n (HT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	16.0	No	14.2	15.0	Yes
		802.11ac (VHT160)	58.5 Mbps	50	5250.0	Not Required	15.0	No	13.8	15.0	No
	802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	15.0	No	
	802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	15.0	No	
	802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	15.0	No	
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500	17.6	18.0	Yes	Not Required	15.0	No
				120	5600	17.7					
				124	5620	17.7					
				144	5720	17.8					
		802.11n (HT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
802.11ac (VHT20)		6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No	
802.11ac (VHT40)		13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No	
802.11ac (VHT80)		29.3 Mbps	106	5530.0	Not Required	16.0	No	14.1	15.0	Yes	
		122	5610.0	Not Required	13.8						
	138	5690.0	Not Required	14.2							
802.11ac (VHT160)	58.5 Mbps	114	5570.0	Not Required	15.0	No	13.5	15.0	No		
802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No		
802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	15.0	No		
802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	15.0	No		
802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	15.0	No		

Note(s):

- 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.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
 - ≤ 1.2 W/kg, SAR is not required for UNII band I
 - > 1.2 W/kg, both bands should be tested independently for SAR.

Normal WLAN MIMO Ant.2 output power Results (continued)

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
						Max. Average Power			Reduced Average Power		
						Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.2	5.8 (UNII 3)	802.11a	6 Mbps	149	5745	16.9	18.0	Yes	Not Required	15.0	No
				157	5785	17.1					
				165	5825	17.2					
		802.11n (HT20)	6.5 Mbps	149	5745	16.8	18.0	Yes	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	16.0	No	14.3	15.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	15.0	No
	802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	15.0	No	
	5.9 (UNII 4)	802.11a	6 Mbps	169	5845	17.3	18.0	Yes	Not Required	15.0	No
				173	5865	17.5					
				177	5885	17.6					
		802.11n (HT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No	Not Required	15.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	15.0	No
		802.11ac (VHT80)	29.3 Mbps	171	5855.0	Not Required	16.0	No	14.6	15.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No	Not Required	15.0	No
802.11ax (HE40)		14.6 Mbps	Not Required			17.0	No	Not Required	15.0	No	
802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	15.0	No		
UNII 3 & UNII 4	802.11ax (HE160)	58.5 Mbps	163	5815.0	Not Required	16.0	No	14.1	15.0	No	
	802.11ax (HE160)	72.0 Mbps	Not Required			16.0	No	Not Required	15.0	No	

Note(s):

- 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.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band 1 and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
 - ≤ 1.2 W/kg, SAR is not required for UNII band 1
 - > 1.2 W/kg, both bands should be tested independently for SAR.
- For Hotspot exposure condition, SAR test additionally required for 802.11n HT20 because 802.11mode is over 1.2 W/kg.

RSDB WLAN MIMO Ant 1 & 2 output power Results

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	RSDB WLAN mode power		
						Max Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.1	5.3 (UNII 2A)	802.11a	6 Mbps	Not Required		Not Required	14.0	No
		802.11n (HT20)	6.5 Mbps	Not Required		Not Required	14.0	No
		802.11n (HT40)	13.5 Mbps	Not Required		Not Required	14.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required		Not Required	14.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required		Not Required	14.0	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	13.0	14.0	Yes
		802.11ac (VHT160)	58.5 Mbps	50	5250.0	12.8	14.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required		Not Required	14.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required		Not Required	14.0	NO
		802.11ax (HE80)	36.0 Mbps	Not Required		Not Required	14.0	No
		802.11ax (HE160)	72.0 Mbps	Not Required		Not Required	14.0	No
		5.5 (UNII 2C)	802.11a	6 Mbps	Not Required		Not Required	14.0
	802.11n (HT20)		6.5 Mbps	Not Required		Not Required	14.0	No
	802.11n (HT40)		13.5 Mbps	Not Required		Not Required	14.0	No
	802.11ac (VHT20)		6.5 Mbps	Not Required		Not Required	14.0	No
	802.11ac (VHT40)		13.5 Mbps	Not Required		Not Required	14.0	No
	802.11ac (VHT80)		29.3 Mbps	106	5530.0	12.3	14.0	Yes
				122	5610.0	12.8		
				138	5690.0	12.8		
	802.11ac (VHT160)		58.5 Mbps	114	5570.0	12.2	14.0	No
	802.11ax (HE20)		7.3 Mbps	Not Required		Not Required	14.0	No
	802.11ax (HE40)	14.6 Mbps	Not Required		Not Required	14.0	No	
802.11ax (HE80)	36.0 Mbps	Not Required		Not Required	14.0	No		
802.11ax (HE160)	72.0 Mbps	Not Required		Not Required	14.0	No		

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	RSDB WLAN mode power		
						Max Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.2	5.3 (UNII 2A)	802.11a	6 Mbps	Not Required		Not Required	14.0	No
		802.11n (HT20)	6.5 Mbps	Not Required		Not Required	14.0	No
		802.11n (HT40)	13.5 Mbps	Not Required		Not Required	14.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required		Not Required	14.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required		Not Required	14.0	No
		802.11ac (VHT80)	29.3 Mbps	Not Required		13.2	14.0	Yes
		802.11ac (VHT160)	58.5 Mbps	Not Required		12.7	14.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required		Not Required	14.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required		Not Required	14.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required		Not Required	14.0	No
		802.11ax (HE160)	72.0 Mbps	Not Required		Not Required	14.0	No
		5.5 (UNII 2C)	802.11a	6 Mbps	Not Required		Not Required	14.0
	802.11n (HT20)		6.5 Mbps	Not Required		Not Required	14.0	No
	802.11n (HT40)		13.5 Mbps	Not Required		Not Required	14.0	No
	802.11ac (VHT20)		6.5 Mbps	Not Required		Not Required	14.0	No
	802.11ac (VHT40)		13.5 Mbps	Not Required		Not Required	14.0	No
	802.11ac (VHT80)		29.3 Mbps	106	5530.0	12.8	14.0	Yes
				122	5610.0	12.7		
				138	5690.0	13.1		
	802.11ac (VHT160)		58.5 Mbps	Not Required		13.0	14.0	No
	802.11ax (HE20)		7.3 Mbps	Not Required		Not Required	14.0	No
	802.11ax (HE40)	14.6 Mbps	Not Required		Not Required	14.0	No	
802.11ax (HE80)	36.0 Mbps	Not Required		Not Required	14.0	No		
802.11ax (HE160)	72.0 Mbps	Not Required		Not Required	14.0	No		

Note(s):

- 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.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band 1 and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
 - ≤ 1.2 W/kg, SAR is not required for UNII band 1
 - > 1.2 W/kg, both bands should be tested independently for SAR.
- RSDB WLAN MIMO SAR additionally were evaluated for satisfy to simultaneous transmission analysis.

RSDB WLAN MIMO Ant 1 & 2 output power Results (Continued)

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	RSDB WLAN mode power				
						Max Average Power				
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)		
5GHz MIMO Ant1	5.8 (UNII 3)	802.11a	6 Mbps	Not Required	Not Required	14.0	No			
		802.11n (HT20)	6.5 Mbps	Not Required	Not Required	14.0	No			
		802.11n (HT40)	13.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT20)	6.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT40)	13.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	12.2	14.0	Yes		
		802.11ax (HE20)	7.3 Mbps	Not Required	Not Required	14.0	No			
		802.11ax (HE40)	14.6 Mbps	Not Required	Not Required	14.0	NO			
		802.11ax (HE80)	30.6 Mbps	Not Required	Not Required	14.0	No			
	5.9 (UNII 4)	802.11a	6 Mbps	Not Required	Not Required	14.0	No			
		802.11n (HT20)	6.5 Mbps	Not Required	Not Required	14.0	No			
		802.11n (HT40)	13.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT20)	6.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT40)	13.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT80)	29.3 Mbps	171	5855.0	12.5	14.0	Yes		
		802.11ax (HE20)	7.3 Mbps	Not Required	Not Required	14.0	No			
		802.11ax (HE40)	14.6 Mbps	Not Required	Not Required	14.0	No			
		802.11ax (HE80)	30.6 Mbps	Not Required	Not Required	14.0	No			
	UNII 3 & UNII 4	802.11ac (VHT160)	14.6 Mbps	163	5815.0	12.3	14.0	NO		
		802.11ax (HE160)	30.6 Mbps	Not Required	Not Required	14.0	No			
	5GHz MIMO Ant2	5.8 (UNII 3)	802.11a	6 Mbps	Not Required	Not Required	14.0	No		
			802.11n (HT20)	6.5 Mbps	Not Required	Not Required	14.0	No		
			802.11n (HT40)	13.5 Mbps	Not Required	Not Required	14.0	No		
			802.11ac (VHT20)	6.5 Mbps	Not Required	Not Required	14.0	No		
			802.11ac (VHT40)	13.5 Mbps	Not Required	Not Required	14.0	No		
			802.11ac (VHT80)	29.3 Mbps	155	5775.0	12.2	13.1	14.0	Yes
			802.11ax (HE20)	7.3 Mbps	Not Required	Not Required	14.0	No		
802.11ax (HE40)			14.6 Mbps	Not Required	Not Required	14.0	No			
802.11ax (HE80)			30.6 Mbps	Not Required	Not Required	14.0	No			
5.9 (UNII 4)		802.11a	6 Mbps	Not Required	Not Required	14.0	No			
		802.11n (HT20)	6.5 Mbps	Not Required	Not Required	14.0	No			
		802.11n (HT40)	13.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT20)	6.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT40)	13.5 Mbps	Not Required	Not Required	14.0	No			
		802.11ac (VHT80)	29.3 Mbps	171	5855.0	13.7	14.0	Yes		
		802.11ax (HE20)	7.3 Mbps	Not Required	Not Required	14.0	No			
		802.11ax (HE40)	14.6 Mbps	Not Required	Not Required	14.0	No			
		802.11ax (HE80)	30.6 Mbps	Not Required	Not Required	14.0	No			
UNII 3 & UNII 4		802.11ac (VHT160)	14.6 Mbps	163	5815.0	13.2	14.0	No		
		802.11ax (HE160)	30.6 Mbps	Not Required	Not Required	14.0	No			

Note(s):

- 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.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
 - ≤ 1.2 W/kg, SAR is not required for UNII band I
 - > 1.2 W/kg, both bands should be tested independently for SAR.
- RSDB WLAN MIMO SAR additionally were evaluated for satisfy to simultaneous transmission analysis.

9.7. Bluetooth

Bluetooth SISO Measured Results

Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Maximum Average Power (dBm)		Reduced Average Power (dBm)	
					Meas Pwr	Tune-up Limit	Meas Pwr	Tune-up Limit
2.4	BT SISO Ant.1	GFSK	0	2402	17.6	19.0	15.8	17.0
			39	2441	19.0		16.4	
			78	2480	17.9		16.0	
		EDR	0	2402	17.1	18.0	16.0	17.0
			39	2441	17.8		16.7	
			78	2480	16.9		16.3	
		LE	0	2402	16.4	18.0	15.8	17.0
			19	2440	17.8		16.5	
			39	2480	16.6		15.2	
2.4	BT SISO Ant.2	GFSK	0	2402	16.9	19.0	16.4	17.0
			39	2441	17.1		15.9	
			78	2480	16.3		16.3	
		EDR	0	2402	16.7	18.0	16.5	17.0
			39	2441	16.8		16.3	
			78	2480	15.8		16.0	
		LE	0	2402	16.2	18.0	15.9	17.0
			19	2440	16.3		15.6	
			39	2480	15.6		15.0	

Bluetooth MIMO Measured Results

Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Maximum Average Power (dBm)	
					Meas Pwr	Tune-up Limit
2.4	BT Ant.1	GFSK	0	2402	10.6	13.0
			39	2441	11.0	
			78	2480	11.9	
		EDR	0	2402	8.8	10.0
			39	2441	8.8	
			78	2480	9.7	
		LE	0	2402	9.6	11.0
			19	2440	9.6	
			39	2480	8.6	
2.4	BT Ant.2	GFSK	0	2402	11.0	13.0
			39	2441	11.6	
			78	2480	12.2	
		EDR	0	2402	8.6	10.0
			39	2441	9.4	
			78	2480	9.4	
		LE	0	2402	9.3	11.0
			19	2440	9.5	
			39	2480	8.9	

Note(s):

For Head SAR of BT SISO Ant.1, SAR test performed using Max power.

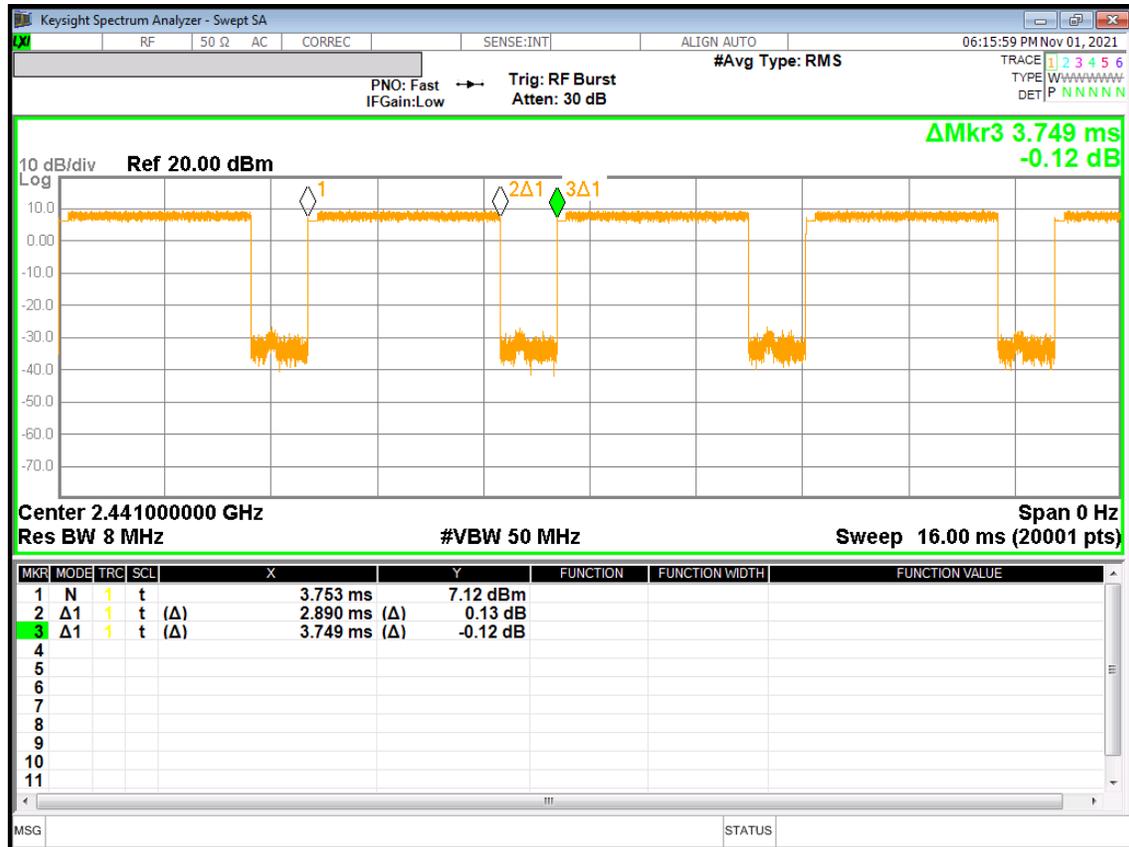
Bluetooth (Continued)

Duty Factor Measured Results

Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
GFSK	DH5	2.890	3.749	77.1%	1.30

Duty Cycle plots

GFSK



10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

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

KDB 447498 D01 General RF Exposure Guidance:

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

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

KDB 648474 D04 Handset SAR:

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

KDB 648474 D04 Handset SAR (Phablet Only):

For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm.

When hotspot mode does not apply, 10-g extremity SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm From that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; However, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, Including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

Additional 1-g SAR testing at 5 mm is not required when hotspot mode 10-g extremity SAR is not required for the surfaces and edges; since all 1-g reported SAR < 1.2 W/kg.

KDB 941225 D01 SAR test for 3G devices:

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

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

KDB 248227 D01 SAR meas for 802.11:

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

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

- ≤ 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.

10.1. GSM 850**Version.1**

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	GPRS 2 Slots	N/A	0	Left Touch	190	836.6	32.5	31.2	0.188	0.255	1
					Left Tilt	190	836.6	32.5	31.2	0.072	0.097	
					Right Touch	190	836.6	32.5	31.2	0.124	0.168	
					Right Tilt	190	836.6	32.5	31.2	0.082	0.111	
	Body-worn	GPRS 2 Slots	N/A	15	Rear	190	836.6	32.5	31.2	0.265	0.359	2
					Front	190	836.6	32.5	31.2	0.191	0.259	
	Hotspot	GPRS 2 Slots	N/A	10	Rear	128	824.4	32.5	31.2	0.525	0.702	
						190	836.6	32.5	31.2	0.596	0.807	
						251	848.8	32.5	31.0	0.639	0.911	
					Front	190	836.6	32.5	31.2	0.299	0.405	
					Edge 2	190	836.6	32.5	31.2	0.076	0.103	
					Edge 3	190	836.6	32.5	31.2	0.258	0.349	
Edge 4	190	836.6	32.5	31.2	0.225	0.305						

10.2. GSM 1900**Version.1**

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	
								Tune-up limit	Meas.	Meas.	Scaled		
Main 1 Ant.	Head	GPRS 2 Slots	Off	0	Left Touch	661	1880.0	29.5	28.4	0.043	0.056	4	
					Left Tilt	661	1880.0	29.5	28.4	0.023	0.030		
					Right Touch	661	1880.0	29.5	28.4	0.043	0.056		
					Right Tilt	661	1880.0	29.5	28.4	0.024	0.031		
	Body-worn	GPRS 2 Slots	Off	15	Rear	661	1880.0	29.5	28.4	0.313	0.405	5	
					Front	661	1880.0	29.5	28.4	0.255	0.330		
	Hotspot	GPRS 3 Slots	On	10	Rear	512	1850.2	25.5	25.2	0.371	0.400		
						Front	512	1850.2	25.5	25.2	0.317	0.342	
					Edge 3	Edge 2	512	1850.2	25.5	25.2	0.054	0.058	
						512	1850.2	25.5	25.2	0.769	0.830		
						661	1880.0	25.5	24.9	0.859	0.995		
					Edge 4	810	1909.8	25.5	24.5	0.938	1.173	6	
Edge 4	512	1850.2	25.5	25.2	0.041	0.044							
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot No.	
Main 1 Ant.	Product Specific 10-g	GPRS 2	Off	12	Edge 3	661	1880.0	29.5	28.4	0.497	0.644		
		GPRS 3	On	0	Edge 3	512	1850.2	25.5	25.1	1.450	1.579	7	

10.3. WCDMA Band II

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Rel 99 RMC	Off	0	Left Touch	9400	1880.0	24.0	23.2	0.061	0.074	8
					Left Tilt	9400	1880.0	24.0	23.2	0.025	0.031	
					Right Touch	9400	1880.0	24.0	23.2	0.055	0.067	
					Right Tilt	9400	1880.0	24.0	23.2	0.035	0.043	
	Body-worn	Rel 99 RMC	Off	15	Rear	9400	1880.0	24.0	23.2	0.482	0.585	9
					Front	9400	1880.0	24.0	23.2	0.381	0.463	
	Hotspot	Rel 99 RMC	On	10	Rear	9400	1880.0	20.5	20.0	0.453	0.512	
					Front	9400	1880.0	20.5	20.0	0.387	0.437	
					Edge 2	9400	1880.0	20.5	20.0	0.059	0.067	
					Edge 3	9262	1852.4	20.5	19.8	0.807	0.939	
9400						1880.0	20.5	20.0	0.960	1.085	10	
Edge 4					9400	1880.0	20.5	20.0	0.035	0.040		
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot No.
Main 1 Ant.	Product Specific 10-g	Rel 99 RMC	Off	12	Edge 3	9400	1880.0	24.0	23.2	0.900	1.093	
			On	0	Edge 3	9400	1880.0	20.5	19.9	1.230	1.408	11

10.4. WCDMA Band IV

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Rel 99 RMC	Off	0	Left Touch	1413	1732.6	24.0	23.7	0.059	0.064	12
					Left Tilt	1413	1732.6	24.0	23.7	0.040	0.044	
					Right Touch	1413	1732.6	24.0	23.7	0.058	0.063	
					Right Tilt	1413	1732.6	24.0	23.7	0.051	0.055	
	Body-worn	Rel 99 RMC	Off	15	Rear	1413	1732.6	24.0	23.7	0.497	0.537	13
					Front	1413	1732.6	24.0	23.7	0.351	0.380	
	Hotspot	Rel 99 RMC	On	10	Rear	1413	1732.6	20.5	19.7	0.415	0.498	
					Front	1413	1732.6	20.5	19.7	0.360	0.432	
					Edge 2	1413	1732.6	20.5	19.7	0.097	0.116	
					Edge 3	1312	1712.4	20.5	19.4	0.712	0.918	14
1413						1732.6	20.5	19.7	0.738	0.886		
Edge 4					1413	1732.6	20.5	19.7	0.665	0.910		
				Edge 4	1413	1732.6	20.5	19.7	0.056	0.068		
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot No.
Main 1 Ant.	Product Specific 10-g	Rel 99 RMC	Off	12	Edge 3	1413	1732.6	24.0	23.7	0.697	0.754	
			On	0	Edge 3	1413	1732.6	20.5	20.0	1.100	1.243	15

10.5. WCDMA Band V

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Rel 99 RMC	N/A	0	Left Touch	4183	836.6	25.5	24.3	0.171	0.227	16
					Left Tilt	4183	836.6	25.5	24.3	0.066	0.088	
					Right Touch	4183	836.6	25.5	24.3	0.107	0.142	
					Right Tilt	4183	836.6	25.5	24.3	0.065	0.087	
	Body-worn	Rel 99 RMC	N/A	15	Rear	4183	836.6	25.5	24.3	0.299	0.398	17
					Front	4183	836.6	25.5	24.3	0.190	0.253	
	Hotspot	Rel 99 RMC	N/A	10	Rear	4132	826.4	25.5	24.1	0.654	0.908	18
						4183	836.6	25.5	24.3	0.660	0.878	
					4233	846.6	25.5	24.3	0.575	0.763		
					Front	4183	836.6	25.5	24.3	0.348	0.463	
					Edge 2	4183	836.6	25.5	24.3	0.076	0.101	
					Edge 3	4183	836.6	25.5	24.3	0.251	0.334	
Edge 4	4183	836.6	25.5	24.3	0.168	0.223						

10.6. LTE Band 2 (20MHz Bandwidth)

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 3 Ant.	Head	QPSK	On	0	Left Touch	18700	1860.0	1	99	18.5	17.6	0.567	0.696	19
								50	0	18.5	17.5	0.559	0.697	
					Left Tilt	18700	1860.0	1	99	18.5	17.6	0.636	0.781	
								50	0	18.5	17.5	0.634	0.791	
					Right Touch	18700	1860.0	1	99	18.5	17.6	0.342	0.420	
								50	0	18.5	17.5	0.414	0.516	
	Right Tilt	18700	1860.0	1	99	18.5	17.6	0.432	0.530					
	50	0	18.5	17.5	0.426	0.531								
	Body-worn	QPSK	Off	15	Rear	18700	1860.0	1	99	22.5	21.8	0.122	0.144	
								50	0	21.5	20.7	0.123	0.147	
					Front	18700	1860.0	1	99	22.5	21.8	0.085	0.101	
								50	0	21.5	20.7	0.085	0.101	
	Hotspot	QPSK	On	10	Rear	18700	1860.0	1	99	18.5	17.5	0.102	0.129	
								50	0	18.5	17.4	0.099	0.128	
					Front	18700	1860.0	1	99	18.5	17.5	0.088	0.111	
								50	0	18.5	17.4	0.088	0.114	
					Edge 1	18700	1860.0	1	99	18.5	17.5	0.357	0.450	21
								50	0	18.5	17.4	0.335	0.431	
Edge 2					18700	1860.0	1	99	18.5	17.5	0.036	0.046		
							50	0	18.5	17.4	0.037	0.047		

Version.2

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 3 Ant.	Body-worn	QPSK	Off	15	Rear	18700	1860.0	1	99	22.5	21.8	0.190	0.225	20
								50	0	21.5	20.7	0.156	0.186	
					Front	18700	1860.0	1	99	22.5	21.8	0.157	0.186	
								50	0	21.5	20.7	0.124	0.148	

Note(s):

For LTE Band 2 of Main 3 Ant., It work only ULCA inter-band configuration.

10.7. LTE Band 4 (20MHz Bandwidth)**Version.1**

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 3 Ant.	Head	QPSK	On	0	Left Touch	20175	1732.5	1	0	18.5	18.0	0.573	0.643	
								50	24	18.5	17.9	0.603	0.686	
					Left Tilt	20175	1732.5	1	0	18.5	18.0	0.699	0.784	
								50	24	18.5	17.9	0.690	0.785	22
					Right Touch	20175	1732.5	1	0	18.5	18.0	0.425	0.477	
								50	24	18.5	17.9	0.394	0.448	
					Right Tilt	20175	1732.5	1	0	18.5	18.0	0.523	0.587	
								50	24	18.5	17.9	0.504	0.573	
	Body-worn	QPSK	Off	15	Rear	20175	1732.5	1	0	22.5	21.5	0.141	0.177	
								50	24	21.5	20.7	0.127	0.152	
					Front	20175	1732.5	1	0	22.5	21.5	0.116	0.145	
								50	24	21.5	20.7	0.099	0.118	
	Hotspot	QPSK	On	10	Rear	20175	1732.5	1	0	18.5	18.1	0.151	0.167	
								50	24	18.5	17.8	0.140	0.166	
					Front	20175	1732.5	1	0	18.5	18.1	0.112	0.124	
								50	24	18.5	17.8	0.100	0.118	
					Edge 1	20175	1732.5	1	0	18.5	18.1	0.366	0.406	24
								50	24	18.5	17.8	0.320	0.379	
Edge 2					20175	1732.5	1	0	18.5	18.1	0.047	0.052		
							50	24	18.5	17.8	0.048	0.056		

Version.2

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 3 Ant.	Body-worn	QPSK	Off	15	Rear	20175	1732.5	1	99	22.5	21.5	0.223	0.279	23
								50	24	21.5	20.7	0.188	0.224	
					Front	20175	1732.5	1	99	22.5	21.5	0.182	0.228	
								50	24	21.5	20.7	0.151	0.180	

Note(s):

For LTE Band 4 of Main 3 Ant., It work only ULCA inter-band configuration.

10.8. LTE Band 12 (10MHz Bandwidth)

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	23095	707.5	1	25	25.0	23.9	0.126	0.161	25
								25	0	23.0	21.8	0.085	0.113	
					Left Tilt	23095	707.5	1	25	25.0	23.9	0.055	0.070	
								25	0	23.0	21.8	0.037	0.049	
					Right Touch	23095	707.5	1	25	25.0	23.9	0.084	0.108	
								25	0	23.0	21.8	0.055	0.073	
					Right Tilt	23095	707.5	1	25	25.0	23.9	0.042	0.054	
								25	0	23.0	21.8	0.039	0.052	
	Body-w orn	QPSK	N/A	15	Rear	23095	707.5	1	25	25.0	23.9	0.142	0.181	26
								25	0	23.0	21.8	0.095	0.126	
					Front	23095	707.5	1	25	25.0	23.9	0.142	0.181	
								25	0	23.0	21.8	0.095	0.126	
	Hotspot	QPSK	N/A	10	Rear	23095	707.5	1	25	25.0	23.9	0.262	0.335	27
								25	0	23.0	21.8	0.167	0.221	
					Front	23095	707.5	1	25	25.0	23.9	0.151	0.193	
								25	0	23.0	21.8	0.100	0.132	
					Edge 2	23095	707.5	1	25	25.0	23.9	0.153	0.195	
								25	0	23.0	21.8	0.100	0.132	
					Edge 3	23095	707.5	1	25	25.0	23.9	0.071	0.090	
								25	0	23.0	21.8	0.047	0.063	
Edge 4					23095	707.5	1	25	25.0	23.9	0.110	0.141		
							25	0	23.0	21.8	0.074	0.097		

10.9. LTE Band 13 (10MHz Bandwidth)

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	23230	782.0	1	0	25.0	23.1	0.111	0.171	28
								25	0	23.0	20.7	0.065	0.110	
					Left Tilt	23230	782.0	1	0	25.0	23.1	0.051	0.078	
								25	0	23.0	20.7	0.027	0.045	
					Right Touch	23230	782.0	1	0	25.0	23.1	0.089	0.137	
								25	0	23.0	20.7	0.052	0.087	
					Right Tilt	23230	782.0	1	0	25.0	23.1	0.059	0.091	
								25	0	23.0	20.7	0.033	0.055	
	Body-w orn	QPSK	N/A	15	Rear	23230	782.0	1	0	25.0	23.1	0.153	0.236	29
								25	0	23.0	20.7	0.088	0.148	
					Front	23230	782.0	1	0	25.0	23.1	0.141	0.217	
								25	0	23.0	20.7	0.078	0.131	
	Hotspot	QPSK	N/A	10	Rear	23230	782.0	1	0	25.0	23.1	0.374	0.576	30
								25	0	23.0	20.7	0.221	0.373	
					Front	23230	782.0	1	0	25.0	23.1	0.211	0.325	
								25	0	23.0	20.7	0.116	0.196	
					Edge 2	23230	782.0	1	0	25.0	23.1	0.135	0.208	
								25	0	23.0	20.7	0.072	0.121	
					Edge 3	23230	782.0	1	0	25.0	23.1	0.117	0.180	
								25	0	23.0	20.7	0.066	0.111	
Edge 4					23230	782.0	1	0	25.0	23.1	0.150	0.231		
							25	0	23.0	20.7	0.081	0.137		

10.10. LTE Band 25 (20MHz Bandwidth)

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	Off	0	Left Touch	26590	1905.0	1	0	24.5	23.2	0.071	0.096	31
								50	0	22.5	21.3	0.043	0.056	
					Left Tilt	26590	1905.0	1	0	24.5	23.2	0.042	0.057	
								50	0	22.5	21.3	0.026	0.034	
					Right Touch	26590	1905.0	1	0	24.5	23.2	0.055	0.074	
								50	0	22.5	21.3	0.035	0.046	
					Right Tilt	26590	1905.0	1	0	24.5	23.2	0.037	0.049	
								50	0	22.5	21.3	0.021	0.027	
	Body-w orn	QPSK	Off	15	Rear	26590	1905.0	1	0	24.5	23.2	0.537	0.722	32
								50	0	22.5	21.3	0.338	0.447	
					Front	26590	1905.0	1	0	24.5	23.2	0.407	0.547	
								50	0	22.5	21.3	0.257	0.340	
	Hotspot	QPSK	On	10	Rear	26590	1905.0	1	0	21.0	20.3	0.527	0.620	
								50	0	21.0	20.4	0.528	0.608	
					Front	26590	1905.0	1	0	21.0	20.3	0.464	0.546	
								50	0	21.0	20.4	0.426	0.490	
					Edge 2	26590	1905.0	1	0	21.0	20.3	0.058	0.068	
								50	0	21.0	20.4	0.056	0.064	
					Edge 3	26140	1860.0	1	0	21.0	20.1	0.831	1.013	
								50	0	21.0	20.1	0.838	1.040	
						26365	1882.5	1	0	21.0	20.0	0.860	1.071	
								50	0	21.0	20.0	0.908	1.132	
						26590	1905.0	1	0	21.0	20.3	1.020	1.199	
								50	0	21.0	20.4	1.040	1.197	
100					0	21.0	20.3	1.050	1.222	33				
Edge 4					26590	1905.0	1	0	21.0	20.3	0.046	0.054		
							50	0	21.0	20.4	0.046	0.053		
Antenna					RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)
Main 1 Ant.	Product Specific 10-g	QPSK	Off	6	Rear	26590	1905.0	1	0	24.5	23.2	1.120	1.506	
				6	Front	26590	1905.0	1	0	24.5	23.2	0.853	1.147	
				12	Edge 3	26590	1905.0	1	0	24.5	23.2	0.999	1.343	
			On	0	Rear	26590	1905.0	1	0	21.0	20.4	1.510	1.744	34
				0	Front	26590	1905.0	1	0	21.0	20.4	1.230	1.421	
				0	Edge 3	26590	1905.0	1	0	21.0	20.4	1.490	1.721	

10.11. LTE Band 26 (15MHz Bandwidth)

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	26865	831.5	1	37	25.0	23.7	0.153	0.208	35
								36	0	23.0	21.8	0.097	0.129	
					Left Tilt	26865	831.5	1	37	25.0	23.7	0.063	0.085	
								36	0	23.0	21.8	0.041	0.055	
					Right Touch	26865	831.5	1	37	25.0	23.7	0.090	0.123	
								36	0	23.0	21.8	0.056	0.074	
					Right Tilt	26865	831.5	1	37	25.0	23.7	0.054	0.073	
								36	0	23.0	21.8	0.035	0.047	
	Body-w orn	QPSK	N/A	15	Rear	26865	831.5	1	37	25.0	23.7	0.251	0.341	36
								36	0	23.0	21.8	0.160	0.213	
					Front	26865	831.5	1	37	25.0	23.7	0.166	0.225	
								36	0	23.0	21.8	0.102	0.136	
	Hotspot	QPSK	N/A	10	Rear	26865	831.5	1	37	25.0	23.7	0.501	0.680	37
								36	0	23.0	21.8	0.321	0.427	
					Front	26865	831.5	1	37	25.0	23.7	0.275	0.373	
								36	0	23.0	21.8	0.173	0.230	
					Edge 2	26865	831.5	1	37	25.0	23.7	0.061	0.082	
								36	0	23.0	21.8	0.037	0.049	
Edge 3					26865	831.5	1	37	25.0	23.7	0.219	0.297		
							36	0	23.0	21.8	0.135	0.180		
Edge 4					26865	831.5	1	37	25.0	23.7	0.123	0.167		
							36	0	23.0	21.8	0.082	0.109		

Version.1

LTE Band 5 SAR test results

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	N/A	0	Left Touch	20525	836.5	1	25	25.0	24.1	0.129	0.158	
	Body-w orn	QPSK	N/A	15	Rear	20525	836.5	1	25	25.0	24.1	0.237	0.290	
	Hotspot	QPSK	N/A	10	Rear	20525	836.5	1	25	25.0	24.1	0.473	0.578	

Note(s):

LTE Band 5 additionally tested at highest configuration of LTE Band 26 due to Dynamic antenna tuner testing.

