FCC 47 CFR § 2.1093
IEEE Std 1528-2013

SAR EVALUATION REPORT
(Part 1 : Test in Static Transmission Condition)

FOR

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

MODEL NUMBER: SM-S918B/DS, SM-S918B

FCC ID: A3LSMS918B

REPORT NUMBER: 4790541052-S1V3

ISSUE DATE: 11/29/2022

Prepared for
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IAS ACCREDITED

Testing Laboratory

TL-637

Revision History

Rev.	Date	Revisions	Revised By
V1	10/28/2022	Initial Issue	--
V2	11/9/2022	Revised KDB 447498 version in Sec.2 Added LTE Band 41-PC2 output power results in Sec.9.3 Added note in BT target power table in Sec.6.4. Revised BT target power in Sec.6.4. Revised typo in Appendix G.	Sunghoon Kim
V3	11/29/2022	Revised BT Dual's target power in Sec.6.4. Revised Notes in Sec.6.5.	Sunghoon Kim

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1. Attestation of Test Results

Applicant Name		SAMSUNG ELECTRONICS CO.,LTD.				
FCC ID		A3LSMS918B				
Model Number		SM-S918B/DS, SM-S918B				
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	DXX
Head		0.98	0.33	0.27	0.37	N/A
Body-worn		1.10	0.13	0.20	< 0.10	N/A
Hotspot		1.20	0.46	0.25	0.30	N/A
Product Specific 10g		3.01	N/A	2.26	N/A	< 0.10
Simultaneous TX	Head	1.59	1.59	1.59	1.59	N/A
	Body-worn	1.59	1.59	1.59	1.59	N/A
	Hotspot	1.54	1.46	1.54	1.54	N/A
	Product Specific 10g	3.13	N/A	3.13	N/A	3.13
Date Tested		9/1/2022 to 10/28/2022				
Test Results		Pass				

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.

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.

Approved & Released By:	Prepared By:
	
Justin Park Operations Leader UL Korea, Ltd. Suwon Laboratory	Sunghoon Kim Senior Laboratory Engineer UL Korea, Ltd. Suwon Laboratory

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	0.122	0.421	0.928	N/A
	GSM 1900	Main 1	0.090	0.502	0.845	1.784
	WCDMA Band II	Main 1	0.163	0.786	1.192	**3.007**
	WCDMA Band IV	Main 1	0.198	1.053	**1.202**	2.588
	WCDMA Band V	Main 1	0.291	0.347	1.020	N/A
	LTE Band 2	Main 1	N/A	N/A	N/A	N/A
	LTE Band 4	Main 1	N/A	N/A	N/A	N/A
	LTE Band 4	Sub.2	**0.976**	0.228	0.652	N/A
	LTE Band 5	Main 1	0.245	0.330	0.746	N/A
	LTE Band 12	Main 1	0.151	0.211	0.548	N/A
	LTE Band 13	Main 1	0.213	0.337	0.543	N/A
	LTE Band 17	Main 1	N/A	N/A	N/A	N/A
	LTE Band 25	Main 1	0.154	**1.098**	1.195	1.684
	LTE Band 26	Main 1	0.254	0.295	0.635	N/A
	LTE Band 41	Main 2	0.019	0.408	1.051	2.618
	LTE Band 66	Main 1	0.138	1.070	**1.202**	2.283
	NR Band n2	Main 1	N/A	N/A	N/A	N/A
	NR Band n5	Main 1	0.171	0.257	0.622	N/A
	NR Band n25	Main 1	0.092	0.808	0.939	1.221
	NR Band n66	Main 1	0.149	0.988	1.078	2.914
	NR Band n66	Sub.2	0.884	0.099	0.499	N/A
	NR Band n41	Sub.2	0.889	0.257	0.323	N/A
		Main.2	0.000	0.038	0.120	N/A
		Sub.1	0.281	0.045	0.052	N/A
		Main.4	0.001	0.046	0.071	N/A
	NR Band n77	Sub.3	0.757	0.167	0.185	N/A
		Main.3	0.000	0.023	0.063	N/A
		Sub.5	0.207	0.144	0.155	N/A
		Main.4	0.001	0.074	0.107	N/A
DTS	2.4GHz WLAN		**0.331**	**0.125**	**0.459**	N/A
UNII	5GHz WLAN		**0.273**	**0.202**	**0.247**	**2.256**
DSS	Bluetooth		**0.365**	**0.084**	**0.304**	N/A
DXX	NFC		N/A	N/A	N/A	**0.030**

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 D04 Interim General RF Exposure Guidance v01
- 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 (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, 2019; RF Exposure Procedures (Tissue Simulating Liquids (TSL))
- TCB workshop October, 2020; 5G RFX Policies (Intra-band and Inter-band NSA-EN-DC evaluation)
- TCB workshop April, 2022; RF Exposure Procedures (5G NR FR1 Measurement)

3. Facilities and Accreditation

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

Suwon	
SAR 1 Room	SAR 6 Room
SAR 2 Room	SAR 7 Room
SAR 3 Room	SAR 8 Room
SAR 4 Room	SAR 9 Room
SAR 5 Room	

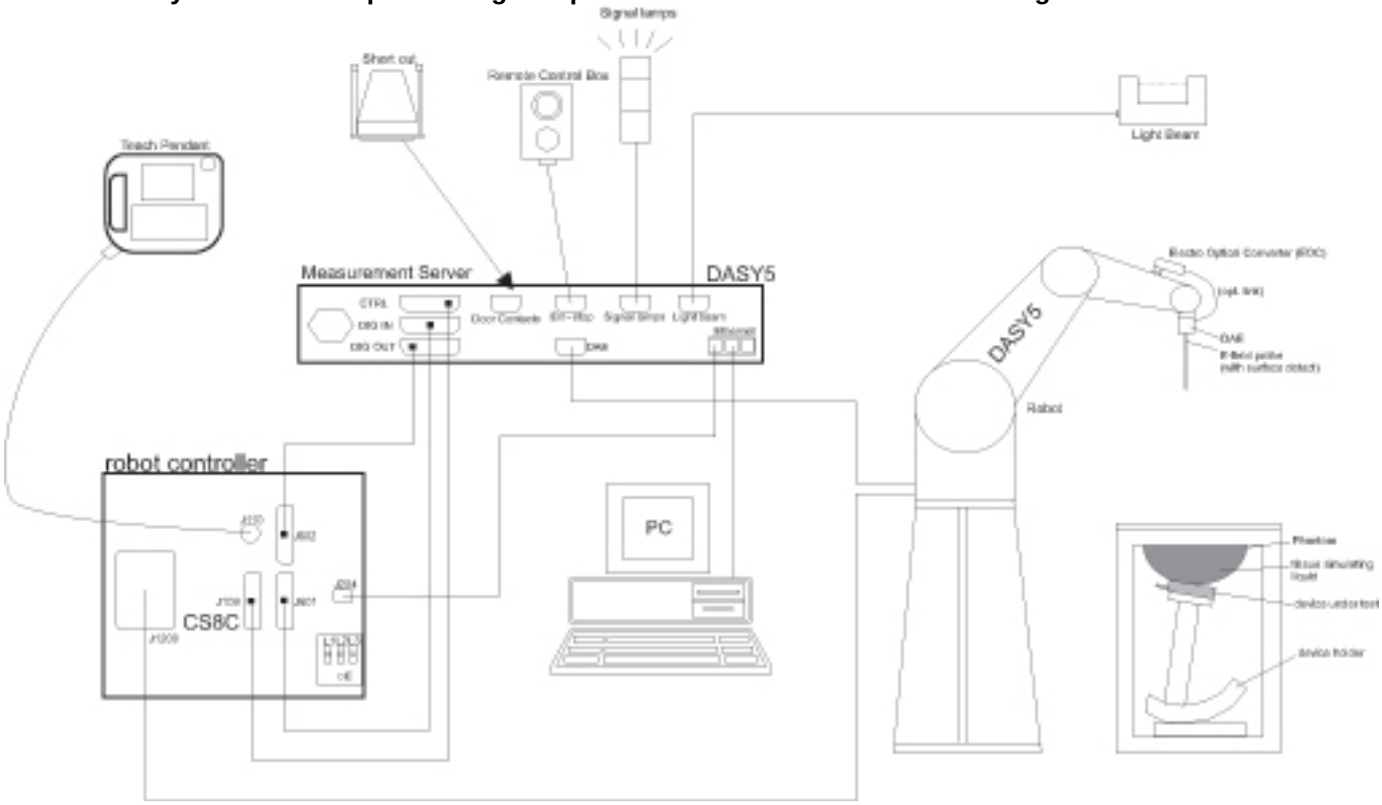
UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.
The full scope of accreditation can be viewed at;

https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf.

4. SAR Measurement System & Test Equipment

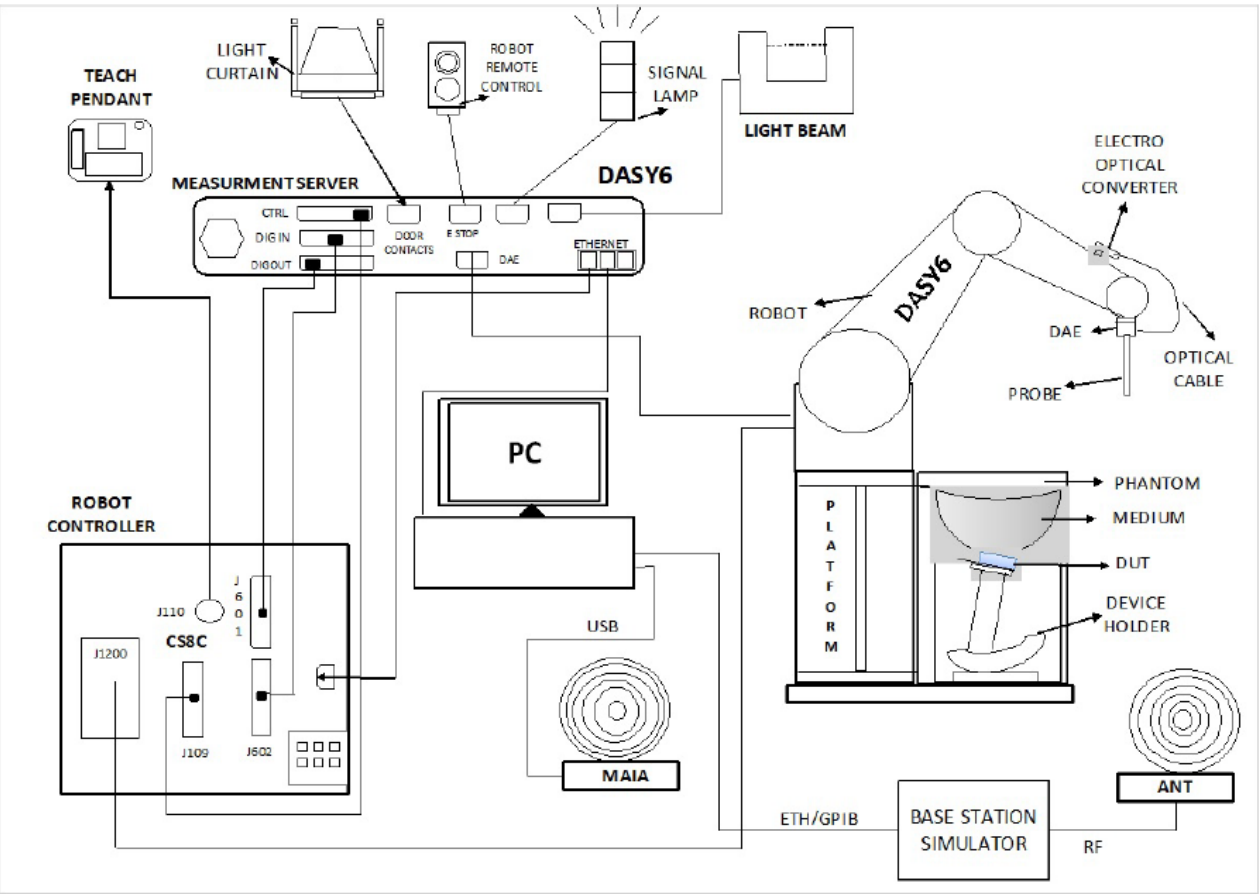
4.1. SAR Measurement System

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.

The DASY6 & 8 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 Win10 and the DASY6 or 8 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	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

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

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}</td><td>≤ 2 GHz: ≤ 8 mm
2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm
4 – 5 GHz: ≤ 3 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm
4 – 5 GHz: ≤ 2.5 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm
4 – 5 GHz: ≥ 25 mm
5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">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 <u>reported</u> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</td></tr>
</table>

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.

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	8-5-2023
Network Analyzer	ROHDE & SCHWARZ	ZNB 20	102256	8-5-2023
Dielectric Assessment Kit	SPEAG	DAK-12	1158	**10-20-2022**
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-25-2023
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	LKM	DTM3000	3851	8-3-2023
Thermometer	LKM	DTM3000	3862	8-3-2023

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Agilent	N5181A	MY50145882	8-4-2023
MXG Analog Signal Generator	Keysight	N5181B	MY59100587	8-4-2023
MXG Analog Signal Generator	Keysight	N5173B	MY59101083	8-4-2023
Power Sensor	Keysight	U2000A	MY60180020	8-3-2023
Power Sensor	Agilent	U2000A	MY54260007	8-3-2023
Power Sensor	Keysight	U2000A	MY60490008	8-3-2023
Power Sensor	Keysight	U2000A	MY61060004	8-3-2023
Power Sensor	Keysight	U2000A	MY61010006	8-3-2023
Power Sensor	Keysight	U2000A	MY61010010	8-3-2023
Power Amplifier	MINI-CIRCUITS	TVA-R5-13A+	2111006	2-15-2023
Power Amplifier	EXODUS	AMP2027ADB	10002	3-30-2023
Directional Coupler	Agilent	772D	MY52180193	8-3-2023
Directional Coupler	H.P	778D	16133	8-3-2023
Directional Coupler	MINI-CIRCUITS	ZUDC20-183+	N/A	8-2-2023
Directional Coupler	MINI-CIRCUITS	ZUDC20-183+	N/A	8-3-2023
Low Pass Filter	FILTRON	L14012FL	1410003S	8-3-2023
Low Pass Filter	MICROLAB	LA-60N	3942	8-3-2023
Low Pass Filter	MINI-CIRCUITS	NLP-1200	VUU19301915	8-2-2023
Attenuator	KEYSIGHT	8491B/003	VE2017A0283	8-3-2023
Attenuator	KEYSIGHT	8491B/010	MY39271981	8-3-2023
Attenuator	KEYSIGHT	8491B/010	MY39272011	8-2-2023
Attenuator	KEYSIGHT	8491B/020	MY39271973	8-3-2023
Attenuator	MINI-CIRCUITS	BW-S3W10+	N/A	4-7-2023

Note(s):

1. All equipments were used until Cal.Due data.

Test Equipment (Continued)

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
E-Field Probe	SPEAG	EX3DV4	7313	3-2-2023
E-Field Probe	SPEAG	EX3DV4	7314	5-31-2023
E-Field Probe	SPEAG	EX3DV4	7330	1-28-2023
E-Field Probe	SPEAG	EX3DV4	7376	7-27-2023
E-Field Probe	SPEAG	EX3DV4	7545	8-19-2023
E-Field Probe	SPEAG	EX3DV4	7651	5-30-2023
E-Field Probe	SPEAG	EX3DV4	7652	4-28-2023
E-Field Probe	SPEAG	EX3DV4	7645	4-29-2023
E-Field Probe	SPEAG	EX3DV4	7646	3-29-2023
Data Acquisition Electronics	SPEAG	DAE4	1494	7-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1343	8-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1468	8-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1591	3-24-2023
Data Acquisition Electronics	SPEAG	DAE4	1670	6-7-2023
Data Acquisition Electronics	SPEAG	DAE4	1671	5-31-2023
Data Acquisition Electronics	SPEAG	DAE4	1667	4-27-2023
Data Acquisition Electronics	SPEAG	DAE4	1668	4-27-2023
System Validation Dipole	SPEAG	D750V3	1205	4-27-2023
System Validation Dipole	SPEAG	D835V2	4d194	3-24-2023
System Validation Dipole	SPEAG	D1750V2	1125	2-24-2023
System Validation Dipole	SPEAG	D1750V2	1180	9-21-2023
System Validation Dipole	SPEAG	D1900V2	5d190	11-24-2022
System Validation Dipole	SPEAG	D1900V2	5d199	3-25-2023
System Validation Dipole	SPEAG	D2450V2	960	3-24-2023
System Validation Dipole	SPEAG	D2600V2	1097	9-29-2023
System Validation Dipole	SPEAG	D3500V2	1121	4-21-2023
System Validation Dipole	SPEAG	D3700V2	1036	5-21-2023
System Validation Dipole	SPEAG	D3900V2	1069	4-21-2023
System Validation Dipole	SPEAG	D5GHzV2	1209	11-24-2023
System Validation Dipole	SPEAG	CLA-13	1015	8-23-2023
Thermometer	Lutron	MHB-382SD	AH.91463	8-4-2023
Thermometer	Lutron	MHB-382SD	AH.50215	8-9-2023
Thermometer	Lutron	MHB-382SD	AH.50213	8-4-2023
Thermometer	Lutron	MHB-382SD	AH.45903	8-9-2023
Thermometer	Lutron	MHB-382SD	AK.18789	8-9-2023
Thermometer	Lutron	MHB-382SD	AK.12102	8-9-2023

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	150313	8-2-2023
Base Station Simulator	R & S	CMW500	150314	8-2-2023
Base Station Simulator	R & S	CMW500	162790	8-2-2023
Base Station Simulator	R & S	CMW500	169803	5-27-2023
Base Station Simulator	R & S	CMW500	169799	8-2-2023
Base Station Simulator	R & S	CMW500	169800	8-2-2023
Base Station Simulator	R & S	CMW500	169798	8-2-2023
UXM 5G Wireless Test Platform	Keysight	E7515B	MY59150850	12-13-2022
UXM 5G Wireless Test Platform	Keysight	E7515B	MY58120110	1-7-2023
UXM 5G Wireless Test Platform	Keysight	E7515B	MY57510596	8-5-2023
Radio Communication Test Station	Anritsu	MT8000A	6272466165	9-8-2023
Radio Communication Analyzer	Anritsu	MT8821C	6161094351	9-8-2023

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

Measurement Uncertainty of 100MHz to 6GHz

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.