10.12. LTE Band 41 (20MHz Bandwidth)

Version.1

LTE Band 41 Power Class 3

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 2 Ant.	Head	QPSK	Off	0	Left Touch	40620	2593.0	1	0	25.0	23.8	0.014	0.018	38	
								50	0	24.0	22.7	0.009	0.012		
					Left Tilt	40620	2593.0	1	0	25.0	23.8	0.013	0.017		
								50	0	24.0	22.7	0.009	0.013		
					Right Touch	40620	2593.0	1	0	25.0	23.8	0.013	0.017		
								50	0	24.0	22.7	0.008	0.011		
					Right Tilt	40620	2593.0	1	0	25.0	23.8	0.006	0.007		
								50	0	24.0	22.7	0.005	0.006		
	Body-w orn	QPSK	Off	15	Rear	40620	2593.0	1	0	25.0	23.8	0.149	0.199		
								50	0	24.0	22.7	0.122	0.166		
					Front	40620	2593.0	1	0	25.0	23.8	0.145	0.193		
								50	0	24.0	22.7	0.118	0.160		
	Hotspot	QPSK	On	10	Rear	40620	2593.0	1	0	24.0	22.5	0.239	0.334		
								50	0	24.0	22.5	0.237	0.332		
					Front	40620	2593.0	1	0	24.0	22.5	0.307	0.429		
								50	0	24.0	22.5	0.249	0.349		
Edge 2					40620	2593.0	1	0	24.0	22.5	0.157	0.220			
							50	0	24.0	22.5	0.162	0.227			
Edge 3					40620	2593.0	1	0	24.0	22.5	0.352	0.492			
							50	0	24.0	22.5	0.351	0.492			

Version.1

LTE Band 41 Power Class 2

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	Off	0	Left Touch	40620	2593.0	1	0	26.0	25.3	0.011	0.013	
	Body-w orn	QPSK	Off	15	Rear	40620	2593.0	1	0	26.0	25.3	0.149	0.175	40

Note(s):

For Hotspot exposure condition, Both Power Class 3 and Power Class 2 are same target power. So additional SAR test are not necessary for Power Class 2 in Hotspot exposure condition. From May 2017 TCB workshop, SAR tested were performed using Power Class 3. SAR test for Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination. According to the highest time averaged power for UL-DL configurations, configuration # 1 with duty cycle 43.3% is used for Power Class 2 SAR test.

Additional SAR testing for Power Class 2 is not required when:

- The reported SAR vs. output power can be linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 or 3.5 W/kg (1-g or 10-g respectively)

Reported SAR vs. Output power linearly scaled

Antenna	RF Exposure Conditions	Power Class 2				Power Class 3				PC2 linearly scaled Reported SAR (W/kg)	Linearly scaled (<10%)
		Duty Cycle (%)	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)	Duty Cycle	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)		
Main 2 Ant.	Head	43.3	26.0	172.4	0.013	63.3	25.0	200.2	0.018	0.016	-16.1
	Body-w orn	43.3	26.0	172.4	0.175	63.3	25.0	200.2	0.199	0.171	2.1

Note(s):

SAR test for Power Class 2 is not required base on the reported SAR < 1.4 or 3.5 W/kg (1-g or 10-g respectively) and reported SAR vs. output power linearly scaled < 10%.

10.13. LTE Band 66 (20MHz Bandwidth)

Version.1

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	Off	0	Left Touch	132072	1720.0	1	49	24.5	23.3	0.050	0.066	41
								50	0	22.5	21.4	0.032	0.042	
					Left Tilt	132072	1720.0	1	49	24.5	23.3	0.030	0.040	
								50	0	22.5	21.4	0.017	0.023	
					Right Touch	132072	1720.0	1	49	24.5	23.3	0.023	0.030	
								50	0	22.5	21.4	0.014	0.018	
					Right Tilt	132072	1720.0	1	49	24.5	23.3	0.030	0.039	
								50	0	22.5	21.4	0.016	0.021	
	Body-w orn	QPSK	Off	15	Rear	132072	1720.0	1	49	24.5	23.3	0.372	0.490	42
								50	0	22.5	21.4	0.222	0.289	
					Front	132072	1720.0	1	49	24.5	23.3	0.322	0.424	
								50	0	22.5	21.4	0.200	0.260	
	Hotspot	QPSK	On	10	Rear	132072	1720.0	1	49	21.0	19.7	0.346	0.472	
								50	0	21.0	19.7	0.356	0.477	
					Front	132072	1720.0	1	49	21.0	19.7	0.294	0.401	
								50	0	21.0	19.7	0.302	0.404	
					Edge 2	132072	1720.0	1	49	21.0	19.7	0.050	0.068	
								50	0	21.0	19.7	0.052	0.069	
					Edge 3	132072	1720.0	1	49	21.0	19.7	0.597	0.814	
								50	0	21.0	19.7	0.631	0.845	
132322						1745.0	1	49	21.0	19.4	0.630	0.912		
							50	0	21.0	19.4	0.641	0.919		
132572					1770.0	1	49	21.0	19.6	0.712	0.977	43		
						50	0	21.0	19.6	0.696	0.969			
Edge 4	132072	1720.0	1	49	21.0	19.7	0.035	0.048						
			50	0	21.0	19.7	0.037	0.049						
Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		10-g SAR (W/kg)		Plot No.
Main 1 Ant.	Product Specific 10-g	QPSK	Off	12	Edge 3	132072	1720.0	1	49	24.5	23.3	0.423	0.557	
			On	0	Edge 3	132072	1720.0	1	49	21.0	19.7	1.180	1.610	
								50	0	21.0	19.7	1.250	1.697	44

10.14. NR Band n5 (20MHz Bandwidth)

Version.1

Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
											Tune-up limit	Meas.	Meas.	Scaled		
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	N/A	0	Left Touch	167300	836.5	1	53	25.0	24.4	0.150	0.174	45	
									50	25	25.0	24.2	0.141	0.169		
						Left Tilt	167300	836.5	1	53	25.0	24.4	0.060	0.069		
		50	25	25.0	24.2				0.059	0.071						
		Right Touch	167300	836.5						1	53	25.0	24.4	0.050	0.058	
										50	25	25.0	24.2	0.095	0.113	
	Right Tilt	167300	836.5						1	53	25.0	24.4	0.058	0.067		
									50	25	25.0	24.2	0.052	0.062		
			CP-OFDM	QPSK	N/A	0	Left Touch	167300	836.5	1	1	23.5	22.8	0.093	0.109	
	Body-w orn	DFT-s-OFDM	QPSK	N/A	15	Rear	167300	836.5	1	53	25.0	24.4	0.306	0.355	46	
									50	25	25.0	24.2	0.280	0.336		
						Front	167300	836.5	1	53	25.0	24.4	0.181	0.210		
		50	25	25.0	24.2				0.177	0.212						
			CP-OFDM	QPSK	N/A	15	Rear	167300	836.5	1	1	23.5	22.8	0.141	0.166	
	Hotspot	DFT-s-OFDM	QPSK	N/A	10	Rear	167300	836.5	1	53	25.0	24.4	0.494	0.572		
									50	25	25.0	24.2	0.530	0.636	47	
						Front	167300	836.5	1	53	25.0	24.4	0.262	0.304		
									50	25	25.0	24.2	0.277	0.332		
						Edge 2	167300	836.5	1	53	25.0	24.4	0.057	0.067		
									50	25	25.0	24.2	0.055	0.066		
		Edge 3	167300	836.5	1	53	25.0	24.4	0.231	0.268						
50					25	25.0	24.2	0.271	0.325							
Edge 4		167300	836.5	1	53	25.0	24.4	0.135	0.156							
				50	25	25.0	24.2	0.051	0.062							
		CP-OFDM	QPSK	N/A	10	Rear	167300	836.5	1	1	23.5	22.8	0.193	0.227		

Note(s):

CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

10.15. NR Band n66 (20MHz Bandwidth)

Version.1

Main 1 Ant. SAR results

Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	Off	0	Left Touch	344000	1720.0	1	1	24.5	23.3	0.020	0.026	
									50	25	24.5	23.2	0.019	0.025	
						Left Tilt	344000	1720.0	1	1	24.5	23.3	0.014	0.018	
									50	25	24.5	23.2	0.012	0.017	
		Right Touch	344000	1720.0	1	1	24.5	23.3	0.026	0.034	48				
					50	25	24.5	23.2	0.026	0.034					
		Right Tilt	344000	1720.0	1	1	24.5	23.3	0.016	0.021					
					50	25	24.5	23.2	0.014	0.018					
	CP-OFDM	QPSK	Off	0	Right Touch	344000	1720.0	1	1	23.0	21.9	0.015	0.020		
	Body-w orn	DFT-s-OFDM	QPSK	Off	15	Rear	344000	1720.0	1	1	24.5	23.3	0.225	0.297	49
									50	25	24.5	23.2	0.213	0.288	
						Front	344000	1720.0	1	1	24.5	23.3	0.178	0.235	
		50	25	24.5	23.2				0.176	0.238					
		CP-OFDM	QPSK	Off	15	Rear	344000	1720.0	1	1	23.0	21.9	0.167	0.217	
		Hotspot	DFT-s-OFDM	QPSK	On	10	Rear	344000	1720.0	1	1	21.0	19.7	0.202	0.271
	50									25	21.0	19.8	0.192	0.255	
	Front						344000	1720.0	1	1	21.0	19.7	0.160	0.215	
									50	25	21.0	19.8	0.158	0.210	
	Edge 2		344000	1720.0	1	1	21.0	19.7	0.020	0.027					
					50	25	21.0	19.8	0.019	0.025					
	Edge 3		344000	1720.0	1	1	21.0	19.7	0.422	0.567	50				
50					25	21.0	19.8	0.417	0.554						
Edge 4	344000	1720.0	1	1	21.0	19.7	0.017	0.023							
50	25	21.0	19.8	0.010	0.014										
CP-OFDM	QPSK	On	10	Edge 3	344000	1720.0	1	1	21.0	20.0	0.392	0.497			
Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		10-g SAR (W/kg)		Plot No.
Main 1 Ant.	Product Specific 10-g	DFT-s-OFDM	QPSK	Off	12	Edge 3	344000	1720.0	1	1	24.5	23.3	0.396	0.523	
				On	0	Edge 3	344000	1720.0	1	1	21.0	19.7	1.030	1.380	51
				On	0	Edge 3	344000	1720.0	1	1	21.0	20.0	1.040	1.303	

Version.1

Main 3 Ant. SAR results

Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	
Main 3 Ant.	Head	DFT-s-OFDM	QPSK	On	0	Left Touch	354000	1770.0	1	53	20.0	19.5	0.706	0.791	
									50	25	20.0	19.6	0.730	0.798	
						Left Tilt	344000	1720.0	1	53	20.0	19.1	0.772	0.946	
									50	25	20.0	19.2	0.777	0.943	
							349000	1745.0	1	53	20.0	19.1	0.745	0.924	
									50	25	20.0	19.1	0.746	0.914	
						354000	1770.0	1	53	20.0	19.5	0.836	0.936		
								50	25	20.0	19.6	0.901	0.985		
						Right Touch	354000	1770.0	1	53	20.0	19.5	0.429	0.480	
									50	25	20.0	19.6	0.421	0.460	
						Right Tilt	354000	1770.0	1	53	20.0	19.5	0.595	0.666	
									50	25	20.0	19.6	0.576	0.629	
	CP-OFDM	QPSK	On	0	Left Tilt	354000	1770.0	1	1	20.0	19.1	0.806	0.983		
	Body-w orn	DFT-s-OFDM	QPSK	Off	15	Rear	354000	1770.0	1	53	22.4	21.6	0.170	0.204	
									50	25	22.4	21.6	0.170	0.204	
		Front	354000	1770.0	1	53	22.4	21.6	0.132	0.158					
					50	25	22.4	21.6	0.136	0.163					
	CP-OFDM	QPSK	Off	15	Rear	354000	1770.0	1	1	20.9	20.1	0.102	0.124		
	Hotspot	DFT-s-OFDM	QPSK	On	10	Rear	354000	1770.0	1	53	20.0	19.5	0.166	0.187	
									50	25	20.0	19.6	0.160	0.176	
						Front	354000	1770.0	1	53	20.0	19.5	0.142	0.160	
50									25	20.0	19.6	0.131	0.144		
Edge 1		354000	1770.0	1	53	20.0	19.5	0.358	0.403						
				50	25	20.0	19.6	0.357	0.392						
Edge 2	354000	1770.0	1	53	20.0	19.5	0.065	0.073							
50	25	20.0	19.6	0.062	0.069										
CP-OFDM	QPSK	On	10	Edge 1	354000	1770.0	1	1	20.0	19.1	0.355	0.437			

Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.
2. For NR Band n66 of Main 3 Ant., It work only EN-DC scenarios.

NB Band n66 (20MHZ Bandwidth) (continued)

Version.2 (Head & Body-worn) & Version.3 (Hotspot)

Main 3 Ant. SAR results

Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.			
											Tune-up limit	Meas.	Meas.	Scaled				
Main 3 Ant.	Head	DFT-s-OFDM	QPSK	On	0	Left Touch	344000	1720.0	1	53	20.0	19.1	0.686	0.841				
									50	25	20.0	19.2	0.700	0.850				
									100	0	20.0	19.1	0.700	0.857				
							349000	1745.0	1	53	20.0	19.1	0.667	0.828				
									50	25	20.0	19.1	0.662	0.811				
									1	53	20.0	19.5	0.744	0.833				
		354000	1770.0	50	25	20.0	19.6	0.737	0.805									
				344000	1720.0	1	53	20.0	19.1	0.812	0.995							
						50	25	20.0	19.2	0.825	1.001							
		100	0			20.0	19.1	0.828	1.014									
		349000	1745.0	1	53	20.0	19.1	0.772	0.958									
				50	25	20.0	19.1	0.774	0.948									
	1			53	20.0	19.5	0.902	1.010										
	354000	1770.0	50	25	20.0	19.6	1.090	1.191	52									
			Right Touch	354000	1770.0	1	53	20.0	19.5	0.471	0.528							
						50	25	20.0	19.6	0.466	0.509							
	1	53				20.0	19.5	0.641	0.718									
	Right Tilt	354000	1770.0	50	25	20.0	19.6	0.641	0.701									
				Left Tilt	354000	1770.0	1	1	20.0	19.1	0.913	1.113						
							Body-worn	DFT-s-OFDM	QPSK	Off	15	Rear	354000	1770.0	1	53	22.4	21.6
	50	25	22.4												21.6	0.184	0.221	53
	Front	354000	1770.0	1	53	22.4	21.6					0.162	0.195					
				50	25	22.4	21.6					0.153	0.184					
	CP-OFDM	QPSK	Off	15	Rear	354000	1770.0	1	1	20.9	20.1	0.106	0.129					
Hotspot								DFT-s-OFDM	QPSK	On	10	Rear	354000	1770.0	1	53	20.0	19.5
	50	25	20.0	19.6	0.172	0.189												
	Front	354000	1770.0	1	53	20.0	19.5					0.142	0.160					
				50	25	20.0	19.6					0.137	0.151					
	Edge 1	354000	1770.0	1	53	20.0	19.5	0.437	0.492	54								
				50	25	20.0	19.6	0.391	0.430									
	Edge 2	354000	1770.0	1	53	20.0	19.5	0.066	0.075									
				50	25	20.0	19.6	0.064	0.070									
CP-OFDM	QPSK	On	10	Edge 1	354000	1770.0	1	1	20.0	19.1	0.355	0.437						

Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.
2. For NR Band n66 of Main 3 Ant., It work only EN-DC scenarios.

10.16. Wi-Fi (DTS Band)

Version.1

Normal WLAN SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.			
											Tune-up limit	Meas.	Meas.	Scaled					
WLAN SISO Ant.1	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.034	99.5%	17.0	15.7	0.023	0.031	4				
						Left Tilt	6	2437.0	0.024	99.5%	17.0	15.7	0.014	0.018	4				
						Right Touch	6	2437.0	0.039	99.5%	17.0	15.7	0.028	0.037	1				
						Right Tilt	6	2437.0	0.024	99.5%	17.0	15.7							
			Body-worn	Off	15	Rear	6	2437.0	0.055	99.5%	20.0	18.8	0.043	0.056	1				
						Front	6	2437.0	0.009	99.5%	20.0	18.8							
			Hotspot	Off	10	Rear	6	2437.0	0.191	99.5%	20.0	18.8	0.139	0.183	1				
						Front	6	2437.0	0.016	99.5%	20.0	18.8							
						Edge 1	6	2437.0	0.012	99.5%	20.0	18.8							
						Edge 4	6	2437.0	0.012	99.5%	20.0	18.8							
			WLAN SISO Ant.2	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.295	99.5%	17.0	15.9	0.212	0.278	4	
									Left Tilt	6	2437.0	0.059	99.5%	17.0	15.9	0.041	0.053	4	
Right Touch	6	2437.0							0.384	99.5%	17.0	15.9	0.241	0.316	1	55			
Right Tilt	6	2437.0							0.115	99.5%	17.0	15.9							
Body-worn	Off	15				Rear	6	2437.0	0.253	99.5%	20.0	18.9	0.157	0.204	1	56			
						Front	6	2437.0	0.144	99.5%	20.0	18.9							
Hotspot	Off	10				Rear	6	2437.0	0.425	99.5%	20.0	18.9	0.281	0.366	2				
						Front	6	2437.0	0.239	99.5%	20.0	18.9							
						Edge 1	6	2437.0	0.239	99.5%	20.0	18.9							
						Edge 4	6	2437.0	0.428	99.5%	20.0	18.9	0.317	0.413		57			

Normal WLAN MIMO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
WLAN MIMO Ant.1	2.4GHz	802.11g 6 Mbps	Body-worn	Off	15	Rear	6	2437.0	0.134	96.4%	18.0	17.0	0.079	0.105		
						Front	6	2437.0	0.063	96.4%	18.0	17.0				
			Hotspot	Off	10	Rear	6	2437.0	0.263	96.4%	18.0	17.0	0.160	0.211	4	
						Front	6	2437.0	0.130	96.4%	18.0	17.0				
						Edge 1	6	2437.0	0.035	96.4%	18.0	17.0				
						Edge 4	6	2437.0	0.321	96.4%	18.0	17.0	0.202	0.267	1	
WLAN MIMO Ant.2	2.4GHz	802.11g 6 Mbps	Body-worn	Off	15	Rear	6	2437.0	0.134	96.4%	18.0	17.0	0.083	0.107	1	
						Front	6	2437.0	0.063	96.4%	18.0	17.0				
			Hotspot	Off	10	Rear	6	2437.0	0.263	96.4%	18.0	17.0	0.160	0.208		
						Front	6	2437.0	0.130	96.4%	18.0	17.0				
						Edge 1	6	2437.0	0.035	96.4%	18.0	17.0				
						Edge 4	6	2437.0	0.321	96.4%	18.0	17.0				

RSDB WLAN SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
WLAN SISO Ant.1	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.020	99.5%	14.0	12.7	0.015	0.020	1	
						Left Tilt	6	2437.0	0.013	99.5%	14.0	12.7	0.007	0.010	4	
						Right Touch	6	2437.0	0.012	99.5%	14.0	12.7				
						Right Tilt	6	2437.0	0.005	99.5%	14.0	12.7				
WLAN SISO Ant.2	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	11	2462.0	0.072	99.5%	14.0	12.9	0.050	0.065	1	
						Left Tilt	11	2462.0	0.013	99.5%	14.0	12.9	0.006	0.008	4	
						Right Touch	11	2462.0	0.083	99.5%	14.0	12.9	0.007	0.009	4	
						Right Tilt	11	2462.0	0.031	99.5%	14.0	12.9				

Note(s):

- When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
- Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
- Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
- Additional testing required in order satisfying FCC simultaneous transmission limit criteria.
- SAR testing is not required for OFDM mode(s) when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
- RSDB WLAN SAR additionally evaluated in Head exposure condition due to satisfy simultaneous transmission criteria of RSDB configurations.

Wi-Fi (DTS Band) (continued)

Version.3

Normal WLAN SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
WLAN SISO Ant.1	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.117	99.5%	17.0	15.7	0.072	0.097	4	
						Left Tilt	6	2437.0	0.072	99.5%	17.0	15.7	0.045	0.060	4	
						Right Touch	6	2437.0	0.151	99.5%	17.0	15.7	0.106	0.143	1	
						Right Tilt	6	2437.0	0.080	99.5%	17.0	15.7				

RSDB WLAN SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
WLAN SISO Ant.1	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.055	99.5%	14.0	12.7	0.036	0.048	4	
						Left Tilt	6	2437.0	0.027	99.5%	14.0	12.7	0.022	0.029	4	
						Right Touch	6	2437.0	0.070	99.5%	14.0	12.7	0.047	0.064	1	
						Right Tilt	6	2437.0	0.042	99.5%	14.0	12.7				

Note(s):

1. When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.
5. SAR testing is not required for OFDM mode(s) when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

10.17. Wi-Fi (U-NII Bands)

Version.1

Normal U-NII 2A Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Note	Plot No.			
											Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled					
WLAN MIMO Ant.1	5.3 GHz U-NII 2A	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	58	5290.0	0.196	94.4%	15.0	14.1									
						Left Tilt	58	5290.0	0.067	94.4%	15.0	14.1									
						Right Touch	58	5290.0	0.465	94.4%	15.0	14.1									
						Right Tilt	58	5290.0	0.120	94.4%	15.0	14.1									
		802.11a 6 Mbps	Body-worn	Off	15	Rear	52	5260.0	0.298	96.4%	18.0	16.9									
						Front	52	5260.0	0.193	96.4%	18.0	16.9									
			Product Specific 10-g	Off	0	Rear	52	5260.0	3.480	96.4%	18.0	16.9			0.439	0.585	2				
						Front	52	5260.0	2.961	96.4%	18.0	16.9									
						Edge 1	52	5260.0	0.665	96.4%	18.0	16.9									
						Edge 4	52	5260.0	9.628	96.4%	18.0	16.9									

Note(s):

1. When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.

Wi-Fi (U-NII Band) (continued)

Version.1

Normal U-NII 2C Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Note	Plot No.			
											Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled					
WLAN MIMO Ant.1	5.5 GHz U-NII 2C	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	138	5690.0	0.118	94.4%	15.0	13.9									
						Left Tilt	138	5690.0	0.043	94.4%	15.0	13.9									
						Right Touch	138	5690.0	0.400	94.4%	15.0	13.9									
						Right Tilt	138	5690.0	0.115	94.4%	15.0	13.9									
	802.11a 6 Mbps	Body-worn	Off	15	Rear	144	5720.0	0.536	96.4%	18.0	16.7	0.242	0.340					1			
					Front	144	5720.0	0.135	96.4%	18.0	16.7										
		Product Specific 10-g	Off	0	Rear	144	5720.0	4.931	96.4%	18.0	16.7										
					Front	144	5720.0	4.879	96.4%	18.0	16.7										
					Edge 1	144	5720.0	0.322	96.4%	18.0	16.7										
					Edge 4	144	5720.0	8.042	96.4%	18.0	16.7										

Version.3

Normal U-NII 2C Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Note	Plot No.		
											Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled				
WLAN MIMO Ant.1	5.5 GHz U-NII 2C	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	138	5690.0	0.190	94.4%	15.0	13.9								
						Left Tilt	138	5690.0	0.074	94.4%	15.0	13.9								
						Right Touch	138	5690.0	0.650	94.4%	15.0	13.9								
						Right Tilt	138	5690.0	0.136	94.4%	15.0	13.9								
	802.11a 6 Mbps	Body-worn	Off	15	Rear	144	5720.0	0.922	96.4%	18.0	16.7	0.433	0.609					61		
					Front	144	5720.0	0.133	96.4%	18.0	16.7									
WLAN MIMO Ant.2	5.5 GHz U-NII 2C	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	138	5690.0	0.190	94.4%	15.0	14.2	0.079	0.100						
						Left Tilt	138	5690.0	0.074	94.4%	15.0	14.2	0.028	0.036						
						Right Touch	138	5690.0	0.650	94.4%	15.0	14.2	0.241	0.306						62
						Right Tilt	138	5690.0	0.136	94.4%	15.0	14.2								
	802.11a 6 Mbps	Body-worn	Off	15	Rear	144	5720.0	0.922	96.4%	18.0	17.8									
					Front	144	5720.0	0.133	96.4%	18.0	17.8	0.059	0.065					2		

Note(s):

1. When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.

Version.1

Normal U-NII 3 Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
WLAN MIMO Ant.1	5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	155	5775.0	0.113	94.4%	15.0	13.3				
						Left Tilt	155	5775.0	0.054	94.4%	15.0	13.3				
						Right Touch	155	5775.0	0.518	94.4%	15.0	13.3				
						Right Tilt	155	5775.0	0.119	94.4%	15.0	13.3				
		802.11a 6 Mbps	Body-worn	Off	15	Rear	157	5785.0	1.150	96.43%	18.0	16.1	0.582	0.933	3	
							165	5825.0	1.382	96.43%	18.0	16.0	0.609	0.996		
						Front	165	5825.0	0.164	96.43%	18.0	16.0				
			Hotspot	Off	10	Rear	149	5745.0	1.490	96.4%	18.0	16.1	0.728	1.175		
						Front	149	5745.0	0.303	96.4%	18.0	16.1				
						Edge 1	149	5745.0	0.328	96.4%	18.0	16.1				
		Edge 4	149	5745.0	0.770	96.4%	18.0	16.1	0.351	0.566	2					
		WLAN MIMO Ant.2	5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	155	5775.0	0.113	94.4%	15.0	14.3	0.047	0.058
Left Tilt	155							5775.0	0.054	94.4%	15.0	14.3	0.016	0.020	4	
Right Touch	155							5775.0	0.518	94.4%	15.0	14.3	0.207	0.257	1	
Right Tilt	155							5775.0	0.119	94.4%	15.0	14.3				
802.11a 6 Mbps	Body-worn			Off	15	Rear	157	5785.0	1.150	96.43%	18.0	17.1				
							165	5825.0	1.382	96.43%	18.0	17.2				
						Front	165	5825.0	0.164	96.43%	18.0	17.2	0.069	0.086	2	
	Hotspot			Off	10	Rear	149	5745.0	1.490	96.4%	18.0	16.9				
						Front	149	5745.0	0.303	96.4%	18.0	16.9	0.122	0.164	4	
						Edge 1	149	5745.0	0.328	96.4%	18.0	16.9				
Edge 4	149			5745.0	0.770	96.4%	18.0	16.9								

Version.3

Normal U-NII 3 Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
WLAN MIMO Ant.1	5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	155	5775.0	0.182	94.4%	15.0	13.3				
						Left Tilt	155	5775.0	0.069	94.4%	15.0	13.3	0.024	0.038	4	
						Right Touch	155	5775.0	0.674	94.4%	15.0	13.3				
						Right Tilt	155	5775.0	0.169	94.4%	15.0	13.3				
		802.11a 6 Mbps	Body-worn	Off	15	Rear	157	5785.0	1.482	96.43%	18.0	16.1	0.671	1.075	3	
							165	5825.0	1.666	96.43%	18.0	16.0	0.694	1.135	64	
						Front	165	5825.0	0.203	96.4%	18.0	16.0				
			Hotspot	Off	10	Rear	149	5745.0	1.851	96.4%	18.0	16.1	0.798	1.288	65	
						Front	149	5745.0	0.332	96.4%	18.0	16.1				
						Edge 1	149	5745.0	0.411	96.4%	18.0	16.1				
		Edge 4	149	5745.0	0.939	96.4%	18.0	16.1	0.398	0.642	2					
		802.11n HT 20 6.5 Mbps	Hotspot	Off	10	Rear	149	5745.0	1.428	96.2%	18.0	16.2	0.674	1.068	5	
WLAN MIMO Ant.2	5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	155	5775.0	0.182	94.4%	15.0	14.3	0.081	0.100	4	
						Left Tilt	155	5775.0	0.069	94.4%	15.0	14.3	0.025	0.031		
						Right Touch	155	5775.0	0.674	94.4%	15.0	14.3	0.256	0.318	1	66
						Right Tilt	155	5775.0	0.169	94.4%	15.0	14.3				
		802.11a 6 Mbps	Body-worn	Off	15	Rear	157	5785.0	1.482	96.4%	18.0	17.1				
							165	5825.0	1.666	96.4%	18.0	17.2				
						Front	165	5825.0	0.203	96.4%	18.0	17.2	0.089	0.111	2	
			Hotspot	Off	10	Rear	149	5745.0	1.851	96.4%	18.0	16.9				
						Front	149	5745.0	0.332	96.4%	18.0	16.9	0.155	0.209	4	
						Edge 1	149	5745.0	0.411	96.4%	18.0	16.9				
		Edge 4	149	5745.0	0.939	96.4%	18.0	16.9								
		802.11n HT 20 6.5 Mbps	Hotspot	Off	10	Rear	149	5745.0	1.428	96.2%	18.0	16.8				

Note(s):

1. When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.
5. For Hotspot exposure condition, subsequent test is required due to OFDM's reported SAR is over 1.2 W/kg. So additional SAR test is required at 802.11n HT20 according to KDB 248227. The SAR result is below 1.2 W/kg. So additional subsequent test is not required.

Version.1

Normal U-NII 4 Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Note	Plot No.				
											Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled						
WLAN MIMO Ant.1	5.9 GHz U-NII 4	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	171	5855.0	0.097	94.4%	15.0	13.1										
						Left Tilt	171	5855.0	0.038	94.4%	15.0	13.1										
						Right Touch	171	5855.0	0.526	94.4%	15.0	13.1										
						Right Tilt	171	5855.0	0.122	94.4%	15.0	13.1										
	802.11a 6 Mbps	Body-worn	Off	15	Rear	173	5865.0	1.496	96.4%	18.0	16.0	0.645	1.050					3				
					Front	177	5885.0	1.420	96.4%	18.0	16.2	0.718	1.137							67		
		Product Specific 10-g	Off	0	Rear	173	5865.0	8.321	96.4%	18.0	16.0					1.460	2.378					
					Front	177	5885.0	26.601	96.4%	18.0	16.2					1.880	2.978			68		
					Edge 1	177	5885.0	2.557	96.4%	18.0	16.2											
					Edge 4	177	5885.0	11.110	96.4%	18.0	16.2					0.995	1.576			2		

Version.1

RSDB UNII Bands Body-worn SAR results

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
5.3 GHz U-NII 2A	WLAN MIMO Ant.1	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	58	5290.0	0.127	94.4%	14.0	13.0				
						Front	58	5290.0	0.049	94.4%	14.0	13.0				
	WLAN MIMO Ant.2	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	58	5290.0	0.127	94.4%	14.0	13.2	0.054	0.068	1	
						Front	58	5290.0	0.049	94.4%	14.0	13.2	0.018	0.023	4	
5.5 GHz U-NII 2C	WLAN MIMO Ant.1	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	138	5690.0	0.167	94.4%	14.0	12.8	0.061	0.085	1	
						Front	138	5690.0	0.041	94.4%	14.0	12.8				
	WLAN MIMO Ant.2	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	138	5690.0	0.167	94.4%	14.0	13.1				
						Front	138	5690.0	0.041	94.4%	14.0	13.1	0.016	0.021	4	
5.8 GHz U-NII 3	WLAN MIMO Ant.1	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	155	5775.0	0.236	94.4%	14.0	12.2	0.097	0.156	1	
						Front	155	5775.0	0.039	94.4%	14.0	12.2				
	WLAN MIMO Ant.2	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	155	5775.0	0.236	94.4%	14.0	12.2				
						Front	155	5775.0	0.039	94.4%	14.0	12.2	0.014	0.023	4	
5.9 GHz U-NII 4	WLAN MIMO Ant.1	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	171	5855.0	0.419	94.4%	14.0	12.5	0.199	0.297	1	
						Front	171	5855.0	0.040	94.4%						
	WLAN MIMO Ant.2	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	171	5855.0	0.419	94.4%						
						Front	171	5855.0	0.040	94.4%	14.0	13.6	0.011	0.013	4	

Version.3

RSDB UNII Bands Body-worn SAR results

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
5.5 GHz U-NII 2C	WLAN MIMO Ant.1	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	138	5690.0	0.263	94.4%	14.0	12.8	0.115	0.160		
						Front	138	5690.0	0.056	94.4%	14.0	12.8				
	WLAN MIMO Ant.2	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	138	5690.0	0.263	94.4%	14.0	13.1				
						Front	138	5690.0	0.056	94.4%	14.0	13.1	0.017	0.022		
5.8 GHz U-NII 3	WLAN MIMO Ant.1	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	155	5775.0	0.414	94.4%	14.0	12.2	0.177	0.283	1	
						Front	155	5775.0	0.052	94.4%	14.0	12.2				
	WLAN MIMO Ant.2	802.11ac VHT 80 29.3 Mbps	Body-worn	Off	15	Rear	155	5775.0	0.414	94.4%	14.0	13.1				
						Front	155	5775.0	0.052	94.4%	14.0	13.1	0.018	0.023	4	

Note(s):

1. When the Highest reported SAR is ≤ 0.4 or 1.0 W/kg (1-g or 10-g respectively). Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 or 1.0 W/kg (1-g or 10-g respectively). Due to the highest reported SAR for this test position, other test positions in this exposure condition were evaluated until a SAR ≤ 0.8 or 2.0 W/kg (1-g or 10-g respectively) was reported.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.
5. RSDB UNII Bands SAR additionally evaluated in Body-worn exposure condition due to satisfy simultaneous transmission criteria of RSDB configurations.

10.18. Bluetooth

Version.1 SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.		
										Tune-up limit	Meas.	Meas.	Scaled			
BT SISO Ant.1	2.4 GHz	GFSK	Head	Off	0	Left Touch	39	2441.0	77.1%	19.0	19.0	0.048	0.062			
						Left Tilt	39	2441.0	77.1%	19.0	19.0	0.034	0.044			
						Right Touch	39	2441.0	77.1%	19.0	19.0	0.062	0.081			
						Right Tilt	39	2441.0	77.1%	19.0	19.0	0.039	0.051			
		GFSK	Body-worn	Off	15	Rear	39	2441.0	77.1%	19.0	19.0	0.032	0.042			
						Front	39	2441.0	77.1%	19.0	19.0	0.005	0.007			
		GFSK	Hotspot	Off	10	Rear	39	2441.0	77.1%	19.0	19.0	0.103	0.135			
						Front	39	2441.0	77.1%	19.0	19.0	0.013	0.017			
						Edge 1	39	2441.0	77.1%	19.0	19.0	0.018	0.023			
						Edge 4	39	2441.0	77.1%	19.0	19.0	0.014	0.018			
		BT SISO Ant.2	2.4 GHz	GFSK	Head	Off	0	Left Touch	0	2402.0	77.1%	17.0	16.4	0.081	0.121	
								Left Tilt	0	2402.0	77.1%	17.0	16.4	0.009	0.014	
Right Touch	0							2402.0	77.1%	17.0	16.4	0.083	0.123			
Right Tilt	0							2402.0	77.1%	17.0	16.4	0.029	0.043			
GFSK	Body-worn			Off	15	Rear	39	2441.0	77.1%	19.0	17.1	0.087	0.177	71		
						Front	39	2441.0	77.1%	19.0	17.1	0.056	0.113			
GFSK	Hotspot			Off	10	Rear	39	2441.0	77.1%	19.0	17.1	0.193	0.391			
						Front	39	2441.0	77.1%	19.0	17.1	0.126	0.255			
						Edge 4	39	2441.0	77.1%	19.0	17.1	0.218	0.442	72		

Version.1 MIMO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.		
										Tune-up limit	Meas.	Meas.	Scaled			
BT MIMO Ant.1	2.4 GHz	GFSK	Head	Off	0	Left Touch	78	2480.0	77.1%	13.0	11.9					
						Left Tilt	78	2480.0	77.1%	13.0	11.9	0.013	0.022			
						Right Touch	78	2480.0	77.1%	13.0	11.9					
						Right Tilt	78	2480.0	77.1%	13.0	11.9	0.037	0.062			
		GFSK	Body-worn	Off	15	Rear	78	2480.0	77.1%	13.0	11.9					
						Front	78	2480.0	77.1%	13.0	11.9	0.018	0.030			
		GFSK	Hotspot	Off	10	Rear	78	2480.0	77.1%	13.0	11.9					
						Front	78	2480.0	77.1%	13.0	11.9	0.038	0.064			
						Edge 1	78	2480.0	77.1%	13.0	11.9	0.007	0.013			
						Edge 4	78	2480.0	77.1%	13.0	11.9					
		BT MIMO Ant.2	2.4 GHz	GFSK	Head	Off	0	Left Touch	78	2480.0	77.1%	13.0	12.2	0.065	0.101	
								Left Tilt	78	2480.0	77.1%	13.0	12.2			
Right Touch	78							2480.0	77.1%	13.0	12.2	0.084	0.130			
Right Tilt	78							2480.0	77.1%	13.0	12.2					
GFSK	Body-worn			Off	15	Rear	78	2480.0	77.1%	13.0	12.2	0.032	0.050			
						Front	78	2480.0	77.1%	13.0	12.2	0.018	0.028			
GFSK	Hotspot			Off	10	Rear	78	2480.0	77.1%	13.0	12.2	0.091	0.141	73		
						Front	78	2480.0	77.1%	13.0	12.2	0.048	0.074			
						Edge 1	78	2480.0	77.1%	13.0	12.2	0.006	0.009			
						Edge 4	78	2480.0	77.1%	13.0	12.2	0.062	0.096			

Note(s):

For Head exposure condition, RCB back-off feature support to both BT SISO Ant.1 and SISO Ant.2. but BT SISO Ant.1 performed using max power condition.

Version.2

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
BT SISO Ant.1	2.4 GHz	GFSK	Head	Off	0	Left Touch	39	2441.0	77.1%	19.0	19.0	0.115	0.150	
						Left Tilt	39	2441.0	77.1%	19.0	19.0	0.042	0.055	
						Right Touch	39	2441.0	77.1%	19.0	19.0	0.140	0.183	70
						Right Tilt	39	2441.0	77.1%	19.0	19.0	0.079	0.103	
BT SISO Ant.2	2.4 GHz	GFSK	Head	Off	0	Left Touch	0	2402.0	77.1%	17.0	16.4	0.075	0.112	
						Left Tilt	0	2402.0	77.1%	17.0	16.4	0.012	0.017	
						Right Touch	0	2402.0	77.1%	17.0	16.4	0.107	0.160	
						Right Tilt	0	2402.0	77.1%	17.0	16.4	0.025	0.038	

Note(s):

For Head exposure condition, RCB back-off feature support to both BT SISO Ant.1 and SISO Ant.2. but BT SISO Ant.1 performed using max power condition.

11. SAR Measurement Variability

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

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

Peak spatial-average (1g of tissue)

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
700	LTE Band 12	Hotspot	Rear	No	0.262	N/A	N/A
	LTE Band 13	Hotspot	Rear	No	0.374	N/A	N/A
835	GSM 850	Hotspot	Rear	No	0.639	N/A	N/A
	WCDMA Band V	Hotspot	Rear	No	0.660	N/A	N/A
	LTE Band 26	Hotspot	Rear	No	0.501	N/A	N/A
	NR Band n5	Hotspot	Rear	No	0.530	N/A	N/A
1750	WCDMA Band IV	Hotspot	Edge 3	No	0.738	N/A	N/A
	LTE Band 4	Head	Left Tilt	No	0.699	N/A	N/A
	LTE Band 66	Hotspot	Edge 3	No	0.712	N/A	N/A
	NR Band n66	Head	Left Tilt	No	1.090	0.954	1.14
1900	GSM 1900	Hotspot	Edge 3	No	0.938	N/A	N/A
	WCDMA Band II	Hotspot	Edge 3	Yes	1.070	1.060	1.01
	LTE Band 2	Head	Left Tilt	No	0.636	N/A	N/A
	LTE Band 25	Hotspot	Edge3	No	1.050	N/A	N/A
2400	Wi-Fi 802.11b/g/n	Hotspot	Edge 4	No	0.317	N/A	N/A
	Bluetooth	Hotspot	Edge 4	No	0.218	N/A	N/A
2600	LTE Band 41	Hotspot	Edge 3	No	0.352	N/A	N/A
5300	Wi-Fi 802.11a/n	Head	Right Touch	No	0.222	N/A	N/A
5500	Wi-Fi 802.11a/n	Body-w orn	Rear	No	0.433	N/A	N/A
5800	Wi-Fi 802.11a/n	Hotspot	Rear	No	0.798	N/A	N/A
5900	Wi-Fi 802.11a/n	Body-w orn	Rear	No	0.718	N/A	N/A

Peak spatial-average (10g of tissue)

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
1750	WCDMA Band IV	Product Specific 10-g	Edge 3	No	1.100	N/A	N/A
	LTE Band 66	Product Specific 10-g	Edge 3	No	1.250	N/A	N/A
	NR Band n66	Product Specific 10-g	Edge 3	No	1.040	N/A	N/A
1900	GSM 1900	Product Specific 10-g	Edge 3	No	1.450	N/A	N/A
	WCDMA Band II	Product Specific 10-g	Edge 3	No	1.230	N/A	N/A
	LTE Band 25	Product Specific 10-g	Rear	No	1.510	N/A	N/A
5300	Wi-Fi 802.11a/n	Product Specific 10-g	Edge 4	No	1.050	N/A	N/A
5500	Wi-Fi 802.11a/n	Product Specific 10-g	Edge 4	No	1.140	N/A	N/A
5900	Wi-Fi 802.11a/n	Product Specific 10-g	Rear	No	1.880	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.

12. Simultaneous Transmission SAR Analysis

Simultaneous Transmission Condition

RF Exposure Condition	Item	Capable Transmit Configurations							
Head & Body-worn & Hotspot & Phablet-10g	1	WWAN (2G/3G/LTE/NR)	+	DTS Ant.1	or	DTS Ant.2	Non-RSDB Scenarios		
	2	WWAN (2G/3G/LTE/NR)	+	DTS MIMO					
	3	WWAN (2G/3G/LTE/NR)	+	UNII MIMO					
	4	WWAN (2G/3G/LTE/NR)	+	BT Ant.1	or	BT Ant.2			
	5	WWAN (2G/3G/LTE/NR)	+	BT MIMO					
	6	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	BT Ant.1		or	BT Ant.2
	7	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	BT MIMO			
	8	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	DTS Ant.1	or	DTS Ant.2	RSDB Scenarios
	9	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	DTS MIMO			
	10	WWAN (ENDC(LTE+NR))	+	DTS Ant.1	or	DTS Ant.2	Non-RSDB Scenarios		
	11	WWAN (ENDC(LTE+NR))	+	DTS MIMO					
	12	WWAN (ENDC(LTE+NR))	+	UNII MIMO					
	13	WWAN (ENDC(LTE+NR))	+	BT Ant.1	or	BT Ant.2			
	14	WWAN (ENDC(LTE+NR))	+	BT MIMO					
	15	WWAN (ENDC(LTE+NR))	+	UNII MIMO	+	BT Ant.1		or	BT Ant.2
	16	WWAN (ENDC(LTE+NR))	+	UNII MIMO	+	BT MIMO			
	17	WWAN (ENDC(LTE+NR))	+	UNII MIMO	+	DTS Ant.1	or	DTS Ant.2	RSDB Scenarios
	18	WWAN (ENDC(LTE+NR))	+	UNII MIMO	+	DTS MIMO			
	19	WWAN (LTE ULCA(PCC+SCC))	+	DTS Ant.1	or	DTS Ant.2	Non-RSDB Scenarios		
	20	WWAN (LTE ULCA(PCC+SCC))	+	DTS MIMO					
	21	WWAN (LTE ULCA(PCC+SCC))	+	UNII MIMO					
	22	WWAN (LTE ULCA(PCC+SCC))	+	BT Ant.1	or	BT Ant.2			
	23	WWAN (LTE ULCA(PCC+SCC))	+	BT MIMO					
	24	WWAN (LTE ULCA(PCC+SCC))	+	UNII MIMO	+	BT Ant.1		or	BT Ant.2
	25	WWAN (LTE ULCA(PCC+SCC))	+	UNII MIMO	+	BT MIMO			
	26	WWAN (LTE ULCA(PCC+SCC))	+	UNII MIMO	+	DTS Ant.1	or	DTS Ant.2	RSDB Scenarios
	27	WWAN (LTE ULCA(PCC+SCC))	+	UNII MIMO	+	DTS MIMO			

Notes:

1. DTS supports Wi-Fi Direct, Hotspot and VoIP.
2. U-NII supports Wi-Fi Direct, Hotspot and VoIP.
3. U-NII only supports MIMO mode.
4. GPRS, W-CDMA, LTE, NR supports Hotspot and VoIP
5. U-NII Radio can transmit simultaneously with Bluetooth Radio.
6. DTS Radio cannot transmit simultaneously with Bluetooth Radio.
7. DTS Radio can transmit simultaneously with U-NII Radio in only RSDB Scenarios
8. NR Radio support to both SA and NSA(ENDC) Radio.
9. BT tethering is considered about each RF exposure conditions.
10. LTE support UL CA interband configurations.

Simultaneous transmission SAR test exclusion considerations

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

Sum of SAR

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

SAR to Peak Location Ratio (SPLSR)

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

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

Where:

SAR₁ is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR₂ is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of

$$[(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2]$$

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

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

When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine **SAR₁** or **SAR₂**. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

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

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

Simultaneous transmission SAR measurement

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

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

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

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

Combined Multi Band Averaged SAR allows - in addition to the data extraction - an evaluation of the 1 g, 10 g and/or arbitrary averaged mass SAR.

Power Scaling Factor is used to allow the volume scans to be scaled by a value other than "1", this is important when the results need to be scaled to different maximum power levels. The Power Scaling Factor is applied to each individual point of the scan. When power scaling is used in multi-band combinations the scaling factor is applied to each individual point of the first scan, the second factor is then applied to each individual point of the second scan and so on. The scans are then combined.

SPLSR Hotspot Combination

Per November 2019 TCB Workshop Notes, SPLSR Hotspot Combination procedure can be applied to evaluate to simultaneous transmission SAR analysis.

Hybrid SPLSR and enlarged zoom scan (Volume scan) can be applied when Simultaneous transmission SAR is over 1.6 or 4.0 W/kg (1-g or 10-g respectively), it does not meet SPLSR criteria, and antenna pair is co-located. Antenna co-location means that SAR distributions overlap because the antennas are not significantly spatially separated.

Test procedure

Step.1 Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR.

Step.2 Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)														
		Non-RSDB scenarios									WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO +							
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9	
Head (1-g SAR)	Left Touch	0.255	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.352	0.533	0.630	0.359	0.405	0.376	0.356	0.509	0.480	0.460	0.273	0.423	0.394	0.374	
	Left Tilt	0.097	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.157	0.150	0.210	0.133	0.152	0.114	0.119	0.188	0.150	0.155	0.113	0.168	0.130	0.135	
	Right Touch	0.168	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.311	0.484	0.627	0.486	0.351	0.328	0.298	0.669	0.646	0.616	0.240	0.423	0.400	0.370	
	Right Tilt	0.111	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.254	0.427	0.570	0.429	0.214	0.154	0.173	0.532	0.472	0.491	0.134	0.237	0.177	0.196	
Body-Worn (1-g SAR)	Rear	0.359	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.415	0.563	0.466	1.496	0.401	0.536	0.409	1.538	1.673	1.546	0.581	0.623	0.758	0.631	
	Front	0.259	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.315	0.463	0.366	0.364	0.266	0.372	0.289	0.371	0.477	0.394	0.261	0.268	0.374	0.291	
Hotspot (1-g SAR)	Rear	0.911	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.094	1.277	1.122	2.199	1.046	1.302	1.052	2.334	2.590	2.340					
	Front	0.405	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.588	0.818	0.616	0.614	0.422	0.660	0.479	0.631	0.869	0.688					
	Edge 1		0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.103									0.103	0.103	0.103	0.103	0.103	0.103	0.103	0.103	0.103	0.103					
	Edge 3	0.349									0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349					
	Edge 4	0.305	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.488	0.718	0.516	0.947	0.323	0.747	0.401	0.965	1.389	1.043					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)						
		1	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear					1.137		0.177			1 + 5 + 7	1.673				1
						1.137					1 + 5	1.496	150.2	0.01	No	
								0.177			1 + 7	0.536	118.1	0.00	No	
						1.137		0.177			5 + 7	1.314	41.2	0.04	No	
Hotspot (1-g SAR)	Rear	0.911				1.288				1 + 5	2.199	146.4	0.02	No	2	
Hotspot (1-g SAR)	Rear	0.911				1.288	0.135			1 + 5 + 6	2.334					
		0.911				1.288				1 + 5	2.199	144.8	0.02	No		
		0.911					0.135			1 + 6	1.046	147.5	0.01	No		
				1.288	0.135				5 + 6	1.423	9.4	0.18	Yes			
Hybrid SPLSR Note.4		0.911				1.270				1 + (5 + 6)	2.181	144.8	0.02	No	2-a	
Hotspot (1-g SAR)	Rear	0.911				1.288		0.391			1 + 5 + 7	2.590				3
		0.911				1.288				1 + 5	2.199	144.8	0.02	No		
		0.911						0.391		1 + 7	1.302	114.5	0.01	No		
						1.288		0.391		5 + 7	1.679	44	0.05	Yes		
Hybrid SPLSR Note.4		0.911				1.300				1 + (5 + 6)	2.211	144.8	0.02	No	3-a	
Hotspot (1-g SAR)	Rear	0.911				1.288			0.141		1 + 5 + 8	2.340				4
		0.911				1.288				1 + 5	2.199	144.8	0.02	No		
		0.911						0.141		1 + 8	1.052	140.1	0.01	No		
						1.288		0.141		5 + 8	1.429	15.2	0.11	Yes		
Hybrid SPLSR Note.4		0.911				1.250				1 + (5 + 8)	2.161	144.8	0.02	No	4-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6		
Head (1-g SAR)	Left Touch	0.255	0.048	0.065	0.113	0.104	0.018	0.407	0.424	0.472	0.217	0.321	0.338	0.386	0.131
	Left Tilt	0.097	0.029	0.008	0.037	0.036	0.016	0.162	0.141	0.170	0.073	0.142	0.121	0.150	0.053
	Right Touch	0.168	0.064	0.009	0.073	0.318	0.072	0.550	0.495	0.559	0.391	0.304	0.249	0.313	0.145
	Right Tilt	0.111	0.064	0.065	0.129	0.318	0.023	0.493	0.494	0.558	0.447	0.198	0.199	0.263	0.152
Body-Worn (1-g SAR)	Rear	0.359	0.056	0.204	0.107	0.297	0.222	0.712	0.860	0.763	0.404	0.637	0.785	0.688	0.329
	Front	0.259	0.056	0.204	0.107	0.023	0.002	0.338	0.486	0.389	0.130	0.317	0.465	0.368	0.109
Hotspot (1-g SAR)	Rear	0.911	0.183	0.366	0.211	1.288		2.382	2.565	2.410	1.499				
	Front	0.405	0.183	0.413	0.211	0.209		0.797	1.027	0.825	0.420				
	Edge 1		0.183		0.211	1.288					1.499				
	Edge 2	0.103						0.103	0.103	0.103					
	Edge 3	0.349						0.349	0.349	0.349					
	Edge 4	0.305	0.183	0.413	0.211	0.642		1.130	1.360	1.158	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
1-a	2	3	4	5	6								
Hotspot (1-g SAR)	Rear	0.911	0.183			1.288		1 + 2 + 5	2.382			5	
		0.911	0.183					1 + 2	1.094	149.3	0.01		No
		0.911				1.288		1 + 5	2.199	144.8	0.02		No
			0.183			1.288		2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.911	1.270				1+(2+5)	2.181	144.8	0.02	No	5-a	
Hotspot (1-g SAR)	Rear	0.911		0.366		1.288		1 + 3 + 5	2.565			6	
		0.911		0.366				1 + 3	1.277	116.7	0.01		No
		0.911				1.288		1 + 5	2.199	144.8	0.02		No
				0.366		1.288		3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.911	1.310				1+(3+5)	2.221	144.8	0.02	No	6-a	
Hotspot (1-g SAR)	Rear	0.911			0.211	1.288		1 + 4 + 5	2.410			7	
		0.911			0.211			1 + 4	1.122	148.2	0.01		No
		0.911				1.288		1 + 5	2.199	144.8	0.02		No
					0.211	1.288		4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.911	1.300				1+(4+5)	2.211	144.8	0.02	No	7-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1 + BT Ant.2	WWAN + UNI MIMO + BT Ant.1 + BT Ant.2 + BT MIMO	WWAN + UNI MIMO + BT Ant.1 + BT Ant.2 + BT MIMO + UNI MIMO	WWAN + UNI MIMO + BT Ant.1 + BT Ant.2 + BT MIMO + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.1 + BT Ant.2 + BT MIMO + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT Ant.1 + BT Ant.2 + BT MIMO + UNI MIMO + BT Ant.1 + BT Ant.2
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (6GHz)																
1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9				
Head (1-g SAR)	Left Touch	0.056	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.153	0.334	0.431	0.160	0.206	0.177	0.157	0.310	0.281	0.261	0.074	0.224	0.195	0.175		
	Left Tilt	0.030	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.090	0.083	0.143	0.066	0.085	0.047	0.052	0.121	0.083	0.088	0.046	0.101	0.063	0.068		
	Right Touch	0.056	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.199	0.372	0.515	0.374	0.239	0.216	0.186	0.557	0.534	0.504	0.128	0.311	0.288	0.258		
	Right Tilt	0.031	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.174	0.347	0.490	0.349	0.134	0.074	0.093	0.452	0.392	0.411	0.054	0.157	0.097	0.116		
Body-Worn (1-g SAR)	Rear	0.405	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.461	0.609	0.512	1.542	0.447	0.582	0.455	1.584	1.719	1.592	0.627	0.669	0.804	0.677		
	Front	0.330	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.386	0.534	0.437	0.435	0.337	0.443	0.360	0.442	0.548	0.465	0.332	0.339	0.445	0.362		
Hotspot (1-g SAR)	Rear	0.400	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.583	0.766	0.611	1.688	0.535	0.791	0.541	1.823	2.079	1.829						
	Front	0.342	0.183	0.413	0.211	1.209	0.017	0.255	0.074		0.525	0.755	0.553	0.551	0.359	0.597	0.416	0.568	0.806	0.625						
	Edge 1		0.183		0.211	1.288	0.023		0.013																	
	Edge 2	0.058																								
	Edge 3	1.173																								
Product Specific 10-g (10-g SAR)	Rear					2.978				0.377																
	Front					0.449				0.048																
	Edge 1					2.978				0.026																
	Edge 2																									
	Edge 3	1.579																								
Edge 4					1.576				0.214																	

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (6GHz)						
																1
Body-Worn (1-g SAR)	Rear	0.405				1.137		0.177			1+5+7	1.719				8
		0.405				1.137					1+5	1.542	156.1	0.01	No	
		0.405						0.177			1+7	0.582	119.7	0.00	No	
						1.137		0.177			5+7	1.314	41.2	0.04	No	
Hotspot (1-g SAR)	Rear	0.400				1.288				1+5	1.688	153.8	0.01	No	9	
Hotspot (1-g SAR)	Rear	0.400				1.288	0.135			1+5+6	1.823					
		0.400				1.288				1+5	1.688	153.8	0.01	No		
		0.400					0.135			1+6	0.535	155.1	0.00	No		
				1.288	0.135				5+6	1.423	9.4	0.18	Yes			
Hybrid SPLSR Note.4		0.400				1.270				1+(5+6)	1.670	153.8	0.01	No	9-a	
Hotspot (1-g SAR)	Rear	0.400				1.288		0.391		1+5+7	2.079				10	
		0.400				1.288				1+5	1.688	153.8	0.01	No		
		0.400						0.391		1+7	0.791	118.4	0.01	No		
						1.288		0.391		5+7	1.679	44	0.05	Yes		
Hybrid SPLSR Note.4		0.400				1.300			1+(5+7)	1.700	153.8	0.01	No	10-a		
Hotspot (1-g SAR)	Rear	0.400				1.288			0.141	1+5+8	1.829				11	
		0.400				1.288				1+5	1.688	153.8	0.01	No		
		0.400							0.141	1+8	0.541	146.9	0.00	No		
						1.288			0.141	5+8	1.429	15.2	0.11	Yes		
Hybrid SPLSR Note.4		0.400				1.250			1+(5+8)	1.650	153.8	0.01	No	11-a		

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		RSDB scenarios						WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.056	0.048	0.065	0.113	0.104	0.018	0.208	0.225	0.273	0.217	0.122	0.139	0.187	0.131
	Left Tilt	0.030	0.029	0.008	0.037	0.036	0.016	0.095	0.074	0.103	0.073	0.075	0.054	0.083	0.053
	Right Touch	0.056	0.064	0.009	0.073	0.318	0.072	0.438	0.383	0.447	0.391	0.192	0.137	0.201	0.145
	Right Tilt	0.031	0.064	0.065	0.129	0.318	0.023	0.413	0.414	0.478	0.447	0.118	0.119	0.183	0.152
Body-Worn (1-g SAR)	Rear	0.405	0.056	0.204	0.107	0.297	0.222	0.758	0.906	0.809	0.404	0.683	0.831	0.734	0.329
	Front	0.330	0.056	0.204	0.107	0.297	0.222	0.409	0.557	0.460	0.130	0.388	0.536	0.439	0.109
Hotspot (1-g SAR)	Rear	0.400	0.183	0.366	0.211	1.288		1.871	2.054	1.899	1.499				
	Front	0.342	0.183	0.413	0.211	0.209		0.734	0.964	0.762	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.058													
	Edge 3	1.173													
	Edge 4	0.044	0.183	0.413	0.211	0.642		0.869	1.099	0.897	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPLSR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure	
		RSDB scenarios											
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.400	0.183			1.288		1+2+5	1.871			12	
		0.400	0.183					1+2	0.583	157	0.00		No
		0.400				1.288		1+5	1.688	153.8	0.01		No
			0.183			1.288		2+5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.400	1.270				1+(2+5)	1.670	153.8	0.01	No	12-a	
Hotspot (1-g SAR)	Rear	0.400		0.366		1.288		1+3+5	2.054			13	
		0.400		0.366				1+3	0.766	121.4	0.01		No
		0.400				1.288		1+5	1.688	153.8	0.01		No
				0.366		1.288		3+5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.400		1.310			1+(3+5)	1.710	153.8	0.01	No	13-a	
Hotspot (1-g SAR)	Rear	0.400			0.211	1.288		1+4+5	1.899			14	
		0.400			0.211			1+4	0.611	156.1	0.00		No
		0.400				1.288		1+5	1.688	153.8	0.01		No
					0.211	1.288		4+5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.400		1.300			1+(4+5)	1.700	153.8	0.01	No	14-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios																								
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (SPSR)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (SPSR)	WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2			
1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9				
Head (1-g SAR)	Left Touch	0.074	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.171	0.352	0.449	0.178	0.224	0.195	0.175	0.328	0.299	0.279	0.092	0.242	0.213	0.193		
	Left Tilt	0.031	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.091	0.084	0.144	0.067	0.086	0.048	0.053	0.122	0.084	0.089	0.047	0.102	0.064	0.069		
	Right Touch	0.067	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.210	0.383	0.526	0.385	0.250	0.227	0.197	0.568	0.545	0.515	0.139	0.322	0.299	0.269		
	Right Tilt	0.043	0.143	0.316	0.459	0.316	0.103	0.043	0.062	0.023	0.186	0.359	0.502	0.361	0.146	0.086	0.105	0.464	0.404	0.423	0.066	0.169	0.109	0.128		
Body-Worn (1-g SAR)	Rear	0.585	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.641	0.789	0.692	1.722	0.627	0.762	0.635	1.764	1.899	1.772	0.807	0.849	0.984	0.857		
	Front	0.463	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.519	0.667	0.570	0.568	0.470	0.576	0.493	0.575	0.681	0.598	0.465	0.472	0.578	0.495		
Hotspot (1-g SAR)	Rear	0.512	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.695	0.878	0.723	1.800	0.647	0.903	0.653	1.935	2.191	1.941						
	Front	0.437	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.620	0.850	0.648	0.646	0.454	0.692	0.511	0.663	0.901	0.720						
	Edge 1		0.183		0.211	1.288	0.023		0.013																	
	Edge 2	0.067																								
	Edge 3	1.174																								
	Edge 4	0.040	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.223	0.453	0.251	0.682	0.058	0.482	0.136	0.700	1.124	0.778						
Product Specific 10-g (10-g SAR)	Rear					2.978				0.377																
	Front					0.449				0.048																
	Edge 1					2.978				0.026																
	Edge 2																									
	Edge 3	1.408																								
	Edge 4					1.576				0.214																