Measurement Uncertainty of 4MHz to 30MHz

Measurement uncertainty for 4 MHz to 30 MHz

(According to IEEE 62209-1528)

a	b	c		d	e	f	g	h = *c*×*f*/*e*	l = *c*×*g*/*e*	k
Uncertainty component	Reference	Tol. 1 g (±%)	Tol. 10 g (±%)	Prob. Dist.	Div.	*ci* (1 g)	*ci* (10 g)	1 g *ui* (± %)	10 g *ui* (± %)	vi
Measurement System Errors										
Probe Calibration	8.4.1.1	13.3		Normal	2	1	1	6.7	6.7	∞
Probe Calibration Drift	8.4.1.2	1.7		Rectangular	1.732	1	1	1.0	1.0	∞
Probe Linearity	8.4.1.3	4.7		Rectangular	1.732	1	1	2.7	2.7	∞
Broadband Signal	8.4.1.4	0.8		Rectangular	1.732	1	1	0.5	0.5	∞
Probe Isotropy	8.4.1.5	7.6		Rectangular	1.732	1	1	4.4	4.4	∞
Data Acquisition	8.4.1.6	0.3		Normal	1	1	1	0.3	0.3	∞
RF Ambient	8.4.1.7	1.8		Normal	1	1	1	1.8	1.8	∞
Probe Positioning	8.4.1.8	0.006		Normal	1	0.14	0.14	0.10	0.10	∞
Data Processing	8.4.1.9	1.2		Normal	1	1	1	1.2	1.2	∞
Phantom and Device Errors										
Conductivity (meas.)DAK	8.4.2.1	2.5		Normal	1	0.78	0.71	2.0	1.8	∞
Conductivity (temp.)BB	8.4.2.2	5.4		Rectangular	1.732	0.78	0.71	2.4	2.2	∞
Phantom Permittivity	8.4.2.3	14.0		Rectangular	1.732	0	0	0.0	0.0	∞
Distance DUT -TSL	8.4.2.4	2.0		Normal	1	2	2	4.0	4.0	∞
Device Positioning	8.4.2.5	0.5	0.6	Normal	1	1	1	0.5	0.6	40
Device Holder	8.4.2.6	3.6		Normal	1	1	1	3.6	3.6	∞
DUT Modulation	8.4.2.7	2.4		Rectangular	1.732	1	1	1.4	1.4	∞
Time-average SAR	8.4.2.8	1.7		Rectangular	1.732	1	1	1.0	1.0	∞
DUT drift	8.4.2.9	5.0		Normal	1	1	1	5.0	5.0	∞
Correction to the SAR results										
Deviation to Target	8.4.3.1	1.9		Normal	1	1	0.84	1.9	1.6	∞
Combined Standard Uncertainty Uc(y) =				RSS				12.13	12.02	
Expanded Uncertainty U, Coverage Factor = 2, > 95 % Confidence =								**24.26**	**24.05**	

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	☒ The Back Cover is not removable.
Battery Options	☒ 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. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz) ☒ Mobile Hotspot (Wi-Fi 5.8 GHz)
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other ☒ Wi-Fi Direct (Wi-Fi 2.4 GHz) ☒ Wi-Fi Direct (Wi-Fi 5.2 GHz_UNII-1, Wi-Fi 5.8 GHz_UNII-3)

Test Sample Information

No.	S/N	Notes	No.	S/N	Notes
1	R3CT7081VFX	Main Conducted	13	R3CT7081XLY	SAR
2	R3CT7081V0A	Main Conducted	14	R3CT70824PR	SAR
3	R3CT7081VLN	Main Conducted	15	R3CT70824NX	SAR
4	R3CT7081WFM	Main Conducted	16	R3CT90EYWCN	SAR
5	R3CT7081TXY	Main Conducted	17	R3CT90EYWNV	SAR
6	R3CT7081YTB	Wi-Fi & BT Conducted	18	R3CT90EYVFE	SAR
7	R3CT7081YEP	Wi-Fi & BT Conducted	19	R3CT90EYWZP	SAR
8	R3CT7081XZJ	Wi-Fi & BT Conducted	20	R3CT90EYVEH	SAR
9	4d5455324a523198	Wi-Fi & BT Conducted	21	R3CT90EYSSW	SAR
10	R3CT7081XTH	SAR	22	R3CT90WSNAY	SAR
11	R3CT7081XKT	SAR	23	R3CT90WSMI7	SAR
12	R3CT7081YGJ	SAR			

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: ☐ Class 8 - 1 Up, 4 Down ☐ Class 10 - 2 Up, 4 Down ☐ Class 12 - 4 Up, 4 Down ☒ Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (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 & 2 FDD Band 66	QPSK 16QAM 64QAM 256QAM Rel. 15 Carrier Aggregation (2 Uplink and 5 Downlinks) **Uplink inter-band Carrier Aggregation(2CC)** 2A-4A, 4A-5A, 4A-12A, 5A-66A, 12A-66A		100% (FDD) 63.3% (TDD) Power Class 3 43.3% (TDD) Power Class 2
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
NR (Sub6)	FDD Band n2 FDD Band n5 FDD Band n25 FDD Band n66 TDD Band n41 TDD Band n77	DFT-s-ODFM: ■ π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-ODFM: ■QPSK, 16QAM, 64QAM, 256QAM		100%
Wi-Fi	2.4 GHz	802.11b / 802.11g 802.11n (HT20)/ 802.11ax (HE20)		98.8% (802.11b)
	5 GHz	802.11a / 802.11n (HT20) & (HT40) 802.11ac (VHT20) & (VHT40) & (VHT80) & (VHT160) 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		96.5% (802.11a) 93.9% (802.11ac (VHT80)
	6 GHz	802.11a 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		99.7% (802.11ax (HE40) 99.5% (802.11ax (HE160)
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No			
	Does this device support Band gap channel(s)? ☒ Yes ☐ No			
Bluetooth	2.4 GHz	Version 5.3 LE		76.7% (DH5)
NFC	13.56 MHz	Type A/B/F		100%
UWB	6489.6 – 7987.2 MHz	Signal Configurations(0/1/3), PRF modes(BPRF/HPRF)		100%

Notes:

1. The Bluetooth protocol is considered source-based averaging. Bluetooth 1Mbps GFSK (DH5) was verified to have the highest duty cycle of 76.7% and was considered and used for SAR Testing.
2. Duty cycle for Wi-Fi is referenced from the DTS and UNII report.
3. This device supports Power Class 2(HPUE) and Power Class 3 for LTE Band 41.
4. This device supports UL CA inter-band in LTE Band.
5. NR TDD Band n41 & n77 has support SRS(0,1,2,3) modes.
6. 6GHz RF Exposure report has test results of WiFi 6GHz and UWB.

6.3. Time-Averaging feature

The equipment under test (EUT) contains the Qualcomm modems supporting 2G/3G/4G technologies and 5G NR bands. these modem is enabled with Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is in compliance with the FCC requirement. Refer to Compliance Summary document for detailed description of Qualcomm Smart Transmit feature.

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of *SAR_design_target*, below the predefined time-average power limit, for each characterized technology and band.

Smart Transmit allows the device to transmit at higher power instantaneously as high as P_{max}, when needed, but enforces power limiting to maintain time-averaged transmit power to P_{Limit}. Below table shows P_{Limit} EFS settings and maximum tune up output power P_{max} configured for this EUT for various transmit conditions (DSI Device State Index).

The maximum time-averaged output power (dBm) for any 2G/3G/4G/5G NR WWAN technology band, and DSI = minimum of " P_{Limit} EFS" and "Maximum tune up output power P_{max}" + 1 dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB 447498 D01.

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

SAR Characterizations

Exposure condition			Body-Worn	Product Specific 10-g Without triggering sensor	Product Specific 10-g With triggering sensor	Head (RCV)	Hotspot	Ear-jack	Pmax (Maximum tune-up Power) (dBm)
Spatial-average			1g	10g	10g	1g	1g	10g	
Test distance (mm)			15	11/ 9/ 15/ 0	0	0	10	0	
DSI:			0	0	1	2	3	4	
RF Air Interface	Antenna	Antenn Group	Plimit corresponding to 1.0 W/kg (SAR_design_target) (1g) / 2.5 W/kg (SAR_design_target) (10g)						
GSM 850	Main 1	AG0	29.62	29.86	35.13	26.42	29.86	24.98	
GSM 1900	Main 1	AG0	25.97	18.98	33.43	18.98	18.98	21.98	
WCDMA Band II	Main 1	AG0	25.05	20.00	31.87	18.00	20.00	23.00	
WCDMA Band IV	Main 1	AG0	23.78	19.00	31.02	18.00	19.00	23.00	
WCDMA Band V	Main 1	AG0	29.30	28.27	30.87	25.41	28.27	24.50	
LTE Band 12(17)	Main 1	AG0	30.51	28.05	33.22	27.61	28.05	24.00	
LTE Band 13	Main 1	AG0	29.72	27.98	31.72	27.65	27.98	24.00	
LTE Band 5	Main 1	AG0	30.32	27.62	31.60	26.77	27.62	24.50	
LTE Band 25(2)	Main 1	AG0	23.59	19.00	32.14	18.50	19.00	23.00	
LTE Band 26	Main 1	AG0	30.30	27.97	30.96	26.97	27.97	24.00	
LTE Band 66(4)	Main 1	AG0	23.88	19.00	32.60	18.00	19.00	23.00	
LTE Band 4	Sub 2	AG1	21.00	21.00	20.00	20.00	21.00	23.00	
LTE Band 41 -PC3-	Main 2	AG0	26.29	20.00	40.25	20.00	20.00	22.00	
LTE Band 41 -PC2-	Main 2	AG0	27.12	20.00	40.28	20.00	20.00	21.90	
NR Band n5	Main 1	AG0	31.14	28.85	32.68	26.06	28.85	24.00	
NR Band n25(n2)	Main 1	AG0	25.08	18.00	34.36	17.50	18.00	23.00	
NR Band n66	Main 1	AG0	24.81	19.00	32.27	18.00	19.00	23.00	
NR Band n66	Sub 2	AG1	19.00	19.00	19.00	19.00	19.00	23.00	
NR Band n41 -SRS0-	Sub 2	AG1	18.50	18.50	16.50	16.50	18.50	24.00	
NR Band n41 -SRS1-	Main 2	AG0	13.00	13.00	11.00	11.00	13.00	18.50	
NR Band n41 -SRS2-	Sub 1	AG1	14.00	14.00	12.00	12.00	14.00	19.00	
NR Band n41 -SRS3-	Main 4	AG0	12.00	12.00	10.00	10.00	12.00	18.20	
NR Band n77 -SRS0-	Sub 3	AG1	18.50	18.50	16.10	16.10	18.50	24.50	
NR Band n77 -SRS1-	Main 3	AG0	13.00	13.00	10.60	10.60	13.00	19.00	
NR Band n77 -SRS2-	Sub 5	AG1	13.50	13.50	11.10	11.10	13.50	20.50	
NR Band n77 -SRS3-	Main 4	AG0	12.50	12.50	10.10	10.10	12.50	19.00	

Notes:

1. All P_{Limit} EFS and maximum tune up output P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of LTE TDD modulation schemes.
2. Maximum tune up output power P_{max} is used to configure EUT during RF tune up procedures. The maximum allowed output power is equal to maximum tune up output power + 1dB device design uncertainty.
3. Measurement Condition : All conducted power and SAR measurements in this report (Part 1 test) were performed by setting *Reserve_power_margin* (Smart Transmit EFS entry) to 0 dB.
4. If P_{Limit} is higher than P_{max} for some modes / bands, The modes/bands will operate at a power level up to P_{max}.

6.4. Maximum Allowed Output power

Maximum allowed output power means that Pmax or PLimit + 1dB device uncertainty for each DSI.

RF Air interface	Antenna	Mode	Time Slots	Maximum allowed output power (dBm)											
				Pmax		Plimit									
						DSI = 0 (Body-worn & Sensor Off)		DSI = 1 (Proximity sensor On)		DSI = 2 (Head-RCV On)		DSI = 3 (Hotspot)		DSI = 4 (Earjack)	
				Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM850	Main.1 Ant.	Voice	1	33.70	24.67	33.70	24.67	33.70	24.67	33.70	24.67	33.70	24.67	33.70	24.67
		GPRS	1	33.70	24.67	33.70	24.67	33.70	24.67	33.70	24.67	33.70	24.67	33.70	24.67
		GPRS	2	32.00	25.98	32.00	25.98	32.00	25.98	32.00	25.98	32.00	25.98	32.00	25.98
		GPRS	3	30.00	25.74	30.00	25.74	30.00	25.74	30.00	25.74	30.00	25.74	30.00	25.74
		GPRS	4	27.50	24.49	27.50	24.49	27.50	24.49	27.50	24.49	27.50	24.49	27.50	24.49
		EGPRS	1	27.50	18.47	27.50	18.47	27.50	18.47	27.50	18.47	27.50	18.47	27.50	18.47
		EGPRS	2	25.70	19.68	25.70	19.68	25.70	19.68	25.70	19.68	25.70	19.68	25.70	19.68
		EGPRS	3	23.70	19.44	23.70	19.44	23.70	19.44	23.70	19.44	23.70	19.44	23.70	19.44
		EGPRS	4	22.50	19.49	22.50	19.49	22.50	19.49	22.50	19.49	22.50	19.49	22.50	19.49
GSM1900	Main.1 Ant.	Voice	1	31.00	21.97	31.00	21.97	29.00	19.97	31.00	21.97	29.00	19.97	29.00	19.97
		GPRS	1	31.00	21.97	31.00	21.97	29.00	19.97	31.00	21.97	29.00	19.97	29.00	19.97
		GPRS	2	29.00	22.98	29.00	22.98	26.00	19.98	29.00	22.98	26.00	19.98	26.00	19.98
		GPRS	3	27.00	22.74	27.00	22.74	24.20	19.94	27.00	22.74	24.20	19.94	24.20	19.94
		GPRS	4	25.50	22.49	25.50	22.49	22.00	18.99	25.50	22.49	22.00	18.99	22.00	18.99
		EGPRS	1	26.50	17.47	26.50	17.47	26.50	17.47	26.50	17.47	26.50	17.47	26.50	17.47
		EGPRS	2	24.70	18.68	24.70	18.68	24.70	18.68	24.70	18.68	24.70	18.68	24.70	18.68
		EGPRS	3	22.70	18.44	22.70	18.44	22.70	18.44	22.70	18.44	22.70	18.44	22.70	18.44
		EGPRS	4	21.70	18.69	21.70	18.69	21.70	18.69	21.70	18.69	21.70	18.69	21.70	18.69

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)					
			Pmax	Plimit				
				DSI = 0 (Body-worn & Sensor Off)	DSI = 1 (Proximity sensor On)	DSI = 2 (Head-RCV On)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
W-CDMA Band II	Main.1 Ant.	R99	24.00	24.00	21.00	24.00	19.00	21.00
		HSDPA	24.00	24.00	21.00	24.00	19.00	21.00
		HSUPA	24.00	24.00	21.00	24.00	19.00	21.00
		DC-HSDPA	24.00	24.00	21.00	24.00	19.00	21.00
W-CDMA Band IV	Main.1 Ant.	R99	24.00	24.00	20.00	24.00	19.00	20.00
		HSDPA	24.00	24.00	20.00	24.00	18.50	20.00
		HSUPA	23.00	23.00	19.50	23.00	18.00	19.50
		DC-HSDPA	24.00	24.00	20.00	24.00	18.50	20.00
W-CDMA Band V	Main.1 Ant.	R99	25.50	25.50	25.50	25.50	25.50	25.50
		HSDPA	24.50	24.50	24.50	24.50	24.50	24.50
		HSUPA	24.50	24.50	24.50	24.50	24.50	24.50
		DC-HSDPA	24.50	24.50	24.50	24.50	24.50	24.50

Note(s):

1. Detail of DSI(Device State Index) conditions, please refer to Sec.6.5.

Maximum allowed output power means that Pmax or PLimit + 1dB device uncertainty for each DSI.

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)					
			Pmax	Plimit				
				DSI = 0 (Body-worn & Sensor Off)	DSI = 1 (Proximity sensor On)	DSI = 2 (Head-RCV On)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
LTE Band 12	Main.1	QPSK	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 17	Main.1	QPSK	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 13	Main.1	QPSK	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 26	Main.1	QPSK	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 5	Main.1	QPSK	25.50	25.50	25.50	25.50	25.50	25.50
LTE Band 66	Main.1	QPSK	24.00	24.00	20.00	24.00	19.00	20.00
LTE Band 4	Main.1	QPSK	24.00	24.00	20.00	24.00	19.00	20.00
LTE Band 4	Sub.2	QPSK	24.00	22.00	22.00	21.00	21.00	22.00
LTE Band 25	Main.1	QPSK	24.00	24.00	20.00	24.00	19.50	20.00
LTE Band 2	Main.1	QPSK	24.00	24.00	20.00	24.00	19.50	20.00
LTE Band 41-PC3	Main.2	QPSK	25.00	25.00	23.00	25.00	23.00	23.00
LTE Band 41-PC2	Main.2	QPSK	26.50	26.50	24.60	26.50	24.60	24.60
NR Band n5	Main.1	DFT-s-OFDM QPSK	25.00	25.00	25.00	25.00	25.00	25.00
NR Band n66	Main.1	DFT-s-OFDM QPSK	24.00	24.00	20.00	24.00	19.00	20.00
NR Band n66	Su.b2	DFT-s-OFDM QPSK	24.00	20.00	20.00	20.00	20.00	20.00
NR Band n25	Main.1	DFT-s-OFDM QPSK	24.00	24.00	19.00	24.00	18.50	19.00
NR Band n2	Main.1	DFT-s-OFDM QPSK	24.00	24.00	19.00	24.00	18.50	19.00
NR Band n41-SRS0	Sub.2	DFT-s-OFDM QPSK	25.00	19.50	19.50	17.50	17.50	19.50
NR Band n41-SRS1	Main.2	SRS CW	19.50	14.00	14.00	12.00	12.00	14.00
NR Band n41-SRS2	Sub.1	SRS CW	20.00	15.00	15.00	13.00	13.00	15.00
NR Band n41-SRS3	Main.4	SRS CW	19.20	13.00	13.00	11.00	11.00	13.00
NR Band n77-SRS0	Sub.3	DFT-s-OFDM QPSK	25.50	19.50	19.50	17.10	17.10	19.50
NR Band n77-SRS1	Main.3	SRS CW	20.00	14.00	14.00	11.60	11.60	14.00
NR Band n77-SRS2	Sub.5	SRS CW	21.50	14.50	14.50	12.10	12.10	14.50
NR Band n77-SRS3	Main.4	SRS CW	20.00	13.50	13.50	11.10	11.10	13.50

Note(s):

1. Detail of DSI(Device State Index) conditions, please refer to Sec.6.5.
2. NR Bands support SA and NSA mode as same target power.