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=0.04 or 10-g SPFLR (=0.10))	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios															
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (SPSR)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (SPSR)	1+5	1+6					
1	2	3	4	5	6	7	8	9									
Body-Worn (1-g SAR)	Rear	0.585				1.137						1+5	1.722	158.9	0.01	No	15
Body-Worn (1-g SAR)	Rear	0.585				1.137	0.042					1+5+6	1.764			No	
		0.585				1.137						1+5	1.722	158.9	0.01	No	
		0.585					0.042					1+6	0.627	155.1	0.00	No	
Hybrid SPLSR Note.4		0.585				1.137	0.042				5+6	1.179	5.8	0.22	Yes		
Body-Worn (1-g SAR)	Rear					1.110						1+(5+6)	1.695	158.7	0.01	No	15-a
		0.585				1.137		0.177				1+5+7	1.899				16
		0.585				1.137						1+5	1.722	158.9	0.01	No	
		0.585					0.177					1+7	0.762	122.2	0.01	No	
Hybrid SPLSR Note.4		0.512				1.288	0.135				5+7	1.314	41.2	0.04	No		
Body-Worn (1-g SAR)	Rear	0.585				1.137			0.050			1+5+8	1.772				17
		0.585				1.137					1+5	1.722	158.9	0.01	No		
		0.585					0.050				1+8	0.635	121.2	0.00	No		
		Hybrid SPLSR Note.4		0.512				1.288	0.135				5+8	1.187	42.2	0.03	No
Hotspot (1-g SAR)	Rear	0.512				1.288					1+5	1.800	153.8	0.02	No	18	
Hotspot (1-g SAR)	Rear	0.512				1.288					1+5+6	1.935					18
		0.512				1.288					1+5	1.800	155.9	0.02	No		
		0.512					0.135					1+6	0.647	157.1	0.00		No
Hybrid SPLSR Note.4		0.512				1.288	0.135				5+6	1.423	9.4	0.18	Yes		
Hotspot (1-g SAR)	Rear	0.512				1.288		0.391				1+(5+6)	1.782	155.9	0.02	No	18-a
		0.512				1.288						1+5+7	2.191				19
		0.512				1.288						1+5	1.800	155.9	0.02	No	
		0.512					0.391					1+7	0.903	120.4	0.01	No	
Hybrid SPLSR Note.4		0.512				1.288	0.391				5+7	1.679	44	0.05	Yes		
Hotspot (1-g SAR)	Rear	0.512				1.288			0.141			1+(5+7)	1.812	155.9	0.02	No	19-a
		0.512				1.288						1+5+8	1.941				20
		0.512				1.288				0.141		1+5	1.800	155.9	0.02	No	
		0.512					0.141					1+8	0.653	148.9	0.00	No	
Hybrid SPLSR Note.4		0.512				1.288			0.141		5+8	1.429	15.2	0.11	Yes		
Hybrid SPLSR Note.4		0.512				1.250					1+(5+8)	1.762	155.9	0.02	No	20-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)					Sum of SAR (W/kg)								
		WWAN	RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
			1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6
Head (1-g SAR)	Left Touch	0.074	0.048	0.065	0.113	0.104	0.018	0.226	0.243	0.291	0.217	0.140	0.157	0.205	0.131
	Left Tilt	0.031	0.029	0.008	0.037	0.036	0.016	0.096	0.075	0.104	0.073	0.076	0.055	0.084	0.053
	Right Touch	0.067	0.064	0.009	0.073	0.318	0.072	0.449	0.394	0.458	0.391	0.203	0.148	0.212	0.145
	Right Tilt	0.043	0.064	0.065	0.129	0.318	0.023	0.425	0.426	0.490	0.447	0.130	0.131	0.195	0.152
Body-Worn (1-g SAR)	Rear	0.585	0.056	0.204	0.107	0.297	0.222	0.938	1.086	0.989	0.404	0.863	1.011	0.914	0.329
	Front	0.463	0.056	0.204	0.107	0.023	0.002	0.542	0.690	0.593	0.130	0.521	0.669	0.572	0.109
Hotspot (1-g SAR)	Rear	0.512	0.183	0.366	0.211	1.288		1.983	2.166	2.011	1.499				
	Front	0.437	0.183	0.413	0.211	0.209		0.829	1.059	0.857	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.067													
	Edge 3	1.174													
	Edge 4	0.040	0.183	0.413	0.211	0.642		0.865	1.095	0.893	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)					Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	RSDB scenarios									
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)						UNII MIMO (6GHz)
1-a	2	3	4	5	6							
Hotspot (1-g SAR)	Rear	0.512	0.183			1.288	1+2+5	1.983			21	
		0.512	0.183				1+2	0.695	159.1	0.00		No
		0.512				1.288	1+5	1.800	155.9	0.02		No
			0.183			1.288	2+5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.512	1.270				1+(2+5)	1.782	155.9	0.02	No	21-a
Hotspot (1-g SAR)	Rear	0.512		0.366		1.288	1+3+5	2.166			22	
		0.512		0.366			1+3	0.878	123.5	0.01		No
		0.512				1.288	1+5	1.800	155.9	0.02		No
				0.366		1.288	3+5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.512		1.310			1+(3+5)	1.822	155.9	0.02	No	22-a
Hotspot (1-g SAR)	Rear	0.512			0.211	1.288	1+4+5	2.011			23	
		0.512			0.211		1+4	0.723	158.1	0.00		No
		0.512				1.288	1+5	1.800	155.9	0.02		No
					0.211	1.288	4+5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.512		1.300			1+(4+5)	1.812	155.9	0.02	No	23-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg)															
		Non-RSDB scenarios																							
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (SFR)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (WIFI)	WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2
1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9			
Head (1-g SAR)	Left Touch	0.064	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.161	0.342	0.439	0.168	0.214	0.185	0.165	0.318	0.289	0.269	0.082	0.232	0.203	0.183	
	Left Tilt	0.044	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.104	0.097	0.157	0.080	0.099	0.061	0.066	0.135	0.097	0.102	0.060	0.115	0.077	0.062	
	Right Touch	0.063	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.206	0.379	0.522	0.381	0.246	0.223	0.193	0.564	0.541	0.511	0.135	0.318	0.295	0.265	
	Right Tilt	0.055	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.198	0.371	0.514	0.373	0.158	0.098	0.117	0.476	0.416	0.435	0.078	0.181	0.121	0.140	
Body-Worn (1-g SAR)	Rear	0.537	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.593	0.741	0.644	1.674	0.579	0.714	0.587	1.716	1.851	1.724	0.759	0.801	0.936	0.809	
	Front	0.380	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.436	0.584	0.487	0.485	0.387	0.493	0.410	0.492	0.598	0.515	0.382	0.389	0.495	0.412	
Hotspot (1-g SAR)	Rear	0.498	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.681	0.864	0.709	1.786	0.633	0.889	0.639	1.921	2.177	1.927					
	Front	0.432	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.615	0.845	0.643	0.641	0.449	0.687	0.506	0.658	0.896	0.715					
	Edge 1		0.183		0.211	1.288	0.023		0.013																
	Edge 2		0.116																						
	Edge 3		0.918																						
Product Specific 10-g (10-g SAR)	Edge 4		0.068	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.251	0.481	0.279	0.710	0.086	0.510	0.164	0.728	1.152	0.806				
	Rear									0.377															
	Front					0.449				0.048															
	Edge 1					2.978				0.026															
	Edge 2																								

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios													
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (SFR)	BT Ant.1	BT Ant.2	BT MIMO						UNI MIMO (WIFI)
1	2	3	4	5	6	7	8	9							
Body-Worn (1-g SAR)	Rear	0.537				1.137				1+5	1.674	157.6	0.01	No	24
Body-Worn (1-g SAR)	Rear	0.537				1.137	0.042			1+5+6	1.716			No	
		0.537					0.042			1+6	0.579	153.9	0.00	No	
		0.537				1.137	0.042			5+6	1.179	5.8	0.22	Yes	
Hybrid SPLSR Note.4		0.537				1.110				1+(5+6)	1.647	157.3	0.01	No	24-a
Body-Worn (1-g SAR)	Rear	0.537				1.137		0.177		1+5+7	1.851				25
		0.537				1.137				1+5	1.674	157.6	0.01	No	
		0.537					0.177			1+7	0.714	121.2	0.00	No	
		0.537				1.137		0.177		5+7	1.314	41.2	0.04	No	
Body-Worn (1-g SAR)	Rear	0.537				1.137		0.050		1+5+8	1.724			26	
		0.537				1.137				1+5	1.674	157.6	0.01		No
		0.537						0.050		1+8	0.587	120.2	0.00		No
Hybrid SPLSR Note.4		0.537				1.137		0.050		5+8	1.187	42.2	0.03	No	
Hotspot (1-g SAR)	Rear	0.498				1.288				1+5	1.786	156.3	0.02	No	27
Hotspot (1-g SAR)	Rear	0.498				1.288	0.135			1+5+6	1.921				
		0.498				1.288				1+5	1.786	156.3	0.02	No	
		0.498					0.135			1+6	0.633	157.9	0.00	No	
Hybrid SPLSR Note.4		0.498				1.288	0.135			5+6	1.423	9.4	0.18	Yes	
Hotspot (1-g SAR)	Rear	0.498				1.288		0.391		1+5+7	2.177			28	
Hotspot (1-g SAR)	Rear	0.498				1.288				1+5	1.786	156.3	0.02		No
		0.498					0.391			1+7	0.889	121.5	0.01		No
		0.498				1.288		0.391		5+7	1.679	44	0.05		Yes
Hybrid SPLSR Note.4		0.498				1.300				1+(5+7)	1.798	156.3	0.02	No	28-a
Hotspot (1-g SAR)	Rear	0.498				1.288			0.141	1+5+8	1.927			29	
		0.498				1.288				1+5	1.786	156.3	0.02		No
		0.498						0.141		1+8	0.639	149.7	0.00		No
		0.498				1.288		0.141		5+8	1.429	15.2	0.11		Yes
Hybrid SPLSR Note.4		0.498				1.250				1+(5+8)	1.748	156.3	0.01	No	29-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)					Sum of SAR (W/kg)								
		WWAN	RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)									UNII MIMO (6GHz)
1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6		
Head (1-g SAR)	Left Touch	0.064	0.048	0.065	0.113	0.104	0.018	0.216	0.233	0.281	0.217	0.130	0.147	0.195	0.131
	Left Tilt	0.044	0.029	0.008	0.037	0.036	0.016	0.109	0.088	0.117	0.073	0.089	0.068	0.097	0.053
	Right Touch	0.063	0.064	0.009	0.073	0.318	0.072	0.445	0.390	0.454	0.391	0.199	0.144	0.208	0.145
	Right Tilt	0.055	0.064	0.065	0.129	0.318	0.023	0.437	0.438	0.502	0.447	0.142	0.143	0.207	0.152
Body-Worn (1-g SAR)	Rear	0.537	0.056	0.204	0.107	0.297	0.222	0.890	1.038	0.941	0.404	0.815	0.963	0.866	0.329
	Front	0.380	0.056	0.204	0.107	0.023	0.002	0.459	0.607	0.510	0.130	0.438	0.586	0.489	0.109
Hotspot (1-g SAR)	Rear	0.498	0.183	0.366	0.211	1.288		1.969	2.152	1.997	1.499				
	Front	0.432	0.183	0.413	0.211	0.209		0.824	1.054	0.852	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.116													
	Edge 3	0.918													
	Edge 4	0.068	0.183	0.413	0.211	0.642		0.893	1.123	0.921	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)					Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	RSDB scenarios									
			1-a	2	3	4	5	6				
Hotspot (1-g SAR)	Rear	0.498	0.183			1.288	1 + 2 + 5	1.969			30	
		0.498	0.183				1 + 2	0.681	159.7	0.00		No
		0.498				1.288	1 + 5	1.786	156.3	0.02		No
			0.183			1.288	2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.498	1.270				1+(2+5)	1.768	156.3	0.02	No	30-a
Hotspot (1-g SAR)	Rear	0.498		0.366		1.288	1 + 3 + 5	2.152			31	
		0.498		0.366			1 + 3	0.864	124.4	0.01		No
		0.498				1.288	1 + 5	1.786	156.3	0.02		No
				0.366		1.288	3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.498		1.310			1+(3+5)	1.808	156.3	0.02	No	31-a
Hotspot (1-g SAR)	Rear	0.498			0.211	1.288	1 + 4 + 5	1.997			32	
		0.498			0.211		1 + 4	0.709	158.7	0.00		No
		0.498				1.288	1 + 5	1.786	156.3	0.02		No
					0.211	1.288	4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.498		1.300			1+(4+5)	1.798	156.3	0.02	No	32-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg)														
		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO															UNI MIMO (5GHz)
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.227	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.324	0.505	0.602	0.331	0.377	0.348	0.328	0.481	0.462	0.432	0.245	0.395	0.366	0.346
	Left Tilt	0.088	0.060	0.063	0.113	0.036	0.055	0.017	0.022	0.016	0.148	0.141	0.201	0.124	0.143	0.105	0.110	0.179	0.141	0.146	0.104	0.159	0.121	0.126
	Right Touch	0.142	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.285	0.458	0.601	0.460	0.325	0.302	0.272	0.643	0.620	0.590	0.214	0.397	0.374	0.344
	Right Tilt	0.087	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.230	0.403	0.546	0.405	0.190	0.130	0.149	0.508	0.448	0.467	0.110	0.213	0.153	0.172
Body-Worn (1-g SAR)	Rear	0.398	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.454	0.602	0.505	1.535	0.440	0.575	0.448	1.577	1.712	1.585	0.620	0.662	0.797	0.670
	Front	0.253	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.309	0.457	0.360	0.358	0.260	0.366	0.283	0.365	0.471	0.388	0.255	0.262	0.368	0.285
Hotspot (1-g SAR)	Rear	0.908	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.091	1.274	1.119	2.196	1.043	1.299	1.049	2.331	2.587	2.337				
	Front	0.463	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.646	0.876	0.674	0.672	0.480	0.718	0.537	0.689	0.927	0.746				
	Edge 1		0.183		0.211	1.288	0.023		0.013															
	Edge 2	0.101																						
	Edge 3	0.334																						
	Edge 4	0.223	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.406	0.636	0.434	0.865	0.241	0.665	0.319	0.883	1.307	0.961				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=d.04) or 10-g SPLSR (=d.10)	Volume Scan (Yes/No) Note.3	Figure		
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO						UNI MIMO (5GHz)	
		1	2	3	4	5	6	7	8						9	
Body-Worn (1-g SAR)	Rear	0.398				1.137		0.177			1 + 5 + 7	1.712				33
		0.398				1.137					1 + 5	1.535	151.5	0.01	No	
		0.398						0.177			1 + 7	0.575	119.7	0.00	No	
						1.137		0.177			5 + 7	1.314	41.2	0.04	No	
Hotspot (1-g SAR)	Rear	0.908				1.288					1 + 5	2.196	149.2	0.02	No	34
Hotspot (1-g SAR)	Rear	0.908				1.288	0.135				1 + 5 + 6	2.331				
		0.908				1.288					1 + 5	2.196	149.2	0.02	No	
		0.908					0.135				1 + 6	1.043	152	0.01	No	
				1.288	0.135					5 + 6	1.423	9.4	0.18	Yes		
Hybrid SPLSR Note.4		0.908				1.27					1 + (5 + 6)	2.178	149.2	0.02	No	34-a
Hotspot (1-g SAR)	Rear	0.908				1.288		0.391				1 + 5 + 7	2.587			35
		0.908				1.288					1 + 5	2.196	149.2	0.02	No	
		0.908						0.391			1 + 7	1.299	119.3	0.01	No	
						1.288		0.391			5 + 7	1.679	44	0.05	Yes	
Hybrid SPLSR Note.4		0.908				1.3					1 + (5 + 7)	2.208	149.2	0.02	No	35-a
Hotspot (1-g SAR)	Rear	0.908				1.288			0.141			1 + 5 + 8	2.337			36
		0.908				1.288					1 + 5	2.196	149.2	0.02	No	
		0.908						0.141			1 + 8	1.049	144.6	0.01	No	
						1.288		0.141			5 + 8	1.429	15.2	0.11	Yes	
Hybrid SPLSR Note.4		0.908				1.25					1 + (5 + 8)	2.158	149.2	0.02	No	36-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		RSDB scenarios						WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.227	0.048	0.065	0.113	0.104	0.018	0.379	0.396	0.444	0.217	0.293	0.310	0.358	0.131
	Left Tilt	0.088	0.029	0.008	0.037	0.036	0.016	0.153	0.132	0.161	0.073	0.133	0.112	0.141	0.053
	Right Touch	0.142	0.064	0.009	0.073	0.318	0.072	0.524	0.469	0.533	0.391	0.278	0.223	0.287	0.145
	Right Tilt	0.087	0.064	0.065	0.129	0.318	0.023	0.469	0.470	0.534	0.447	0.174	0.175	0.239	0.152
Body-Worn (1-g SAR)	Rear	0.398	0.056	0.204	0.107	0.297	0.222	0.751	0.899	0.802	0.404	0.676	0.824	0.727	0.329
	Front	0.253	0.056	0.204	0.107	0.023	0.002	0.332	0.480	0.383	0.130	0.311	0.459	0.362	0.109
Hotspot (1-g SAR)	Rear	0.908	0.183	0.366	0.211	1.288		2.379	2.562	2.407	1.499				
	Front	0.463	0.183	0.413	0.211	0.209		0.855	1.085	0.883	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.101													
	Edge 3	0.334													
	Edge 4	0.223	0.183	0.413	0.211	0.642		1.048	1.278	1.076	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure
		RSDB scenarios										
		1	2	3	4	5	6					
Hotspot (1-g SAR)	Rear	0.908	0.183			1.288		1 + 2 + 5	2.379			37
		0.908	0.183					1 + 2	1.091	0.01	No	
		0.908				1.288		1 + 5	2.196	0.02	No	
			0.183			1.288		2 + 5	1.471	0.19	Yes	
Hybrid SPLSR Note.4		0.908	1.270				1+(2+5)	2.178	149.2	0.02	No	37-a
Hotspot (1-g SAR)	Rear	0.908		0.366		1.288		1 + 3 + 5	2.562			38
		0.908		0.366				1 + 3	1.274	0.01	No	
		0.908				1.288		1 + 5	2.196	0.02	No	
				0.366		1.288		3 + 5	1.654	0.05	Yes	
Hybrid SPLSR Note.4		0.908	1.310				1+(3+5)	2.218	149.2	0.02	No	38-a
Hotspot (1-g SAR)	Rear	0.908			0.211	1.288		1 + 4 + 5	2.407			39
		0.908			0.211			1 + 4	1.119	0.01	No	
		0.908				1.288		1 + 5	2.196	0.02	No	
					0.211	1.288		4 + 5	1.499	0.22	Yes	
Hybrid SPLSR Note.4		0.908	1.300				1+(4+5)	2.208	149.2	0.02	No	39-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO +								
1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1+5+6	1+5+7	1+5+8	1+9	1+5+9	1+7+9	1+8+9	1+9+9		
Head (1-g SAR)	Left Touch	0.161	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.258	0.439	0.536	0.265	0.311	0.282	0.262	0.415	0.386	0.366	0.179	0.329	0.300	0.280		
	Left Tilt	0.070	0.060	0.063	0.113	0.036	0.055	0.017	0.022	0.016	0.130	0.123	0.183	0.106	0.125	0.087	0.092	0.161	0.123	0.128	0.086	0.141	0.103	0.108		
	Right Touch	0.108	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.251	0.424	0.567	0.426	0.291	0.268	0.238	0.609	0.586	0.556	0.180	0.363	0.340	0.310		
	Right Tilt	0.054	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.197	0.370	0.513	0.372	0.157	0.097	0.116	0.475	0.415	0.434	0.077	0.180	0.120	0.139		
Body-Worn (1-g SAR)	Rear	0.181	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.237	0.385	0.288	1.318	0.223	0.358	0.231	1.360	1.495	1.368	0.403	0.445	0.580	0.453		
	Front	0.181	0.056	0.204	0.107	1.137	0.007	0.113	0.030	0.002	0.237	0.385	0.288	0.286	0.188	0.294	0.211	0.293	0.399	0.316	0.183	0.190	0.296	0.213		
Hotspot (1-g SAR)	Rear	0.335	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.518	0.701	0.546	1.623	0.470	0.726	0.476	1.758	2.014	1.764						
	Front	0.193	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.376	0.606	0.404	0.402	0.210	0.448	0.267	0.419	0.657	0.476						
	Edge 1		0.183		0.211	1.288	0.023		0.013																	
	Edge 2	0.195																								
	Edge 3	0.090																								
Edge 4	0.141	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.324	0.554	0.352	0.783	0.159	0.583	0.237	0.801	1.225	0.879							

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=d.04) or 10-g SPLSR (=d.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.335				1.288					1 + 5	1.623	146.7	0.01	No	40
Hotspot (1-g SAR)	Rear	0.335				1.288	0.135				1 + 5 + 6	1.758			No	
		0.335				1.288					1 + 5	1.623	146.7	0.01	No	
		0.335					0.135				1 + 6	0.470	149.4	0.00	No	
					1.288	0.135				5 + 6	1.423	9.4	0.18	Yes		
Hybrid SPLSR Note.4		0.335				1.27					1 + (5 + 6)	1.605	146.7	0.01	No	41-a
Hotspot (1-g SAR)	Rear	0.335				1.288		0.391			1 + 5 + 7	2.014				42
		0.335				1.288					1 + 5	1.623	146.7	0.01	No	
		0.335						0.391			1 + 7	0.726	116.5	0.01	No	
						1.288		0.391			5 + 7	1.679	44	0.05	Yes	
Hybrid SPLSR Note.4		0.335				1.3					1 + (5 + 7)	1.635	146.7	0.01	No	42-a
Hotspot (1-g SAR)	Rear	0.335				1.288				0.141	1 + 5 + 8	1.764			43	
		0.335				1.288					1 + 5	1.623	146.7	0.01		No
		0.335							0.141		1 + 8	0.476	142	0.00		No
						1.288			0.141		5 + 8	1.429	15.2	0.11		Yes
Hybrid SPLSR Note.4		0.335				1.25					1 + (5 + 8)	1.585	146.7	0.01	No	43-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)					Sum of SAR (W/kg)											
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)			
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)									1	2	3
Head (1-g SAR)	Left Touch	0.161	0.048	0.065	0.113	0.104	0.018	0.313	0.330	0.378	0.217	0.227	0.244	0.292	0.131			
	Left Tilt	0.070	0.029	0.008	0.037	0.036	0.016	0.135	0.114	0.143	0.073	0.115	0.094	0.123	0.053			
	Right Touch	0.108	0.064	0.009	0.073	0.318	0.072	0.490	0.435	0.499	0.391	0.244	0.189	0.253	0.145			
	Right Tilt	0.054	0.064	0.065	0.129	0.318	0.023	0.436	0.437	0.501	0.447	0.141	0.142	0.206	0.152			
Body-Worn (1-g SAR)	Rear	0.181	0.056	0.204	0.107	0.297	0.222	0.534	0.682	0.585	0.404	0.459	0.607	0.510	0.329			
	Front	0.181	0.056	0.204	0.107	0.023	0.002	0.260	0.408	0.311	0.130	0.239	0.387	0.290	0.109			
Hotspot (1-g SAR)	Rear	0.335	0.183	0.366	0.211	1.288		1.806	1.989	1.834	1.499							
	Front	0.193	0.183	0.413	0.211	0.209		0.585	0.815	0.613	0.420							
	Edge 1		0.183		0.211	1.288												
	Edge 2	0.195																
	Edge 3	0.090																
	Edge 4	0.141	0.183	0.413	0.211	0.642		0.966	1.196	0.994	0.853							

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)					Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	RSDB scenarios									
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)						UNII MIMO (6GHz)
Hotspot (1-g SAR)	Rear	0.335	0.183			1.288	1 + 2 + 5	1.806			44	
		0.335	0.183				1 + 2	0.518	151.2	0.00		No
		0.335				1.288	1 + 5	1.623	146.7	0.01		No
			0.183			1.288	2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.335	1.270				1+(2+5)	1.605	146.7	0.01	No	44-a
Hotspot (1-g SAR)	Rear	0.335		0.366		1.288	1 + 3 + 5	1.989			45	
		0.335		0.366			1 + 3	0.701	118.8	0.00		No
		0.335				1.288	1 + 5	1.623	146.7	0.01		No
				0.366		1.288	3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.335	1.310				1+(3+5)	1.645	146.7	0.01	No	45-a
Hotspot (1-g SAR)	Rear	0.335			0.211	1.288	1 + 4 + 5	1.834			46	
		0.335			0.211		1 + 4	0.546	150.2	0.00		No
		0.335				1.288	1 + 5	1.623	146.7	0.01		No
					0.211	1.288	4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.335	1.300				1+(4+5)	1.635	146.7	0.01	No	46-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg)															
		Non-RSDB scenarios								WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +	WWAN +
		DTSAnt1	DTSAnt2	DTSMMO	UNI MMO (5GHz)	BT Ant1	BT Ant2	BT MMO	UNI MMO (5GHz)	DTSAnt1	DTSAnt2	DTSAnt1	DTSAnt2	DTSAnt1	DTSAnt2	DTSAnt1	DTSAnt2	DTSAnt1	DTSAnt2	DTSAnt1	DTSAnt2	DTSAnt1	DTSAnt2	DTSAnt1	DTSAnt2
1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9			
Head (1-g SAR)	Left Touch	0.171	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.268	0.449	0.546	0.275	0.321	0.292	0.272	0.425	0.396	0.376	0.189	0.339	0.310	0.290	
	Left Tilt	0.078	0.060	0.053	0.113	0.036	0.065	0.017	0.022	0.016	0.138	0.131	0.191	0.114	0.133	0.095	0.100	0.169	0.131	0.136	0.094	0.149	0.111	0.116	
	Right Touch	0.137	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.280	0.453	0.596	0.455	0.320	0.297	0.267	0.638	0.615	0.585	0.209	0.392	0.369	0.339	
	Right Tilt	0.091	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.234	0.407	0.550	0.409	0.194	0.134	0.153	0.512	0.452	0.471	0.114	0.217	0.157	0.176	
Body-Worn (1-g SAR)	Rear	0.236	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.292	0.440	0.343	1.373	0.278	0.413	0.286	1.415	1.550	1.423	0.458	0.500	0.635	0.508	
	Front	0.217	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.273	0.421	0.324	0.322	0.224	0.330	0.247	0.329	0.435	0.352	0.219	0.226	0.332	0.249	
Hotspot (1-g SAR)	Rear	0.576	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.759	0.942	0.787	1.864	0.711	0.967	0.717	1.999	2.255	2.005					
	Front	0.325	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.508	0.738	0.536	0.534	0.342	0.580	0.399	0.551	0.789	0.608					
	Edge 1		0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.208																							
	Edge 3	0.180																							
	Edge 4	0.231	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.414	0.644	0.442	0.873	0.249	0.673	0.327	0.891	1.315	0.969					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (<=0.04) or 10-g SPLSR (<=0.10) Note 3	Volume Scan (Yes/No) Note 3	Figure		
		DTSAnt1	DTSAnt2	DTSMMO	UNI MMO (5GHz)	BT Ant1	BT Ant2	BT MMO	UNI MMO (5GHz)							
		1	2	3	4	5	6	7	8						9	
Hotspot (1-g SAR)	Rear	0.576				1.288					1 + 5	1.864	143.8	0.02	No	47
Hotspot (1-g SAR)	Rear	0.576				1.288	0.135				1 + 5 + 6	1.999				
		0.576				1.288					1 + 5	1.864	143.8	0.02	No	
		0.576					0.135				1 + 6	0.711	146.6	0.00	No	
					1.288	0.135				5 + 6	1.423	9.4	0.18	Yes		
Hybrid SPLSR Note 4		0.576				1.270					1 + (5 + 6)	1.846	143.8	0.02	No	47-a
Hotspot (1-g SAR)	Rear	0.576				1.288		0.391			1 + 5 + 7	2.255				48
		0.576				1.288				1 + 5	1.864	143.8	0.02	No		
		0.576						0.391		1 + 7	0.967	114	0.01	No		
						1.288		0.391		5 + 7	1.679	44	0.05	Yes		
Hybrid SPLSR Note 4		0.576				1.300				1 + (5 + 7)	1.876	143.8	0.02	No	48-a	
Hotspot (1-g SAR)	Rear	0.576				1.288			0.141		1 + 5 + 8	2.005			49	
		0.576				1.288				1 + 5	1.864	143.8	0.02	No		
		0.576						0.141		1 + 8	0.717	139.3	0.00	No		
						1.288		0.141		5 + 8	1.429	15.2	0.11	Yes		
Hybrid SPLSR Note 4		0.576				1.250				1 + (5 + 8)	1.826	143.8	0.02	No	49-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		RSDB scenarios						WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)	1+2+5								
1	2	3	4	5	6										
Head (1-g SAR)	Left Touch	0.171	0.048	0.065	0.113	0.104	0.018	0.323	0.340	0.388	0.217	0.237	0.254	0.302	0.131
	Left Tilt	0.078	0.029	0.008	0.037	0.036	0.016	0.143	0.122	0.151	0.073	0.123	0.102	0.131	0.053
	Right Touch	0.137	0.064	0.009	0.073	0.318	0.072	0.519	0.464	0.528	0.391	0.273	0.218	0.282	0.145
	Right Tilt	0.091	0.064	0.065	0.129	0.318	0.023	0.473	0.474	0.538	0.447	0.178	0.179	0.243	0.152
Body-Worn (1-g SAR)	Rear	0.236	0.056	0.204	0.107	0.297	0.222	0.589	0.737	0.640	0.404	0.514	0.662	0.565	0.329
	Front	0.217	0.056	0.204	0.107	0.202	0.002	0.296	0.444	0.347	0.130	0.275	0.423	0.326	0.109
Hotspot (1-g SAR)	Rear	0.576	0.183	0.366	0.211	1.288		2.047	2.230	2.075	1.499				
	Front	0.325	0.183	0.413	0.211	0.209		0.717	0.947	0.745	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.208													
	Edge 3	0.180													
	Edge 4	0.231	0.183	0.413	0.211	0.642		1.056	1.286	1.084	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure	
		RSDB scenarios											
		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)							
1	2	3	4	5	6								
Hotspot (1-g SAR)	Rear	0.576	0.183			1.288		1 + 2 + 5	2.047			50	
		0.576	0.183					1 + 2	0.759	148.4	0.00		No
		0.576				1.288		1 + 5	1.864	143.8	0.02		No
			0.183			1.288		2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.576	1.270				1+(2+5)	1.846	143.8	0.02	No	50-a	
Hotspot (1-g SAR)	Rear	0.576		0.366		1.288		1 + 3 + 5	2.230			51	
		0.576		0.366				1 + 3	0.942	116.1	0.01		No
		0.576				1.288		1 + 5	1.864	143.8	0.02		No
				0.366		1.288		3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.576	1.310				1+(3+5)	1.886	143.8	0.02	No	51-a	
Hotspot (1-g SAR)	Rear	0.576			0.211	1.288		1 + 4 + 5	2.075			52	
		0.576			0.211			1 + 4	0.787	147.4	0.00		No
		0.576				1.288		1 + 5	1.864	143.8	0.02		No
					0.211	1.288		4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.576	1.300				1+(4+5)	1.876	143.8	0.02	No	52-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)																	
		Non-RSDB scenarios																										
		WWAN	DTS Ant1			DTS Ant2			DTS MIMO			BT Ant1	BT Ant2	BT MIMO	UNI MIMO (SFR)	WWAN + DTS Ant1	WWAN + DTS Ant2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant1	WWAN + BT Ant2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant1	WWAN + UNI MIMO + BT Ant2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant1	WWAN + UNI MIMO + BT Ant2	WWAN + UNI MIMO + BT MIMO
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+5+9	1+6+9	1+7+9	1+8+9				
Head (1-g SAR)	Left Touch	0.096	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.193	0.374	0.471	0.200	0.246	0.217	0.197	0.350	0.321	0.301	0.114	0.264	0.235	0.215				
	Left Tilt	0.057	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.117	0.110	0.170	0.093	0.112	0.074	0.079	0.148	0.110	0.115	0.073	0.128	0.090	0.095				
	Right Touch	0.074	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.217	0.390	0.533	0.392	0.257	0.234	0.204	0.575	0.552	0.522	0.146	0.329	0.306	0.276				
	Right Tilt	0.049	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.192	0.365	0.508	0.367	0.152	0.092	0.111	0.470	0.410	0.429	0.072	0.175	0.115	0.134				
Body-Worn (1-g SAR)	Rear	0.722	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.778	0.926	0.829	1.859	0.764	0.899	0.772	1.901	2.036	1.909	0.944	0.986	1.121	0.994				
	Front	0.547	0.056	0.204	0.107	1.137	0.105	0.007	0.113	0.030	0.603	0.751	0.654	0.652	0.554	0.660	0.577	0.659	0.765	0.682	0.549	0.556	0.662	0.579				
Hotspot (1-g SAR)	Rear	0.620	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.803	0.986	0.831	1.908	0.755	1.011	0.761	2.043	2.299	2.049								
	Front	0.546	0.183	0.413	0.211	1.288	0.209	0.074			0.729	0.959	0.757	0.755	0.563	0.801	0.620	0.772	1.010	0.829								
	Edge 1		0.183		0.211	1.288	0.023		0.013																			
	Edge 2		0.068																									
	Edge 3		1.222																									
Product Specific 10-g (10-g SAR)	Rear	1.744				2.978				0.377				4.722							2.121							
	Front	1.421				0.449				0.048				1.870							1.469							
	Edge 1					2.978				0.026																		
	Edge 2																											
	Edge 3	1.721																										
Edge 4					1.576					0.214																		

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04 or 10-g SPLSR (=0.10))	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios														
		WWAN	DTS Ant1	DTS Ant2	DTS MIMO	UNI MIMO (SFR)	BT Ant1	BT Ant2	BT MIMO	UNI MIMO (SFR)						
Body-Worn (1-g SAR)	Rear	0.722				1.137					1+5	1.859	159.7	0.02	No	53
Body-Worn (1-g SAR)	Rear	0.722				1.137	0.042				1+5+6	1.901				
		0.722				1.137					1+5	1.859	159.7	0.02	No	
		0.722					0.042				1+6	0.764	156	0.00	No	
				1.137	0.042					5+6	1.179	5.8	0.22	Yes		
Hybrid SPLSR Note.4		0.722				1.110					1+(5+6)	1.832	159.6	0.02	No	53-a
Body-Worn (1-g SAR)	Rear	0.722				1.137		0.177			1+5+7	2.036				54
		0.722				1.137					1+5	1.859	159.7	0.02	No	
		0.722					0.177				1+7	0.899	123	0.01	No	
						1.137	0.177				5+7	1.314	41.2	0.04	No	
Body-Worn (1-g SAR)	Rear	0.722				1.137			0.050		1+5+8	1.909				55
		0.722				1.137					1+5	1.859	159.7	0.02	No	
		0.722						0.050			1+8	0.772	122	0.01	No	
						1.137	0.050				5+8	1.187	42.2	0.03	No	
Hotspot (1-g SAR)	Rear	0.620				1.288				1+5	1.908	156.5	0.02	No	56	
Hotspot (1-g SAR)	Rear	0.620				1.288	0.135				1+5+6	2.043				
		0.620				1.288					1+5	1.908	156.5	0.02		No
		0.620					0.135				1+6	0.755	157.6	0.00		No
				1.288	0.135					5+6	1.423	9.4	0.18	Yes		
Hybrid SPLSR Note.4		0.620				1.270					1+(5+6)	1.890	156.5	0.02	No	56-a
Hotspot (1-g SAR)	Rear	0.620				1.288		0.391			1+5+7	2.299				57
		0.620				1.288					1+5	1.908	156.5	0.02	No	
		0.620					0.391				1+7	1.011	120.6	0.01	No	
						1.288	0.391				5+7	1.679	44	0.05	Yes	
Hybrid SPLSR Note.4		0.620				1.300					1+(5+7)	1.920	156.5	0.02	No	57-a
Hotspot (1-g SAR)	Rear	0.620				1.288			0.141		1+5+8	2.049				58
		0.620				1.288					1+5	1.908	156.5	0.02	No	
		0.620						0.141			1+8	0.761	149.4	0.00	No	
						1.288		0.141			5+8	1.429	15.2	0.11	Yes	
Hybrid SPLSR Note.4		0.620				1.250					1+(5+8)	1.870	156.5	0.02	No	58-a
Product Specific 10-g (10-g SAR)	Rear	1.744				2.978				1+5	4.722	140.4	0.07	No	59	

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		RSDB scenarios						WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.096	0.048	0.065	0.113	0.104	0.018	0.248	0.265	0.313	0.217	0.162	0.179	0.227	0.131
	Left Tilt	0.057	0.029	0.008	0.037	0.036	0.016	0.122	0.101	0.130	0.073	0.102	0.081	0.110	0.053
	Right	0.074	0.064	0.009	0.073	0.318	0.072	0.456	0.401	0.465	0.391	0.210	0.155	0.219	0.145
	Right Tilt	0.049	0.064	0.065	0.129	0.318	0.023	0.431	0.432	0.496	0.447	0.136	0.137	0.201	0.152
Body-Worn (1-g SAR)	Rear	0.722	0.056	0.204	0.107	0.297	0.222	1.075	1.223	1.126	0.404	1.000	1.148	1.051	0.329
	Front	0.547	0.056	0.204	0.107	0.297	0.002	0.626	0.774	0.677	0.130	0.605	0.753	0.656	0.109
Hotspot (1-g SAR)	Rear	0.620	0.183	0.366	0.211	1.288		2.091	2.274	2.119	1.499				
	Front	0.546	0.183	0.413	0.211	1.288		0.938	1.168	0.966	1.499				
	Edge 1		0.183		0.211	1.288					1.499				
	Edge 2	0.068						0.068	0.068	0.068					
	Edge 3	1.222						1.222	1.222	1.222					
	Edge 4	0.054	0.183	0.413	0.211	0.642		0.879	1.109	0.907	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		RSDB scenarios											
		1	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.620	0.183			1.288		1 + 2 + 5	2.091			60	
		0.620	0.183					1 + 2	0.803	159.5	0.00		No
		0.620				1.288		1 + 5	1.908	156.5	0.02		No
			0.183			1.288		2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.620	1.270				1+(2+5)	1.890	156.5	0.02	No	60-a	
Hotspot (1-g SAR)	Rear	0.620		0.366		1.288		1 + 3 + 5	2.274			61	
		0.620		0.366				1 + 3	0.986	123.7	0.01		No
		0.620				1.288		1 + 5	1.908	156.5	0.02		No
				0.366		1.288		3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.620	1.310				1+(3+5)	1.930	156.5	0.02	No	61-a	
Hotspot (1-g SAR)	Rear	0.620			0.211	1.288		1 + 4 + 5	2.119			62	
		0.620			0.211			1 + 4	0.831	158.6	0.00		No
		0.620				1.288		1 + 5	1.908	156.5	0.02		No
					0.211	1.288		4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.620	1.300				1+(4+5)	1.920	156.5	0.02	No	62-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)																
		Non-RSDB scenarios																									
		WWAN	DTS Ant			DTS MIMO			UNI MIMO (SCH)		BT Ant	BT MIMO	UNI MIMO (SCH)	WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9			
Head (1-g SAR)	Left Touch	0.208	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.305	0.486	0.583	0.312	0.358	0.329	0.309	0.462	0.433	0.413	0.226	0.376	0.347	0.327			
	Left Tilt	0.085	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.145	0.138	0.198	0.121	0.140	0.102	0.107	0.176	0.138	0.143	0.101	0.156	0.118	0.123			
	Right Touch	0.123	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.266	0.439	0.582	0.441	0.306	0.283	0.253	0.624	0.601	0.571	0.195	0.378	0.355	0.325			
	Right Tilt	0.073	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.216	0.389	0.532	0.391	0.176	0.116	0.135	0.494	0.434	0.453	0.096	0.199	0.139	0.158			
Body-Worn (1-g SAR)	Rear	0.341	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.397	0.545	0.448	1.478	0.383	0.518	0.391	1.520	1.655	1.528	0.563	0.605	0.740	0.613			
	Front	0.225	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.281	0.429	0.332	0.330	0.232	0.338	0.255	0.337	0.443	0.360	0.227	0.234	0.340	0.257			
Hotspot (1-g SAR)	Rear	0.680	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.863	1.046	0.891	1.968	0.815	1.071	0.821	2.103	2.359	2.109							
	Front	0.373	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.556	0.786	0.584	0.582	0.390	0.628	0.447	0.599	0.837	0.656							
	Edge 1		0.183		0.211	1.288	0.023		0.013																		
	Edge 2		0.082																								
	Edge 3		0.297																								
	Edge 4		0.167	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.350	0.580	0.378	0.809	0.185	0.609	0.263	0.827	1.251	0.905						

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure			
		WWAN	DTS Ant			DTS MIMO			UNI MIMO (SCH)							BT Ant	BT MIMO	UNI MIMO (SCH)
		1	2	3	4	5	6	7	8	9								
Body-Worn (1-g SAR)	Rear					1.137		0.177			1+5+7	1.655				63		
						1.137					1+5	1.478	150.8	0.01	No			
								0.177			1+7	0.518	118.9	0.00	No			
						1.137		0.177			5+7	1.314	41.2	0.04	No			
Hotspot (1-g SAR)	Rear	0.680				1.288				1+5	1.968	151.3	0.02	No	64			
Hotspot (1-g SAR)	Rear	0.680				1.288	0.135			1+5+6	2.103							
		0.680				1.288				1+5	1.968	151.3	0.02	No				
		0.680					0.135			1+6	0.815	153.9	0.00	No				
				1.288	0.135				5+6	1.423	9.4	0.18	Yes					
Hybrid SPLSR Note.4		0.680				1.27				1+(5+6)	1.950	151.3	0.02	No	64-a			
Hotspot (1-g SAR)	Rear	0.680				1.288		0.391			1+5+7	2.359			65			
		0.680				1.288				1+5	1.968	151.3	0.02	No				
		0.680						0.391			1+7	1.071	120.6	0.01		No		
						1.288	0.391				5+7	1.679	44	0.05		Yes		
Hybrid SPLSR Note.4		0.680				1.3				1+(5+7)	1.980	151.3	0.02	No	65-a			
Hotspot (1-g SAR)	Rear	0.680				1.288			0.141		1+5+8	2.109			66			
		0.680				1.288				1+5	1.968	151.3	0.02	No				
		0.680							0.141		1+8	0.821	146.4	0.01		No		
						1.288		0.141			5+8	1.429	15.2	0.11		Yes		
Hybrid SPLSR Note.4		0.680				1.25				1+(5+8)	1.930	151.3	0.02	No	66-a			

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6		
Head (1-g SAR)	Left Touch	0.208	0.048	0.065	0.113	0.104	0.018	0.360	0.377	0.425	0.217	0.274	0.291	0.339	0.131
	Left Tilt	0.085	0.029	0.008	0.037	0.036	0.016	0.150	0.129	0.158	0.073	0.130	0.109	0.138	0.053
	Right Touch	0.123	0.064	0.009	0.073	0.318	0.072	0.505	0.450	0.514	0.391	0.259	0.204	0.268	0.145
	Right Tilt	0.073	0.064	0.065	0.129	0.318	0.023	0.455	0.456	0.520	0.447	0.160	0.161	0.225	0.152
Body-Worn (1-g SAR)	Rear	0.341	0.056	0.204	0.107	0.297	0.222	0.694	0.842	0.745	0.404	0.619	0.767	0.670	0.329
	Front	0.225	0.056	0.204	0.107	0.023	0.002	0.304	0.452	0.355	0.130	0.283	0.431	0.334	0.109
Hotspot (1-g SAR)	Rear	0.680	0.183	0.366	0.211	1.288		2.151	2.334	2.179	1.499				
	Front	0.373	0.183	0.413	0.211	0.209		0.765	0.995	0.793	0.420				
	Edge 1	0.167	0.183		0.211	1.288									
	Edge 2	0.082													
	Edge 3	0.297													
Edge 4	0.167	0.183	0.413	0.211	0.642		0.992	1.222	1.020	0.853					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	RSDB scenarios									
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)					
1	2	3	4	5	6							
Hotspot (1-g SAR)	Rear	0.680	0.183			1.288	1 + 2 + 5	2.151				67
		0.680	0.183				1 + 2	0.863	155.7	0.01	No	
		0.680				1.288	1 + 5	1.968	151.3	0.02	No	
			0.183			1.288	2 + 5	1.471	9.3	0.19	Yes	
Hybrid SPLSR Note.4		0.680	1.270				1+(2+5)	1.950	151.3	0.02	No	67-a
Hotspot (1-g SAR)	Rear	0.680		0.366		1.288	1 + 3 + 5	2.334				68
		0.680		0.366			1 + 3	1.046	123	0.01	No	
		0.680				1.288	1 + 5	1.968	151.3	0.02	No	
				0.366		1.288	3 + 5	1.654	39.4	0.05	Yes	
Hybrid SPLSR Note.4		0.680	1.310				1+(3+5)	1.990	151.3	0.02	No	68-a
Hotspot (1-g SAR)	Rear	0.680			0.211	1.288	1 + 4 + 5	2.179				69
		0.680			0.211		1 + 4	0.891	154.7	0.01	No	
		0.680				1.288	1 + 5	1.968	151.3	0.02	No	
					0.211	1.288	4 + 5	1.499	8.4	0.22	Yes	
Hybrid SPLSR Note.4		0.680	1.300				1+(4+5)	1.980	151.3	0.02	No	69-a

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO
		1	2	3	4	5	6	7	8	9																
Head (1-g SAR)	Left Touch	0.018	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.115	0.296	0.393	0.122	0.168	0.139	0.119	0.272	0.243	0.223	0.036	0.186	0.157	0.137		
	Left Tilt	0.017	0.060	0.053	0.113	0.036	0.065	0.017	0.022	0.016	0.077	0.070	0.130	0.053	0.072	0.034	0.039	0.108	0.070	0.075	0.033	0.088	0.050	0.055		
	Right Touch	0.017	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.160	0.333	0.476	0.335	0.200	0.177	0.147	0.518	0.495	0.465	0.089	0.272	0.249	0.219		
	Right Tilt	0.007	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.150	0.323	0.466	0.325	0.110	0.050	0.069	0.428	0.368	0.387	0.030	0.133	0.073	0.092		
Body-Worn (1-g SAR)	Rear	0.199	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.255	0.403	0.306	1.336	0.241	0.376	0.249	1.378	1.513	1.386	0.421	0.463	0.598	0.471		
	Front	0.193	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.249	0.397	0.300	0.298	0.200	0.306	0.223	0.305	0.411	0.328	0.195	0.202	0.308	0.225		
Hotspot (1-g SAR)	Rear	0.334	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.517	0.700	0.545	1.622	0.469	0.725	0.475	1.757	2.013	1.763						
	Front	0.429	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.612	0.842	0.640	0.638	0.446	0.684	0.503	0.655	0.893	0.712						
	Edge 1		0.183		0.211	1.288	0.023		0.013																	
	Edge 2	0.227																								
	Edge 3	0.492																								
	Edge 4		0.183	0.413	0.211	0.642	0.018	0.442	0.096																	

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure			
		1	2	3	4	5	6	7	8	9	1+5	1+5+6							
		1	2	3	4	5	6	7	8	9	1+5	1+5+6							
Hotspot (1-g SAR)	Rear	0.334				1.288							1+5	1.622	96.5	0.02	No	70	
Hotspot (1-g SAR)	Rear	0.334				1.288	0.135						1+5+6	1.757	96.5	0.02	No		
		0.334				1.288								1+5	1.622	96.5	0.02		No
		0.334					0.135							1+6	0.469	98.6	0.00		No
					1.288	0.135							5+6	1.423	9.4	0.18	Yes		
Hybrid SPLSR Note.4		0.334				1.27							1+(5+6)	1.604	96.5	0.02	No	70-a	
Hotspot (1-g SAR)	Rear	0.334				1.288		0.391						1+5+7	2.013				71
		0.334				1.288								1+5	1.622	96.5	0.02	No	
		0.334						0.391						1+7	0.725	65.7	0.01	No	
						1.288		0.391						5+7	1.679	44	0.05	Yes	
Hybrid SPLSR Note.4		0.334				1.3							1+(5+7)	1.634	96.5	0.02	No	71-a	
Hotspot (1-g SAR)	Rear	0.334				1.288			0.141					1+5+8	1.763				72
		0.334				1.288								1+5	1.622	96.5	0.02	No	
		0.334							0.141					1+8	0.475	91	0.00	No	
						1.288			0.141					5+8	1.429	15.2	0.11	Yes	
Hybrid SPLSR Note.4		0.334				1.25							1+(5+8)	1.584	96.5	0.02	No	72-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
1	2	3	4	5	6										
Head (1-g SAR)	Left Touch	0.018	0.048	0.065	0.113	0.104	0.018	0.170	0.187	0.235	0.217	0.084	0.101	0.149	0.131
	Left Tilt	0.017	0.029	0.008	0.037	0.036	0.016	0.082	0.061	0.090	0.073	0.062	0.041	0.070	0.053
	Right Touch	0.017	0.064	0.009	0.073	0.318	0.072	0.399	0.344	0.408	0.391	0.153	0.098	0.162	0.145
	Right Tilt	0.007	0.064	0.065	0.129	0.318	0.023	0.389	0.390	0.454	0.447	0.094	0.095	0.159	0.152
Body-Worn (1-g SAR)	Rear	0.199	0.056	0.204	0.107	0.297	0.222	0.552	0.700	0.603	0.404	0.477	0.625	0.528	0.329
	Front	0.193	0.056	0.204	0.107	0.023	0.002	0.272	0.420	0.323	0.130	0.251	0.399	0.302	0.109
Hotspot (1-g SAR)	Rear	0.334	0.183	0.366	0.211	1.288		1.805	1.988	1.833	1.499				
	Front	0.429	0.183	0.413	0.211	0.209		0.821	1.051	0.849	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.227													
	Edge 3	0.492													
	Edge 4		0.183	0.413	0.211	0.642									

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
1	2	3	4	5	6								
Hotspot (1-g SAR)	Rear	0.334	0.183			1.288		1+2+5	1.805			73	
		0.334	0.183					1+2	0.517	100.4	0.00		No
		0.334				1.288		1+5	1.622	96.5	0.02		No
			0.183			1.288		2+5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.334	1.270				1+(2+5)	1.604	96.5	0.02	No	73-a	
Hotspot (1-g SAR)	Rear	0.334		0.366		1.288		1+3+5	1.988			74	
		0.334		0.366				1+3	0.700	67.7	0.01		No
		0.334				1.288		1+5	1.622	96.5	0.02		No
				0.366		1.288		3+5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.334	1.310				1+(3+5)	1.644	96.5	0.02	No	74-a	
Hotspot (1-g SAR)	Rear	0.334			0.211	1.288		1+4+5	1.833			75	
		0.334			0.211			1+4	0.545	99.4	0.00		No
		0.334				1.288		1+5	1.622	96.5	0.02		No
					0.211	1.288		4+5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.334	1.300				1+(4+5)	1.634	96.5	0.02	No	75-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

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

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg)															
		Non-RSDB scenarios																							
		WLAN	DTS			UNI MIMO (SSHC)		BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (SSHC)	WLAN + DTS Ant.1	WLAN + DTS Ant.2	WLAN + DTS MIMO	WLAN + UNI MIMO	WLAN + BT Ant.1	WLAN + BT Ant.2	WLAN + BT MIMO	WLAN + UNI MIMO + BT Ant.1	WLAN + UNI MIMO + BT Ant.2	WLAN + UNI MIMO + BT MIMO	WLAN + UNI MIMO + BT Ant.1	WLAN + UNI MIMO + BT Ant.2	WLAN + UNI MIMO + BT MIMO	
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+5+9	1+6+9	1+7+9	1+8+9	
Head (1-g SAR)	Left Touch	0.066	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.163	0.344	0.441	0.170	0.216	0.187	0.167	0.320	0.291	0.271	0.084	0.234	0.205	0.185	
	Left Tilt	0.040	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.100	0.093	0.153	0.076	0.095	0.057	0.062	0.131	0.093	0.098	0.056	0.111	0.073	0.078	
	Right Touch	0.030	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.173	0.346	0.489	0.348	0.213	0.190	0.160	0.531	0.508	0.478	0.102	0.285	0.262	0.232	
	Right Tilt	0.039	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.182	0.355	0.498	0.357	0.142	0.082	0.101	0.460	0.400	0.419	0.062	0.165	0.105	0.124	
Body-Worn (1-g SAR)	Rear	0.490	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.546	0.694	0.597	1.627	0.532	0.667	0.540	1.669	1.804	1.677	0.712	0.754	0.889	0.762	
	Front	0.424	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.480	0.628	0.531	0.529	0.431	0.537	0.454	0.536	0.642	0.559	0.426	0.433	0.539	0.456	
Hotspot (1-g SAR)	Rear	0.477	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.660	0.843	0.688	1.765	0.612	0.868	0.618	1.900	2.156	1.906					
	Front	0.404	0.183	0.413	0.211	1.209	0.017	0.074			0.587	0.817	0.615	0.613	0.421	0.659	0.478	0.630	0.868	0.687					
	Edge 1		0.183		0.211	1.288	0.023		0.013																
	Edge 2		0.069																						
	Edge 3		0.977																						
Product Specific 10-g (10-g SAR)	Rear																								
	Front						2.978																		
	Edge 1																								
	Edge 2																								
	Edge 3		1.697																						
Edge 4						1.576																			

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)								Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (<=0.04) or 10-g SPLSR (<=0.10)	Volume Scan (Yes/No) Note 3	Figure		
		WLAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (SSHC)	BT Ant.1	BT Ant.2	BT MIMO						UNI MIMO (SSHC)	
		1	2	3	4	5	6	7	8						9	
Body-Worn (1-g SAR)	Rear	0.490				1.137					1 + 5	1.627	158.9	0.01	No	76
Body-Worn (1-g SAR)	Rear	0.490				1.137	0.042				1 + 5 + 6	1.669				
		0.490				1.137					1 + 5	1.627	160	0.01	No	
		0.490				1.137	0.042				1 + 6	0.532	156.3	0.00	No	
Hybrid SPLSR Note.4		0.490				1.137	0.042				5 + 6	1.179	5.8	0.22	Yes	
Body-Worn (1-g SAR)	Rear	0.490				1.137		0.177			1 + 5 + 7	1.804				77
		0.490				1.137					1 + 5	1.627	160	0.01	No	
		0.490				1.137		0.177			1 + 7	0.667	123.5	0.00	No	
		0.490				1.137		0.177			5 + 7	1.314	41.2	0.04	No	
Body-Worn (1-g SAR)	Rear	0.490				1.137			0.050		1 + 5 + 8	1.677			78	
		0.490				1.137					1 + 5	1.627	160	0.01		No
		0.490				1.137			0.050		1 + 8	0.540	122.5	0.00		No
Hybrid SPLSR Note.4		0.490				1.137		0.050			5 + 8	1.187	42.2	0.03	No	
Hotspot (1-g SAR)	Rear	0.477				1.288					1 + 5	1.765	156.9	0.01	No	79
Hotspot (1-g SAR)	Rear	0.477				1.288	0.135				1 + 5 + 6	1.900				
		0.477				1.288					1 + 5	1.765	156.9	0.01	No	
		0.477				1.288	0.135				1 + 6	0.612	158.3	0.00	No	
Hybrid SPLSR Note.4		0.477				1.288	0.135				5 + 6	1.423	9.4	0.18	Yes	
Hotspot (1-g SAR)	Rear	0.477				1.288		0.391			1 + 5 + 7	2.156			80	
		0.477				1.288					1 + 5	1.765	156.9	0.01		No
		0.477				1.288		0.391			1 + 7	0.868	121.7	0.01		No
		0.477				1.288		0.391			5 + 7	1.679	44	0.05		Yes
Hybrid SPLSR Note.4		0.477				1.300					1 + (5 + 7)	1.777	156.9	0.02	No	
Hotspot (1-g SAR)	Rear	0.477				1.288			0.141		1 + 5 + 8	1.906			81	
		0.477				1.288					1 + 5	1.765	156.9	0.01		No
		0.477				1.288		0.141			1 + 8	0.618	150.1	0.00		No
		0.477				1.288		0.141			5 + 8	1.429	15.2	0.11		Yes
Hybrid SPLSR Note.4		0.477				1.250					1 + (5 + 8)	1.727	156.9	0.01	No	

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN +	WWAN +	WWAN +	RSDB Sum	WWAN +	WWAN +	WWAN +	RSDB Sum
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)	DTS Ant.1 + UNII MIMO	DTS Ant.2 + UNII MIMO	DTS MIMO + UNII MIMO	(DTS MIMO + UNII MIMO)	DTS Ant.1 + UNII MIMO	DTS Ant.2 + UNII MIMO	DTS MIMO + UNII MIMO	(DTS MIMO + UNII MIMO)
1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6		
Head (1-g SAR)	Left Touch	0.066	0.048	0.065	0.113	0.104	0.018	0.218	0.235	0.283	0.217	0.132	0.149	0.197	0.131
	Left Tilt	0.040	0.029	0.008	0.037	0.036	0.016	0.105	0.084	0.113	0.073	0.085	0.064	0.093	0.053
	Right Touch	0.030	0.064	0.009	0.073	0.318	0.072	0.412	0.357	0.421	0.391	0.166	0.111	0.175	0.145
	Right Tilt	0.039	0.064	0.065	0.129	0.318	0.023	0.421	0.422	0.486	0.447	0.126	0.127	0.191	0.152
Body-Worn (1-g SAR)	Rear	0.490	0.056	0.204	0.107	0.297	0.222	0.843	0.991	0.894	0.404	0.768	0.916	0.819	0.329
	Front	0.424	0.056	0.204	0.107	0.023	0.002	0.503	0.651	0.554	0.130	0.482	0.630	0.533	0.109
Hotspot (1-g SAR)	Rear	0.477	0.183	0.366	0.211	1.288		1.948	2.131	1.976	1.499				
	Front	0.404	0.183	0.413	0.211	0.209		0.796	1.026	0.824	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.069													
	Edge 3	0.977													
	Edge 4	0.049	0.183	0.413	0.211	0.642		0.874	1.104	0.902	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≈0.04) or 10-g SPLSR (≈0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
1-a	2	3	4	5	6								
Hotspot (1-g SAR)	Rear	0.477	0.183			1.288		1 + 2 + 5	1.948			82	
		0.477	0.183					1 + 2	0.660	160.2	0.00		No
		0.477				1.288		1 + 5	1.765	156.9	0.01		No
			0.183			1.288		2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.477	1.270				1+(2+5)	1.747	156.9	0.01	No	82-a	
Hotspot (1-g SAR)	Rear	0.477		0.366		1.288		1 + 3 + 5	2.131			83	
		0.477		0.366				1 + 3	0.843	124.7	0.01		No
		0.477				1.288		1 + 5	1.765	156.9	0.01		No
				0.366		1.288		3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.477	1.310				1+(3+5)	1.787	156.9	0.02	No	83-a	
Hotspot (1-g SAR)	Rear	0.477			0.211	1.288		1 + 4 + 5	1.976			84	
		0.477			0.211			1 + 4	0.688	159.2	0.00		No
		0.477				1.288		1 + 5	1.765	156.9	0.01		No
					0.211	1.288		4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.477	1.300				1+(4+5)	1.777	156.9	0.02	No	84-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

12.12. Sum of the SAR for NR Band n5 & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	
		1	2	3	4	5	6	7	8	9														1+2
Head (1-g SAR)	Left Touch	0.174	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.271	0.452	0.549	0.278	0.324	0.295	0.275	0.428	0.399	0.379	0.192	0.342	0.313	0.293
	Left Tilt	0.071	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.131	0.124	0.184	0.107	0.126	0.088	0.093	0.162	0.124	0.129	0.087	0.142	0.104	0.109
	Right Touch	0.113	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.256	0.429	0.572	0.431	0.296	0.273	0.243	0.614	0.591	0.561	0.185	0.368	0.345	0.315
	Right Tilt	0.067	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.210	0.383	0.526	0.385	0.170	0.110	0.129	0.488	0.428	0.447	0.090	0.193	0.133	0.152
Body-Worn (1-g SAR)	Rear	0.355	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.411	0.559	0.462	1.492	0.397	0.532	0.405	1.534	1.669	1.542	0.577	0.619	0.754	0.627
	Front	0.212	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.268	0.416	0.319	0.317	0.219	0.325	0.242	0.324	0.430	0.347	0.214	0.221	0.327	0.244
Hotspot (1-g SAR)	Rear	0.636	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.819	1.002	0.847	1.924	0.771	1.027	0.777	2.059	2.315	2.065				
	Front	0.332	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.515	0.745	0.543	0.541	0.349	0.587	0.406	0.558	0.796	0.615				
	Edge 1		0.183		0.211	1.288	0.023		0.013															
	Edge 2	0.067																						
	Edge 3	0.325																						
	Edge 4	0.156	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.339	0.569	0.367	0.798	0.174	0.598	0.252	0.816	1.240	0.894				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=d.04) or 10-g SPLSR (=d.10)	Volume Scan (Yes/No) Note.3	Figure	
		1	2	3	4	5	6	7	8	9						
		1	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.355				1.137		0.177			1+5+7	1.669				85
		0.355				1.137					1+5	1.492	147.3	0.01	No	
		0.355						0.177			1+7	0.532	114.5	0.00	No	
						1.137		0.177			5+7	1.314	41.2	0.04	No	
Hotspot (1-g SAR)	Rear	0.636				1.288				1+5	1.924	144.9	0.02	No	86	
Hotspot (1-g SAR)	Rear	0.636				1.288	0.135			1+5+6	2.059					
		0.636				1.288				1+5	1.924	144.9	0.02	No		
		0.636					0.135			1+6	0.771	147.9	0.00	No		
				1.288	0.135				5+6	1.423	9.4	0.18	Yes			
Hybrid SPLSR Note.4		0.636				1.270				1+(5+6)	1.906	144.9	0.02	No	86-a	
Hotspot (1-g SAR)	Rear	0.636				1.288		0.391		1+5+7	2.315				87	
		0.636				1.288				1+5	1.924	144.9	0.02	No		
		0.636						0.391		1+7	1.027	115.9	0.01	No		
						1.288		0.391		5+7	1.679	44	0.05	Yes		
Hybrid SPLSR Note.4		0.636				1.300				1+(5+7)	1.936	144.9	0.02	No	87-a	
Hotspot (1-g SAR)	Rear	0.636				1.288			0.141	1+5+8	2.065				88	
		0.636				1.288				1+5	1.924	144.9	0.02	No		
		0.636							0.141	1+8	0.777	140.7	0.00	No		
						1.288			0.141	5+8	1.429	15.2	0.11	Yes		
Hybrid SPLSR Note.4		0.636				1.250				1+(5+8)	1.886	144.9	0.02	No	88-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)										
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)			
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)									1	2	3
Head (1-g SAR)	Left Touch	0.174	0.048	0.065	0.113	0.104	0.018	0.326	0.343	0.391	0.217	0.240	0.257	0.305	0.131			
	Left Tilt	0.071	0.029	0.008	0.037	0.036	0.016	0.136	0.115	0.144	0.073	0.116	0.095	0.124	0.053			
	Right Touch	0.113	0.064	0.009	0.073	0.318	0.072	0.495	0.440	0.504	0.391	0.249	0.194	0.258	0.145			
	Right Tilt	0.067	0.064	0.065	0.129	0.318	0.023	0.449	0.450	0.514	0.447	0.154	0.155	0.219	0.152			
Body-Worn (1-g SAR)	Rear	0.355	0.056	0.204	0.107	0.297	0.222	0.708	0.856	0.759	0.404	0.633	0.781	0.684	0.329			
	Front	0.212	0.056	0.204	0.107	0.023	0.002	0.291	0.439	0.342	0.130	0.270	0.418	0.321	0.109			
Hotspot (1-g SAR)	Rear	0.636	0.183	0.366	0.211	1.288		2.107	2.290	2.135	1.499							
	Front	0.332	0.183	0.413	0.211	0.209		0.724	0.954	0.752	0.420							
	Edge 1		0.183		0.211	1.288												
	Edge 2	0.067																
	Edge 3	0.325																
	Edge 4	0.156	0.183	0.413	0.211	0.642		0.981	1.211	1.009	0.853							

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPLSR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
Hotspot (1-g SAR)	Rear	0.636	0.183			1.288		1 + 2 + 5	2.107			89	
		0.636	0.183					1 + 2	0.819	149.7	0.00		No
		0.636				1.288		1 + 5	1.924	144.9	0.02		No
			0.183			1.288		2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.636	1.270				1+(2+5)	1.906	144.9	0.02	No	89-a	
Hotspot (1-g SAR)	Rear	0.636		0.366		1.288		1 + 3 + 5	2.290			90	
		0.636		0.366				1 + 3	1.002	118	0.01		No
		0.636				1.288		1 + 5	1.924	144.9	0.02		No
				0.366		1.288		3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.636	1.310				1+(3+5)	1.946	144.9	0.02	No	90-a	
Hotspot (1-g SAR)	Rear	0.636			0.211	1.288		1 + 4 + 5	2.135			91	
		0.636			0.211			1 + 4	0.847	148.6	0.01		No
		0.636				1.288		1 + 5	1.924	144.9	0.02		No
					0.211	1.288		4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.636	1.300				1+(4+5)	1.936	144.9	0.02	No	91-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

12.13. Sum of the SAR for NR Band n66 (Main 1 Ant.) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)																				
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO							
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)															1	2	3	4	5	6	7
Head (1-g SAR)	Left Touch	0.026	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.123	0.304	0.401	0.130	0.176	0.147	0.127	0.280	0.251	0.231	0.044	0.194	0.165	0.145							
	Left Tilt	0.018	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.078	0.071	0.131	0.054	0.073	0.035	0.040	0.109	0.071	0.076	0.034	0.089	0.051	0.056							
	Right Touch	0.034	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.177	0.350	0.493	0.352	0.217	0.194	0.164	0.535	0.512	0.482	0.106	0.289	0.266	0.236							
	Right Tilt	0.021	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.164	0.337	0.480	0.339	0.124	0.064	0.083	0.442	0.382	0.401	0.044	0.147	0.087	0.106							
Body-Worn (1-g SAR)	Rear	0.297	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.353	0.501	0.404	1.434	0.339	0.474	0.347	1.476	1.611	1.484	0.519	0.561	0.696	0.569							
	Front	0.235	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.291	0.439	0.342	0.340	0.242	0.348	0.265	0.347	0.453	0.370	0.237	0.244	0.350	0.267							
Hotspot (1-g SAR)	Rear	0.271	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.454	0.637	0.482	1.559	0.406	0.662	0.412	1.694	1.950	1.700											
	Front	0.215	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.398	0.628	0.426	0.424	0.232	0.470	0.289	0.441	0.679	0.498											
	Edge 1		0.183		0.211	1.288	0.023		0.013																						
	Edge 2	0.027																													
	Edge 3	0.567																													
Product Specific 10-g (10-g SAR)	Edge 4	0.023	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.206	0.436	0.234	0.665	0.041	0.465	0.119	0.683	1.107	0.761											
	Rear					2.978				0.377																					
	Front					0.449				0.048																					
	Edge 1					2.978				0.026																					
	Edge 2																														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (<=0.04) or 10-g SPLSR (<=0.10)	Volume Scan (Yes/No)	Figure	
		Non-RSDB scenarios														
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)						
Body-Worn (1-g SAR)	Rear	0.297				1.137		0.177			1+5+7	1.611				92
		0.297				1.137					1+5	1.434	159.7	0.01	No	
		0.297						0.177			1+7	0.474	123	0.00	No	
						1.137		0.177			5+7	1.314	41.2	0.04	No	
Hotspot (1-g SAR)	Rear	0.271				1.288	0.135				1+5+6	1.694			93	
		0.271				1.288					1+5	1.559	156.3	0.01		No
		0.271					0.135				1+6	0.406	157.4	0.00		No
						1.288	0.135				5+6	1.423	9.4	0.18		Yes
Hybrid SPLSR	Note.4	0.271				1.27				1+(5+6)	1.541	156.3	0.01	No	93-a	
Hotspot (1-g SAR)	Rear	0.271				1.288		0.391			1+5+7	1.950			94	
		0.271				1.288					1+5	1.559	156.3	0.01		No
		0.271						0.391			1+7	0.662	120.2	0.00		No
						1.288		0.391			5+7	1.679	44	0.05		Yes
Hybrid SPLSR	Note.4	0.271				1.3				1+(5+7)	1.571	156.3	0.01	No	94-a	
Hotspot (1-g SAR)	Rear	0.271				1.288			0.141		1+5+8	1.700			95	
		0.271				1.288					1+5	1.559	156.3	0.01		No
		0.271						0.141			1+8	0.412	149.1	0.00		No
						1.288		0.141			5+8	1.429	15.2	0.11		Yes
Hybrid SPLSR	Note.4	0.271				1.25				1+(5+8)	1.521	156.3	0.01	No	95-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		RSDB scenarios						WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.026	0.048	0.065	0.113	0.104	0.018	0.178	0.195	0.243	0.217	0.092	0.109	0.157	0.131
	Left Tilt	0.018	0.029	0.008	0.037	0.036	0.016	0.083	0.062	0.091	0.073	0.063	0.042	0.071	0.053
	Right Touch	0.034	0.064	0.009	0.073	0.318	0.072	0.416	0.361	0.425	0.391	0.170	0.115	0.179	0.145
Body-Worn (1-g SAR)	Rear	0.297	0.056	0.204	0.107	0.297	0.222	0.650	0.798	0.701	0.404	0.575	0.723	0.626	0.329
	Front	0.235	0.056	0.204	0.107	0.023	0.002	0.314	0.462	0.365	0.130	0.293	0.441	0.344	0.109
Hotspot (1-g SAR)	Rear	0.271	0.183	0.366	0.211	1.288		1.742	1.925	1.770	1.499				
	Front	0.215	0.183	0.413	0.211	0.209		0.607	0.837	0.635	0.420				
	Edge 1		0.183		0.211	1.288									
	Edge 2	0.027													
	Edge 3	0.567													
	Edge 4	0.023	0.183	0.413	0.211	0.642		0.848	1.078	0.876	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		RSDB scenarios											
		1	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.271	0.183			1.288		1 + 2 + 5	1.742			96	
		0.271	0.183					1 + 2	0.454	159.3	0.00		No
		0.271				1.288		1 + 5	1.559	156.3	0.01		No
			0.183			1.288		2 + 5	1.471	9.3	0.19		Yes
Hybrid SPLSR Note.4		0.271	1.270				1+(2+5)	1.541	156.3	0.01	No	96-a	
Hotspot (1-g SAR)	Rear	0.271		0.366		1.288		1 + 3 + 5	1.925			97	
		0.271		0.366				1 + 3	0.637	123.4	0.00		No
		0.271				1.288		1 + 5	1.559	156.3	0.01		No
				0.366		1.288		3 + 5	1.654	39.4	0.05		Yes
Hybrid SPLSR Note.4		0.271	1.310				1+(3+5)	1.581	156.3	0.01	No	97-a	
Hotspot (1-g SAR)	Rear	0.271			0.211	1.288		1 + 4 + 5	1.770			98	
		0.271			0.211			1 + 4	0.482	158.4	0.00		No
		0.271				1.288		1 + 5	1.559	156.3	0.01		No
					0.211	1.288		4 + 5	1.499	8.4	0.22		Yes
Hybrid SPLSR Note.4		0.271	1.300				1+(4+5)	1.571	156.3	0.01	No	98-a	

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.