WLAN maximum output power

RF Air interface	Band		Max. RF Output Power (dBm)											
			802.11 mode											
			SISO (Ant.1 & Ant.2)						MIMO (Ant.1 + Ant.2)					
			a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
WiFi 2.4 GHz	DTS	Ch 1		19	18	18		17		22	21	21		20
		Ch 2 - 10		19	18	18		17		22	21	21		20
		Ch 11		19	18	18		17		22	21	21		20
		Ch 12		6	6	6		6		9	9	9		9
		Ch 13		0	0	0		0		3	3	3		3
WiFi 5 GHz (BW : 20MHz)	UNII-1 & 2A		18.0			17.0	17.0	17.0	21.0			20.0	20.0	20.0
	UNII-2C		18.0			17.0	17.0	17.0	21.0			20.0	20.0	20.0
	UNII-3		18.0			17.0	17.0	17.0	21.0			20.0	20.0	20.0
	UNII-4		18.0			17.0	17.0	17.0	21.0			20.0	20.0	20.0
WiFi 5 GHz (BW : 40MHz)	UNII-1 & 2A					16.0	16.0	16.0				19.0	19.0	19.0
	UNII-2C					16.0	16.0	16.0				19.0	19.0	19.0
	UNII-3					16.0	16.0	16.0				19.0	19.0	19.0
	UNII-4					16.0	16.0	16.0				19.0	19.0	19.0
WiFi 5 GHz (BW : 80MHz)	UNII-1 & 2A						16.0	16.0					19.0	19.0
	UNII-2C						16.0	16.0					19.0	19.0
	UNII-3						16.0	16.0					19.0	19.0
	UNII-4						16.0	16.0					19.0	19.0
WiFi 5 GHz (BW : 160MHz)	UNII-1 & 2A						15.0	15.0					18.0	18.0
	UNII-2C						15.0	15.0					18.0	18.0
	UNII-3 & 4						15.0	15.0					18.0	18.0

WLAN reduced output power

RF Air interface	Band		Reduced. RF Output Power (dBm)											
			802.11 mode											
			SISO (Ant.1 & Ant.2)						MIMO (Ant.1 + Ant.2)					
			a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
WiFi 2.4 GHz	DTS	Ch 1		14	14	14		14		17	17	17		17
		Ch 2 - 10		14	14	14		14		17	17	17		17
		Ch 11		14	14	14		14		17	17	17		17
		Ch 12		6	6	6		6		9	9	9		9
		Ch 13		0	0	0		0		3	3	3		3
WiFi 5 GHz (BW : 20MHz)	UNII-1 & 2A		13.0			13.0	13.0	13.0	16.0			16.0	16.0	16.0
	UNII-2C		13.0			13.0	13.0	13.0	16.0			16.0	16.0	16.0
	UNII-3		13.0			13.0	13.0	13.0	16.0			16.0	16.0	16.0
	UNII-4		13.0			13.0	13.0	13.0	16.0			16.0	16.0	16.0
WiFi 5 GHz (BW : 40MHz)	UNII-1 & 2A					13.0	13.0	13.0				16.0	16.0	16.0
	UNII-2C					13.0	13.0	13.0				16.0	16.0	16.0
	UNII-3					13.0	13.0	13.0				16.0	16.0	16.0
	UNII-4					13.0	13.0	13.0				16.0	16.0	16.0
WiFi 5 GHz (BW : 80MHz)	UNII-1 & 2A						13.0	13.0					16.0	16.0
	UNII-2C						13.0	13.0					16.0	16.0
	UNII-3						13.0	13.0					16.0	16.0
	UNII-4						13.0	13.0					16.0	16.0
WiFi 5 GHz (BW : 160MHz)	UNII-1 & 2A						13.0	13.0					16.0	16.0
	UNII-2C						13.0	13.0					16.0	16.0
	UNII-3 & 4						13.0	13.0					16.0	16.0

Notes:

1. DTS mode has support SISO (Only Ant.2) & MIMO mode.
2. UNII mode has support only MIMO mode.
3. WLAN Reduce output power operates below scenarios;
   - 3.1 RCV on
   - 3.2 RSDB mode
   - 3.3 RSDB with RCV on
   - 3.4 NR Band active
   - 3.5 NR Band active + RSDB mode + RCV on
4. RSDB scenarios refer to section.12 in report.

Bluetooth & Bluetooth LE maximum output power

RF Air interface	Max. RF Output Power (dBm)						
	PL11		PL10		PL9		Dual (only PL10+PL10)
	Ant.1	Ant.2	Ant.1	Ant.2	Ant.1	Ant.2	Ant.1 + Ant.2
Bluetooth (1Mbps)	18.0	19.0	14.0	14.0			17.0
Bluetooth (EDR)	15.0	16.0	11.0	11.0			14.0
Bluetooth (LE) audio (1M/2M)	17.0	18.5	13.5	13.0	11.0	11.0	
Bluetooth (LE) legacy					11.0	11.0	

Bluetooth & Bluetooth LE reduced output power

RF Air interface	Reduced. RF Output Power (dBm)						
	PL11		PL10		PL9		Dual (only PL10+PL10)
	Ant.1	Ant.2	Ant.1	Ant.2	Ant.1	Ant.2	Ant.1 + Ant.2
Bluetooth (1Mbps)	15.0	15.0	14.0	14.0			17.0
Bluetooth (EDR)	15.0	15.0	11.0	11.0			14.0
Bluetooth (LE) legacy					11.0	11.0	

Notes:

1. Bluetooth can operate Ant.1 and Ant.2 in PL10 at the same time through Dual mode
2. BT Dual mode target power was decided, when each BT Ant.1 and BT Ant.2 operate at 14 dBm (including tolerance 1.0 dB) in PL10 in BT mode.
3. Bluetooth & Bluetooth LE has support to reduced output power using RCV on.

6.5. DSI (Device State Index) Scenarios

This device supports multiple DSI Scenarios and Each DSIs operate to each RF exposure Conditions.

Please below table;

RF exposure Conditions	Technologuies Supported	DSI conditions	Description
Head	All WWAN bands	DSI = 2	Next to the ear exposure condition. Handset's Receiver(ear piece) is active during Voice or VoIP call.
Body-worn	All WWAN bands	DSI = 0	Handset are used with body-worn accessories
Hotspot	All WWAN bands	DSI = 3	SAR test requirements for Handset wit wireless router or hotspot mode capabilities.
Product Specific 10-g	All WWAN bands	DSI = 0	Hand use conditions for Handset and proximity sensor is not active.
	All WWAN bands	DSI = 1	Hand use conditions for Handset and proximity sensor is active.
	All WWAN bands	DSI = 4	Connected ear-jack

Note(s):

1. DSI Scenarios priority : DSI=2 → DSI=3 → DS=4 → DSI=1 → DSI=0

Product Specific 10g Adjusted SAR Calculation

Wireless technologies	Worst DSI's Maximum tune-up limit (dBm)	DSI = 3 Maximum tune-up limit (dBm)	Power Factor	Reported SAR Limit (W/kg)
GSM 1900	22.98	19.98	2.00	0.601
WCDMA Band II	24.00	19.00	3.16	0.379
WCDMA Band IV	24.00	19.00	3.16	0.379
LTE Band 66/4	24.00	19.00	3.16	0.379
LTE Band 4 (Sub.2)	22.00	21.00	1.26	0.953
LTE Band 25/2	24.00	19.50	2.82	0.426
LTE Band 41-PC3	25.00	23.00	1.58	0.757
LTE Band 41-PC2	26.50	24.60	1.55	0.775
NR Band n66	24.00	19.00	3.16	0.379
NR Band n25/n2	24.00	18.50	3.55	0.338
NR Band n41-SRS0	19.50	17.50	1.58	0.757
NR Band n41-SRS1	14.00	12.00	1.58	0.757
NR Band n41-SRS2	15.00	13.00	1.58	0.757
NR Band n41-SRS3	13.00	11.00	1.58	0.757
NR Band n77-SRS0	19.50	17.10	1.74	0.691
NR Band n77-SRS1	14.00	11.60	1.74	0.691
NR Band n77-SRS2	14.50	12.10	1.74	0.691
NR Band n77-SRS3	13.50	11.10	1.74	0.691

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^((Max tune-up limit – Reduced tune-up limit)/10)

6.6. 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

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:

1. 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.
2. LTE Band 41 test channels in accordance with October 2014 TCB workshop for all channels bandwidths.
3. SAR Testing for LTE was performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

6.7. 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	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Calculated Duty Cycle

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

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

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

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.

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

Item	Description												
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n2	Frequency range: 1850 - 1910 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										372000 /1860	371500 /1857.5	371000 /1855	370500 /1852.5
	Mid										376000 /1880	376000 /1880	376000 /1880	376000 /1880
	High										380000 /1900	380500 /1902.5	381000 /1905	381500 /1907.5
	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 n25	Frequency range: 1850 - 1915 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										372000 /1860	371500 /1857.5	371000 /1855	370500 /1852.5
	Mid										376500 /1882.5	376500 /1882.5	376500 /1882.5	376500 /1882.5
	High										381000 /1905	381500 /1907.5	382000/ 1910	382500 /1912.5
	Band n41	Frequency range: 2496 - 2690 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low	509202 /2546.01	508200 /2541	507204 /2536.02	526202 /2631.01	505200 /2526	504204 /2512.02	503202 /2516.01	552200 /2511		501204 /2506.02	500700 /2503.5	500200 /2501.01	
	Low-Mid							513468 /2567.34	510402 /2552.01		509898 /2549.49	509652 /2548.26	509400 /2547	
	Mid	518598 /2592.99				518598 /2592.99	518598 /2592.99		518598 /2592.99		518598 /2592.99	518598 /2592.99	518598 /2592.99	
	Mid-High	528000 /2640	528996 /2644.98	529998 /2649.99	531000 /2655	532998 /2664.99	523734 /2618.67	523734 /2618.67	526800 /2634		527298 /2636.49	527550 /2637.75	527802 /2639.01	
	High							534000 /2670	534996 /2674.98		535998 /2679.99	536496 /2682.48	537000 /2685	
	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

<table>
<tr><th>Item</th><th colspan="14">Description</th></tr>
<tr><td rowspan="15">Frequency range, Channel Bandwidth, Numbers and Frequencies</td><td rowspan="3">Band n77-DoD</td><td colspan="13">Frequency range: 3450 - 3550 MHz</td></tr>
<tr><td colspan="13">Channel Bandwidth (MHz)</td></tr>
<tr><td>100</td><td>90</td><td>80</td><td>70</td><td>60</td><td>50</td><td>40</td><td>30</td><td>25</td><td>20</td><td>15</td><td>10</td><td>5</td></tr>
<tr><td>Low</td><td></td><td></td><td></td><td></td><td></td><td>631668
/3475.02</td><td>631334
/3470.01</td><td>631000
/3465</td><td></td><td>630668
/3460.02</td><td>630500
/3457.5</td><td>630334
/3445.01</td><td></td></tr>
<tr><td>Mid</td><td>633334
/3500.01</td><td>633334
/3500.01</td><td>633334
/3500.01</td><td>633334
/3500.01</td><td>633334
/3500.01</td><td></td><td></td><td>633334
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<tr><td>High</td><td></td><td></td><td></td><td></td><td></td><td>635000
/3525</td><td>635334
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/3540</td><td>636166
/3542.49</td><td>636322
/3544.98</td><td></td></tr>
<tr><td rowspan="3">Band n77</td><td colspan="13">Frequency range: 3700 - 3980 MHz</td></tr>
<tr><td colspan="13">Channel Bandwidth (MHz)</td></tr>
<tr><td>100</td><td>90</td><td>80</td><td>70</td><td>60</td><td>50</td><td>40</td><td>30</td><td>25</td><td>20</td><td>15</td><td>10</td><td>5</td></tr>
<tr><td>Low</td><td rowspan="2">650000
/3750</td><td rowspan="2">649668
/3745.02</td><td rowspan="2">649334
/3740.01</td><td>649000
/3735</td><td>648668
/3730.02</td><td>648334
/3725.01</td><td>648000
/3720</td><td>647668
/3715.02</td><td></td><td>647334
/3710.01</td><td>647168
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/3705</td><td></td></tr>
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/3803.34</td><td>652166
/3782.49</td><td>651200
/3768</td><td>651000
/3765</td><td></td><td>650800
/3762</td><td>650700
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/3759</td><td></td></tr>
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/3840</td><td rowspan="2">656000
/3840</td><td></td><td></td><td rowspan="2">656000
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/3813</td><td></td></tr>
<tr><td>Mid-B</td><td></td><td></td><td>657600
/3864</td><td>657666
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/3866.01</td><td>657766
/3866.49</td><td>657800
/3867</td><td></td></tr>
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/3930</td><td rowspan="2">662332
/3934.98</td><td rowspan="2">662666
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/3875.01</td><td>658444
/3876.66</td><td>659834
/3897.51</td><td>660800
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/3915</td><td></td><td>661200
/3918</td><td>661300
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/3921</td><td></td></tr>
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/3954.99</td><td>664000
/3960</td><td>664332
/3964.98</td><td></td><td>664666
/3969.99</td><td>664832
/3972.48</td><td>665000
/3975</td><td></td></tr>
<tr><td>SCS</td><td colspan="14">NR FDD Bands : 15 kHz, NR TDD Bands : 30 kHz</td></tr>
<tr><td>Modulations Supported in UL</td><td colspan="14">DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM
CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM</td></tr>
<tr><td>A-MPR (Additional MPR) disabled for SAR Testing?</td><td colspan="14">Yes</td></tr>
<tr><td colspan="15">EN-DC Carrier Aggregation Possible Combinations</td></tr>
<tr><td>LTE Anchor Bands for NR Band n2</td><td colspan="14">LTE Band 5 / 12 / 13</td></tr>
<tr><td>LTE Anchor Bands for NR Band n5</td><td colspan="14">LTE Band 2 / 66</td></tr>
<tr><td>LTE Anchor Bands for NR Band n25</td><td colspan="14">LTE Band 12 / 13</td></tr>
<tr><td>LTE Anchor Bands for NR Band n41</td><td colspan="14">LTE Band 4 / 12 / 66</td></tr>
<tr><td>LTE Anchor Bands for NR Band n66</td><td colspan="14">LTE Band 2 / 5 / 12 / 13</td></tr>
<tr><td>LTE Anchor Bands for NR Band n77</td><td colspan="14">LTE Band 2 / 5 / 12 / 13 / 25 / 66</td></tr>
</table>

Notes:

1. SAR test for NR bands and LTE anchor Bands were performed separately due to limitations in SAR probe calibration factors.
2. NR configurations of SAR test were determined according to Section 5.2 of KDB 941225 D05.

6.9. Dynamic Antenna tuner testing

This Device applies Qualcomm chipset solution's Dynamic Antenna tuning technology to some 3G / 4G / 5G sub6 bands. (Main Ant.1 : WCDMA BII,BIV,BV LTE B2/B4/B5/B12/B13/B17/B25/B26/B66 and NR Bn5/n25/n66) 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 144 tuner states were divided among the aggregate band, mode and exposure combinations so that each combination was evaluated for at least 26 tuner states and also so that at least 3 single point SAR measurements were made for every available tuner state. 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. When the single point SAR or 1g SAR was > 1.2 W/kg for a particular band / mode / exposure condition, point SAR measurements were made for all 144 tuner states.

This Device supports LTE capabilities with overlapping transmission frequency ranges.

- LTE Band 2 (1850 – 1910 MHz) is covered by LTE Band 25 (1850 – 1915 MHz)
- LTE Band 4 (1710 – 1755 MHz) is covered by LTE Band 66 (1710 – 1780 MHz)
- LTE Band 17 (704 – 716 MHz) is covered by LTE Band 12 (699 – 716 MHz)

Each both LTE bands share the same transmission path and signal characteristics. The Evaluation of Dynamic antenna tuner was only evaluated for the band with the larger transmission frequency range. The operational description contains more information about the design and implementation of the dynamic antenna tuning.

Note(s):

All test results are refer to Appendix I "Dynamic Antenna tuner testing".

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.

WWAN Bands

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

Notes:

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
2. 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.
3. 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 and adjusted SAR to maximum power that is > 1.2 W/kg.
4. 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.

WWAN & BT Bands

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

NFC

Wireless technologies	RF Exposure Conditions	Antenaa	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
NFC	Product Specific (Hand) 10-g	NFC Ant.	0 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	< 25 mm	Yes	
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	

Notes:

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
2. 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.
3. 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 and adjusted SAR to maximum power that is > 1.2 W/kg.
4. 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.
5. Per manufacturer guide, NFC SAR was considered about only hand held condition (Product Specific 10-g).

8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.
The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The Tissue Dielectric parameters (100MHz to 6GHz) should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.
Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.
For The Tissue Dielectric parameters (4MHz to 30MHz). The parameters must be measured before 24 hours.

1. Tissue Dielectric Parameters (100MHz to 6GHz)
FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head	
	ε_r	σ (S/m)
150	52.3	0.76
300	45.3	0.87
450	43.5	0.87
835	41.5	0.90
900	41.5	0.97
915	41.5	0.98
1450	40.5	1.20
1610	40.3	1.29
1800 – 2000	40.0	1.40
2450	39.2	1.80
3000	38.5	2.40
5000	36.2	4.45
5100	36.1	4.55
5200	36.0	4.66
5300	35.9	4.76
5400	35.8	4.86
5500	35.6	4.96
5600	35.5	5.07
5700	35.4	5.17
5800	35.3	5.27
6000	35.1	5.48

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

2. Tissue Dielectric Parameters (4MHz to 30MHz)

Target Frequency (MHz)	Head	
	ε_r	σ (S/m)
4	55.0	0.75
13	55.0	0.75
30	55.0	0.75

IEC_IEEE Std 62209-1528 : 2020
Refer to Table 2 within the IEC_IEEE Std 62209-1528 : 2020.

Dielectric Property Measurements Results:
SAR 1 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-01	Head 1900	e'	38.6400	Relative Permittivity (ϵ_r):	38.64	40.00	-3.40	5
		e"	13.5300	Conductivity (σ):	1.43	1.40	2.10	5
	Head 1850	e'	38.6600	Relative Permittivity (ϵ_r):	38.66	40.00	-3.35	5
		e"	13.6700	Conductivity (σ):	1.41	1.40	0.44	5
	Head 1910	e'	38.6400	Relative Permittivity (ϵ_r):	38.64	40.00	-3.40	5
		e"	13.5000	Conductivity (σ):	1.43	1.40	2.41	5
2022-09-05	Head 750	e'	42.0500	Relative Permittivity (ϵ_r):	42.05	41.96	0.21	5
		e"	20.9100	Conductivity (σ):	0.87	0.89	-2.36	5
	Head 700	e'	42.2500	Relative Permittivity (ϵ_r):	42.25	42.22	0.08	5
		e"	22.1700	Conductivity (σ):	0.86	0.89	-2.96	5
	Head 790	e'	41.8500	Relative Permittivity (ϵ_r):	41.85	41.76	0.22	5
		e"	20.0700	Conductivity (σ):	0.88	0.90	-1.62	5
2022-09-13	Head 835	e'	42.6200	Relative Permittivity (ϵ_r):	42.62	41.50	2.70	5
		e"	19.1300	Conductivity (σ):	0.89	0.90	-1.31	5
	Head 820	e'	42.6600	Relative Permittivity (ϵ_r):	42.66	41.60	2.54	5
		e"	19.4300	Conductivity (σ):	0.89	0.90	-1.40	5
	Head 850	e'	42.5700	Relative Permittivity (ϵ_r):	42.57	41.50	2.58	5
		e"	18.8100	Conductivity (σ):	0.89	0.92	-2.84	5
2022-09-19	Head 835	e'	40.7800	Relative Permittivity (ϵ_r):	40.78	41.50	-1.73	5
		e"	19.3500	Conductivity (σ):	0.90	0.90	-0.18	5
	Head 820	e'	40.6500	Relative Permittivity (ϵ_r):	40.65	41.60	-2.29	5
		e"	19.5500	Conductivity (σ):	0.89	0.90	-0.79	5
	Head 850	e'	40.8800	Relative Permittivity (ϵ_r):	40.88	41.50	-1.49	5
		e"	19.0800	Conductivity (σ):	0.90	0.92	-1.45	5
2022-09-20	Head 1750	e'	39.6000	Relative Permittivity (ϵ_r):	39.60	40.08	-1.21	5
		e"	14.2900	Conductivity (σ):	1.39	1.37	1.57	5
	Head 1710	e'	39.6800	Relative Permittivity (ϵ_r):	39.68	40.15	-1.16	5
		e"	14.4100	Conductivity (σ):	1.37	1.35	1.76	5
	Head 1755	e'	39.5900	Relative Permittivity (ϵ_r):	39.59	40.08	-1.21	5
		e"	14.2700	Conductivity (σ):	1.39	1.37	1.51	5
2022-09-20	Head 1900	e'	39.4400	Relative Permittivity (ϵ_r):	39.44	40.00	-1.40	5
		e"	13.7400	Conductivity (σ):	1.45	1.40	3.68	5
	Head 1850	e'	39.4400	Relative Permittivity (ϵ_r):	39.44	40.00	-1.40	5
		e"	13.8500	Conductivity (σ):	1.42	1.40	1.76	5
	Head 1910	e'	39.4400	Relative Permittivity (ϵ_r):	39.44	40.00	-1.40	5
		e"	13.7200	Conductivity (σ):	1.46	1.40	4.08	5
2022-09-26	Head 1750	e'	41.3400	Relative Permittivity (ϵ_r):	41.34	40.08	3.13	5
		e"	13.7300	Conductivity (σ):	1.34	1.37	-2.41	5
	Head 1710	e'	41.4600	Relative Permittivity (ϵ_r):	41.46	40.15	3.27	5
		e"	13.7200	Conductivity (σ):	1.30	1.35	-3.11	5
	Head 1755	e'	41.3200	Relative Permittivity (ϵ_r):	41.32	40.08	3.10	5
		e"	13.7300	Conductivity (σ):	1.34	1.37	-2.33	5
2022-09-27	Head 5250	e'	36.7000	Relative Permittivity (ϵ_r):	36.70	35.93	2.13	5
		e"	15.7200	Conductivity (σ):	4.59	4.70	-2.41	5
	Head 5260	e'	36.6800	Relative Permittivity (ϵ_r):	36.68	35.92	2.11	5
		e"	15.7300	Conductivity (σ):	4.60	4.71	-2.37	5
	Head 5600	e'	36.1800	Relative Permittivity (ϵ_r):	36.18	35.53	1.82	5
		e"	16.1000	Conductivity (σ):	5.01	5.06	-0.93	5
	Head 5750	e'	35.9300	Relative Permittivity (ϵ_r):	35.93	35.36	1.60	5
		e"	16.2400	Conductivity (σ):	5.19	5.21	-0.41	5
	Head 5825	e'	35.7900	Relative Permittivity (ϵ_r):	35.79	35.30	1.39	5
		e"	16.3200	Conductivity (σ):	5.29	5.27	0.30	5
2022-10-03	Head 2450	e'	39.3000	Relative Permittivity (ϵ_r):	39.30	39.20	0.26	5
		e"	13.1800	Conductivity (σ):	1.80	1.80	-0.25	5
	Head 2400	e'	39.3800	Relative Permittivity (ϵ_r):	39.38	39.30	0.21	5
		e"	13.1100	Conductivity (σ):	1.75	1.75	-0.12	5
	Head 2480	e'	39.2500	Relative Permittivity (ϵ_r):	39.25	39.16	0.22	5
		e"	13.2000	Conductivity (σ):	1.82	1.83	-0.67	5

SAR 1 Room (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-10-03	Head 2600	e'	39.0500	Relative Permittivity (ϵ_r):	39.05	39.01	0.10	5
		e"	13.3900	Conductivity (σ):	1.94	1.96	-1.35	5
	Head 2500	e'	39.2200	Relative Permittivity (ϵ_r):	39.22	39.14	0.21	5
		e"	13.2200	Conductivity (σ):	1.84	1.85	-0.88	5
	Head 2700	e'	38.8900	Relative Permittivity (ϵ_r):	38.89	38.88	0.01	5
		e"	13.4100	Conductivity (σ):	2.01	2.07	-2.76	5
2022-10-05	Head 1750	e'	38.4100	Relative Permittivity (ϵ_r):	38.41	40.08	-4.18	5
		e"	13.8500	Conductivity (σ):	1.35	1.37	-1.56	5
	Head 1710	e'	38.4700	Relative Permittivity (ϵ_r):	38.47	40.15	-4.18	5
		e"	13.9700	Conductivity (σ):	1.33	1.35	-1.35	5
	Head 1755	e'	38.4000	Relative Permittivity (ϵ_r):	38.40	40.08	-4.18	5
		e"	13.8300	Conductivity (σ):	1.35	1.37	-1.62	5
2022-10-05	Head 5250	e'	35.3500	Relative Permittivity (ϵ_r):	35.35	35.93	-1.62	5
		e"	16.1000	Conductivity (σ):	4.70	4.70	-0.05	5
	Head 5260	e'	35.3400	Relative Permittivity (ϵ_r):	35.34	35.92	-1.62	5
		e"	16.0800	Conductivity (σ):	4.70	4.71	-0.20	5
	Head 5600	e'	34.8500	Relative Permittivity (ϵ_r):	34.85	35.53	-1.92	5
		e"	16.2500	Conductivity (σ):	5.06	5.06	-0.01	5
	Head 5750	e'	34.6900	Relative Permittivity (ϵ_r):	34.69	35.36	-1.90	5
		e"	16.2100	Conductivity (σ):	5.18	5.21	-0.60	5
	Head 5800	e'	34.6000	Relative Permittivity (ϵ_r):	34.60	35.30	-1.98	5
		e"	16.2900	Conductivity (σ):	5.25	5.27	-0.31	5
	Head 5925	e'	34.6400	Relative Permittivity (ϵ_r):	34.64	35.20	-1.59	5
		e"	16.1800	Conductivity (σ):	5.33	5.40	-1.29	5
2022-10-11	Head 5250	e'	35.9200	Relative Permittivity (ϵ_r):	35.92	35.93	-0.04	5
		e"	15.7800	Conductivity (σ):	4.61	4.70	-2.04	5
	Head 5260	e'	35.9100	Relative Permittivity (ϵ_r):	35.91	35.92	-0.03	5
		e"	15.7900	Conductivity (σ):	4.62	4.71	-2.00	5
	Head 5600	e'	35.2700	Relative Permittivity (ϵ_r):	35.27	35.53	-0.74	5
		e"	16.0200	Conductivity (σ):	4.99	5.06	-1.42	5
	Head 5750	e'	34.9800	Relative Permittivity (ϵ_r):	34.98	35.36	-1.08	5
		e"	16.1600	Conductivity (σ):	5.17	5.21	-0.90	5
	Head 5800	e'	34.9000	Relative Permittivity (ϵ_r):	34.90	35.30	-1.13	5
		e"	16.2000	Conductivity (σ):	5.22	5.27	-0.86	5
	Head 5925	e'	34.7000	Relative Permittivity (ϵ_r):	34.70	35.20	-1.42	5
		e"	16.2800	Conductivity (σ):	5.36	5.40	-0.68	5
2022-10-18	Head 5250	e'	36.4000	Relative Permittivity (ϵ_r):	36.40	35.93	1.30	5
		e"	16.3600	Conductivity (σ):	4.78	4.70	1.57	5
	Head 5260	e'	36.3800	Relative Permittivity (ϵ_r):	36.38	35.92	1.28	5
		e"	16.3300	Conductivity (σ):	4.78	4.71	1.35	5
	Head 5600	e'	35.6600	Relative Permittivity (ϵ_r):	35.66	35.53	0.35	5
		e"	16.4600	Conductivity (σ):	5.13	5.06	1.28	5
	Head 5750	e'	35.4800	Relative Permittivity (ϵ_r):	35.48	35.36	0.33	5
		e"	16.5600	Conductivity (σ):	5.29	5.21	1.55	5
	Head 5800	e'	35.4500	Relative Permittivity (ϵ_r):	35.45	35.30	0.42	5
		e"	16.6100	Conductivity (σ):	5.36	5.27	1.65	5
	Head 5925	e'	35.2300	Relative Permittivity (ϵ_r):	35.23	35.20	0.09	5
		e"	16.5500	Conductivity (σ):	5.45	5.40	0.97	5

SAR 2 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-05	Head 1750	e'	39.3000	Relative Permittivity (ϵ_r):	39.30	40.08	-1.96	5
		e"	13.5600	Conductivity (σ):	1.32	1.37	-3.62	5
	Head 1710	e'	39.3500	Relative Permittivity (ϵ_r):	39.35	40.15	-1.98	5
		e"	13.6000	Conductivity (σ):	1.29	1.35	-3.96	5
	Head 1755	e'	39.2900	Relative Permittivity (ϵ_r):	39.29	40.08	-1.96	5
		e"	13.5500	Conductivity (σ):	1.32	1.37	-3.61	5
2022-09-05	Head 1900	e'	39.2400	Relative Permittivity (ϵ_r):	39.24	40.00	-1.90	5
		e"	13.1800	Conductivity (σ):	1.39	1.40	-0.54	5
	Head 1850	e'	39.1900	Relative Permittivity (ϵ_r):	39.19	40.00	-2.03	5
		e"	13.2800	Conductivity (σ):	1.37	1.40	-2.42	5
	Head 1910	e'	39.2400	Relative Permittivity (ϵ_r):	39.24	40.00	-1.90	5
		e"	13.1600	Conductivity (σ):	1.40	1.40	-0.17	5
2022-09-13	Head 1750	e'	40.6100	Relative Permittivity (ϵ_r):	40.61	40.08	1.31	5
		e"	13.8400	Conductivity (σ):	1.35	1.37	-1.63	5
	Head 1710	e'	40.7100	Relative Permittivity (ϵ_r):	40.71	40.15	1.40	5
		e"	13.9100	Conductivity (σ):	1.32	1.35	-1.77	5
	Head 1755	e'	40.6000	Relative Permittivity (ϵ_r):	40.60	40.08	1.31	5
		e"	13.8200	Conductivity (σ):	1.35	1.37	-1.69	5
2022-09-19	Head 1750	e'	38.8200	Relative Permittivity (ϵ_r):	38.82	40.08	-3.15	5
		e"	13.6300	Conductivity (σ):	1.33	1.37	-3.12	5
	Head 1710	e'	38.8900	Relative Permittivity (ϵ_r):	38.89	40.15	-3.13	5
		e"	13.7300	Conductivity (σ):	1.31	1.35	-3.04	5
	Head 1755	e'	38.8100	Relative Permittivity (ϵ_r):	38.81	40.08	-3.16	5
		e"	13.6200	Conductivity (σ):	1.33	1.37	-3.11	5
2022-09-19	Head 1900	e'	38.5400	Relative Permittivity (ϵ_r):	38.54	40.00	-3.65	5
		e"	13.5700	Conductivity (σ):	1.43	1.40	2.40	5
	Head 1850	e'	38.7100	Relative Permittivity (ϵ_r):	38.71	40.00	-3.23	5
		e"	13.5100	Conductivity (σ):	1.39	1.40	-0.73	5
	Head 1910	e'	38.5200	Relative Permittivity (ϵ_r):	38.52	40.00	-3.70	5
		e"	13.6100	Conductivity (σ):	1.45	1.40	3.24	5
2022-09-23	Head 1900	e'	39.2700	Relative Permittivity (ϵ_r):	39.27	40.00	-1.82	5
		e"	13.6500	Conductivity (σ):	1.44	1.40	3.00	5
	Head 1850	e'	39.3100	Relative Permittivity (ϵ_r):	39.31	40.00	-1.72	5
		e"	13.7900	Conductivity (σ):	1.42	1.40	1.32	5
	Head 1910	e'	39.2700	Relative Permittivity (ϵ_r):	39.27	40.00	-1.82	5
		e"	13.6300	Conductivity (σ):	1.45	1.40	3.40	5
2022-09-23	Head 2450	e'	38.5400	Relative Permittivity (ϵ_r):	38.54	39.20	-1.68	5
		e"	13.4400	Conductivity (σ):	1.83	1.80	1.72	5
	Head 2400	e'	38.6200	Relative Permittivity (ϵ_r):	38.62	39.30	-1.72	5
		e"	13.4400	Conductivity (σ):	1.79	1.75	2.39	5
	Head 2480	e'	38.4900	Relative Permittivity (ϵ_r):	38.49	39.16	-1.72	5
		e"	13.4300	Conductivity (σ):	1.85	1.83	1.06	5
2022-09-27	Head 835	e'	41.8300	Relative Permittivity (ϵ_r):	41.83	41.50	0.80	5
		e"	19.6500	Conductivity (σ):	0.91	0.90	1.37	5
	Head 820	e'	41.8400	Relative Permittivity (ϵ_r):	41.84	41.60	0.57	5
		e"	19.8900	Conductivity (σ):	0.91	0.90	0.94	5
	Head 850	e'	41.8200	Relative Permittivity (ϵ_r):	41.82	41.50	0.77	5
		e"	19.4100	Conductivity (σ):	0.92	0.92	0.26	5
2022-09-27	Head 2450	e'	38.7300	Relative Permittivity (ϵ_r):	38.73	39.20	-1.20	5
		e"	13.0500	Conductivity (σ):	1.78	1.80	-1.23	5
	Head 2400	e'	38.8000	Relative Permittivity (ϵ_r):	38.80	39.30	-1.26	5
		e"	13.0500	Conductivity (σ):	1.74	1.75	-0.58	5
	Head 2480	e'	38.7000	Relative Permittivity (ϵ_r):	38.70	39.16	-1.18	5
		e"	13.0100	Conductivity (σ):	1.79	1.83	-2.10	5
2022-09-28	Head 2600	e'	38.2900	Relative Permittivity (ϵ_r):	38.29	39.01	-1.85	5
		e"	13.6900	Conductivity (σ):	1.98	1.96	0.87	5
	Head 2500	e'	38.5800	Relative Permittivity (ϵ_r):	38.58	39.14	-1.42	5
		e"	13.7200	Conductivity (σ):	1.91	1.85	2.87	5
	Head 2700	e'	38.0100	Relative Permittivity (ϵ_r):	38.01	38.88	-2.25	5
		e"	13.7200	Conductivity (σ):	2.06	2.07	-0.51	5

SAR 2 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-30	Head 1750	e'	39.4700	Relative Permittivity (ϵ_r):	39.47	40.08	-1.53	5
		e"	13.9000	Conductivity (σ):	1.35	1.37	-1.20	5
	Head 1710	e'	39.5100	Relative Permittivity (ϵ_r):	39.51	40.15	-1.58	5
		e"	14.0500	Conductivity (σ):	1.34	1.35	-0.78	5
	Head 1755	e'	39.4600	Relative Permittivity (ϵ_r):	39.46	40.08	-1.54	5
		e"	13.8900	Conductivity (σ):	1.36	1.37	-1.19	5
2022-10-17	Head 1900	e'	39.5500	Relative Permittivity (ϵ_r):	39.55	40.00	-1.13	5
		e"	13.0900	Conductivity (σ):	1.38	1.40	-1.22	5
	Head 1850	e'	39.6900	Relative Permittivity (ϵ_r):	39.69	40.00	-0.78	5
		e"	13.2400	Conductivity (σ):	1.36	1.40	-2.72	5
	Head 1910	e'	39.5600	Relative Permittivity (ϵ_r):	39.56	40.00	-1.10	5
		e"	13.1500	Conductivity (σ):	1.40	1.40	-0.25	5
2022-10-21	Head 2450	e'	40.7100	Relative Permittivity (ϵ_r):	40.71	39.20	3.85	5
		e"	12.8600	Conductivity (σ):	1.75	1.80	-2.67	5
	Head 2400	e'	40.7900	Relative Permittivity (ϵ_r):	40.79	39.30	3.80	5
		e"	12.7100	Conductivity (σ):	1.70	1.75	-3.17	5
	Head 2480	e'	40.6600	Relative Permittivity (ϵ_r):	40.66	39.16	3.82	5
		e"	12.9600	Conductivity (σ):	1.79	1.83	-2.47	5
2022-10-23	Head 1750	e'	39.3800	Relative Permittivity (ϵ_r):	39.38	40.08	-1.76	5
		e"	14.0300	Conductivity (σ):	1.37	1.37	-0.28	5
	Head 1710	e'	39.4800	Relative Permittivity (ϵ_r):	39.48	40.15	-1.66	5
		e"	14.1300	Conductivity (σ):	1.34	1.35	-0.22	5
	Head 1755	e'	39.3700	Relative Permittivity (ϵ_r):	39.37	40.08	-1.76	5
		e"	14.0200	Conductivity (σ):	1.37	1.37	-0.27	5
2022-10-26	Head 2600	e'	40.1000	Relative Permittivity (ϵ_r):	40.10	39.01	2.79	5
		e"	13.5600	Conductivity (σ):	1.96	1.96	-0.09	5
	Head 2500	e'	40.2700	Relative Permittivity (ϵ_r):	40.27	39.14	2.90	5
		e"	13.4500	Conductivity (σ):	1.87	1.85	0.84	5
	Head 2700	e'	39.8900	Relative Permittivity (ϵ_r):	39.89	38.88	2.59	5
		e"	13.6700	Conductivity (σ):	2.05	2.07	-0.87	5
2022-10-26	Head 5250	e'	36.9900	Relative Permittivity (ϵ_r):	36.99	35.93	2.94	5
		e"	15.5700	Conductivity (σ):	4.55	4.70	-3.34	5
	Head 5260	e'	36.9700	Relative Permittivity (ϵ_r):	36.97	35.92	2.92	5
		e"	15.5700	Conductivity (σ):	4.55	4.71	-3.37	5
	Head 5600	e'	36.3500	Relative Permittivity (ϵ_r):	36.35	35.53	2.30	5
		e"	15.8400	Conductivity (σ):	4.93	5.06	-2.53	5
	Head 5800	e'	36.0000	Relative Permittivity (ϵ_r):	36.00	35.30	1.98	5
		e"	16.0100	Conductivity (σ):	5.16	5.27	-2.03	5
	Head 5825	e'	35.9600	Relative Permittivity (ϵ_r):	35.96	35.30	1.87	5
		e"	16.0200	Conductivity (σ):	5.19	5.27	-1.54	5