12.14. Sum of the SAR for ENDC(LTE B2 + NR Bn5) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO			
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (6GHz)	BT Ant.1	BT Ant.2	BT MIMO														UNI MIMO (6GHz)		
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8														9		
Head (1-g SAR)	Left Touch	0.096	0.174	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.367	0.548	0.645	0.374	0.420	0.391	0.371	0.524	0.495	0.475	0.288	0.438	0.409	0.389	
	Left Tilt	0.057	0.071	0.080	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.188	0.181	0.241	0.164	0.183	0.145	0.150	0.219	0.181	0.186	0.144	0.199	0.161	0.166	
	Right Touch	0.074	0.113	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.330	0.503	0.646	0.505	0.370	0.347	0.317	0.688	0.665	0.635	0.259	0.442	0.419	0.389	
	Right Tilt	0.049	0.067	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.259	0.432	0.575	0.434	0.219	0.159	0.178	0.537	0.477	0.496	0.139	0.242	0.182	0.201	
Body-Worn (1-g SAR)	Rear	0.722	0.355	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	1.133	1.281	1.184	2.214	1.119	1.254	1.127	2.256	2.391	2.264	1.299	1.341	1.476	1.349	
	Front	0.547	0.212	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.815	0.963	0.866	0.864	0.766	0.872	0.789	0.871	0.977	0.894	0.761	0.768	0.874	0.791	
Hotspot (1-g SAR)	Rear	0.620	0.636	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.439	1.622	1.467	2.544	1.391	1.647	1.397	2.679	2.935	2.685					
	Front	0.546	0.332	0.183	0.413	0.211	1.209	0.017	0.255	0.074		1.061	1.291	1.089	1.087	0.895	1.133	0.952	1.104	1.342	1.161					
	Edge 1			0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.068	0.067																							
	Edge 3	1.222	0.325																							
Product Specific 10-g (10-g SAR)	Rear	1.744					2.978				0.377				4.722							2.121				
	Front	1.421					0.449				0.048				1.870							1.469				
	Edge 1						2.978				0.026															
	Edge 2																									
	Edge 4	1.721																								

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (<=0.04) or 10-g SPLSR (<=0.10)	Volume Scan (Yes/No) Note.3	Figure			
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (6GHz)	BT Ant.1	BT Ant.2	BT MIMO						UNI MIMO (6GHz)		
		1-a	1-b	2	3	4	5	6	7	8						9		
Body-Worn (1-g SAR)	Rear	0.722	0.355				1.137	0.042				1a+1b+5+6	2.256					
		0.722	0.355				1.110					1a+1b+(5+6)	2.187					
		0.722	0.355									1a+1b	1.077	26.6	0.04	No		
		0.722					1.110					1a+(5+6)	1.832	159.6	0.02	No		
			0.355				1.110					1b+(5+6)	1.465	146.1	0.01	No		
Hybrid SPLSR Note.4						1.110					(5+6)							
Body-Worn (1-g SAR)	Rear	0.722	0.355				1.137		0.177			1a+1b+5+7	2.391					
		0.722	0.355				1.120					1a+1b+(5+7)	2.197					
		0.722	0.355									1a+1b	1.077	26.6	0.04	No		
		0.722					1.120					1a+(5+7)	1.120	159.6	0.01	No		
			0.355				1.120					1b+(5+7)	1.475	146.1	0.01	No		
Hybrid SPLSR Note.4						1.120					(5+7)							
Body-Worn (1-g SAR)	Rear	0.722	0.355				1.137			0.050		1a+1b+5+8	2.264					
		0.722	0.355				1.100					1a+1b+(5+8)	2.177					
		0.722	0.355									1a+1b	1.077	26.6	0.04	No		
		0.722					1.100					1a+(5+8)	1.822	159.6	0.02	No		
			0.355				1.100					1b+(5+8)	1.455	146.1	0.01	No		
Hybrid SPLSR Note.4						1.100					(5+8)							
Hotspot (1-g SAR)	Rear	0.620	0.636		0.366							1a+1b+3	1.622					
		0.620	0.636									1a+1b	1.256	31.8	0.04	No		
		0.620			0.366							1a+3	0.986	123.7	0.01	No		
			0.636		0.366							1b+3	1.002	118.0	0.01	No		
Hotspot (1-g SAR)	Rear	0.620	0.636				1.288	0.135				1a+1b+5+6	2.679					
		0.620	0.636				1.270					1a+1b+(5+6)	2.526					
		0.620	0.636									1a+1b	1.256	31.8	0.04	No		
		0.620					1.270					1a+(5+6)	1.890	156.5	0.02	No		
			0.636				1.270					1b+(5+6)	1.906	144.9	0.02	No		
Hybrid SPLSR Note.4						1.27					(5+6)							

Sum of the SAR for ENDC(LTE B2 + NR Bn5) & Wi-Fi & BT (Continued)

Hotspot (1-g SAR)	Rear	0.620	0.636			1.288		0.391		1a+1b+5+7	2.935				104
		0.620	0.636			1.300				1a+1b+5+7	2.556				
		0.620	0.636							1a+1b	1.256	31.8	0.04	No	
		0.620				1.300				1a+5+7	1.920	156.5	0.02	No	
			0.636			1.300				1b+5+7	1.936	144.9	0.02	No	
Hybrid SPLSR Note.4						1.300			(5+7)						
Hotspot (1-g SAR)	Rear	0.620	0.636			1.288			0.141	1a+1b+5+8	2.685				105
		0.620	0.636			1.250				1a+1b+5+8	2.506				
		0.620	0.636							1a+1b	1.256	31.8	0.04	No	
		0.620				1.250				1a+5+8	1.870	156.5	0.02	No	
			0.636			1.250				1b+5+8	1.886	144.9	0.02	No	
Hybrid SPLSR Note.4						1.250			(5+8)						
Product Specific 10-g (10-g SAR)	Rear	1.744				2.978				1+5	4.722	140.4	0.07	No	59

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.096	0.174	0.048	0.065	0.113	0.104	0.018	0.422	0.439	0.487	0.217	0.336	0.353	0.401	0.131
	Left Tilt	0.057	0.071	0.029	0.008	0.037	0.036	0.016	0.193	0.172	0.201	0.073	0.173	0.152	0.181	0.053
	Right Touch	0.074	0.113	0.064	0.009	0.073	0.318	0.072	0.569	0.514	0.578	0.391	0.323	0.268	0.332	0.145
	Right Tilt	0.049	0.067	0.064	0.065	0.129	0.318	0.023	0.498	0.499	0.563	0.447	0.203	0.204	0.268	0.152
Body-Worn (1-g SAR)	Rear	0.722	0.355	0.056	0.204	0.107	0.297	0.222	1.430	1.578	1.481	0.404	1.355	1.503	1.406	0.329
	Front	0.547	0.212	0.056	0.204	0.107	0.293	0.002	0.838	0.986	0.889	0.130	0.817	0.965	0.868	0.109
Hotspot (1-g SAR)	Rear	0.620	0.636	0.183	0.366	0.211	1.288		2.727	2.910	2.755	1.499				
	Front	0.546	0.332	0.183	0.413	0.211	0.209		1.270	1.500	1.298	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.068	0.067													
	Edge 3	1.222	0.325													
Edge 4	0.054	0.156	0.183	0.413	0.211	0.642		1.035	1.265	1.063	0.853					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN		RSDB scenarios									
		1-a(LTE)	1-b(NR)	2	3	4	5						6
Hotspot (1-g SAR)	Rear	0.620	0.636	0.183			1.288	1a+1b+2+5	2.727			106	
		0.620	0.636		1.270			1a+1b+(2+5)	2.526				
		0.620	0.636					1a+1b	1.256	31.8	0.04		No
		0.620			1.270			1a+(2+5)	1.890	156.5	0.02		No
			0.636		1.270			1b+(2+5)	1.906	144.9	0.02		No
Hybrid SPLSR Note.4				1.270			(2+5)						
Hotspot (1-g SAR)	Rear	0.620	0.636		0.366		1.288	1a+1b+3+5	2.910			107	
		0.620	0.636		1.310			1a+1b+(3+5)	2.566				
		0.620	0.636					1a+1b	1.256	31.8	0.04		No
		0.620			1.310			1a+(3+5)	1.930	156.5	0.02		No
			0.636		1.310			1b+(3+5)	1.946	144.9	0.02		No
Hybrid SPLSR Note.4				1.310			(3+5)						
Hotspot (1-g SAR)	Rear	0.620	0.636			0.211	1.288	1a+1b+4+5	2.755			108	
		0.620	0.636		1.300			1a+1b+(4+5)	2.556				
		0.620	0.636					1a+1b	1.256	31.8	0.04		No
		0.620			1.300			1a+(4+5)	1.920	156.5	0.02		No
			0.636		1.300			1b+(4+5)	1.936	144.9	0.02		No
Hybrid SPLSR Note.4				1.300			(4+5)						

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- LTE Band 2 is subset of LTE Band 25, So LTE Band 25 was used to do Simultaneous transmission analysis.
- Simultaneous transmission scenarios (1+5 & 1+7) are subset of (1+5+7) scenarios.
- For Blue box, Enlarged zoom scan were evaluated for each LTE and NR by TCB workshop guide. Please refer to Section 12.24.

12.15. Sum of the SAR for ENDC(LTE B66 + NR Bn5) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN + DTS Ant1	WWAN + DTS Ant2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant1	WWAN + BT Ant2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant1	WWAN + UNI MIMO + BT Ant2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant1	WWAN + UNI MIMO + BT Ant2	WWAN + UNI MIMO + BT MIMO		
		WWAN	DTS Ant1	DTS Ant2	DTS MIMO	UNI MIMO (5GHz)	BT Ant1	BT Ant2	BT MIMO	UNI MIMO (5GHz)																
		1-a(LTE)	1-b(NR)	2	3	4	5	6	7	8															9	
Head (1-g SAR)	Left Touch	0.066	0.174	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.337	0.518	0.615	0.344	0.390	0.361	0.341	0.494	0.465	0.445	0.258	0.408	0.379	0.359	
	Left Tilt	0.040	0.071	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.171	0.164	0.224	0.147	0.166	0.128	0.133	0.202	0.164	0.169	0.127	0.182	0.144	0.149	
	Right Touch	0.030	0.113	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.286	0.459	0.602	0.461	0.326	0.303	0.273	0.644	0.621	0.591	0.215	0.398	0.375	0.345	
	Right Tilt	0.039	0.067	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.249	0.422	0.565	0.424	0.209	0.149	0.168	0.527	0.467	0.486	0.129	0.232	0.172	0.191	
Body-Worn (1-g SAR)	Rear	0.490	0.355	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.901	1.049	0.952	1.982	0.887	1.022	0.895	2.024	2.159	2.032	1.067	1.109	1.244	1.117	
	Front	0.424	0.212	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.682	0.840	0.743	0.741	0.643	0.749	0.666	0.748	0.854	0.771	0.638	0.645	0.751	0.668	
Hotspot (1-g SAR)	Rear	0.477	0.636	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.296	1.479	1.324	2.401	1.248	1.504	1.254	2.536	2.792	2.542					
	Front	0.404	0.332	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.919	1.149	0.947	0.945	0.753	0.991	0.810	0.962	1.200	1.019					
	Edge 1			0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.069	0.067																							
	Edge 3	0.977	0.325																							
	Edge 4	0.049	0.156	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.388	0.618	0.416	0.847	0.223	0.647	0.301	0.865	1.289	0.943					
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377															
	Front						2.978				0.048															
	Edge 1						2.978				0.026															
	Edge 2																									
	Edge 3	1.697																								
	Edge 4						1.576				0.214															

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios														
		WWAN	DTS Ant1	DTS Ant2	DTS MIMO	UNI MIMO (5GHz)	BT Ant1	BT Ant2	BT MIMO	UNI MIMO (5GHz)						
Body-Worn (1-g SAR)	Rear	0.490	0.355				1.137	0.042			1a+1b+5+6	2.024				
		0.490	0.355				1.110				1a+1b+5+6	1.955				
		0.490	0.355								1a+1b	0.845	25.5	0.03	No	
		0.490					1.110				1a+(5+6)	1.600	159.8	0.01	No	
			0.355				1.110				1b+(5+6)	1.465	146.1	0.01	No	
Hybrid SPLSR Note.4						1.110				(5+6)						
Body-Worn (1-g SAR)	Rear	0.490	0.355				1.137		0.177		1a+1b+5+7	2.159				
		0.490	0.355				1.120				1a+1b+(5+7)	1.985				
		0.490	0.355								1a+1b	0.845	25.5	0.03	No	
		0.490					1.120				1a+(5+7)	1.120	159.8	0.01	No	
			0.355				1.120				1b+(5+7)	1.475	146.1	0.01	No	
Hybrid SPLSR Note.4						1.120				(5+7)						
Body-Worn (1-g SAR)	Rear	0.490	0.355				1.137			0.050	1a+1b+5+8	2.032				
		0.490	0.355				1.100				1a+1b+(5+8)	1.945				
		0.490	0.355								1a+1b	0.845	25.5	0.03	No	
		0.490					1.100				1a+(5+8)	1.580	159.8	0.01	No	
			0.355				1.100				1b+(5+8)	1.455	146.1	0.01	No	
Hybrid SPLSR Note.4						1.100				(5+8)						
Hotspot (1-g SAR)	Rear	0.477	0.636				1.288	0.135			1a+1b+5+6	2.536				
		0.477	0.636				1.270				1a+1b+(5+6)	2.383				
		0.477	0.636								1a+1b	1.113	29.3	0.04	No	
		0.477					1.270				1a+(5+6)	1.747	156.9	0.01	No	
			0.636				1.270				1b+(5+6)	1.906	144.9	0.02	No	
Hybrid SPLSR Note.4						1.270				(5+6)						

Sum of the SAR for ENDC(LTE B66 + NR Bn5) & Wi-Fi & BT (Continued)

Hotspot (1-g SAR)	Rear	0.477	0.636			1.288		0.391			1a+1b+5+7	2.792						
		0.477	0.636			1.300					1a+1b+5+7	2.413						
		0.477	0.636								1a+1b	1.113	29.3	0.04	No			
		0.477				1.300					1a+5+7	1.777	156.9	0.02	No			
			0.636			1.300					1b+5+7	1.936	144.9	0.02	No			
Hybrid SPLSR Note.4						1.300				(5+7)								
Hotspot (1-g SAR)	Rear	0.477	0.636			1.288			0.141		1a+1b+5+8	2.542						
		0.477	0.636			1.250					1a+1b+5+8	2.363						
		0.477	0.636								1a+1b	1.113	29.3	0.04	No			
		0.477				1.250					1a+5+8	1.727	156.9	0.01	No			
			0.636			1.250					1b+5+8	1.886	144.9	0.02	No			
Hybrid SPLSR Note.4						1.250				(5+8)								

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.066	0.174	0.048	0.065	0.113	0.104	0.018	0.392	0.409	0.457	0.217	0.306	0.323	0.371	0.131
	Left Tilt	0.040	0.071	0.029	0.008	0.037	0.036	0.016	0.176	0.155	0.184	0.073	0.156	0.135	0.164	0.053
	Right Touch	0.030	0.113	0.064	0.009	0.073	0.318	0.072	0.525	0.470	0.534	0.391	0.279	0.224	0.288	0.145
	Right Tilt	0.039	0.067	0.064	0.065	0.129	0.318	0.023	0.488	0.489	0.553	0.447	0.193	0.194	0.258	0.152
Body-Worn (1-g SAR)	Rear	0.490	0.355	0.056	0.204	0.107	0.297	0.222	1.198	1.346	1.249	0.404	1.123	1.271	1.174	0.329
	Front	0.424	0.212	0.056	0.204	0.107	0.023	0.002	0.715	0.863	0.766	0.130	0.694	0.842	0.745	0.109
Hotspot (1-g SAR)	Rear	0.477	0.636	0.183	0.366	0.211	1.288		2.584	2.767	2.612	1.499				
	Front	0.404	0.332	0.183	0.413	0.211	0.209		1.128	1.358	1.156	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.069	0.067													
	Edge 3	0.977	0.325													
Edge 4	0.049	0.156	0.183	0.413	0.211	0.642		1.030	1.260	1.058	0.853					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN		RSDB scenarios									
		1-a(LTE)	1-b(NR)	2	3	4	5						6
Hotspot (1-g SAR)	Rear	0.477	0.636	0.183			1.288	1a+1b+2+5	2.584			115	
		0.477	0.636					1a+1b+(2+5)	2.383				
		0.477	0.636					1a+1b	1.113	29.3	0.04		No
		0.477						1b+(2+5)	1.747	156.9	0.01		No
			0.636					1b+(2+5)	1.906	144.9	0.02		No
Hybrid SPLSR Note.4						1.270	(2+5)						
Hotspot (1-g SAR)	Rear	0.477	0.636		0.366		1.288	1a+1b+3+5	2.767			116	
		0.477	0.636				1.310	1a+1b+(3+5)	2.423				
		0.477	0.636					1a+1b	1.113	29.3	0.04		No
		0.477					1.310	1b+(3+5)	1.787	156.9	0.02		No
			0.636				1.310	1b+(3+5)	1.946	144.9	0.02		No
Hybrid SPLSR Note.4						1.310	(3+5)						
Hotspot (1-g SAR)	Rear	0.477	0.636			0.211	1.288	1a+1b+4+5	2.612			117	
		0.477	0.636				1.300	1a+1b+(4+5)	2.413				
		0.477	0.636					1a+1b	1.113	29.3	0.04		No
		0.477					1.300	1b+(2+5)	1.777	156.9	0.02		No
			0.636				1.300	1b+(2+5)	1.936	144.9	0.02		No
Hybrid SPLSR Note.4						1.300	(4+5)						

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
- For Blue box, Enlarged zoom scan were evaluated for each LTE and NR by TCB workshop guide. Please refer to Section 12.24.

12.16. Sum of the SAR for ENDC(LTE B5 + NR Bn66(Main Ant.1)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO		
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO															UNI MIMO (5GHz)	
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8															9	
1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9													
Head (1-g SAR)	Left Touch	0.208	0.026	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.331	0.512	0.609	0.338	0.384	0.355	0.335	0.488	0.459	0.439	0.252	0.402	0.373	0.353	
	Left Tilt	0.085	0.018	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.163	0.156	0.216	0.139	0.158	0.120	0.125	0.194	0.156	0.161	0.119	0.174	0.136	0.141	
	Right Touch	0.123	0.034	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.300	0.473	0.616	0.475	0.340	0.317	0.287	0.658	0.635	0.605	0.229	0.412	0.389	0.359	
	Right Tilt	0.073	0.021	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.237	0.410	0.553	0.412	0.197	0.137	0.156	0.515	0.455	0.474	0.117	0.220	0.160	0.179	
Body-Worn (1-g SAR)	Rear	0.341	0.297	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.694	0.842	0.745	1.775	0.680	0.815	0.688	1.817	1.952	1.825	0.860	0.902	1.037	0.910	
	Front	0.225	0.235	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.516	0.664	0.567	0.565	0.467	0.573	0.490	0.572	0.678	0.595	0.462	0.469	0.575	0.492	
Hotspot (1-g SAR)	Rear	0.680	0.271	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.134	1.317	1.162	2.239	1.086	1.342	1.092	2.374	2.630	2.380					
	Front	0.373	0.215	0.183	0.413	0.211	1.209	0.017	0.255	0.074		0.771	1.001	0.799	0.797	0.605	0.843	0.662	0.814	1.052	0.871					
	Edge 1			0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.082	0.027																							
	Edge 3	0.297	0.567																							
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377															
	Front						0.449				0.048															
	Edge 1						2.978				0.026															
	Edge 2																									
	Edge 3		1.380																							
	Edge 4						1.576				0.214															

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≈0.04) or 10-g SPPLSR (≈0.10)	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios														
		1-a	1-b	2	3	4	5	6	7	8						9
Body-Worn (1-g SAR)	Rear	0.341	0.297				1.137	0.042			1a+1b+5+6	1.817				118
		0.341	0.297				1.110				1a+1b+5+6	1.748				
		0.341	0.297								1a+1b	0.638	30.3	0.02	No	
		0.341					1.110				1a+(5+6)	1.451	149.4	0.01	No	
			0.297				1.110				1b+(5+6)	1.407	159.6	0.01	No	
Hybrid SPLSR Note.4						1.110				(5+6)						
Body-Worn (1-g SAR)	Rear	0.341	0.297				1.137	0.177			1a+1b+5+7	1.952			119	
		0.341	0.297				1.120				1a+1b+5+7	1.758				
		0.341	0.297								1a+1b	0.638	30.3	0.02		No
		0.341					1.120				1a+(5+7)	1.120	149.4	0.01		No
			0.297				1.120				1b+(5+7)	1.417	159.6	0.01		No
Hybrid SPLSR Note.4						1.120				(5+7)						
Body-Worn (1-g SAR)	Rear	0.341	0.297				1.137			0.050	1a+1b+5+8	1.825			120	
		0.341	0.297				1.100				1a+1b+5+8	1.738				
		0.341	0.297								1a+1b	0.638	30.3	0.02		No
		0.341					1.100				1a+(5+8)	1.441	149.4	0.01		No
			0.297				1.100				1b+(5+8)	1.397	159.6	0.01		No
Hybrid SPLSR Note.4						1.100				(5+8)						
Hotspot (1-g SAR)	Rear	0.680	0.271				1.288	0.135			1a+1b+5+6	2.374			121	
		0.680	0.271				1.270				1a+1b+5+6	2.221				
		0.680	0.271								1a+1b	0.951	30.9	0.03		No
		0.680					1.270				1a+(5+6)	1.950	147.7	0.02		No
			0.271				1.270				1b+(5+6)	1.541	156.3	0.01		No
Hybrid SPLSR Note.4						1.270				(5+6)						

Sum of the SAR for ENDC(LTE B5 + NR Bn66(Main Ant.1) & Wi-Fi & BT (Continued)

Hotspot (1-g SAR)	Rear	0.680	0.271			1.288		0.391		1a+1b+5+7	2.630					122
		0.680	0.271			1.300				1a+1b+5+7	2.251					
		0.680	0.271							1a+1b	0.951	30.9	0.03	No		
		0.680				1.300				1a+5+7	1.980	147.7	0.02	No		
			0.271			1.300				1b+5+7	1.571	156.3	0.01	No		
Hybrid SPLSR Note.4						1.300			(5+7)							
Hotspot (1-g SAR)	Rear	0.680	0.271			1.288		0.141		1a+1b+5+8	2.380				123	
		0.680	0.271			1.250				1a+1b+5+8	2.201					
		0.680	0.271							1a+1b	0.951	30.9	0.03	No		
		0.680				1.250				1a+5+8	1.930	147.7	0.02	No		
			0.271			1.250				1b+5+8	1.521	156.3	0.01	No		
Hybrid SPLSR Note.4						1.25			(5+8)							

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.208	0.026	0.048	0.065	0.113	0.104	0.018	0.386	0.403	0.451	0.217	0.300	0.317	0.365	0.131
	Left Tilt	0.085	0.018	0.029	0.008	0.037	0.036	0.016	0.168	0.147	0.176	0.073	0.148	0.127	0.156	0.053
	Right Touch	0.123	0.034	0.064	0.009	0.073	0.318	0.072	0.539	0.484	0.548	0.391	0.293	0.238	0.302	0.145
	Right Tilt	0.073	0.021	0.064	0.065	0.129	0.318	0.023	0.476	0.477	0.541	0.447	0.181	0.182	0.246	0.152
Body-Worn (1-g SAR)	Rear	0.341	0.297	0.056	0.204	0.107	0.297	0.222	0.991	1.139	1.042	0.404	0.916	1.064	0.967	0.329
	Front	0.225	0.235	0.056	0.204	0.107	0.023	0.002	0.539	0.687	0.590	0.130	0.518	0.666	0.569	0.109
Hotspot (1-g SAR)	Rear	0.680	0.271	0.183	0.366	0.211	1.288		2.422	2.605	2.450	1.499				
	Front	0.373	0.215	0.183	0.413	0.211	0.209		0.980	1.210	1.008	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.082	0.027													
	Edge 3	0.297	0.567													
	Edge 4	0.167	0.023	0.183	0.413	0.211	0.642		1.015	1.245	1.043	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)		Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios				(1-g or 10-g)					
		1-a(LTE)	1-b(NR)	2	3	4	5	6					
Hotspot (1-g SAR)	Rear	0.680	0.271	0.183			1.288	1a+1b+2+5	2.422			124	
		0.680	0.271					1a+1b+(2+5)	2.221				
		0.680	0.271					1a+1b	0.951	30.9	0.03		No
		0.680						1b+(2+5)	1.950	147.7	0.02		No
			0.271					1b+(2+5)	1.541	156.3	0.01		No
Hybrid SPLSR Note.4						1.270	(2+5)						
Hotspot (1-g SAR)	Rear	0.680	0.271		0.366		1.288	1a+1b+3+5	2.605			125	
		0.680	0.271				1.310	1a+1b+(3+5)	2.261				
		0.680	0.271					1a+1b	0.951	30.9	0.03		No
		0.680					1.310	1b+(3+5)	1.990	147.7	0.02		No
			0.271				1.310	1b+(3+5)	1.581	156.3	0.01		No
Hybrid SPLSR Note.4						1.310	(3+5)						
Hotspot (1-g SAR)	Rear	0.680	0.271			0.211	1.288	1a+1b+4+5	2.450			126	
		0.680	0.271				1.300	1a+1b+(4+5)	2.251				
		0.680	0.271					1a+1b	0.951	30.9	0.03		No
		0.680					1.300	1b+(4+5)	1.980	147.7	0.02		No
			0.271				1.300	1b+(4+5)	1.571	156.3	0.01		No
Hybrid SPLSR Note.4						1.300	(4+5)						

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- LTE Band 5 is subset of LTE Band 26, So LTE Band 26 was used to do Simultaneous transmission analysis.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.

12.17. Sum of the SAR for ENDC(LTE B12 + NR Bn66(Main Ant.1)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO		
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO															UNI MIMO (5GHz)	
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8															9	
Head (1-g SAR)	Left Touch	0.161	0.026	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.284	0.465	0.562	0.291	0.337	0.308	0.288	0.441	0.412	0.392	0.205	0.355	0.326	0.306	
	Left Tilt	0.070	0.018	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.148	0.141	0.201	0.124	0.143	0.105	0.110	0.179	0.141	0.146	0.104	0.159	0.121	0.126	
	Right Touch	0.108	0.034	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.285	0.458	0.601	0.460	0.325	0.302	0.272	0.643	0.620	0.590	0.214	0.397	0.374	0.344	
	Right Tilt	0.054	0.021	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.218	0.391	0.534	0.393	0.178	0.118	0.137	0.496	0.436	0.455	0.098	0.201	0.141	0.160	
Body-Worn (1-g SAR)	Rear	0.181	0.297	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.534	0.682	0.585	1.615	0.520	0.655	0.528	1.657	1.792	1.665	0.700	0.742	0.877	0.750	
	Front	0.181	0.235	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.472	0.620	0.523	0.521	0.423	0.529	0.446	0.528	0.634	0.551	0.418	0.425	0.531	0.448	
Hotspot (1-g SAR)	Rear	0.335	0.271	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.789	0.972	0.817	1.894	0.741	0.997	0.747	2.029	2.285	2.035					
	Front	0.193	0.215	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.591	0.821	0.619	0.617	0.425	0.663	0.482	0.634	0.872	0.691					
	Edge 1			0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.195	0.027																							
	Edge 3	0.090	0.567																							
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377															
	Front						0.449				0.048															
	Edge 1						2.978				0.026															
	Edge 2																									
	Edge 4		1.380																							
							1.576				0.214															

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios														
		1-a	1-b	2	3	4	5	6	7	8						9
Body-Worn (1-g SAR)	Rear	0.181	0.297				1.137	0.042			1a+1b+5+6	1.657				127
		0.181	0.297				1.110				1a+1b+(5+6)	1.588				
		0.181	0.297								1a+1b	0.478	28.9	0.01	No	
		0.181					1.110				1a+(5+6)	1.291	147	0.01	No	
			0.297				1.110				1b+(5+6)	1.407	159.6	0.01	No	
Hybrid SPLSR Note.4						1.110				(5+6)						
Body-Worn (1-g SAR)	Rear	0.181	0.297				1.137	0.177			1a+1b+5+7	1.792				128
		0.181	0.297				1.120				1a+1b+(5+7)	1.598				
		0.181	0.297								1a+1b	0.478	28.9	0.01	No	
		0.181					1.120				1a+(5+7)	1.120	147	0.01	No	
			0.297				1.120				1b+(5+7)	1.417	159.6	0.01	No	
Hybrid SPLSR Note.4						1.120				(5+7)						
Body-Worn (1-g SAR)	Rear	0.181	0.297				1.137			0.050	1a+1b+5+8	1.665				129
		0.181	0.297				1.100				1a+1b+(5+8)	1.578				
		0.181	0.297								1a+1b	0.478	28.9	0.01	No	
		0.181					1.100				1a+(5+8)	1.281	147	0.01	No	
			0.297				1.100				1b+(5+8)	1.397	159.6	0.01	No	
Hybrid SPLSR Note.4						1.100				(5+8)						
Hotspot (1-g SAR)	Rear	0.335	0.271				1.288	0.135			1a+1b+5+6	2.029				130
		0.335	0.271				1.270				1a+1b+(5+6)	1.876				
		0.335	0.271								1a+1b	0.606	26.2	0.02	No	
		0.335					1.270				1a+(5+6)	1.605	151.3	0.01	No	
			0.271				1.270				1b+(5+6)	1.541	156.3	0.01	No	
Hybrid SPLSR Note.4						1.270				(5+6)						

Sum of the SAR for ENDC(LTE B12 + NR Bn66(Main Ant.1) & Wi-Fi & BT (Continued)

Hotspot (1-g SAR)	Rear	0.335	0.271			1.288		0.391		1a+1b+5+7	2.285				131
		0.335	0.271			1.300				1a+1b+(5+7)	1.906				
		0.335	0.271							1a+1b	0.606	26.2	0.02	No	
		0.335				1.300				1a+(5+7)	1.635	151.3	0.01	No	
			0.271			1.300				1b+(5+7)	1.571	156.3	0.01	No	
Hybrid SPLSR Note.4						1.300			(5+7)						
Hotspot (1-g SAR)	Rear	0.335	0.271			1.288		0.141		1a+1b+5+8	2.035				132
		0.335	0.271			1.250				1a+1b+(5+8)	1.856				
		0.335	0.271							1a+1b	0.606	26.2	0.02	No	
		0.335				1.250				1a+(5+8)	1.585	151.3	0.01	No	
			0.271			1.250				1b+(5+8)	1.521	156.3	0.01	No	
Hybrid SPLSR Note.4						1.25			(5+7)						

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.161	0.026	0.048	0.065	0.113	0.104	0.018	0.339	0.356	0.404	0.217	0.253	0.270	0.318	0.131
	Left Tilt	0.070	0.018	0.029	0.008	0.037	0.036	0.016	0.153	0.132	0.161	0.073	0.133	0.112	0.141	0.053
	Right Touch	0.108	0.034	0.064	0.009	0.073	0.318	0.072	0.524	0.469	0.533	0.391	0.278	0.223	0.287	0.145
Body-Worn (1-g SAR)	Right Tilt	0.054	0.021	0.064	0.065	0.129	0.318	0.023	0.457	0.458	0.522	0.447	0.162	0.163	0.227	0.152
	Rear	0.181	0.297	0.056	0.204	0.107	0.297	0.222	0.831	0.979	0.882	0.404	0.756	0.904	0.807	0.329
Hotspot (1-g SAR)	Front	0.181	0.235	0.056	0.204	0.107	0.223	0.002	0.495	0.643	0.546	0.130	0.474	0.622	0.525	0.109
	Rear	0.335	0.271	0.183	0.366	0.211	1.288		2.077	2.260	2.105	1.499				
	Edge 1	0.193	0.215	0.183	0.413	0.211	0.209		0.800	1.030	0.828	0.420				
	Edge 2	0.195	0.027													
	Edge 3	0.090	0.567													
Edge 4		0.141	0.023	0.183	0.413	0.211	0.642		0.989	1.219	1.017	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN		RSDB scenarios									
		1-a(LTE)	1-b(NR)	2	3	4	5						6
Hotspot (1-g SAR)	Rear	0.335	0.271	0.183			1.288	1a+1b+2+5	2.077			133	
		0.335	0.271		1.270			1a+1b+(2+5)	1.876				
		0.335	0.271					1a+1b	0.606	26.2	0.02		No
		0.335			1.270			1b+(2+5)	1.605	151.3	0.01		No
			0.271		1.270			1b+(2+5)	1.541	156.3	0.01		No
Hybrid SPLSR Note.4					1.270		(2+5)						
Hotspot (1-g SAR)	Rear	0.335	0.271		0.366		1.288	1a+1b+3+5	2.260			134	
		0.335	0.271			1.310		1a+1b+(3+5)	1.916				
		0.335	0.271					1a+1b	0.606	26.2	0.02		No
		0.335			1.310			1b+(3+5)	1.645	151.3	0.01		No
			0.271		1.310			1b+(3+5)	1.581	156.3	0.01		No
Hybrid SPLSR Note.4					1.310		(3+5)						
Hotspot (1-g SAR)	Rear	0.335	0.271			0.211	1.288	1a+1b+4+5	2.105			135	
		0.335	0.271			1.300		1a+1b+(4+5)	1.906				
		0.335	0.271					1a+1b	0.606	26.2	0.02		No
		0.335			1.300			1b+(4+5)	1.635	151.3	0.01		No
			0.271		1.300			1b+(4+5)	1.571	156.3	0.01		No
Hybrid SPLSR Note.4					1.300		(4+5)						

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.

12.18. Sum of the SAR for ENDC(LTE B13 + NR Bn66(Main Ant.1)) & Wi-Fi & BT Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN + DTS Ant1	WWAN + DTS Ant2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant1	WWAN + BT Ant2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant1	WWAN + UNI MIMO + BT Ant2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant1	WWAN + UNI MIMO + BT Ant2	WWAN + UNI MIMO + BT MIMO		
		WWAN		DTS Ant1	DTS Ant2	DTS MIMO	UNI MIMO (5GHz)	BT Ant1	BT Ant2	BT MIMO															UNI MIMO (5GHz)	
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8															9	
1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+5+9	1+7+9	1+8+9													
Head (1-g SAR)	Left Touch	0.171	0.026	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.294	0.475	0.572	0.301	0.347	0.318	0.298	0.451	0.422	0.402	0.215	0.365	0.336	0.316	
	Left Tilt	0.078	0.018	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.156	0.149	0.209	0.132	0.151	0.113	0.118	0.187	0.149	0.154	0.112	0.167	0.129	0.134	
	Right Touch	0.137	0.034	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.314	0.487	0.630	0.489	0.354	0.331	0.301	0.672	0.649	0.619	0.243	0.426	0.403	0.373	
	Right Tilt	0.091	0.021	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.255	0.428	0.571	0.430	0.215	0.155	0.174	0.533	0.473	0.492	0.135	0.238	0.178	0.197	
Body-Worn (1-g SAR)	Rear	0.236	0.297	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.589	0.737	0.640	1.670	0.575	0.710	0.583	1.712	1.847	1.720	0.755	0.797	0.932	0.805	
	Front	0.217	0.235	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.508	0.656	0.559	0.557	0.459	0.565	0.482	0.564	0.670	0.587	0.454	0.461	0.567	0.484	
Hotspot (1-g SAR)	Rear	0.576	0.271	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.030	1.213	1.058	2.135	0.982	1.238	0.988	2.270	2.526	2.276					
	Front	0.325	0.215	0.183	0.413	0.211	1.209	0.017	0.255	0.074		0.723	0.953	0.751	0.749	0.557	0.795	0.614	0.766	1.004	0.823					
	Edge 1			0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.208	0.027																							
	Edge 3	0.180	0.567																							
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377															
	Front						0.449				0.048															
	Edge 1						2.978				0.026															
	Edge 2																									
	Edge 3		1.380																							
	Edge 4						1.576				0.214															

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios														
		1-a	1-b	2	3	4	5	6	7	8						9
Body-Worn (1-g SAR)	Rear	0.236	0.297				1.137	0.042			1a+1b+5+6	1.712				136
		0.236	0.297				1.110				1a+1b+5+6	1.643				
		0.236	0.297								1a+1b	0.533	29.8	0.01	No	
		0.236									1a+5+6	1.346	145.5	0.01	No	
			0.297								1b+5+6	1.407	159.6	0.01	No	
Hybrid SPLSR Note.4						1.110				(5+6)						
Body-Worn (1-g SAR)	Rear	0.236	0.297				1.137	0.177			1a+1b+5+7	1.847			137	
		0.236	0.297				1.120				1a+1b+5+7	1.653				
		0.236	0.297								1a+1b	0.533	29.8	0.01		No
		0.236									1a+5+7	1.120	145.5	0.01		No
			0.297								1b+5+7	1.417	159.6	0.01		No
Hybrid SPLSR Note.4						1.120				(5+7)						
Body-Worn (1-g SAR)	Rear	0.236	0.297				1.137			0.050	1a+1b+5+8	1.720			138	
		0.236	0.297				1.100				1a+1b+5+8	1.633				
		0.236	0.297								1a+1b	0.533	29.8	0.01		No
		0.236									1a+5+8	1.336	145.5	0.01		No
			0.297								1b+5+8	1.397	159.6	0.01		No
Hybrid SPLSR Note.4						1.100				(5+8)						
Hotspot (1-g SAR)	Rear	0.576	0.271				1.288	0.135			1a+1b+5+6	2.270			139	
		0.576	0.271				1.270				1a+1b+5+6	2.117				
		0.576	0.271								1a+1b	0.847	27	0.03		No
		0.576									1a+5+6	1.846	146.3	0.02		No
			0.271								1b+5+6	1.541	156.3	0.01		No
Hybrid SPLSR Note.4						1.270				(5+6)						

Sum of the SAR for ENDC(LTE B13 + NR Bn66(Main Ant.1) & Wi-Fi & BT (Continued)

Hotspot (1-g SAR)	Rear	0.576	0.271			1.288		0.391		1a+1b+5+7	2.526				
		0.576	0.271			1.300				1a+1b+5+7	2.147				
		0.576	0.271							1a+1b	0.847	27	0.03	No	
		0.576				1.300				1a+(5+7)	1.876	146.3	0.02	No	
			0.271			1.300				1b+(5+7)	1.571	156.3	0.01	No	
Hybrid SPLSR Note.4						1.300			(5+7)						
Hotspot (1-g SAR)	Rear	0.576	0.271			1.288		0.141		1a+1b+5+8	2.276				
		0.576	0.271			1.250				1a+1b+5+8	2.097				
		0.576	0.271							1a+1b	0.847	27	0.03	No	
		0.576				1.250				1a+(5+8)	1.826	146.3	0.02	No	
			0.271			1.250				1b+(5+8)	1.521	156.3	0.01	No	
Hybrid SPLSR Note.4						1.250			(5+8)						

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.171	0.026	0.048	0.065	0.113	0.104	0.018	0.349	0.366	0.414	0.217	0.263	0.280	0.328	0.131
	Left Tilt	0.078	0.018	0.029	0.008	0.037	0.036	0.016	0.161	0.140	0.169	0.073	0.141	0.120	0.149	0.053
	Right Touch	0.137	0.034	0.064	0.009	0.073	0.318	0.072	0.553	0.498	0.562	0.391	0.307	0.252	0.316	0.145
	Right Tilt	0.091	0.021	0.064	0.065	0.129	0.318	0.023	0.494	0.495	0.559	0.447	0.199	0.200	0.264	0.152
Body-Worn (1-g SAR)	Rear	0.236	0.297	0.056	0.204	0.107	0.297	0.222	0.886	1.034	0.937	0.404	0.811	0.959	0.862	0.329
	Front	0.217	0.235	0.056	0.204	0.107	0.023	0.002	0.531	0.679	0.582	0.130	0.510	0.658	0.561	0.109
Hotspot (1-g SAR)	Rear	0.576	0.271	0.183	0.366	0.211	1.288		2.318	2.501	2.346	1.499				
	Front	0.325	0.215	0.183	0.413	0.211	0.209		0.932	1.162	0.960	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.208	0.027													
	Edge 3	0.180	0.567													
Edge 4	0.231	0.023	0.183	0.413	0.211	0.642		1.079	1.309	1.107	0.853					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN		RSDB scenarios									
		1-a(LTE)	1-b(NR)	2	3	4	5						6
Hotspot (1-g SAR)	Rear	0.576	0.271	0.183			1.288	1a+1b+2+5	2.318			142	
		0.576	0.271		1.270			1a+1b+(2+5)	2.117				
		0.576	0.271					1a+1b	0.847	27	0.03		No
		0.576			1.270			1b+(2+5)	1.846	146.3	0.02		No
			0.271		1.270			1b+(2+5)	1.541	156.3	0.01		No
Hybrid SPLSR Note.4						1.270	(2+5)						
Hotspot (1-g SAR)	Rear	0.576	0.271		0.366		1.288	1a+1b+3+5	2.501			143	
		0.576	0.271			1.310		1a+1b+(3+5)	2.157				
		0.576	0.271					1a+1b	0.847	27	0.03		No
		0.576				1.310		1b+(3+5)	1.886	146.3	0.02		No
			0.271			1.310		1b+(3+5)	1.581	156.3	0.01		No
Hybrid SPLSR Note.4						1.310	(3+5)						
Hotspot (1-g SAR)	Rear	0.576	0.271			0.211	1.288	1a+1b+4+5	2.346			144	
		0.576	0.271				1.300	1a+1b+(4+5)	2.147				
		0.576	0.271					1a+1b	0.847	27	0.03		No
		0.576				1.300		1b+(4+5)	1.876	146.3	0.02		No
			0.271			1.300		1b+(4+5)	1.571	156.3	0.01		No
Hybrid SPLSR Note.4						1.300	(4+5)						

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.

12.19. Sum of the SAR for ENDC(LTE B2 + NR Bn66(Main Ant.3)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)															
		Non-RSDB scenarios										WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO		
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9																
Head (1-g SAR)	Left Touch	0.096	0.857	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	1.050	1.231	1.328	1.057	1.103	1.074	1.054	1.207	1.178	1.158	0.971	1.121	1.092	1.072		
	Left Tilt	0.057	1.191	0.060	0.063	0.113	0.036	0.065	0.017	0.022	0.016	1.308	1.301	1.361	1.284	1.303	1.265	1.270	1.339	1.301	1.306	1.264	1.319	1.281	1.286		
	Right Touch	0.074	0.528	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.745	0.918	1.061	0.920	0.785	0.762	0.732	1.103	1.080	1.050	0.674	0.857	0.834	0.804		
	Right Tilt	0.049	0.718	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.910	1.083	1.226	1.085	0.870	0.810	0.829	1.188	1.128	1.147	0.790	0.893	0.833	0.852		
Body-Worn (1-g SAR)	Rear	0.722	0.221	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.999	1.147	1.050	2.080	0.985	1.120	0.993	2.122	2.257	2.130	1.165	1.207	1.342	1.215		
	Front	0.547	0.195	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.798	0.946	0.849	0.847	0.749	0.855	0.772	0.854	0.960	0.877	0.744	0.751	0.857	0.774		
Hotspot (1-g SAR)	Rear	0.620	0.197	0.183	0.366	0.211	1.288	0.135	0.391	0.141	1.000	1.183	1.028	2.105	0.952	1.208	0.958	2.240	2.496	2.246							
	Front	0.546	0.160	0.183	0.413	0.211	0.209	0.017	0.255	0.074	0.889	1.119	0.917	0.915	0.723	0.961	0.780	0.932	1.170	0.989							
	Edge 1		0.492	0.183		0.211	1.288	0.023		0.013																	
	Edge 2	0.068	0.075																								
	Edge 3	1.222																									
	Edge 4	0.054		0.183	0.413	0.211	0.642	0.018	0.442	0.096	0.237	0.467	0.265	0.696	0.072	0.496	0.150	0.714	1.138	0.792							
Product Specific 10-g (10-g SAR)	Rear	1.744					2.978			0.377				4.722							2.121						
	Front	1.421					0.449			0.048				1.870							1.469						
	Edge 1						2.978			0.026																	
	Edge 2																										
	Edge 3	1.721																									
Edge 4						1.576				0.214																	

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=d.04) or 10-g SPLSR (=d.10) Note.3	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios															
		1-a	1-b	2	3	4	5	6	7	8	9						
Head (1-g SAR)	Left Touch	0.096	0.857									(1-a)+(1-b)	0.953	101.9	0.01	No	145
Body-Worn (1-g SAR)	Rear	0.722	0.221				1.137	0.042				1a+1b+5+6	2.122				146
		0.722				1.310						1a+(1b+5+6)	2.032	159.6	0.02	No	
Hybrid SPLSR Note.4						1.310						(1b+5+6)					
Body-Worn (1-g SAR)	Rear	0.722	0.221				1.137	0.177				1a+1b+5+7	2.257				147
		0.722				1.320						1a+(1b+5+7)	2.042	159.6	0.02	No	
Hybrid SPLSR Note.4						1.320						(1b+5+7)					
Body-Worn (1-g SAR)	Rear	0.722	0.221				1.137		0.050			1a+1b+5+8	2.130				148
		0.722				1.300						1a+(1b+5+8)	2.022	159.6	0.02	No	
Hybrid SPLSR Note.4						1.300						(1b+5+8)					
Hotspot (1-g SAR)	Rear	0.620	0.197				1.288	0.135				1a+1b+5+6	2.240				149
		0.620				1.390						1a+(1b+5+6)	2.010	156.5	0.02	No	
Hybrid SPLSR Note.4						1.390						(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.620	0.197				1.288	0.391				1a+1b+5+7	2.496				150
		0.620				1.420						1a+(1b+5+7)	2.040	156.5	0.02	No	
Hybrid SPLSR Note.4						1.420						(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.620	0.197				1.288		0.141			1a+1b+5+8	2.246				151
		0.620				1.370						1a+(1b+5+8)	1.990	156.5	0.02	No	
Hybrid SPLSR Note.4						1.370						(1b+5+8)					
Product Specific 10-g (10-g SAR)	Rear	1.744					2.978					1a + 5	4.722	140.4	0.07	No	59

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.096	0.857	0.048	0.065	0.113	0.104	0.018	1.105	1.122	1.170	0.217	1.019	1.036	1.084	0.131
	Left Tilt	0.057	1.191	0.029	0.008	0.037	0.036	0.016	1.313	1.292	1.321	0.073	1.293	1.272	1.301	0.053
	Right Touch	0.074	0.528	0.064	0.009	0.073	0.318	0.072	0.984	0.929	0.993	0.391	0.738	0.683	0.747	0.145
	Right Tilt	0.049	0.718	0.064	0.065	0.129	0.318	0.023	1.149	1.150	1.214	0.447	0.854	0.855	0.919	0.152
Body-Worn (1-g SAR)	Rear	0.722	0.221	0.056	0.204	0.107	0.297	0.222	1.296	1.444	1.347	0.404	1.221	1.369	1.272	0.329
	Front	0.547	0.195	0.056	0.204	0.107	0.297	0.222	0.821	0.969	0.872	0.130	0.800	0.948	0.851	0.109
Hotspot (1-g SAR)	Rear	0.620	0.197	0.183	0.366	0.211	1.288		2.288	2.471	2.316	1.499				
	Front	0.546	0.160	0.183	0.413	0.211	0.209		1.098	1.328	1.126	0.420				
	Edge 1		0.492	0.183		0.211	1.288									
	Edge 2	0.068	0.075													
	Edge 3	1.222														
	Edge 4	0.054		0.183	0.413	0.211	0.642		0.879	1.109	0.907	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN		RSDB scenarios										
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.620	0.197	0.183			1.288		1a+1b+2+5	2.288			152	
		0.620			1.380				1a+(1b+2+5)	2.000	156.5	0.02		No
		Hybrid SPLSR Note.4			1.380				1b+2+5					
Hotspot (1-g SAR)	Rear	0.620	0.197		0.366		1.288		1a+1b+3+5	2.471			153	
		0.620			1.420				1a+(1b+3+5)	2.040	156.5	0.02		No
		Hybrid SPLSR Note.4			1.420				1b+3+5					
Hotspot (1-g SAR)	Rear	0.620	0.197			0.211	1.288		1a+1b+4+5	2.316			154	
		0.620			1.410				1a+(1b+4+5)	2.030	156.5	0.02		No
		Hybrid SPLSR Note.4			1.410				1b+4+5					

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- LTE Band 2 is subset of LTE Band 25, So LTE Band 25 was used to do Simultaneous transmission analysis.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
- For Figure 145, According to the results of SPLSR criteria, Volume scan was not evaluated for EN-DC combination.
- For Blue box, Enlarged zoom scan were evaluated for each LTE band and NR Band by TCB workshop guide. Please refer to Section 12.24.

12.20. Sum of the SAR for ULCA(LTE B2 + LTE B4 (Main Ant.3)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)																
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO																	UNI MIMO (5GHz)
		1-a (LTE)	1-b (LTE)	2	3	4	5	6	7	8																	9
Head (1-g SAR)	Left Touch	0.096	0.686	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.879	1.060	1.157	0.886	0.932	0.903	0.883	1.036	1.007	0.987	0.800	0.950	0.921	0.901		
	Left Tilt	0.057	0.785	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.902	0.895	0.955	0.878	0.897	0.859	0.864	0.933	0.895	0.900	0.858	0.913	0.875	0.880		
	Right Touch	0.074	0.477	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.694	0.867	1.010	0.869	0.734	0.711	0.681	1.052	1.029	0.999	0.623	0.806	0.783	0.753		
	Right Tilt	0.049	0.587	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.779	0.952	1.095	0.954	0.739	0.679	0.698	1.057	0.997	1.016	0.659	0.762	0.702	0.721		
Body-Worn (1-g SAR)	Rear	0.722	0.279	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	1.057	1.205	1.108	2.138	1.043	1.178	1.051	2.180	2.315	2.188	1.223	1.265	1.400	1.273		
	Front	0.547	0.228	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.831	0.979	0.882	0.880	0.782	0.888	0.805	0.887	0.993	0.910	0.777	0.784	0.890	0.807		
Hotspot (1-g SAR)	Rear	0.620	0.167	0.183	0.366	0.211	1.288	0.135	0.391	0.141	0.970	1.153	0.998	2.075	0.922	1.178	0.928	2.210	2.466	2.216							
	Front	0.546	0.124	0.183	0.413	0.211	1.209	0.017	0.255	0.074	0.853	1.083	0.881	0.879	0.687	0.925	0.744	0.896	1.134	0.953							
	Edge 1	0.406	0.183		0.211	1.288	0.023			0.013																	
	Edge 2	0.068	0.056																								
	Edge 3	1.222																									
Product Specific 10-g (10-g SAR)	Rear	1.744					2.978				0.377				4.722							2.121					
	Front	1.421					0.449				0.048				1.870							1.469					
	Edge 1						2.978				0.026																
	Edge 2																										
	Edge 3	1.721																									
Edge 4						1.576				0.214																	

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (<=0.04) or 10-g SPSSLR (<=0.10)	Volume Scan (Yes/No) Note.3	Figure
		Non-RSDB scenarios													
		1-a	1-b	2	3	4	5	6	7	8					
Body-Worn (1-g SAR)	Rear	0.722	0.279				1.137	0.042			1a+1b+5+6	2.180			
		0.722				1.310					1a+(1b+5+6)	2.032	159.6	0.02	No
	Hybrid SPLSR Note.4				1.310						(1b+5+6)				
Body-Worn (1-g SAR)	Rear	0.722	0.279				1.137		0.177		1a+1b+5+7	2.315			
		0.722				1.320					1a+(1b+5+7)	2.042	159.6	0.02	No
	Hybrid SPLSR Note.4				1.320						(1b+5+7)				
Body-Worn (1-g SAR)	Rear	0.722	0.279				1.137			0.050	1a+1b+5+8	2.188			
		0.722				1.300					1a+(1b+5+8)	2.022	159.6	0.02	No
	Hybrid SPLSR Note.4				1.300						(1b+5+8)				
Hotspot (1-g SAR)	Rear	0.620	0.167				1.288	0.135			1a+1b+5+6	2.210			
		0.620				1.360					1a+(1b+5+6)	1.980	156.5	0.02	No
	Hybrid SPLSR Note.4				1.360						(1b+5+6)				
Hotspot (1-g SAR)	Rear	0.620	0.167				1.288		0.391		1a+1b+5+7	2.466			
		0.620				1.390					1a+(1b+5+7)	2.010	156.5	0.02	No
	Hybrid SPLSR Note.4				1.390						(1b+5+7)				
Hotspot (1-g SAR)	Rear	0.620	0.167				1.288			0.141	1a+1b+5+8	2.216			
		0.620				1.340					1a+(1b+5+8)	1.960	156.5	0.02	No
	Hybrid SPLSR Note.4				1.340						(1b+5+8)				
Product Specific 10-g (10-g SAR)	Rear	1.744					2.978				1a + 5	4.722	140.4	0.07	No

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(LTE)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.096	0.686	0.048	0.065	0.113	0.104	0.018	0.934	0.951	0.999	0.217	0.848	0.865	0.913	0.131
	Left Tilt	0.057	0.785	0.029	0.008	0.037	0.036	0.016	0.907	0.886	0.915	0.073	0.887	0.866	0.895	0.053
	Right Touch	0.074	0.477	0.064	0.009	0.073	0.318	0.072	0.933	0.878	0.942	0.391	0.687	0.632	0.696	0.145
	Right Tilt	0.049	0.587	0.064	0.065	0.129	0.318	0.023	1.018	1.019	1.083	0.447	0.723	0.724	0.788	0.152
Body-Worn (1-g SAR)	Rear	0.722	0.279	0.056	0.204	0.107	0.297	0.222	1.354	1.502	1.405	0.404	1.279	1.427	1.330	0.329
	Front	0.547	0.228	0.056	0.204	0.107	0.297	0.222	0.854	1.002	0.905	0.130	0.833	0.981	0.884	0.109
Hotspot (1-g SAR)	Rear	0.620	0.167	0.183	0.366	0.211	1.288		2.258	2.441	2.286	1.499				
	Front	0.546	0.124	0.183	0.413	0.211	0.209		1.062	1.292	1.090	0.420				
	Edge 1		0.406	0.183		0.211	1.288									
	Edge 2	0.068	0.056													
	Edge 3	1.222														
	Edge 4	0.054		0.183	0.413	0.211	0.642		0.879	1.109	0.907	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPLSR (≤0.10)	Volume Scan (Yes/No) <i>Note.3</i>	Figure		
		WWAN		RSDB scenarios										
		1-a(LTE)	1-b(NR)	2	3	4	5						6	
Hotspot (1-g SAR)	Rear	0.620	0.167	0.183			1.288	1a+1b+2+5	2.258			161		
		0.620			1.360				1a+(1b+2+5)	1.980	156.5		0.02	No
		Hybrid SPLSR <i>Note.4</i>							1b+2+5					
Hotspot (1-g SAR)	Rear	0.620	0.167		0.366		1.288	1a+1b+3+5	2.441			162		
		0.620			1.400				1a+(1b+3+5)	2.020	156.5		0.02	No
		Hybrid SPLSR <i>Note.4</i>							1b+3+5					
Hotspot (1-g SAR)	Rear	0.620	0.167			0.211	1.288	1a+1b+4+5	2.286			163		
		0.620			1.390				1a+(1b+4+5)	2.010	156.5		0.02	No
		Hybrid SPLSR <i>Note.4</i>							1b+4+5					

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- LTE Band 2 is subset of LTE Band 25, So LTE Band 25 was used to do Simultaneous transmission analysis.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.

12.21. Sum of the SAR for ULCA(LTE B4 + LTE B2 (Main Ant.3)) & Wi-Fi & BT Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)																	
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO				
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO															UNI MIMO (5GHz)			
		1-a (LTE)	1-b (LTE)	2	3	4	5	6	7	8															9			
Head (1-g SAR)	Left Touch	0.066	0.697	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.860	1.041	1.138	0.867	0.913	0.884	0.864	1.017	0.988	0.968	0.781	0.931	0.902	0.882			
	Left Tilt	0.040	0.791	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.891	0.884	0.944	0.867	0.886	0.848	0.853	0.922	0.884	0.889	0.847	0.902	0.864	0.869			
	Right Touch	0.030	0.516	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.689	0.862	1.005	0.864	0.729	0.706	0.676	1.047	1.024	0.994	0.618	0.801	0.778	0.748			
	Right Tilt	0.039	0.531	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.713	0.886	1.029	0.888	0.673	0.613	0.632	0.991	0.931	0.950	0.593	0.696	0.636	0.655			
Body-Wom (1-g SAR)	Rear	0.490	0.225	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.771	0.919	0.822	1.852	0.757	0.892	0.765	1.894	2.029	1.902	0.937	0.979	1.114	0.987			
	Front	0.424	0.186	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.666	0.814	0.717	0.715	0.617	0.723	0.640	0.722	0.828	0.745	0.612	0.619	0.725	0.642			
Hotspot (1-g SAR)	Rear	0.477	0.129	0.183	0.366	0.211	1.288	0.135	0.391	0.141	0.789	0.972	0.817	1.894	0.741	0.997	0.747	2.029	2.285	2.035								
	Front	0.404	0.114	0.183	0.413	0.211	1.209	0.017	0.255	0.074	0.701	0.931	0.729	0.727	0.535	0.773	0.592	0.744	0.982	0.801								
	Edge 1	0.450	0.183			0.211	1.288	0.023		0.013																		
	Edge 2	0.069	0.047																									
	Edge 3	0.977																										
Product Specific 10-g (10-g SAR)	Edge 4	0.049	0.183	0.413	0.211	0.642	0.018	0.442	0.096	0.232	0.462	0.260	0.691	0.067	0.491	0.145	0.709	1.133	0.787									
	Rear						2.978				0.377																	
	Front						0.449				0.048																	
	Edge 1						2.978				0.026																	
	Edge 2																											

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (<=0.04) or 10-g SPLSR (<=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO						UNI MIMO (5GHz)
		1-a	1-b	2	3	4	5	6	7	8						9
Body-Wom (1-g SAR)	Rear	0.490	0.225				1.137	0.042			1a+1b+5+6	1.894			164	
		0.490					1.280				1a+(1b+5+6)	1.770	159.8	0.01		No
	Hybrid SPLSR Note.4						1.280				(1b+5+6)					
Body-Wom (1-g SAR)	Rear	0.490	0.225				1.137		0.177		1a+1b+5+7	2.029			165	
		0.490					1.290				1a+(1b+5+7)	1.780	159.8	0.01		No
	Hybrid SPLSR Note.4						1.290				(1b+5+7)					
Body-Wom (1-g SAR)	Rear	0.490	0.225				1.137			0.050	1a+1b+5+8	1.902			166	
		0.490					1.270				1a+(1b+5+8)	1.760	159.8	0.01		No
	Hybrid SPLSR Note.4						1.270				(1b+5+8)					
Hotspot (1-g SAR)	Rear	0.477	0.129				1.288	0.135			1a+1b+5+6	2.029			167	
		0.477					1.360				1a+(1b+5+6)	1.837	156.9	0.02		No
	Hybrid SPLSR Note.4						1.360				(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.477	0.129				1.288		0.391		1a+1b+5+7	2.285			168	
		0.477					1.390				1a+(1b+5+7)	1.867	156.9	0.02		No
	Hybrid SPLSR Note.4						1.390				(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.477	0.129				1.288			0.141	1a+1b+5+8	2.035			169	
		0.477					1.340				1a+(1b+5+8)	1.817	156.9	0.02		No
	Hybrid SPLSR Note.4						1.340				(1b+5+8)					

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(LTE)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.066	0.697	0.048	0.065	0.113	0.104	0.018	0.915	0.932	0.980	0.217	0.829	0.846	0.894	0.131
	Left Tilt	0.040	0.791	0.029	0.008	0.037	0.036	0.016	0.896	0.875	0.904	0.073	0.876	0.855	0.884	0.053
	Right Touch	0.030	0.516	0.064	0.009	0.073	0.318	0.072	0.928	0.873	0.937	0.391	0.682	0.627	0.691	0.145
	Right Tilt	0.039	0.531	0.064	0.065	0.129	0.318	0.023	0.952	0.953	1.017	0.447	0.657	0.658	0.722	0.152
Body-Worn (1-g SAR)	Rear	0.490	0.225	0.056	0.204	0.107	0.297	0.222	1.068	1.216	1.119	0.404	0.993	1.141	1.044	0.329
	Front	0.424	0.186	0.056	0.204	0.107	0.297	0.222	0.689	0.837	0.740	0.130	0.668	0.816	0.719	0.109
Hotspot (1-g SAR)	Rear	0.477	0.129	0.183	0.366	0.211	1.288		2.077	2.260	2.105	1.499				
	Front	0.404	0.114	0.183	0.413	0.211	0.139		0.840	1.070	0.868	0.350				
	Edge 1		0.450	0.183		0.211	0.720									
	Edge 2	0.069	0.047													
	Edge 3	0.977														
	Edge 4	0.049		0.183	0.413	0.211	0.505		0.737	0.967	0.765	0.716				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (= <0.04) or 10-g SPLSR (= <0.10)	Volume Scan (Yes/No) Note.3	Figure		
		WWAN		RSDB scenarios										
		1-a(LTE)	1-b(LTE)	2	3	4	5						6	
Hotspot (1-g SAR)	Rear	0.477	0.129	0.183			1.288	1a+1b+2+5	2.077			170		
		0.477			1.360				1a+(1b+2+5)	1.837	156.9		0.02	No
		Hybrid SPLSR Note.4							1b+2+5					
Hotspot (1-g SAR)	Rear	0.477	0.129		0.366		1.288	1a+1b+3+5	2.260			171		
		0.477			1.400				1a+(1b+3+5)	1.877	156.9		0.02	No
		Hybrid SPLSR Note.4							1b+3+5					
Hotspot (1-g SAR)	Rear	0.477	0.129			0.211	1.288	1a+1b+4+5	2.105			172		
		0.477				1.380			1a+(1b+4+5)	1.857	156.9		0.02	No
		Hybrid SPLSR Note.4							1b+4+5					

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- LTE Band 4 is subset of LTE Band 66, So LTE Band 66 was used to do Simultaneous transmission analysis.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.