SAR 3 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-19	Head 1750	e'	40.2500	Relative Permittivity (ϵ_r):	40.25	40.08	0.41	5
		e"	13.8200	Conductivity (σ):	1.34	1.37	-1.77	5
	Head 1710	e'	40.3800	Relative Permittivity (ϵ_r):	40.38	40.15	0.58	5
		e"	13.9100	Conductivity (σ):	1.32	1.35	-1.77	5
	Head 1755	e'	40.2300	Relative Permittivity (ϵ_r):	40.23	40.08	0.38	5
		e"	13.8100	Conductivity (σ):	1.35	1.37	-1.76	5
2022-09-19	Head 1900	e'	39.9400	Relative Permittivity (ϵ_r):	39.94	40.00	-0.15	5
		e"	13.3800	Conductivity (σ):	1.41	1.40	0.97	5
	Head 1850	e'	39.9900	Relative Permittivity (ϵ_r):	39.99	40.00	-0.02	5
		e"	13.4900	Conductivity (σ):	1.39	1.40	-0.88	5
	Head 1910	e'	39.9300	Relative Permittivity (ϵ_r):	39.93	40.00	-0.18	5
		e"	13.3700	Conductivity (σ):	1.42	1.40	1.42	5
2022-09-23	Head 2450	e'	39.6200	Relative Permittivity (ϵ_r):	39.62	39.20	1.07	5
		e"	13.1300	Conductivity (σ):	1.79	1.80	-0.63	5
	Head 2400	e'	39.6900	Relative Permittivity (ϵ_r):	39.69	39.30	1.00	5
		e"	13.1500	Conductivity (σ):	1.75	1.75	0.18	5
	Head 2480	e'	39.5800	Relative Permittivity (ϵ_r):	39.58	39.16	1.07	5
		e"	13.1200	Conductivity (σ):	1.81	1.83	-1.27	5
2022-09-27	Head 3500	e'	37.1400	Relative Permittivity (ϵ_r):	37.14	37.93	-2.08	5
		e"	15.0400	Conductivity (σ):	2.93	2.91	0.53	5
	Head 3560	e'	37.0000	Relative Permittivity (ϵ_r):	37.00	37.86	-2.27	5
		e"	15.1100	Conductivity (σ):	2.99	2.97	0.61	5
	Head 3600	e'	36.9900	Relative Permittivity (ϵ_r):	36.99	37.82	-2.18	5
		e"	15.1500	Conductivity (σ):	3.03	3.01	0.62	5
	Head 3690	e'	36.8300	Relative Permittivity (ϵ_r):	36.83	37.71	-2.34	5
		e"	15.2000	Conductivity (σ):	3.12	3.11	0.41	5
	Head 3700	e'	36.8000	Relative Permittivity (ϵ_r):	36.80	37.70	-2.39	5
		e"	15.2100	Conductivity (σ):	3.13	3.12	0.42	5
2022-09-27	Head 3600	e'	36.9900	Relative Permittivity (ϵ_r):	36.99	37.82	-2.18	5
		e"	15.1500	Conductivity (σ):	3.03	3.01	0.62	5
	Head 3650	e'	36.9300	Relative Permittivity (ϵ_r):	36.93	37.76	-2.19	5
		e"	15.1500	Conductivity (σ):	3.07	3.07	0.31	5
	Head 3700	e'	36.8000	Relative Permittivity (ϵ_r):	36.80	37.70	-2.39	5
		e"	15.2100	Conductivity (σ):	3.13	3.12	0.42	5
	Head 3750	e'	36.6800	Relative Permittivity (ϵ_r):	36.68	37.64	-2.56	5
		e"	15.2100	Conductivity (σ):	3.17	3.17	0.13	5
	Head 3800	e'	36.6000	Relative Permittivity (ϵ_r):	36.60	37.59	-2.63	5
		e"	15.2300	Conductivity (σ):	3.22	3.22	-0.02	5
2022-09-27	Head 3750	e'	36.6800	Relative Permittivity (ϵ_r):	36.68	37.64	-2.56	5
		e"	15.2100	Conductivity (σ):	3.17	3.17	0.13	5
	Head 3800	e'	36.6000	Relative Permittivity (ϵ_r):	36.60	37.59	-2.63	5
		e"	15.2300	Conductivity (σ):	3.22	3.22	-0.02	5
	Head 3900	e'	36.2700	Relative Permittivity (ϵ_r):	36.27	37.47	-3.21	5
		e"	15.2900	Conductivity (σ):	3.32	3.32	-0.16	5
	Head 3930	e'	36.2400	Relative Permittivity (ϵ_r):	36.24	37.44	-3.20	5
		e"	15.3100	Conductivity (σ):	3.35	3.35	-0.18	5
	Head 3950	e'	36.2300	Relative Permittivity (ϵ_r):	36.23	37.42	-3.17	5
		e"	15.3300	Conductivity (σ):	3.37	3.37	-0.15	5
2022-10-03	Head 3500	e'	39.2200	Relative Permittivity (ϵ_r):	39.22	37.93	3.40	5
		e"	15.1500	Conductivity (σ):	2.95	2.91	1.26	5
	Head 3560	e'	39.0600	Relative Permittivity (ϵ_r):	39.06	37.86	3.17	5
		e"	15.1900	Conductivity (σ):	3.01	2.97	1.14	5
	Head 3600	e'	39.0200	Relative Permittivity (ϵ_r):	39.02	37.82	3.19	5
		e"	15.2200	Conductivity (σ):	3.05	3.01	1.09	5
	Head 3690	e'	38.8900	Relative Permittivity (ϵ_r):	38.89	37.71	3.12	5
		e"	15.2400	Conductivity (σ):	3.13	3.11	0.67	5
	Head 3700	e'	38.8500	Relative Permittivity (ϵ_r):	38.85	37.70	3.05	5
		e"	15.2400	Conductivity (σ):	3.14	3.12	0.61	5

SAR 3 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-10-03	Head 3600	e'	39.0200	Relative Permittivity (ϵ_r):	39.02	37.82	3.19	5
		e"	15.2200	Conductivity (σ):	3.05	3.01	1.09	5
	Head 3650	e'	38.9900	Relative Permittivity (ϵ_r):	38.99	37.76	3.26	5
		e"	15.2300	Conductivity (σ):	3.09	3.07	0.84	5
	Head 3700	e'	38.8500	Relative Permittivity (ϵ_r):	38.85	37.70	3.05	5
		e"	15.2400	Conductivity (σ):	3.14	3.12	0.61	5
	Head 3750	e'	38.7400	Relative Permittivity (ϵ_r):	38.74	37.64	2.91	5
		e"	15.2200	Conductivity (σ):	3.17	3.17	0.19	5
	Head 3800	e'	38.5700	Relative Permittivity (ϵ_r):	38.57	37.59	2.61	5
		e"	15.1900	Conductivity (σ):	3.21	3.22	-0.28	5
2022-10-03	Head 3750	e'	38.7400	Relative Permittivity (ϵ_r):	38.74	37.64	2.91	5
		e"	15.2200	Conductivity (σ):	3.17	3.17	0.19	5
	Head 3800	e'	38.5700	Relative Permittivity (ϵ_r):	38.57	37.59	2.61	5
		e"	15.1900	Conductivity (σ):	3.21	3.22	-0.28	5
	Head 3900	e'	38.4900	Relative Permittivity (ϵ_r):	38.49	37.47	2.71	5
		e"	15.3200	Conductivity (σ):	3.32	3.32	0.04	5
	Head 3930	e'	38.4400	Relative Permittivity (ϵ_r):	38.44	37.44	2.67	5
		e"	15.2800	Conductivity (σ):	3.34	3.35	-0.37	5
	Head 3950	e'	38.3700	Relative Permittivity (ϵ_r):	38.37	37.42	2.55	5
		e"	15.2900	Conductivity (σ):	3.36	3.37	-0.41	5
2022-10-11	Head 750	e'	41.2600	Relative Permittivity (ϵ_r):	41.26	41.96	-1.67	5
		e"	21.5800	Conductivity (σ):	0.90	0.89	0.77	5
	Head 700	e'	41.4400	Relative Permittivity (ϵ_r):	41.44	42.22	-1.84	5
		e"	22.6600	Conductivity (σ):	0.88	0.89	-0.82	5
	Head 790	e'	41.1200	Relative Permittivity (ϵ_r):	41.12	41.76	-1.52	5
		e"	20.7900	Conductivity (σ):	0.91	0.90	1.91	5
2022-10-11	Head 835	e'	41.0000	Relative Permittivity (ϵ_r):	41.00	41.50	-1.20	5
		e"	20.0600	Conductivity (σ):	0.93	0.90	3.48	5
	Head 820	e'	41.0300	Relative Permittivity (ϵ_r):	41.03	41.60	-1.38	5
		e"	20.2800	Conductivity (σ):	0.92	0.90	2.92	5
	Head 850	e'	40.9500	Relative Permittivity (ϵ_r):	40.95	41.50	-1.33	5
		e"	19.8400	Conductivity (σ):	0.94	0.92	2.48	5
2022-10-14	Head 3600	e'	38.8300	Relative Permittivity (ϵ_r):	38.83	37.82	2.68	5
		e"	14.9700	Conductivity (σ):	3.00	3.01	-0.58	5
	Head 3650	e'	38.6500	Relative Permittivity (ϵ_r):	38.65	37.76	2.36	5
		e"	14.8900	Conductivity (σ):	3.02	3.07	-1.41	5
	Head 3700	e'	38.5700	Relative Permittivity (ϵ_r):	38.57	37.70	2.30	5
		e"	15.1100	Conductivity (σ):	3.11	3.12	-0.24	5
	Head 3750	e'	38.5200	Relative Permittivity (ϵ_r):	38.52	37.64	2.33	5
		e"	14.9900	Conductivity (σ):	3.13	3.17	-1.32	5
	Head 3800	e'	38.4200	Relative Permittivity (ϵ_r):	38.42	37.59	2.22	5
		e"	15.0400	Conductivity (σ):	3.18	3.22	-1.26	5
2022-10-14	Head 3500	e'	39.0100	Relative Permittivity (ϵ_r):	39.01	37.93	2.85	5
		e"	14.7500	Conductivity (σ):	2.87	2.91	-1.41	5
	Head 3560	e'	38.8400	Relative Permittivity (ϵ_r):	38.84	37.86	2.59	5
		e"	15.0000	Conductivity (σ):	2.97	2.97	-0.13	5
	Head 3600	e'	38.8300	Relative Permittivity (ϵ_r):	38.83	37.82	2.68	5
		e"	14.9700	Conductivity (σ):	3.00	3.01	-0.58	5
	Head 3690	e'	38.5700	Relative Permittivity (ϵ_r):	38.57	37.71	2.27	5
		e"	15.0900	Conductivity (σ):	3.10	3.11	-0.32	5
	Head 3700	e'	38.5700	Relative Permittivity (ϵ_r):	38.57	37.70	2.30	5
		e"	15.1100	Conductivity (σ):	3.11	3.12	-0.24	5

SAR 3 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-10-14	Head 3750	e'	38.5200	Relative Permittivity (ϵ_r):	38.52	37.64	2.33	5
		e''	14.9900	Conductivity (σ):	3.13	3.17	-1.32	5
	Head 3800	e'	38.4200	Relative Permittivity (ϵ_r):	38.42	37.59	2.22	5
		e''	15.0400	Conductivity (σ):	3.18	3.22	-1.26	5
	Head 3900	e'	38.2200	Relative Permittivity (ϵ_r):	38.22	37.47	1.99	5
		e''	14.9900	Conductivity (σ):	3.25	3.32	-2.12	5
	Head 3930	e'	38.2500	Relative Permittivity (ϵ_r):	38.25	37.44	2.17	5
		e''	15.0900	Conductivity (σ):	3.30	3.35	-1.61	5
	Head 3950	e'	38.2300	Relative Permittivity (ϵ_r):	38.23	37.42	2.17	5
		e''	15.2000	Conductivity (σ):	3.34	3.37	-1.00	5
2022-10-18	Head 1900	e'	39.3200	Relative Permittivity (ϵ_r):	39.32	40.00	-1.70	5
		e''	13.3200	Conductivity (σ):	1.41	1.40	0.51	5
	Head 1850	e'	39.3100	Relative Permittivity (ϵ_r):	39.31	40.00	-1.72	5
		e''	13.5900	Conductivity (σ):	1.40	1.40	-0.15	5
	Head 1910	e'	39.2900	Relative Permittivity (ϵ_r):	39.29	40.00	-1.78	5
		e''	13.2500	Conductivity (σ):	1.41	1.40	0.51	5
2022-10-19	Head 1900	e'	41.2500	Relative Permittivity (ϵ_r):	41.25	40.00	3.13	5
		e''	13.2000	Conductivity (σ):	1.39	1.40	-0.39	5
	Head 1850	e'	41.3100	Relative Permittivity (ϵ_r):	41.31	40.00	3.28	5
		e''	13.3200	Conductivity (σ):	1.37	1.40	-2.13	5
	Head 1910	e'	41.2500	Relative Permittivity (ϵ_r):	41.25	40.00	3.13	5
		e''	13.1900	Conductivity (σ):	1.40	1.40	0.06	5
2022-10-19	Head 3500	e'	37.3500	Relative Permittivity (ϵ_r):	37.35	37.93	-1.53	5
		e''	14.8800	Conductivity (σ):	2.90	2.91	-0.54	5
	Head 3560	e'	37.1500	Relative Permittivity (ϵ_r):	37.15	37.86	-1.88	5
		e''	14.7700	Conductivity (σ):	2.92	2.97	-1.66	5
	Head 3600	e'	37.0400	Relative Permittivity (ϵ_r):	37.04	37.82	-2.05	5
		e''	14.9300	Conductivity (σ):	2.99	3.01	-0.84	5
	Head 3690	e'	37.0800	Relative Permittivity (ϵ_r):	37.08	37.71	-1.68	5
		e''	14.7900	Conductivity (σ):	3.03	3.11	-2.30	5
	Head 3700	e'	36.9800	Relative Permittivity (ϵ_r):	36.98	37.70	-1.91	5
		e''	14.7900	Conductivity (σ):	3.04	3.12	-2.36	5
2022-10-19	Head 3600	e'	37.0400	Relative Permittivity (ϵ_r):	37.04	37.82	-2.05	5
		e''	14.9300	Conductivity (σ):	2.99	3.01	-0.84	5
	Head 3650	e'	37.2900	Relative Permittivity (ϵ_r):	37.29	37.76	-1.24	5
		e''	14.9700	Conductivity (σ):	3.04	3.07	-0.88	5
	Head 3700	e'	36.9800	Relative Permittivity (ϵ_r):	36.98	37.70	-1.91	5
		e''	14.7900	Conductivity (σ):	3.04	3.12	-2.36	5
	Head 3750	e'	36.7900	Relative Permittivity (ϵ_r):	36.79	37.64	-2.27	5
		e''	15.1100	Conductivity (σ):	3.15	3.17	-0.53	5
	Head 3800	e'	36.9100	Relative Permittivity (ϵ_r):	36.91	37.59	-1.80	5
		e''	15.0700	Conductivity (σ):	3.18	3.22	-1.07	5
2022-10-23	Head 3500	e'	38.1100	Relative Permittivity (ϵ_r):	38.11	37.93	0.48	5
		e''	14.9500	Conductivity (σ):	2.91	2.91	-0.07	5
	Head 3560	e'	38.0000	Relative Permittivity (ϵ_r):	38.00	37.86	0.37	5
		e''	15.0100	Conductivity (σ):	2.97	2.97	-0.06	5
	Head 3600	e'	37.9100	Relative Permittivity (ϵ_r):	37.91	37.82	0.25	5
		e''	15.0200	Conductivity (σ):	3.01	3.01	-0.24	5
	Head 3690	e'	37.7300	Relative Permittivity (ϵ_r):	37.73	37.71	0.05	5
		e''	15.0600	Conductivity (σ):	3.09	3.11	-0.52	5
	Head 3700	e'	37.7100	Relative Permittivity (ϵ_r):	37.71	37.70	0.02	5
		e''	15.0700	Conductivity (σ):	3.10	3.12	-0.51	5
2022-10-23	Head 3600	e'	37.9100	Relative Permittivity (ϵ_r):	37.91	37.82	0.25	5
		e''	15.0200	Conductivity (σ):	3.01	3.01	-0.24	5
	Head 3650	e'	37.8000	Relative Permittivity (ϵ_r):	37.80	37.76	0.11	5
		e''	15.0400	Conductivity (σ):	3.05	3.07	-0.41	5
	Head 3700	e'	37.7100	Relative Permittivity (ϵ_r):	37.71	37.70	0.02	5
		e''	15.0700	Conductivity (σ):	3.10	3.12	-0.51	5
	Head 3750	e'	37.5800	Relative Permittivity (ϵ_r):	37.58	37.64	-0.17	5
		e''	15.1400	Conductivity (σ):	3.16	3.17	-0.33	5
	Head 3800	e'	37.4600	Relative Permittivity (ϵ_r):	37.46	37.59	-0.34	5
		e''	15.2600	Conductivity (σ):	3.22	3.22	0.18	5
2022-10-23	Head 3750	e'	37.5800	Relative Permittivity (ϵ_r):	37.58	37.64	-0.17	5
		e''	15.1400	Conductivity (σ):	3.16	3.17	-0.33	5
	Head 3800	e'	37.4600	Relative Permittivity (ϵ_r):	37.46	37.59	-0.34	5
		e''	15.2600	Conductivity (σ):	3.22	3.22	0.18	5
	Head 3900	e'	37.2600	Relative Permittivity (ϵ_r):	37.26	37.47	-0.57	5
		e''	15.4100	Conductivity (σ):	3.34	3.32	0.63	5
	Head 3930	e'	37.2100	Relative Permittivity (ϵ_r):	37.21	37.44	-0.61	5
		e''	15.4400	Conductivity (σ):	3.37	3.35	0.67	5
	Head 3950	e'	37.1800	Relative Permittivity (ϵ_r):	37.18	37.42	-0.63	5
		e''	15.4800	Conductivity (σ):	3.40	3.37	0.83	5

SAR 4 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-01	Head 2600	e'	39.5500	Relative Permittivity (ϵ_r):	39.55	39.01	1.38	5
		e"	13.8500	Conductivity (σ):	2.00	1.96	2.04	5
	Head 2500	e'	39.7400	Relative Permittivity (ϵ_r):	39.74	39.14	1.54	5
		e"	13.8500	Conductivity (σ):	1.93	1.85	3.84	5
	Head 2700	e'	39.3600	Relative Permittivity (ϵ_r):	39.36	38.88	1.22	5
		e"	13.8400	Conductivity (σ):	2.08	2.07	0.36	5
2022-09-05	Head 2600	e'	37.3600	Relative Permittivity (ϵ_r):	37.36	39.01	-4.23	5
		e"	13.6500	Conductivity (σ):	1.97	1.96	0.57	5
	Head 2500	e'	37.5300	Relative Permittivity (ϵ_r):	37.53	39.14	-4.11	5
		e"	13.6200	Conductivity (σ):	1.89	1.85	2.12	5
	Head 2700	e'	37.2200	Relative Permittivity (ϵ_r):	37.22	38.88	-4.28	5
		e"	13.7100	Conductivity (σ):	2.06	2.07	-0.58	5
2022-09-19	Head 1750	e'	41.2300	Relative Permittivity (ϵ_r):	41.23	40.08	2.86	5
		e"	13.6800	Conductivity (σ):	1.33	1.37	-2.76	5
	Head 1710	e'	41.3200	Relative Permittivity (ϵ_r):	41.32	40.15	2.92	5
		e"	13.8600	Conductivity (σ):	1.32	1.35	-2.12	5
	Head 1755	e'	41.2200	Relative Permittivity (ϵ_r):	41.22	40.08	2.85	5
		e"	13.6600	Conductivity (σ):	1.33	1.37	-2.83	5
2022-09-19	Head 2600	e'	38.1300	Relative Permittivity (ϵ_r):	38.13	39.01	-2.26	5
		e"	13.4100	Conductivity (σ):	1.94	1.96	-1.20	5
	Head 2500	e'	38.5200	Relative Permittivity (ϵ_r):	38.52	39.14	-1.58	5
		e"	13.1100	Conductivity (σ):	1.82	1.85	-1.71	5
	Head 2700	e'	38.0400	Relative Permittivity (ϵ_r):	38.04	38.88	-2.17	5
		e"	13.5200	Conductivity (σ):	2.03	2.07	-1.96	5

SAR 5 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-13	Head 835	e'	41.8700	Relative Permittivity (ϵ_r):	41.87	41.50	0.89	5
		e"	19.5900	Conductivity (σ):	0.91	0.90	1.06	5
	Head 820	e'	41.9000	Relative Permittivity (ϵ_r):	41.90	41.60	0.71	5
		e"	19.7600	Conductivity (σ):	0.90	0.90	0.28	5
	Head 850	e'	41.8300	Relative Permittivity (ϵ_r):	41.83	41.50	0.80	5
		e"	19.3400	Conductivity (σ):	0.91	0.92	-0.10	5
2022-09-19	Head 835	e'	43.0100	Relative Permittivity (ϵ_r):	43.01	41.50	3.64	5
		e"	19.0500	Conductivity (σ):	0.88	0.90	-1.73	5
	Head 820	e'	43.0800	Relative Permittivity (ϵ_r):	43.08	41.60	3.55	5
		e"	19.3000	Conductivity (σ):	0.88	0.90	-2.06	5
	Head 850	e'	42.9400	Relative Permittivity (ϵ_r):	42.94	41.50	3.47	5
		e"	18.8000	Conductivity (σ):	0.89	0.92	-2.89	5
2022-10-18	Head 1750	e'	39.5800	Relative Permittivity (ϵ_r):	39.58	40.08	-1.26	5
		e"	14.0800	Conductivity (σ):	1.37	1.37	0.08	5
	Head 1710	e'	39.6500	Relative Permittivity (ϵ_r):	39.65	40.15	-1.24	5
		e"	14.1500	Conductivity (σ):	1.35	1.35	-0.07	5
	Head 1755	e'	39.5700	Relative Permittivity (ϵ_r):	39.57	40.08	-1.26	5
		e"	14.0600	Conductivity (σ):	1.37	1.37	0.02	5
2022-10-19	Head 835	e'	41.1200	Relative Permittivity (ϵ_r):	41.12	41.50	-0.92	5
		e"	19.7400	Conductivity (σ):	0.92	0.90	1.83	5
	Head 820	e'	41.2300	Relative Permittivity (ϵ_r):	41.23	41.60	-0.90	5
		e"	19.8600	Conductivity (σ):	0.91	0.90	0.78	5
	Head 850	e'	41.0400	Relative Permittivity (ϵ_r):	41.04	41.50	-1.11	5
		e"	19.6700	Conductivity (σ):	0.93	0.92	1.60	5
2022-10-22	Head 1900	e'	41.4500	Relative Permittivity (ϵ_r):	41.45	40.00	3.63	5
		e"	13.1300	Conductivity (σ):	1.39	1.40	-0.92	5
	Head 1850	e'	40.5600	Relative Permittivity (ϵ_r):	40.56	40.00	1.40	5
		e"	13.1400	Conductivity (σ):	1.35	1.40	-3.45	5
	Head 1910	e'	41.3600	Relative Permittivity (ϵ_r):	41.36	40.00	3.40	5
		e"	13.1000	Conductivity (σ):	1.39	1.40	-0.63	5
2022-10-25	Head 750	e'	43.2000	Relative Permittivity (ϵ_r):	43.20	41.96	2.95	5
		e"	20.8400	Conductivity (σ):	0.87	0.89	-2.69	5
	Head 700	e'	43.3000	Relative Permittivity (ϵ_r):	43.30	42.22	2.56	5
		e"	21.9300	Conductivity (σ):	0.85	0.89	-4.01	5
	Head 790	e'	43.0700	Relative Permittivity (ϵ_r):	43.07	41.76	3.15	5
		e"	20.0800	Conductivity (σ):	0.88	0.90	-1.57	5

SAR 7 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-19	Head 13	e'	55.25	Relative Permittivity (ϵ_r):	55.25	55.00	0.45	5
		e"	1005.13	Conductivity (σ):	0.73	0.75	-3.13	5
	Head 12	e'	55.36	Relative Permittivity (ϵ_r):	55.36	55.00	0.65	5
		e"	1089.04	Conductivity (σ):	0.73	0.75	-3.11	5
	Head 14	e'	55.17	Relative Permittivity (ϵ_r):	55.17	55.00	0.31	5
		e"	933.00	Conductivity (σ):	0.73	0.75	-3.16	5
2022-09-26	Head 2600	e'	39.6800	Relative Permittivity (ϵ_r):	39.68	39.01	1.72	5
		e"	13.4100	Conductivity (σ):	1.94	1.96	-1.20	5
	Head 2500	e'	39.4900	Relative Permittivity (ϵ_r):	39.49	39.14	0.90	5
		e"	13.4200	Conductivity (σ):	1.87	1.85	0.62	5
	Head 2700	e'	39.1400	Relative Permittivity (ϵ_r):	39.14	38.88	0.66	5
		e"	13.4300	Conductivity (σ):	2.02	2.07	-2.61	5
2022-10-11	Head 6000	e'	35.7000	Relative Permittivity (ϵ_r):	35.70	35.10	1.71	5
		e"	15.7600	Conductivity (σ):	5.26	5.48	-4.05	5
	Head 6200	e'	35.3700	Relative Permittivity (ϵ_r):	35.37	34.86	1.46	5
		e"	16.0600	Conductivity (σ):	5.54	5.72	-3.14	5
	Head 6500	e'	34.9500	Relative Permittivity (ϵ_r):	34.95	34.50	1.30	5
		e"	16.3400	Conductivity (σ):	5.91	6.07	-2.71	5
	Head 6600	e'	34.8000	Relative Permittivity (ϵ_r):	34.80	34.38	1.22	5
		e"	16.4600	Conductivity (σ):	6.04	6.19	-2.35	5
	Head 6800	e'	34.5400	Relative Permittivity (ϵ_r):	34.54	34.14	1.17	5
		e"	16.6200	Conductivity (σ):	6.28	6.42	-2.09	5
	Head 7000	e'	34.3700	Relative Permittivity (ϵ_r):	34.37	33.90	1.39	5
		e"	16.3800	Conductivity (σ):	6.38	6.65	-4.13	5
2022-10-11	Head 7000	e'	33.6200	Relative Permittivity (ϵ_r):	33.62	33.90	-0.83	5
		e"	17.2500	Conductivity (σ):	6.71	6.65	0.96	5
	Head 7250	e'	33.1900	Relative Permittivity (ϵ_r):	33.19	33.60	-1.22	5
		e"	17.3800	Conductivity (σ):	7.01	6.95	0.88	5
	Head 7500	e'	32.8500	Relative Permittivity (ϵ_r):	32.85	33.30	-1.35	5
		e"	17.4300	Conductivity (σ):	7.27	7.24	0.40	5
	Head 7800	e'	32.3400	Relative Permittivity (ϵ_r):	32.34	32.94	-1.82	5
		e"	17.5100	Conductivity (σ):	7.59	7.60	-0.08	5
	Head 8000	e'	32.1300	Relative Permittivity (ϵ_r):	32.13	32.70	-1.74	5
		e"	17.5900	Conductivity (σ):	7.82	7.84	-0.20	5
	Head 8100	e'	31.9200	Relative Permittivity (ϵ_r):	31.92	32.58	-2.03	5
		e"	17.6700	Conductivity (σ):	7.96	7.96	-0.07	5
2022-10-17	Head 6000	e'	35.9200	Relative Permittivity (ϵ_r):	35.92	35.10	2.34	5
		e"	16.0700	Conductivity (σ):	5.36	5.48	-2.17	5
	Head 6200	e'	35.4900	Relative Permittivity (ϵ_r):	35.49	34.86	1.81	5
		e"	16.4000	Conductivity (σ):	5.65	5.72	-1.09	5
	Head 6500	e'	34.9700	Relative Permittivity (ϵ_r):	34.97	34.50	1.36	5
		e"	16.7200	Conductivity (σ):	6.04	6.07	-0.45	5
	Head 6600	e'	34.8100	Relative Permittivity (ϵ_r):	34.81	34.38	1.25	5
		e"	16.7900	Conductivity (σ):	6.16	6.19	-0.39	5
	Head 6800	e'	34.4500	Relative Permittivity (ϵ_r):	34.45	34.14	0.91	5
		e"	16.9500	Conductivity (σ):	6.41	6.42	-0.14	5
	Head 7000	e'	34.1800	Relative Permittivity (ϵ_r):	34.18	33.90	0.83	5
		e"	17.0600	Conductivity (σ):	6.64	6.65	-0.15	5
2022-10-20	Head 6000	e'	34.4600	Relative Permittivity (ϵ_r):	34.46	35.10	-1.82	5
		e"	15.9400	Conductivity (σ):	5.32	5.48	-2.96	5
	Head 6200	e'	34.1400	Relative Permittivity (ϵ_r):	34.14	34.86	-2.07	5
		e"	16.1600	Conductivity (σ):	5.57	5.72	-2.54	5
	Head 6500	e'	33.7100	Relative Permittivity (ϵ_r):	33.71	34.50	-2.29	5
		e"	16.4400	Conductivity (σ):	5.94	6.07	-2.11	5
	Head 6600	e'	33.5400	Relative Permittivity (ϵ_r):	33.54	34.38	-2.44	5
		e"	16.5300	Conductivity (σ):	6.07	6.19	-1.94	5
	Head 6800	e'	33.2400	Relative Permittivity (ϵ_r):	33.24	34.14	-2.64	5
		e"	16.6800	Conductivity (σ):	6.31	6.42	-1.73	5
	Head 7000	e'	32.9200	Relative Permittivity (ϵ_r):	32.92	33.90	-2.89	5
		e"	16.8300	Conductivity (σ):	6.55	6.65	-1.49	5

SAR 8 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2022-09-14	Head 1750	e'	39.0500	Relative Permittivity (ϵ_r):	39.05	40.08	-2.58	5
		e''	14.2300	Conductivity (σ):	1.38	1.37	1.15	5
	Head 1710	e'	39.1700	Relative Permittivity (ϵ_r):	39.17	40.15	-2.43	5
		e''	14.3000	Conductivity (σ):	1.36	1.35	0.98	5
	Head 1755	e'	39.0300	Relative Permittivity (ϵ_r):	39.03	40.08	-2.61	5
		e''	14.2200	Conductivity (σ):	1.39	1.37	1.15	5
2022-09-14	Head 1900	e'	38.7600	Relative Permittivity (ϵ_r):	38.76	40.00	-3.10	5
		e''	13.8100	Conductivity (σ):	1.46	1.40	4.21	5
	Head 1850	e'	38.8000	Relative Permittivity (ϵ_r):	38.80	40.00	-3.00	5
		e''	13.9400	Conductivity (σ):	1.43	1.40	2.42	5
	Head 1910	e'	38.7500	Relative Permittivity (ϵ_r):	38.75	40.00	-3.13	5
		e''	13.7900	Conductivity (σ):	1.46	1.40	4.61	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 of 100MHZ to 6GHz frequency range 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.
For The System verification of 4MHz to 30MHz frequency range, The System verification must be performed before 24 hours.

System Performance Check Measurement Conditions (100MHz to 6GHz):

- 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.

System Performance Check Measurement Conditions (4MHz to 30MHz):

- 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
- The DASY system with an E-Field Probe was used for the measurements.
- The CLA(Confined Loop Antennas) was mounted on the small tripod so that the CLA feed point was positioned below the center marking of the flat phantom section and the CLA was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 0 mm separation distance from CLA center to the Phantom surface.
- The CLA 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	1205	2021-04-27	2023-04-27	1g	8.66
				10g	5.65
D835V2	4d194	2022-03-24	2023-03-24	1g	9.77
				10g	6.39
D1750V2	1125	2022-02-24	2023-02-24	1g	36.80
				10g	19.40
D1750V2	1180	2022-09-21	2023-09-21	1g	35.60
				10g	18.90
D1900V2	5d190	2020-11-24	2022-11-24	1g	40.10
				10g	20.70
D1900V2	5d199	2022-03-25	2023-03-25	1g	39.40
				10g	20.50
D2450V2	960	2022-03-24	2023-03-24	1g	51.90
				10g	24.00
D2600V2	1097	2021-09-29	2023-09-29	1g	57.10
				10g	25.50
D3500V2	1121	2021-04-21	2023-04-21	1g	66.30
				10g	25.00
D3700V2	1036	2021-05-21	2023-05-24	1g	67.90
				10g	24.30
D3900V2	1069	2021-04-21	2023-04-21	1g	70.10
				10g	24.30
D5GHzV2	1209	2021-11-24	2023-11-24	1g	78.00
				10g	22.40
				1g	80.90
				10g	23.10
				1g	79.00
				10g	22.40
CLA-13	1015	2022-08-23	2023-08-23	1g	0.55
				10g	0.34

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. For CLA, Calibration interval applied every year.
3. Refer to Appendix F that mentioned about justification

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			
2022-09-01	D1900V2	5d190	Head	1g	3.77	37.7	40.10	-5.99	
				10g	1.95	19.5	20.70	-5.80	
2022-09-05	D750V3	1205	Head	1g	0.80	8.0	8.66	-7.16	
				10g	0.52	5.2	5.65	-7.61	
2022-09-13	D835V2	4d194	Head	1g	0.94	9.4	9.77	-3.79	
				10g	0.60	6.0	6.39	-6.73	
2022-09-19	D835V2	4d194	Head	1g	0.98	9.8	9.77	0.00	
				10g	0.65	6.5	6.39	1.56	
2022-09-20	D1750V2	1125	Head	1g	3.64	36.4	36.80	-1.09	
				10g	2.00	20.0	19.40	3.09	
2022-09-20	D1900V2	5d190	Head	1g	4.02	40.2	40.10	0.25	
				10g	2.15	21.5	20.70	3.86	
2022-09-26	D1750V2	1125	Head	1g	3.61	36.1	36.80	-1.90	
				10g	2.04	20.4	19.40	5.15	
2022-09-27	D5GHzV2 (5250)	1209	Head	1g	7.77	77.7	78.00	-0.38	
				10g	2.27	22.7	22.40	1.34	
2022-09-27	D5GHzV2 (5600)	1209	Head	1g	8.55	85.5	80.90	5.69	
				10g	2.47	24.7	23.10	6.93	
2022-09-27	D5GHzV2 (5800)	1209	Head	1g	8.30	83.0	79.00	5.06	
				10g	2.40	24.0	22.40	7.14	
2022-10-03	D2450V2	960	Head	1g	5.33	53.3	51.90	2.70	
				10g	2.51	25.1	24.00	4.58	
2022-10-03	D2600V2	1097	Head	1g	5.37	53.7	57.10	-5.95	
				10g	2.45	24.5	25.50	-3.92	
2022-10-05	D1750V2	1125	Head	1g	3.55	35.5	36.80	-3.53	
				10g	1.90	19.0	19.40	-2.06	
2022-10-05	D5GHzV2 (5800)	1209	Head	1g	7.46	74.6	79.00	-5.57	
				10g	2.16	21.6	22.40	-3.57	
2022-10-11	D5GHzV2 (5250)	1209	Head	1g	8.26	82.6	78.00	5.90	1
				10g	2.44	24.4	22.40	8.93	
2022-10-11	D5GHzV2 (5600)	1209	Head	1g	8.32	83.2	80.90	2.84	
				10g	2.44	24.4	23.10	5.63	
2022-10-18	D5GHzV2 (5800)	1209	Head	1g	8.23	82.3	79.00	4.18	
				10g	2.41	24.1	22.40	7.59	

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			
2022-09-05	D1750V2	1125	Head	1g	3.47	34.7	36.80	-5.71	
				10g	1.83	18.3	19.40	-5.67	
2022-09-05	D1900V2	5d190	Head	1g	3.97	39.7	40.10	-1.00	
				10g	2.04	20.4	20.70	-1.45	
2022-09-13	D1750V2	1125	Head	1g	3.57	35.7	36.80	-2.99	
				10g	1.87	18.7	19.40	-3.61	
2022-09-19	D1750V2	1125	Head	1g	3.68	36.8	36.80	0.00	
				10g	1.93	19.3	19.40	-0.52	
2022-09-19	D1900V2	5d190	Head	1g	3.84	38.4	40.10	-4.24	
				10g	1.97	19.7	20.70	-4.83	
2022-09-23	D1900V2	5d190	Head	1g	3.87	38.7	40.10	-3.49	
				10g	1.99	19.9	20.70	-3.86	
2022-09-23	D2450V2	960	Head	1g	4.77	47.7	51.90	-8.09	2
				10g	2.21	22.1	24.00	-7.92	
2022-09-27	D835V2	4d194	Head	1g	1.05	10.5	9.77	7.47	3
				10g	0.68	6.8	6.39	6.26	
2022-09-27	D2450V2	960	Head	1g	4.95	49.5	51.90	-4.62	
				10g	2.30	23.0	24.00	-4.17	
2022-09-28	D2600V2	1097	Head	1g	5.47	54.7	57.10	-4.20	
				10g	2.46	24.6	25.50	-3.53	
2022-09-30	D1750V2	1125	Head	1g	3.59	35.9	36.80	-2.45	
				10g	1.90	19.0	19.40	-2.06	
2022-10-17	D1900V2	5d199	Head	1g	3.88	38.8	39.40	-1.52	
				10g	2.01	20.1	20.50	-1.95	
2022-10-21	D2450V2	960	Head	1g	4.90	49.0	51.90	-5.59	
				10g	2.31	23.1	24.00	-3.75	
2022-10-23	D1750V2	1180	Head	1g	3.51	35.1	35.60	-1.40	
				10g	1.97	19.7	18.90	4.23	
2022-10-26	D2600V2	1097	Head	1g	5.25	52.5	57.10	-8.06	4
				10g	2.38	23.8	25.50	-6.67	
2022-10-26	D5GHzV2 (5250)	1209	Head	1g	8.14	81.4	78.00	4.36	
				10g	2.36	23.6	22.40	5.36	

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			
2022-09-19	D1750V2	1125	Head	1g	3.38	33.8	36.80	-8.15	5
				10g	1.85	18.5	19.40	-4.64	
2022-09-19	D1900V2	5d190	Head	1g	3.66	36.6	40.10	-8.73	6
				10g	1.94	19.4	20.70	-6.28	
2022-09-23	D2450V2	960	Head	1g	4.81	48.1	51.90	-7.32	
				10g	2.25	22.5	24.00	-6.25	
2022-09-27	D3500V2	1121	Head	1g	6.33	63.3	66.30	-4.52	
				10g	2.40	24.0	25.00	-4.00	
2022-09-27	D3700V2	1036	Head	1g	6.36	63.6	67.90	-6.33	7
				10g	2.33	23.3	24.30	-4.12	
2022-09-27	D3900V2	1069	Head	1g	6.57	65.7	70.10	-6.28	8
				10g	2.32	23.2	24.30	-4.53	
2022-10-03	D3500V2	1121	Head	1g	6.16	61.6	66.30	-7.09	
				10g	2.35	23.5	25.00	-6.00	
2022-10-03	D3700V2	1036	Head	1g	6.43	64.3	67.90	-5.30	
				10g	2.36	23.6	24.30	-2.88	
2022-10-03	D3900V2	1069	Head	1g	6.80	68.0	70.10	-3.00	
				10g	2.40	24.0	24.30	-1.23	
2022-10-11	D750V3	1205	Head	1g	0.94	9.4	8.66	7.97	9
				10g	0.61	6.1	5.65	8.50	
2022-10-11	D835V2	4d194	Head	1g	0.98	9.8	9.77	0.72	
				10g	0.65	6.5	6.39	1.10	
2022-10-14	D3500V2	1121	Head	1g	6.22	62.2	66.30	-6.18	
				10g	2.38	23.8	25.00	-4.80	
2022-10-14	D3700V2	1036	Head	1g	6.63	66.3	67.90	-2.36	
				10g	2.43	24.3	24.30	0.00	
2022-10-14	D3900V2	1069	Head	1g	7.04	70.4	70.10	0.43	
				10g	2.59	25.9	24.30	6.58	
2022-10-18	D1900V2	5d199	Head	1g	3.98	39.8	39.40	1.02	
				10g	2.09	20.9	20.50	1.95	
2022-10-19	D1900V2	5d199	Head	1g	3.73	37.3	39.40	-5.33	
				10g	1.98	19.8	20.50	-3.41	
2022-10-19	D3500V2	1121	Head	1g	6.06	60.6	66.30	-8.60	10
				10g	2.42	24.2	25.00	-3.20	
2022-10-19	D3700V2	1036	Head	1g	6.49	64.9	67.90	-4.42	
				10g	2.49	24.9	24.30	2.47	
2022-10-23	D3500V2	1121	Head	1g	6.62	66.2	66.30	-0.15	
				10g	2.64	26.4	25.00	5.60	
2022-10-23	D3700V2	1036	Head	1g	6.89	68.9	67.90	1.47	
				10g	2.64	26.4	24.30	8.64	
2022-10-23	D3900V2	1069	Head	1g	6.76	67.6	70.10	-3.57	
				10g	2.50	25.0	24.30	2.88	