12.22. Sum of the SAR for ULCA(LTE B12 + LTE B66) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)																
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + UNI MIMO + BT MIMO	WWAN + UNI MIMO + UNI MIMO + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + UNI MIMO + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + UNI MIMO + UNI MIMO + BT MIMO	
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)																	
		1-a (LTE)	1-b (LTE)	2	3	4	5	6	7	8																	9
Head (1-g SAR)	Left Touch	0.161	0.066	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.324	0.505	0.602	0.331	0.377	0.348	0.328	0.481	0.452	0.432	0.245	0.395	0.366	0.346		
	Left Tilt	0.070	0.040	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.170	0.163	0.223	0.146	0.165	0.127	0.132	0.201	0.163	0.168	0.126	0.181	0.143	0.148		
	Right Touch	0.108	0.030	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.281	0.454	0.597	0.456	0.321	0.298	0.268	0.639	0.616	0.586	0.210	0.393	0.370	0.340		
	Right Tilt	0.054	0.039	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.236	0.409	0.552	0.411	0.196	0.136	0.155	0.514	0.454	0.473	0.116	0.219	0.159	0.178		
Body-Worn (1-g SAR)	Rear	0.181	0.490	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.727	0.875	0.778	1.808	0.713	0.848	0.721	1.850	1.985	1.858	0.893	0.935	1.070	0.943		
	Front	0.181	0.424	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.661	0.809	0.712	0.710	0.612	0.718	0.635	0.717	0.823	0.740	0.607	0.614	0.720	0.637		
Hotspot (1-g SAR)	Rear	0.335	0.477	0.183	0.366	0.211	1.288	0.135	0.391	0.141	0.995	1.178	1.023	2.100	0.947	1.203	0.953	2.235	2.491	2.241							
	Front	0.193	0.404	0.183	0.413	0.211	1.209	0.017	0.255	0.074	0.780	1.010	0.808	0.806	0.614	0.852	0.671	0.823	1.061	0.880							
	Edge 1			0.183		0.211	1.288	0.023		0.013																	
	Edge 2	0.195	0.069																								
	Edge 3	0.030	0.977																								
	Edge 4	0.141	0.049	0.183	0.413	0.211	0.642	0.018	0.442	0.096	0.373	0.603	0.401	0.832	0.208	0.632	0.286	0.850	1.274	0.928							
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377																
	Front						0.449				0.048																
	Edge 1						2.978				0.026																
	Edge 2																										
	Edge 3		1.697																								
Edge 4						1.576				0.214																	

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=0.04) or 10-g SPPLSR (=0.10)	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios														
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNI MIMO (5GHz)						
1-a	1-b	2	3	4	5	6	7	8	9							
Body-Worn (1-g SAR)	Rear	0.181	0.490			1.137	0.042				1a+1b+5+6	1.850				
		0.181	0.490			1.110					1a+1b+5+6	1.781				
		0.181	0.490				1.110				1a+1b	0.671	27.7	0.02	No	173
		0.181					1.110				1a+5+6	1.291	147.0	0.01	No	
			0.490				1.110				1b+5+6	1.600	159.8	0.01	No	
Hybrid SPLSR Note.4									1.110							
Hybrid SPLSR Note.4									(5+6)							
Body-Worn (1-g SAR)	Rear	0.181	0.490			1.137		0.177			1a+1b+5+7	1.985				
		0.181	0.490			1.120					1a+1b+5+7	1.791				
		0.181	0.490				1.120				1a+1b	0.671	27.7	0.02	No	174
		0.181					1.120				1a+5+7	1.120	147.0	0.01	No	
			0.490				1.120				1b+5+7	1.610	159.8	0.01	No	
Hybrid SPLSR Note.4									1.120							
Hybrid SPLSR Note.4									(5+7)							
Body-Worn (1-g SAR)	Rear	0.181	0.490			1.137			0.050		1a+1b+5+8	1.858				
		0.181	0.490			1.100					1a+1b+5+8	1.771				
		0.181	0.490				1.100				1a+1b	0.671	27.7	0.02	No	175
		0.181					1.100				1a+5+8	1.281	147.0	0.01	No	
			0.490				1.100				1b+5+8	1.590	159.8	0.01	No	
Hybrid SPLSR Note.4									1.100							
Hybrid SPLSR Note.4									(5+8)							
Hotspot (1-g SAR)	Rear	0.335	0.477			1.288	0.135				1a+1b+5+6	2.235				
		0.335	0.477			1.270					1a+1b+5+6	2.082				
		0.335	0.477								1a+1b	0.812	24.5	0.03	No	176
		0.335					1.270				1a+5+6	1.605	146.7	0.01	No	
			0.477				1.270				1b+5+6	1.747	156.9	0.01	No	
Hybrid SPLSR Note.4									1.270							
Hybrid SPLSR Note.4									(5+6)							

Sum of the SAR for ULCA(LTE B12 + LTE B66) & Wi-Fi & BT (Continued)

Hotspot (1-g SAR)	Rear	0.335	0.477			1.288		0.391		1a+1b+5+7	2.491				177
		0.335	0.477			1.300				1a+1b+5+7	2.112				
		0.335	0.477							1a+1b	0.812	24.5	0.03	No	
		0.335				1.300				1a+5+7	1.635	146.7	0.01	No	
			0.477			1.300				1b+5+7	1.777	156.9	0.02	No	
Hybrid SPLSR Note.4						1.300			(5+7)						
Hotspot (1-g SAR)	Rear	0.335	0.477			1.288		0.141		1a+1b+5+8	2.241				178
		0.335	0.477			1.250				1a+1b+5+8	2.062				
		0.335	0.477							1a+1b	0.812	24.5	0.03	No	
		0.335				1.250				1a+5+8	1.585	146.7	0.01	No	
			0.477			1.250				1b+5+8	1.727	156.9	0.01	No	
Hybrid SPLSR Note.4						1.250			(5+7)						

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(LTE)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.161	0.066	0.048	0.065	0.113	0.104	0.018	0.379	0.396	0.444	0.217	0.293	0.310	0.358	0.131
	Left Tilt	0.070	0.040	0.029	0.008	0.037	0.036	0.016	0.175	0.154	0.183	0.073	0.155	0.134	0.163	0.053
	Right Touch	0.108	0.030	0.064	0.009	0.073	0.318	0.072	0.520	0.465	0.529	0.391	0.274	0.219	0.283	0.145
	Right Tilt	0.054	0.039	0.064	0.065	0.129	0.318	0.023	0.475	0.476	0.540	0.447	0.180	0.181	0.245	0.152
Body-Worn (1-g SAR)	Rear	0.181	0.490	0.056	0.204	0.107	0.297	0.222	1.024	1.172	1.075	0.404	0.949	1.097	1.000	0.329
	Front	0.181	0.424	0.056	0.204	0.107	0.297	0.222	0.684	0.832	0.735	0.130	0.663	0.811	0.714	0.109
Hotspot (1-g SAR)	Rear	0.335	0.477	0.183	0.366	0.211	1.288		2.283	2.466	2.311	1.499				
	Front	0.193	0.404	0.183	0.413	0.211	0.209		0.989	1.219	1.017	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.195	0.069													
	Edge 3	0.090	0.977													
Edge 4	0.141	0.049	0.183	0.413	0.211	0.642		1.015	1.245	1.043	0.853					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≤0.04) or 10-g SPLSR (≤0.10)	Volume Scan (Yes/No) Note.3	Figure	
		WWAN		RSDB scenarios									
		1-a(LTE)	1-b(LTE)	2	3	4	5						6
Hotspot (1-g SAR)	Rear	0.335	0.477	0.183			1.288	1a+1b+2+5	2.283			179	
		0.335	0.477					1a+1b+(2+5)	2.082				
		0.335	0.477					1a+1b	0.812	24.5	0.03		No
		0.335						1b+(2+5)	1.605	146.7	0.01		No
			0.477					1b+(2+5)	1.747	156.9	0.01		No
Hybrid SPLSR Note.4						1.270		(2+5)					
Hotspot (1-g SAR)	Rear	0.335	0.477		0.366		1.288	1a+1b+3+5	2.466			180	
		0.335	0.477					1a+1b+(3+5)	2.122				
		0.335	0.477					1a+1b	0.812	24.5	0.03		No
		0.335						1b+(3+5)	1.645	146.7	0.01		No
			0.477					1b+(3+5)	1.787	156.9	0.02		No
Hybrid SPLSR Note.4						1.310		(3+5)					
Hotspot (1-g SAR)	Rear	0.335	0.477			0.211	1.288	1a+1b+4+5	2.311			181	
		0.335	0.477					1a+1b+(4+5)	2.112				
		0.335	0.477					1a+1b	0.812	24.5	0.03		No
		0.335						1b+(4+5)	1.635	146.7	0.01		No
			0.477					1b+(4+5)	1.777	156.9	0.02		No
Hybrid SPLSR Note.4						1.300		(4+5)					

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
- For Blue box, Enlarged zoom scan were evaluated for each LTE bands by TCB workshop guide. Please refer to Section 12.24.

12.23. Sum of the SAR for ULCA(LTE B5 + LTE B66) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)															
		Non-RSDB scenarios									WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNI MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO	WWAN + UNI MIMO	WWAN + UNI MIMO + BT Ant.1	WWAN + UNI MIMO + BT Ant.2	WWAN + UNI MIMO + BT MIMO		
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNI MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO															UNI MIMO (5GHz)	
		1-a (LTE)	1-b (LTE)	2	3	4	5	6	7	8															9	
1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+5+9	1+7+9	1+8+9													
Head (1-g SAR)	Left Touch	0.208	0.066	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.371	0.552	0.649	0.378	0.424	0.395	0.375	0.528	0.499	0.479	0.292	0.442	0.413	0.393	
	Left Tilt	0.085	0.040	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.185	0.178	0.238	0.161	0.180	0.142	0.147	0.216	0.178	0.183	0.141	0.196	0.158	0.163	
	Right Touch	0.123	0.030	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.296	0.469	0.612	0.471	0.336	0.313	0.283	0.654	0.631	0.601	0.225	0.408	0.385	0.355	
	Right Tilt	0.073	0.039	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.255	0.428	0.571	0.430	0.215	0.155	0.174	0.533	0.473	0.492	0.135	0.238	0.178	0.197	
Body-Worn (1-g SAR)	Rear	0.341	0.490	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.887	1.035	0.938	1.968	0.873	1.008	0.881	2.010	2.145	2.018	1.053	1.095	1.230	1.103	
	Front	0.225	0.424	0.056	0.204	0.107	1.105	0.007	0.113	0.030	0.002	0.705	0.853	0.756	0.754	0.656	0.762	0.679	0.761	0.867	0.784	0.651	0.658	0.764	0.681	
Hotspot (1-g SAR)	Rear	0.680	0.477	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.340	1.523	1.368	2.445	1.292	1.548	1.298	2.580	2.836	2.586					
	Front	0.373	0.404	0.183	0.413	0.211	1.209	0.017	0.255	0.074		0.960	1.190	0.988	0.986	0.794	1.032	0.851	1.003	1.241	1.060					
	Edge 1			0.183		0.211	1.288	0.023		0.013																
	Edge 2	0.082	0.069																							
	Edge 3	0.237	0.977																							
	Edge 4	0.167	0.049	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.399	0.629	0.427	0.858	0.234	0.658	0.312	0.876	1.300	0.954					
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377															
	Front						0.449				0.048															
	Edge 1						2.978				0.026															
	Edge 2																									
	Edge 4		1.697																							

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (≈0.04) or 10-g SPLSR (≈0.10)	Volume Scan (Yes/No) Note.3	Figure	
		Non-RSDB scenarios														
		1-a	1-b	2	3	4	5	6	7	8						9
Body-Worn (1-g SAR)	Rear	0.341	0.490				1.137	0.042			1a+1b+5+6	2.010				182
		0.341	0.490				1.110				1a+1b+5+6	1.941				
		0.341	0.490								1a+1b	0.831	29.0	0.03	No	
							1.110				1a+5+6	1.451	149.4	0.01	No	
			0.490				1.110				1b+5+6	1.600	159.8	0.01	No	
Hybrid SPLSR Note.4						1.110				(5+6)						
Body-Worn (1-g SAR)	Rear	0.341	0.490				1.137	0.177			1a+1b+5+7	2.145			183	
		0.341	0.490				1.120				1a+1b+5+7	1.951				
		0.341	0.490								1a+1b	0.831	29.0	0.03		No
							1.120				1a+5+7	1.120	149.4	0.01		No
			0.490				1.120				1b+5+7	1.610	159.8	0.01		No
Hybrid SPLSR Note.4						1.120				(5+7)						
Body-Worn (1-g SAR)	Rear	0.341	0.490				1.137		0.050		1a+1b+5+8	2.018			184	
		0.341	0.490				1.100				1a+1b+5+8	1.931				
		0.341	0.490								1a+1b	0.831	29.0	0.03		No
							1.100				1a+5+8	1.441	149.4	0.01		No
			0.490				1.100				1b+5+8	1.590	159.8	0.01		No
Hybrid SPLSR Note.4						1.100				(5+8)						
Hotspot (1-g SAR)	Rear	0.680	0.477				1.288	0.135			1a+1b+5+6	2.580			185	
		0.765									(1a+1b)					
							1.270				(5+6)					
		0.765					1.270				(1a+1b)+5+6	2.035	155.2	0.02		No
Hybrid SPLSR Note.4						1.270				(5+6)						

Sum of the SAR for ULCA(LTE B5 + LTE B66) & Wi-Fi & BT (Continued)

Hotspot (1-g SAR)	Rear	0.680	0.477			1.288		0.391		1a+1b+5+7	2.836				186
		0.765								(1a+1b)					
						1.300					(5+7)				
		0.765				1.300				1a+1b+5+7	2.065	155.2	0.02	No	
Hybrid SPLSR Note.4		0.765				1.300				(1a+1b)					
						1.300				(5+7)					
Hotspot (1-g SAR)	Rear	0.680	0.477			1.288		0.141		1a+1b+5+8	2.586			187	
		0.765								(1a+1b)					
						1.250				(5+8)					
		0.765				1.250				1a+1b+5+8	2.015	155.2	0.02		No
Hybrid SPLSR Note.4		0.765				1.250				(1a+1b)					
						1.250				(5+8)					

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)								
		WWAN		RSDB scenarios				WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.208	0.066	0.048	0.065	0.113	0.104	0.018	0.426	0.443	0.491	0.217	0.340	0.357	0.405	0.131
	Left Tilt	0.085	0.040	0.029	0.008	0.037	0.036	0.016	0.190	0.169	0.198	0.073	0.170	0.149	0.178	0.053
	Right Touch	0.123	0.030	0.064	0.009	0.073	0.318	0.072	0.535	0.480	0.544	0.391	0.289	0.234	0.298	0.145
	Right Tilt	0.073	0.039	0.064	0.065	0.129	0.318	0.023	0.494	0.495	0.559	0.447	0.199	0.200	0.264	0.152
Body-Worn (1-g SAR)	Rear	0.341	0.490	0.056	0.204	0.107	0.297	0.222	1.184	1.332	1.235	0.404	1.109	1.257	1.160	0.329
	Front	0.225	0.424	0.056	0.204	0.107	0.297	0.222	0.728	0.876	0.779	0.130	0.707	0.855	0.758	0.109
Hotspot (1-g SAR)	Rear	0.680	0.477	0.183	0.366	0.211	1.288		2.628	2.811	2.656	1.499				
	Front	0.373	0.404	0.183	0.413	0.211	0.209		1.169	1.399	1.197	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.082	0.069													
	Edge 3	0.297	0.977													
Edge 4	0.167	0.049	0.183	0.413	0.211	0.642		1.041	1.271	1.069	0.853					

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (<=0.04) or 10-g SPLSR (<=0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios								
		1-a(LTE)	1-b(NR)	2	3	4	5					
Hotspot (1-g SAR)	Rear	0.680	0.477	0.183			1.288	1a+1b+2+5	2.628			188
		0.765						(1a+1b)				
						1.270			(2+5)			
		0.765				1.270			1a+1b+(2+5)	2.035	155.2	
Hybrid SPLSR Note.4		0.765				1.270						
						1.270						
Hotspot (1-g SAR)	Rear	0.680	0.477		0.366		1.288	1a+1b+3+5	2.811			189
		0.765						(1a+1b)				
						1.310			(3+5)			
		0.765				1.310			1a+1b+(3+5)	2.075	155.2	
Hybrid SPLSR Note.4		0.765				1.310						
						1.310						
Hotspot (1-g SAR)	Rear	0.680	0.477			0.211	1.288	1a+1b+4+5	2.656			190
		0.765						(1a+1b)				
						1.300			(4+5)			
		0.765				1.300			1a+1b+(4+5)	2.065	155.2	
Hybrid SPLSR Note.4		0.765				1.300						
						1.300						

Note(s):

- Green value is estimated SAR value.
- Blue values are summation of DTS Ant.1 and DTS Ant.2
- SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.24 for detailed Volume Scan Result.
- SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
- LTE Band 5 is subset of LTE Band 26, So LTE Band 26 was used to do Simultaneous transmission analysis.
- Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
- For Blue box, Enlarged zoom scan were evaluated for each LTE bands by TCB workshop guide. Please refer to Section 12.24.

12.24. Volume Scan Results

RF Exposure	Test Position	Configuration	Band	Sample	Original Measured SAR (W/kg)	Volume Scan Result	Plot No.	Multi-Band Combined factor	Multi-Band Combined Result	Plot No.
Standalone	Left Tilt	LTE B25(2) + NR Band n66	LTE Band 25(2)	Version.1	0.042	0.026	1	1.344	1.050	27-28
			NR Band n66	Version.2	1.090	0.944	2	1.093		
	UNII MIMO + Bluetooth Ant 1	UNII MIMO + Bluetooth Ant 1	UNII MIMO	Version.1	0.718	0.688	3	1.584	1.110	29-30
			Bluetooth Ant 1	Version.1	0.032	0.029	4	1.306		
	UNII MIMO + Bluetooth Ant 2	UNII MIMO + Bluetooth Ant 2	UNII MIMO	Version.1	0.718	0.688	5	1.584	1.120	31-32
			Bluetooth Ant 2	Version.1	0.087	0.063	5	2.027		
	UNII MIMO + Bluetooth MIMO	UNII MIMO + Bluetooth MIMO	UNII MIMO	Version.1	0.718	0.688		1.584	1.100	33-34
			Bluetooth MIMO	Version.1	0.032	0.029	6	1.556		
	UNII MIMO + Bluetooth Ant 1 + LTE Band 4 (Main Ant.3)	UNII MIMO + Bluetooth Ant 1 + LTE Band 4 (Main Ant.3)	UNII MIMO	Version.1	0.718	0.688		1.584	1.310	35-36
			Bluetooth Ant 1	Version.1	0.032	0.029		1.306		
	UNII MIMO + Bluetooth Ant 2 + LTE Band 4 (Main Ant.3)	UNII MIMO + Bluetooth Ant 2 + LTE Band 4 (Main Ant.3)	LTE Band 4	Version.2	0.223	0.235	7	1.253	1.320	37-38
			UNII MIMO	Version.1	0.718	0.688		1.584		
	UNII MIMO + Bluetooth Ant 2 + LTE Band 4 (Main Ant.3)	UNII MIMO + Bluetooth Ant 2 + LTE Band 4 (Main Ant.3)	Bluetooth Ant 2	Version.1	0.087	0.063		2.027	1.300	39-40
			LTE Band 4	Version.2	0.223	0.235		1.253		
	UNII MIMO + Bluetooth MIMO + LTE Band 4 (Main Ant.3)	UNII MIMO + Bluetooth MIMO + LTE Band 4 (Main Ant.3)	UNII MIMO	Version.1	0.718	0.688		1.584	1.280	41-42
			Bluetooth MIMO	Version.1	0.032	0.029		1.556		
	UNII MIMO + Bluetooth Ant 1 + LTE Band 2 (Main Ant.3)	UNII MIMO + Bluetooth Ant 1 + LTE Band 2 (Main Ant.3)	LTE Band 2	Version.2	0.195	0.213	8	1.191	1.290	43-44
			UNII MIMO	Version.1	0.718	0.688		1.584		
	UNII MIMO + Bluetooth Ant 2 + LTE Band 2 (Main Ant.3)	UNII MIMO + Bluetooth Ant 2 + LTE Band 2 (Main Ant.3)	Bluetooth Ant 2	Version.1	0.087	0.063		2.027	1.270	45-46
			LTE Band 2	Version.2	0.195	0.213		1.191		
	UNII MIMO + Bluetooth MIMO + LTE Band 2 (Main Ant.3)	UNII MIMO + Bluetooth MIMO + LTE Band 2 (Main Ant.3)	UNII MIMO	Version.1	0.718	0.688		1.584	1.310	47-48
			Bluetooth MIMO	Version.1	0.032	0.029		1.306		
	UNII MIMO + Bluetooth Ant 1 + NR Band n66	UNII MIMO + Bluetooth Ant 1 + NR Band n66	NR Band n66	Version.2	1.184	0.207	9	1.379	1.320	49-50
			UNII MIMO	Version.1	0.718	0.688		1.584		
	UNII MIMO + Bluetooth Ant 2 + NR Band n66	UNII MIMO + Bluetooth Ant 2 + NR Band n66	Bluetooth Ant 2	Version.1	0.087	0.063		2.027	1.300	51-52
			NR Band n66	Version.2	1.184	0.207		1.379		
	UNII MIMO + Bluetooth MIMO + NR Band n66	UNII MIMO + Bluetooth MIMO + NR Band n66	UNII MIMO	Version.1	0.718	0.688		1.584	1.270	53-54
			Bluetooth MIMO	Version.1	0.032	0.029		1.556		
	UNII MIMO + Bluetooth Ant 1	UNII MIMO + Bluetooth Ant 1	UNII MIMO	Version.3	0.798	0.759	10	1.614	1.300	55-56
			Bluetooth Ant 1	Version.1	0.103	0.079	11	1.306		
	UNII MIMO + Bluetooth Ant 2	UNII MIMO + Bluetooth Ant 2	UNII MIMO	Version.3	0.798	0.759	12	1.614	1.250	57-58
			Bluetooth Ant 2	Version.1	0.193	0.123	12	2.027		
	UNII MIMO + Bluetooth MIMO	UNII MIMO + Bluetooth MIMO	UNII MIMO	Version.3	0.798	0.759		1.614	1.270	59-60
			Bluetooth MIMO	Version.1	0.091	0.069	13	1.556		
	UNII MIMO + DTS Ant 1	UNII MIMO + DTS Ant 1	DTS Ant 1	Version.1	0.139	0.137	14	1.316	1.310	61-62
			UNII MIMO	Version.3	0.798	0.759		1.614		
	UNII MIMO + DTS Ant 2	UNII MIMO + DTS Ant 2	DTS Ant 2	Version.1	0.281	0.216	15	1.301	1.300	63-64
			UNII MIMO	Version.3	0.798	0.759		1.614		
	UNII MIMO + DTS MIMO	UNII MIMO + DTS MIMO	DTS MIMO	Version.1	0.160	0.136	16	1.303	1.360	65-66
			UNII MIMO	Version.3	0.798	0.759		1.614		
	UNII MIMO + Bluetooth Ant 1 + LTE Band 4 (Main Ant.3)	UNII MIMO + Bluetooth Ant 1 + LTE Band 4 (Main Ant.3)	Bluetooth Ant 1	Version.1	0.103	0.079		1.306	1.390	67-68
			LTE Band 4	Version.1	0.151	0.163	17	1.109		
	UNII MIMO + Bluetooth Ant 2 + LTE Band 4 (Main Ant.3)	UNII MIMO + Bluetooth Ant 2 + LTE Band 4 (Main Ant.3)	UNII MIMO	Version.3	0.798	0.759		1.614	1.340	69-70
			Bluetooth Ant 2	Version.1	0.193	0.123		2.027		
	UNII MIMO + Bluetooth MIMO + LTE Band 4 (Main Ant.3)	UNII MIMO + Bluetooth MIMO + LTE Band 4 (Main Ant.3)	LTE Band 4	Version.1	0.151	0.163		1.109	1.360	71-72
			UNII MIMO	Version.3	0.798	0.759		1.614		
	UNII MIMO + DTS Ant 1 + LTE Band 4 (Main Ant.3)	UNII MIMO + DTS Ant 1 + LTE Band 4 (Main Ant.3)	Bluetooth MIMO	Version.1	0.091	0.069		1.556	1.400	73-74
			LTE Band 4	Version.1	0.151	0.163		1.109		
	UNII MIMO + DTS Ant 2 + LTE Band 4 (Main Ant.3)	UNII MIMO + DTS Ant 2 + LTE Band 4 (Main Ant.3)	UNII MIMO	Version.3	0.798	0.759		1.614	1.390	75-76
			DTS Ant 2	Version.1	0.281	0.216		1.301		
	UNII MIMO + DTS MIMO + LTE Band 4 (Main Ant.3)	UNII MIMO + DTS MIMO + LTE Band 4 (Main Ant.3)	LTE Band 4	Version.1	0.151	0.163		1.109	1.360	77-78
			UNII MIMO	Version.3	0.798	0.759		1.614		
	UNII MIMO + Bluetooth Ant 1 + LTE Band 2 (Main Ant.3)	UNII MIMO + Bluetooth Ant 1 + LTE Band 2 (Main Ant.3)	Bluetooth Ant 1	Version.1	0.103	0.079		1.306	1.390	79-80
			LTE Band 2	Version.1	0.102	0.084	18	1.262		
	UNII MIMO + Bluetooth Ant 2 + LTE Band 2 (Main Ant.3)	UNII MIMO + Bluetooth Ant 2 + LTE Band 2 (Main Ant.3)	UNII MIMO	Version.3	0.798	0.759		1.614	1.340	81-82
			Bluetooth Ant 2	Version.1	0.193	0.123		2.027		
	UNII MIMO + Bluetooth MIMO + LTE Band 2 (Main Ant.3)	UNII MIMO + Bluetooth MIMO + LTE Band 2 (Main Ant.3)	LTE Band 2	Version.1	0.102	0.084		1.262	1.360	83-84
			UNII MIMO	Version.3	0.798	0.759		1.614		
	UNII MIMO + DTS Ant 1 + LTE Band 2 (Main Ant.3)	UNII MIMO + DTS Ant 1 + LTE Band 2 (Main Ant.3)	DTS Ant 1	Version.1	0.139	0.137		1.316	1.400	85-86
			LTE Band 2	Version.1	0.102	0.084		1.262		
	UNII MIMO + DTS Ant 2 + LTE Band 2 (Main Ant.3)	UNII MIMO + DTS Ant 2 + LTE Band 2 (Main Ant.3)	UNII MIMO	Version.3	0.798	0.759		1.614	1.380	87-88
			DTS Ant 2	Version.1	0.281	0.216		1.301		
	UNII MIMO + DTS MIMO + LTE Band 2 (Main Ant.3)	UNII MIMO + DTS MIMO + LTE Band 2 (Main Ant.3)	LTE Band 2	Version.1	0.102	0.084		1.262	1.300	89-90
			UNII MIMO	Version.3	0.798	0.759		1.614		
	UNII MIMO + DTS Ant MIMO + LTE Band 2 (Main Ant.3)	UNII MIMO + DTS Ant MIMO + LTE Band 2 (Main Ant.3)	DTS Ant MIMO	Version.1	0.160	0.136		1.303	1.380	89-90
			LTE Band 2	Version.1	0.102	0.084		1.262		

Volume Scan Results (Continued)

RF Exposure	Test Position	Configuration	Band	Sample	Original Measured SAR (W/kg)	Volume Scan Result	Plot No.	Multi-Band Combined factor	Multi-Band Combined Result	Plot No.
Standalone	Rear 10mm	UNII MIMO + DTS Ant 1 + NR Band n66	UNII MIMO	Version.3	0.798	0.759		1.614	1.380	89-90
			DTS Ant 1	Version.1	0.139	0.137		1.316		
			NR Band n66	Version.3	0.175	0.171	19	1.126		
		UNII MIMO + DTS Ant 2 + NR Band n66	UNII MIMO	Version.3	0.798	0.759		1.614	1.420	91-92
			DTS Ant 2	Version.1	0.281	0.216		1.301		
			NR Band n66	Version.3	0.175	0.171		1.126		
		UNII MIMO + DTS MIMO + NR Band n66	UNII MIMO	Version.3	0.798	0.759		1.614	1.410	93-94
			DTS MIMO	Version.1	0.160	0.136		1.303		
			NR Band n66	Version.3	0.175	0.171		1.126		
		UNII MIMO + Bluetooth Ant 1 + NR Band n66	UNII MIMO	Version.3	0.798	0.759		1.614	1.390	95-96
			Bluetooth Ant 1	Version.1	0.103	0.079		1.306		
			NR Band n66	Version.3	0.175	0.171		1.126		
	UNII MIMO + Bluetooth Ant 2 + NR Band n66	UNII MIMO	Version.3	0.798	0.759		1.614	1.420	97-98	
		Bluetooth Ant 2	Version.1	0.193	0.123		2.027			
		NR Band n66	Version.3	0.175	0.171		1.126			
	UNII MIMO + Bluetooth MIMO + NR Band n66	UNII MIMO	Version.3	0.798	0.759		1.614	1.370	99-100	
		Bluetooth MIMO	Version.1	0.091	0.069		1.556			
		NR Band n66	Version.3	0.175	0.171		1.126			
	LTE Band 26(5) + LTE Band 66	LTE Band 26(5)	Version.1	0.501	0.421	20	1.357	0.765	101-102	
		LTE Band 66	Version.1	0.356	0.272	21	1.339			
	Edge 3 10mm	LTE B25(2) + NR Band n5	LTE Band 25(2)	Version.1	1.050	0.939	22	1.164	1.350	103-104
			NR Band n5	Version.1	0.271	0.215	23	1.199		
		LTE B66 + NR Band n5	LTE Band 66	Version.1	0.712	0.705	24	1.372	1.220	105-106
			NR Band n5	Version.1	0.271	0.215		1.199		
LTE B12 + LTE B66		LTE Band 12	Version.1	0.071	0.051	25	1.278	1.020	107-108	
		LTE Band 66	Version.1	0.712	0.705		1.372			
LTE B26(5) + LTE B66		LTE Band 26(5)	Version.1	0.219	0.168	26	1.367	1.190	109-110	
		LTE Band 66	Version.1	0.712	0.705		1.372			

Note(s):

1. Multi-band Combined factor is the compensation value of power and duty.
2. For Volume Scan plot number in this section, please refer to the Appendix J.

Conclusion:

Simultaneous Transmission SAR analysis results is satisfied the FCC Limit requirement according to follow procedures with "Sum of SAR" or "SPLSR" or "SPLSR Hotspot combination(including Volume Scan)".

Appendixes

Refer to separated files for the following appendixes.

4790089631-S1 FCC Report SAR_App A_Photos & Ant. Locations

4790089631-S1 FCC Report SAR_App B_Highest SAR Test Plots

4790089631-S1 FCC Report SAR_App C_System Check Plots

4790089631-S1 FCC Report SAR_App D_SAR Tissue Ingredients

4790089631-S1 FCC Report SAR_App E_Probe Cal. Certificates

4790089631-S1 FCC Report SAR_App F_Dipole Cal. Certificates

4790089631-S1 FCC Report SAR_App G_Proximity Sensor feature

4790089631-S1 FCC Report SAR_App H_LTE Carrier Aggregation

4790089631-S1 FCC Report SAR_App I_SPLSR criteria plots

4790089631-S1 FCC Report SAR_App J_Volume Scan Results

END OF REPORT