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			
2022-09-01	D2600V2	1097	Head	1g	5.44	54.4	57.10	-4.73	
				10g	2.46	24.6	25.50	-3.53	
2022-09-05	D2600V2	1097	Head	1g	5.54	55.4	57.10	-2.98	
				10g	2.49	24.9	25.50	-2.35	
2022-09-19	D1750V2	1125	Head	1g	3.45	34.5	36.80	-6.25	11
				10g	1.81	18.1	19.40	-6.70	
2022-09-19	D2600V2	1097	Head	1g	5.84	58.4	57.10	2.28	
				10g	2.62	26.2	25.50	2.75	

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			
2022-09-13	D835V2	4d194	Head	1g	1.02	10.2	9.77	4.40	
				10g	0.68	6.8	6.39	7.04	
2022-09-19	D835V2	4d194	Head	1g	1.00	10.0	9.77	2.35	
				10g	0.65	6.5	6.39	1.88	
2022-10-18	D1750V2	1180	Head	1g	3.70	37.0	35.60	3.93	
				10g	2.03	20.3	18.90	7.41	
2022-10-19	D835V2	4d194	Head	1g	1.02	10.2	9.77	4.40	12
				10g	0.69	6.9	6.39	7.82	
2022-10-22	D1900V2	5d199	Head	1g	3.91	39.1	39.40	-0.76	
				10g	2.13	21.3	20.50	3.90	
2022-10-25	D750V3	1205	Head	1g	0.86	8.6	8.66	-0.35	
				10g	0.58	5.8	5.65	2.65	

SAR 7 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			
2022-09-19	CLA-13	1015	Head	1g	0.06	0.6	0.55	0.36	13
				10g	0.03	0.3	0.34	0.00	
2022-09-26	D2600V2	1097	Head	1g	6.06	60.6	57.10	6.13	
				10g	2.73	27.3	25.50	7.06	
2022-10-11	D6.5G V2	1010	Head	1g	29.10	291.0	285.00	2.11	
				10g	5.71	57.1	52.90	7.94	
2022-10-11	D8GHzV2	1008	Head	1g	27.10	271.0	267.00	1.50	
				10g	4.79	47.9	45.00	6.44	
2022-10-17	D6.5G V2	1010	Head	1g	29.80	298.0	285.00	4.56	
				10g	5.77	57.7	52.90	9.07	
2022-10-20	D6.5G V2	1010	Head	1g	27.30	273.0	285.00	-4.21	
				10g	5.19	51.9	52.90	-1.89	

SAR 8 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			
2022-09-14	D1750V2	1125	Head	1g	3.40	34.0	36.80	-7.61	14
				10g	1.81	18.1	19.40	-6.70	
2022-09-14	D1900V2	5d190	Head	1g	3.82	38.2	40.10	-4.74	
				10g	1.97	19.7	20.70	-4.83	

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 Allowed Average Power (dBm)			
					DSI = 0, 1, 2, 3, 4			
					Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	128	824.2	32.45	23.42	33.70	24.67
			190	836.6	33.09	24.06		
			251	848.8	33.38	24.35		
GPRS (GMSK)	CS1	1	128	824.2	32.55	23.52	33.70	24.67
			190	836.6	33.10	24.07		
			251	848.8	33.37	24.34		
		2	128	824.2	30.90	24.88	32.00	**25.98**
			190	836.6	31.00	24.98		
			251	848.8	31.52	25.50		
		3	128	824.2	29.13	24.87	30.00	25.74
			190	836.6	29.36	25.10		
			251	848.8	29.43	25.17		
		4	128	824.2	27.40	24.39	27.50	24.49
			190	836.6	27.45	24.44		
			251	848.8	27.03	24.02		
EGPRS (8PSK)	MCS5	1	128	824.2	26.60	17.57	27.50	18.47
			190	836.6	27.15	18.12		
			251	848.8	27.45	18.42		
		2	128	824.2	25.06	19.04	25.70	19.68
			190	836.6	25.27	19.25		
			251	848.8	25.55	19.53		
		3	128	824.2	23.08	18.82	23.70	19.44
			190	836.6	23.23	18.97		
			251	848.8	23.48	19.22		
		4	128	824.2	21.98	18.97	22.50	19.49
			190	836.6	22.27	19.26		
			251	848.8	22.48	19.47		

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 ≤ 1/4dB higher than GMSK GPRS or the adjusted SAR of the highest reported SAR of GMSK GPRS is ≤ 1.2W/kg.

GSM1900 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)											
					DSI = 0, 2				DSI = 3				DSI = 1, 4			
					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	29.54	20.51	31.00	21.97	27.26	18.23	29.00	19.97	27.21	18.18	29.00	19.97
			661	1880.0	29.83	20.80			27.55	18.52			27.49	18.46		
			810	1909.8	29.84	20.81			27.80	18.77			27.76	18.73		
GPRS (GMSK)	CS1	1	512	1850.2	29.57	20.54	31.00	21.97	26.82	17.79	29.00	19.97	27.17	18.14	29.00	19.97
			661	1880.0	29.78	20.75			27.55	18.52			27.35	18.32		
			810	1909.8	29.80	20.77			27.76	18.73			27.61	18.58		
		2	512	1850.2	27.32	21.30	29.00	**22.98**	24.66	18.64	26.00	**19.98**	24.43	18.41	26.00	**19.98**
			661	1880.0	27.43	21.41			25.12	19.10			24.95	18.93		
			810	1909.8	27.62	21.60			25.54	19.52			25.39	19.37		
		3	512	1850.2	25.62	21.36	27.00	22.74	22.14	17.88	24.20	19.94	21.91	17.65	24.20	19.94
			661	1880.0	25.83	21.57			22.95	18.69			22.78	18.52		
			810	1909.8	26.16	21.90			23.28	19.02			23.12	18.86		
		4	512	1850.2	23.69	20.68	25.50	22.49	20.58	17.57	22.00	18.99	20.37	17.36	22.00	18.99
			661	1880.0	24.13	21.12			21.26	18.25			21.09	18.08		
			810	1909.8	24.46	21.45			21.61	18.60			21.45	18.44		
EGPRS (8PSK)	MCS5	1	512	1850.2	25.10	16.07	26.50	17.47	25.10	16.07	26.50	17.47	25.10	16.07	26.50	17.47
			661	1880.0	25.80	16.77			25.80	16.77			25.80	16.77		
			810	1909.8	26.17	17.14			26.17	17.14			26.17	17.14		
		2	512	1850.2	23.32	17.30	24.70	18.68	23.32	17.30	24.70	18.68	23.32	17.30	24.70	18.68
			661	1880.0	23.61	17.59			23.61	17.59			23.61	17.59		
			810	1909.8	23.85	17.83			23.85	17.83			23.85	17.83		
		3	512	1850.2	21.30	17.04	22.70	18.44	21.30	17.04	22.70	18.44	21.30	17.04	22.70	18.44
			661	1880.0	21.55	17.29			21.55	17.29			21.55	17.29		
			810	1909.8	21.75	17.49			21.75	17.49			21.75	17.49		
		4	512	1850.2	20.10	17.09	21.70	18.69	20.10	17.09	21.70	18.69	20.10	17.09	21.70	18.69
			661	1880.0	20.78	17.77			20.78	17.77			20.78	17.77		
			810	1909.8	21.01	18.00			21.01	18.00			21.01	18.00		

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 ≤ 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
	βc/βd	8/15

HSDPA Setup Procedures used to establish the test signals

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

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

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
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βec	209/225	12/15	30/15	2/15	5/15
	βc/βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	βed	1309/225	94/75	47/15	56/75	47/15
	CM (dB)	1	3	2	3	1
	MPR (dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				0
	DNAK	8				0
	DCQI	8				0
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = βhs/βc	30/15				
HSUPA Specific Settings	E-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	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

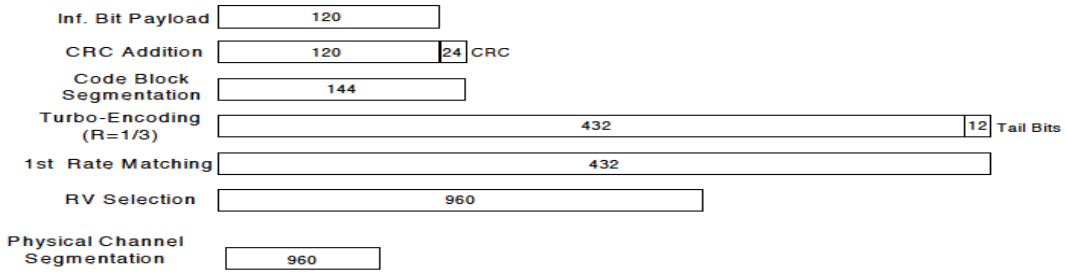


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 12			
	Power Control Algorithm	Algorithm2			
	βc	2/15	11/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/βd	2/15	11/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs = βhs/ βc	30/15			

HSPA+

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 Allowed Average Power (dBm)								
				DSI = 0, 2			DSI = 3			DSI = 1, 4		
				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	22.74	N/A	24.00	17.55	N/A	19.00	19.70	N/A	21.00
		9400	1880.0	23.04			17.79			19.93		
		9538	1907.6	23.17			17.99			20.14		
HSDPA	Subtest 1	9262	1852.4	21.78	0.00	24.00	16.60	0.00	19.00	18.74	0.00	21.00
		9400	1880.0	21.93			16.78			18.93		
		9538	1907.6	22.15			16.96			19.08		
	Subtest 2	9262	1852.4	21.80	0.00	24.00	16.59	0.00	19.00	18.81	0.00	21.00
		9400	1880.0	21.92			16.79			18.95		
		9538	1907.6	22.12			16.95			19.15		
	Subtest 3	9262	1852.4	21.29	0.50	23.50	16.09	0.50	18.50	18.23	0.50	20.50
		9400	1880.0	21.41			16.25			18.42		
		9538	1907.6	21.63			16.41			18.62		
	Subtest 4	9262	1852.4	21.27	0.50	23.50	16.09	0.50	18.50	18.21	0.50	20.50
		9400	1880.0	21.42			16.29			18.42		
		9538	1907.6	21.63			16.48			18.70		
HSUPA	Subtest 1	9262	1852.4	21.74	0.00	24.00	16.59	0.00	19.00	18.67	0.00	21.00
		9400	1880.0	21.90			16.79			18.90		
		9538	1907.6	22.14			16.97			19.09		
	Subtest 2	9262	1852.4	19.73	2.00	22.00	14.62	2.00	17.00	16.72	2.00	19.00
		9400	1880.0	19.91			14.80			16.94		
		9538	1907.6	20.18			15.02			17.09		
	Subtest 3	9262	1852.4	20.76	1.00	23.00	15.60	1.00	18.00	17.71	1.00	20.00
		9400	1880.0	20.93			15.80			17.94		
		9538	1907.6	21.19			15.98			18.11		
	Subtest 4	9262	1852.4	19.80	2.00	22.00	14.59	2.00	17.00	16.74	2.00	19.00
		9400	1880.0	19.93			14.82			16.90		
		9538	1907.6	20.15			14.99			17.11		
	Subtest 5	9262	1852.4	21.50	0.00	24.00	16.62	0.00	19.00	18.72	0.00	21.00
		9400	1880.0	21.53			16.85			18.95		
		9538	1907.6	21.76			17.06			19.14		
DC-HSDPA	Subtest 1	9262	1852.4	21.77	0.00	24.00	16.61	0.00	19.00	18.73	0.00	21.00
		9400	1880.0	21.96			16.77			18.93		
		9538	1907.6	22.16			17.00			19.11		
	Subtest 2	9262	1852.4	21.77	0.00	24.00	16.50	0.00	19.00	18.50	0.00	21.00
		9400	1880.0	21.91			16.60			18.67		
		9538	1907.6	22.16			16.83			18.92		
	Subtest 3	9262	1852.4	21.26	0.50	23.50	16.00	0.50	18.50	18.01	0.50	20.50
		9400	1880.0	21.41			16.08			18.16		
		9538	1907.6	21.67			16.21			18.36		
	Subtest 4	9262	1852.4	21.30	0.50	23.50	16.61	0.50	18.50	18.54	0.50	20.50
		9400	1880.0	21.44			16.73			18.94		
		9538	1907.6	21.67			16.94			19.11		

W-CDMA Band IV Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)								
				DSI = 0, 2			DSI = 3			DSI = 1, 4		
				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	23.12	N/A	24.00	17.88	N/A	19.00	18.82	N/A	20.00
		1413	1732.6	22.87			17.72			18.68		
		1513	1752.6	22.80			17.71			18.66		
HSDPA	Subtest 1	1312	1712.4	22.06	0.00	24.00	16.95	0.00	18.50	17.89	0.00	20.00
		1413	1732.6	21.85			16.73			17.72		
		1513	1752.6	21.75			16.71			17.67		
	Subtest 2	1312	1712.4	22.11	0.00	24.00	16.90	0.00	18.50	17.94	0.00	20.00
		1413	1732.6	21.83			16.71			17.72		
		1513	1752.6	21.75			16.70			17.68		
	Subtest 3	1312	1712.4	21.55	0.50	23.50	16.47	0.50	18.00	17.44	0.50	19.50
		1413	1732.6	21.32			16.23			17.25		
		1513	1752.6	21.24			16.21			17.21		
	Subtest 4	1312	1712.4	21.56	0.50	23.50	16.43	0.50	18.00	17.43	0.50	19.50
		1413	1732.6	21.33			16.22			17.19		
		1513	1752.6	21.23			16.21			17.17		
HSUPA	Subtest 1	1312	1712.4	22.03	0.00	23.00	16.89	0.00	18.00	17.88	0.00	19.50
		1413	1732.6	21.82			16.70			17.72		
		1513	1752.6	21.78			16.71			17.69		
	Subtest 2	1312	1712.4	20.04	2.00	21.00	14.93	2.00	16.00	15.82	2.00	17.50
		1413	1732.6	19.84			14.75			15.71		
		1513	1752.6	19.74			14.71			15.66		
	Subtest 3	1312	1712.4	21.02	1.00	22.00	15.94	1.00	17.00	16.83	1.00	18.50
		1413	1732.6	20.87			15.75			16.71		
		1513	1752.6	20.76			15.77			16.63		
	Subtest 4	1312	1712.4	20.07	2.00	21.00	14.95	2.00	16.00	15.86	2.00	17.50
		1413	1732.6	19.85			14.77			15.70		
		1513	1752.6	19.81			14.73			15.66		
	Subtest 5	1312	1712.4	21.65	0.00	23.00	16.52	0.00	18.00	17.85	0.00	19.50
		1413	1732.6	21.45			16.31			17.72		
		1513	1752.6	21.37			16.31			17.67		
DC-HSDPA	Subtest 1	1312	1712.4	22.09	0.00	24.00	16.99	0.00	18.50	18.26	0.00	20.00
		1413	1732.6	21.90			16.77			18.13		
		1513	1752.6	21.81			16.74			18.12		
	Subtest 2	1312	1712.4	22.12	0.00	24.00	17.02	0.00	18.50	18.21	0.00	20.00
		1413	1732.6	21.90			16.79			18.20		
		1513	1752.6	21.81			16.74			18.07		
	Subtest 3	1312	1712.4	21.62	0.50	23.50	16.47	0.50	18.00	17.39	0.50	19.50
		1413	1732.6	21.37			16.30			17.25		
		1513	1752.6	21.30			16.26			17.18		
	Subtest 4	1312	1712.4	21.54	0.50	23.50	16.55	0.50	18.00	17.37	0.50	19.50
		1413	1732.6	21.37			16.30			17.23		
		1513	1752.6	21.27			16.25			17.16		

W-CDMA Band V Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)		
				DSI = 0, 1, 2, 3, 4		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.39	N/A	25.50
		4183	836.6	24.21		
		4233	846.6	24.14		
HSDPA	Subtest 1	4132	826.4	23.39	0.00	24.50
		4183	836.6	23.20		
		4233	846.6	23.14		
	Subtest 2	4132	826.4	23.37	0.00	24.50
		4183	836.6	23.21		
		4233	846.6	23.13		
	Subtest 3	4132	826.4	22.90	0.50	24.00
		4183	836.6	22.72		
		4233	846.6	22.66		
	Subtest 4	4132	826.4	22.88	0.50	24.00
		4183	836.6	22.70		
		4233	846.6	22.63		
HSUPA	Subtest 1	4132	826.4	23.39	0.00	24.50
		4183	836.6	23.21		
		4233	846.6	23.17		
	Subtest 2	4132	826.4	21.38	2.00	22.50
		4183	836.6	21.18		
		4233	846.6	21.10		
	Subtest 3	4132	826.4	22.37	1.00	23.50
		4183	836.6	22.20		
		4233	846.6	22.13		
	Subtest 4	4132	826.4	21.40	2.00	22.50
		4183	836.6	21.20		
		4233	846.6	21.13		
	Subtest 5	4132	826.4	22.94	0.00	24.50
		4183	836.6	22.76		
		4233	846.6	22.71		
DC-HSDPA	Subtest 1	4132	826.4	23.42	0.00	24.50
		4183	836.6	23.24		
		4233	846.6	23.16		
	Subtest 2	4132	826.4	23.39	0.00	24.50
		4183	836.6	23.21		
		4233	846.6	23.12		
	Subtest 3	4132	826.4	22.88	0.50	24.00
		4183	836.6	22.72		
		4233	846.6	22.64		
	Subtest 4	4132	826.4	22.89	0.50	24.00
		4183	836.6	22.74		
		4233	846.6	22.64		

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)
- LTE Band 4 (1710 – 1755 MHz) is covered by LTE Band 66 (1710 – 1780 MHz) in Main Ant.1
- 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.

LTE Band 4 (Sub.2 Ant) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)														
				DSI = 0, 1, 4					DSI = 3					DSI = 2				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20050	20175	20300			20050	20175	20300			20050	20175	20300		
				1720 MHz	1732.5 MHz	1745 MHz			1720 MHz	1732.5 MHz	1745 MHz			1720 MHz	1732.5 MHz	1745 MHz		
20 MHz	QPSK	1	0		20.62		0.00	22.00		19.83		0.00	21.00		19.84		0.00	21.00
		1	49		20.65		0.00	22.00		19.88		0.00	21.00		19.97		0.00	21.00
		1	99		20.64		0.00	22.00		19.87		0.00	21.00		19.86		0.00	21.00
		50	0		20.56		0.00	22.00		19.85		0.00	21.00		19.88		0.00	21.00
		50	24		20.61		0.00	22.00		19.81		0.00	21.00		19.92		0.00	21.00
		50	50		20.62		0.00	22.00		19.94		0.00	21.00		19.95		0.00	21.00
		100	0		20.53		0.00	22.00		19.83		0.00	21.00		19.91		0.00	21.00
	16QAM	1	0		20.51		0.00	22.00		19.97		0.00	21.00		20.04		0.00	21.00
		1	49		20.49		0.00	22.00		19.96		0.00	21.00		20.07		0.00	21.00
		1	99		20.57		0.00	22.00		19.95		0.00	21.00		19.94		0.00	21.00
		50	0		20.63		0.00	22.00		19.86		0.00	21.00		19.92		0.00	21.00
		50	24		20.64		0.00	22.00		19.88		0.00	21.00		19.94		0.00	21.00
		50	50		20.71		0.00	22.00		19.93		0.00	21.00		20.02		0.00	21.00
		100	0		20.63		0.00	22.00		19.88		0.00	21.00		19.95		0.00	21.00
	64QAM	1	0		20.76		0.00	22.00		19.91		0.00	21.00		19.96		0.00	21.00
		1	49		20.72		0.00	22.00		19.88		0.00	21.00		20.03		0.00	21.00
		1	99		20.68		0.00	22.00		19.94		0.00	21.00		19.97		0.00	21.00
		50	0		19.92		1.00	21.00		19.88		0.00	21.00		19.93		0.00	21.00
		50	24		19.94		1.00	21.00		19.89		0.00	21.00		19.97		0.00	21.00
		50	50		19.96		1.00	21.00		19.97		0.00	21.00		20.01		0.00	21.00
		100	0		19.92		1.00	21.00		19.93		0.00	21.00		19.95		0.00	21.00
	256QAM	1	0		17.82		3.00	19.00		18.14		1.00	20.00		18.22		1.00	20.00
		1	49		17.98		3.00	19.00		18.25		1.00	20.00		18.19		1.00	20.00
		1	99		17.94		3.00	19.00		18.27		1.00	20.00		18.23		1.00	20.00
		50	0		17.89		3.00	19.00		18.22		1.00	20.00		18.18		1.00	20.00
		50	24		17.96		3.00	19.00		18.24		1.00	20.00		18.22		1.00	20.00
		50	50		17.94		3.00	19.00		18.29		1.00	20.00		18.23		1.00	20.00
		100	0		17.91		3.00	19.00		18.25		1.00	20.00		18.22		1.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20025.00	20175.00	20325.00			20025.00	20175.00	20325.00			20025.00	20175.00	20325.00		
				1717.5 MHz	1732.5 MHz	1747.5 MHz			1717.5 MHz	1732.5 MHz	1747.5 MHz			1717.5 MHz	1732.5 MHz	1747.5 MHz		
15 MHz	QPSK	1	0	20.81	20.72	20.64	0.00	22.00	19.75	19.74	19.70	0.00	21.00	19.82	19.75	19.68	0.00	21.00
		1	37	20.84	20.83	20.65	0.00	22.00	19.76	19.81	19.83	0.00	21.00	19.79	19.81	19.66	0.00	21.00
		1	74	20.75	20.62	20.55	0.00	22.00	19.70	19.58	19.58	0.00	21.00	19.64	19.64	19.61	0.00	21.00
		36	0	20.81	20.77	20.69	0.00	22.00	19.80	19.73	19.67	0.00	21.00	19.81	19.71	19.71	0.00	21.00
		36	20	20.90	20.83	20.69	0.00	22.00	19.88	19.82	19.66	0.00	21.00	19.88	19.81	19.68	0.00	21.00
		36	39	20.84	20.76	20.71	0.00	22.00	19.82	19.74	19.68	0.00	21.00	19.82	19.75	19.70	0.00	21.00
		75	0	20.87	20.73	20.68	0.00	22.00	19.87	19.69	19.62	0.00	21.00	19.85	19.74	19.68	0.00	21.00
	16QAM	1	0	20.87	20.04	20.72	0.00	22.00	19.74	19.70	19.67	0.00	21.00	19.90	19.72	19.74	0.00	21.00
		1	37	20.94	20.80	20.76	0.00	22.00	19.78	19.66	19.79	0.00	21.00	19.85	19.84	19.73	0.00	21.00
		1	74	20.77	20.60	20.69	0.00	22.00	19.67	19.68	19.71	0.00	21.00	19.84	19.68	19.74	0.00	21.00
		36	0	20.87	20.79	20.74	0.00	22.00	19.86	19.76	19.75	0.00	21.00	19.85	19.76	19.76	0.00	21.00
		36	20	20.92	20.83	20.71	0.00	22.00	19.88	19.81	19.75	0.00	21.00	19.88	19.89	19.73	0.00	21.00
		36	39	20.87	20.83	20.74	0.00	22.00	19.84	19.77	19.79	0.00	21.00	19.85	19.77	19.74	0.00	21.00
		75	0	20.89	20.71	20.68	0.00	22.00	19.91	19.74	19.70	0.00	21.00	19.84	19.71	19.68	0.00	21.00
	64QAM	1	0	20.92	20.75	20.76	0.00	22.00	19.73	19.78	19.13	0.00	21.00	19.82	19.69	19.68	0.00	21.00
		1	37	20.78	20.75	20.69	0.00	22.00	19.84	19.86	19.30	0.00	21.00	19.75	19.71	19.54	0.00	21.00
		1	74	20.82	20.69	20.64	0.00	22.00	19.79	19.68	19.66	0.00	21.00	19.74	19.57	19.58	0.00	21.00
		36	0	20.14	20.10	20.07	1.00	21.00	19.85	19.82	19.74	0.00	21.00	19.83	19.78	19.72	0.00	21.00
		36	20	20.17	20.15	20.01	1.00	21.00	19.93	19.86	19.73	0.00	21.00	19.88	19.86	19.75	0.00	21.00
		36	39	20.16	20.13	20.02	1.00	21.00	19.86	19.78	19.74	0.00	21.00	19.89	19.78	19.75	0.00	21.00
		75	0	20.15	20.05	20.01	1.00	21.00	19.90	19.76	19.74	0.00	21.00	19.88	19.75	19.70	0.00	21.00
	256QAM	1	0	17.92	18.07	17.89	3.00	19.00	18.07	17.88	19.71	1.00	20.00	17.95	17.94	17.97	1.00	20.00
		1	37	17.98	18.03	17.96	3.00	19.00	18.05	17.99	18.00	1.00	20.00	18.11	18.08	18.12	1.00	20.00
		1	74	17.94	17.88	17.85	3.00	19.00	18.00	17.82	18.08	1.00	20.00	17.85	17.93	17.96	1.00	20.00
		36	0	18.13	18.07	17.99	3.00	19.00	18.09	18.05	18.03	1.00	20.00	18.14	18.07	18.05	1.00	20.00
		36	20	18.18	18.12	18.01	3.00	19.00	18.21	18.12	18.09	1.00	20.00	18.20	18.12	18.01	1.00	20.00
		36	39	18.14	18.07	17.99	3.00	19.00	18.12	18.10	18.07	1.00	20.00	18.14	18.09	18.06	1.00	20.00
		75	0	18.18	18.08	18.01	3.00	19.00	18.17	18.03	18.05	1.00	20.00	18.17	18.05	17.99	1.00	20.00

LTE Band 4 (Sub.2 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	Measured Pwr (dBm)			MPR	Tune-up Limit
				20000.00	20175.00	20350.00			20000.00	20175.00	20350.00			20000.00	20175.00	20350.00		
				1715 MHz	1732.5 MHz	1750 MHz			1715 MHz	1732.5 MHz	1750 MHz			1715 MHz	1732.5 MHz	1750 MHz		
10 MHz	QPSK	1	0	20.50	20.60	20.54	0.00	22.00	19.51	19.46	19.48	0.00	21.00	19.46	19.42	19.43	0.00	21.00
		1	25	21.12	21.10	21.10	0.00	22.00	20.11	20.07	20.08	0.00	21.00	20.15	20.07	20.10	0.00	21.00
		1	49	20.47	20.49	20.46	0.00	22.00	19.46	19.44	19.46	0.00	21.00	19.45	19.41	19.46	0.00	21.00
		25	0	20.88	20.90	20.94	0.00	22.00	19.84	19.86	19.76	0.00	21.00	19.86	19.83	19.87	0.00	21.00
		25	12	21.14	21.03	20.98	0.00	22.00	20.12	20.03	20.01	0.00	21.00	20.08	19.99	20.05	0.00	21.00
		25	25	20.93	20.89	20.86	0.00	22.00	19.89	19.86	19.86	0.00	21.00	19.92	19.86	19.89	0.00	21.00
		50	0	20.96	20.85	20.99	0.00	22.00	19.95	19.98	20.00	0.00	21.00	19.92	19.85	19.87	0.00	21.00
	16QAM	1	0	20.56	20.53	20.57	0.00	22.00	19.51	19.47	19.46	0.00	21.00	19.53	19.40	19.45	0.00	21.00
		1	25	21.18	21.04	20.89	0.00	22.00	20.00	20.12	20.08	0.00	21.00	20.00	20.09	20.08	0.00	21.00
		1	49	20.55	20.47	20.58	0.00	22.00	19.52	19.39	19.48	0.00	21.00	19.48	19.53	19.43	0.00	21.00
		25	0	20.91	20.90	20.85	0.00	22.00	19.87	19.89	19.89	0.00	21.00	19.87	19.84	19.87	0.00	21.00
		25	12	21.15	21.03	20.17	0.00	22.00	20.14	20.05	20.08	0.00	21.00	20.13	20.04	20.06	0.00	21.00
		25	25	20.97	20.90	20.97	0.00	22.00	19.91	19.92	19.84	0.00	21.00	19.91	19.88	19.85	0.00	21.00
		50	0	20.98	20.89	20.98	0.00	22.00	19.94	19.83	19.79	0.00	21.00	19.93	19.88	19.86	0.00	21.00
	64QAM	1	0	20.43	20.13	20.35	0.00	22.00	19.48	19.44	19.38	0.00	21.00	19.53	19.67	19.67	0.00	21.00
		1	25	21.05	21.05	21.10	0.00	22.00	19.55	20.01	19.98	0.00	21.00	20.17	20.10	20.17	0.00	21.00
		1	49	20.37	20.49	20.46	0.00	22.00	19.49	19.29	19.48	0.00	21.00	19.48	19.37	19.43	0.00	21.00
		25	0	20.17	20.23	20.18	1.00	21.00	19.92	19.80	19.87	0.00	21.00	19.91	19.85	19.85	0.00	21.00
		25	12	20.43	20.37	20.38	1.00	21.00	20.10	20.07	20.07	0.00	21.00	20.13	20.07	20.08	0.00	21.00
		25	25	20.24	20.19	20.18	1.00	21.00	19.96	19.87	19.98	0.00	21.00	19.95	19.93	19.95	0.00	21.00
		50	0	20.25	20.15	20.19	1.00	21.00	19.98	19.85	19.85	0.00	21.00	19.95	19.84	19.98	0.00	21.00
	256QAM	1	0	17.62	17.58	18.10	3.00	19.00	17.75	17.67	18.00	1.00	20.00	17.72	17.62	17.99	1.00	20.00
		1	25	18.08	18.37	18.11	3.00	19.00	18.49	18.38	18.06	1.00	20.00	18.37	18.36	18.11	1.00	20.00
		1	49	17.68	17.84	18.17	3.00	19.00	17.68	17.78	18.05	1.00	20.00	17.59	17.75	18.08	1.00	20.00
		25	0	18.16	18.21	18.18	3.00	19.00	18.15	18.17	18.13	1.00	20.00	18.13	18.17	18.15	1.00	20.00
		25	12	18.41	18.32	18.17	3.00	19.00	18.43	18.35	18.15	1.00	20.00	18.41	18.33	18.16	1.00	20.00
		25	25	18.26	18.24	18.12	3.00	19.00	18.19	18.15	18.20	1.00	20.00	18.20	18.21	18.15	1.00	20.00
		50	0	18.23	18.13	18.15	3.00	19.00	18.23	18.13	18.11	1.00	20.00	18.21	18.11	18.15	1.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				19975.00	20175.00	20375.00			19975.00	20175.00	20375.00			19975.00	20175.00	20375.00		
				1712.5 MHz	1732.5 MHz	1752.5 MHz			1712.5 MHz	1732.5 MHz	1752.5 MHz			1712.5 MHz	1732.5 MHz	1752.5 MHz		
5 MHz	QPSK	1	0	20.96	20.91	20.85	0.00	22.00	19.84	19.82	19.87	0.00	21.00	19.94	19.89	19.82	0.00	21.00
		1	12	21.05	21.14	20.83	0.00	22.00	20.03	20.10	19.82	0.00	21.00	20.08	20.07	19.83	0.00	21.00
		1	24	20.87	20.92	20.78	0.00	22.00	19.84	19.87	19.76	0.00	21.00	19.84	19.88	19.73	0.00	21.00
		12	0	20.87	20.99	20.88	0.00	22.00	19.99	19.95	19.86	0.00	21.00	19.99	19.96	19.87	0.00	21.00
		12	7	21.08	21.13	20.90	0.00	22.00	20.04	20.12	19.93	0.00	21.00	20.04	20.10	19.85	0.00	21.00
		12	13	21.09	21.06	20.89	0.00	22.00	20.03	20.04	19.85	0.00	21.00	20.00	20.03	19.84	0.00	21.00
		25	0	21.12	20.96	20.89	0.00	22.00	20.05	19.96	19.83	0.00	21.00	20.05	19.96	19.83	0.00	21.00
	16QAM	1	0	20.70	20.71	20.94	0.00	22.00	19.78	19.78	19.84	0.00	21.00	19.87	19.77	19.87	0.00	21.00
		1	12	21.01	20.99	20.84	0.00	22.00	19.99	19.97	20.01	0.00	21.00	19.97	19.95	20.04	0.00	21.00
		1	24	20.86	20.81	20.84	0.00	22.00	19.76	19.71	19.78	0.00	21.00	19.76	19.76	19.84	0.00	21.00
		12	0	21.04	21.02	20.94	0.00	22.00	19.96	19.96	20.04	0.00	21.00	19.99	19.96	19.97	0.00	21.00
		12	7	21.06	21.14	20.92	0.00	22.00	20.06	20.11	20.12	0.00	21.00	20.17	20.15	20.15	0.00	21.00
		12	13	21.05	21.04	20.87	0.00	22.00	20.07	20.03	20.08	0.00	21.00	20.04	20.01	20.04	0.00	21.00
		25	0	21.03	20.98	20.87	0.00	22.00	20.06	19.97	20.09	0.00	21.00	20.02	19.96	20.01	0.00	21.00
	64QAM	1	0	21.01	21.02	20.97	0.00	22.00	19.84	19.91	19.87	0.00	21.00	19.86	19.93	19.87	0.00	21.00
		1	12	21.08	21.14	21.14	0.00	22.00	20.07	20.11	20.13	0.00	21.00	20.17	20.17	20.15	0.00	21.00
		1	24	21.03	20.95	20.98	0.00	22.00	20.03	20.04	20.04	0.00	21.00	19.98	19.90	19.98	0.00	21.00
		12	0	20.26	20.30	20.26	1.00	21.00	20.08	20.05	20.13	0.00	21.00	20.07	20.00	20.08	0.00	21.00
		12	7	20.49	20.53	20.54	1.00	21.00	20.07	20.12	20.12	0.00	21.00	20.06	19.99	20.07	0.00	21.00
		12	13	20.37	20.37	20.43	1.00	21.00	20.04	20.02	20.04	0.00	21.00	20.12	20.12	20.06	0.00	21.00
		25	0	20.28	20.26	20.28	1.00	21.00	19.92	19.93	19.99	0.00	21.00	20.04	20.03	20.01	0.00	21.00
	256QAM	1	0	18.17	18.15	18.16	3.00	19.00	18.13	18.04	18.11	1.00	20.00	18.15	18.20	18.21	1.00	20.00
		1	12	18.37	18.28	18.34	3.00	19.00	18.37	18.35	18.38	1.00	20.00	18.26	18.34	18.34	1.00	20.00
		1	24	18.29	18.18	18.32	3.00	19.00	18.16	18.18	18.27	1.00	20.00	18.24	18.32	18.32	1.00	20.00
		12	0	18.24	18.20	18.26	3.00	19.00	18.34	18.33	18.28	1.00	20.00	18.36	18.29	18.34	1.00	20.00
		12	7	18.38	18.41	18.41	3.00	19.00	18.52	18.47	18.49	1.00	20.00	18.34	18.40	18.37	1.00	20.00
		12	13	18.29	18.31	18.32	3.00	19.00	18.34	18.32	18.37	1.00	20.00	18.32	18.31	18.32	1.00	20.00
		25	0	18.27	18.25	18.28	3.00	19.00	18.32	18.26	18.34	1.00	20.00	18.17	18.24	18.21	1.00	20.00

LTE Band 5 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
				DSI = 0, 1, 2, 3, 4				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				20450	20525	20600		
				829 MHz	836.5 MHz	844 MHz		
10 MHz	QPSK	1	0		24.56		0.00	25.50
		1	25		24.57		0.00	25.50
		1	49		24.50		0.00	25.50
		25	0		23.51		1.00	24.50
		25	12		23.59		1.00	24.50
		25	25		23.54		1.00	24.50
		50	0		23.56		1.00	24.50
	16QAM	1	0		23.83		1.00	24.50
		1	25		23.79		1.00	24.50
		1	49		23.65		1.00	24.50
		25	0		22.51		2.00	23.50
		25	12		22.61		2.00	23.50
		25	25		22.56		2.00	23.50
		50	0		22.55		2.00	23.50
	64QAM	1	0		22.79		2.00	23.50
		1	25		22.78		2.00	23.50
		1	49		22.66		2.00	23.50
		25	0		21.51		3.00	22.50
		25	12		21.57		3.00	22.50
		25	25		21.53		3.00	22.50
		50	0		21.56		3.00	22.50
	256QAM	1	0		19.65		5.00	20.50
		1	25		19.71		5.00	20.50
		1	49		19.58		5.00	20.50
		25	0		19.50		5.00	20.50
		25	12		19.58		5.00	20.50
		25	25		19.52		5.00	20.50
		50	0		19.55		5.00	20.50

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20425.00	20525.00	20625.00		
				826.5 MHz	836.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	24.68	24.53	24.40	0.00	25.50
		1	12	24.72	24.55	24.49	0.00	25.50
		1	24	24.58	24.44	24.45	0.00	25.50
		12	0	23.66	23.50	23.32	1.00	24.50
		12	7	23.71	23.54	23.44	1.00	24.50
		12	13	23.57	23.49	23.42	1.00	24.50
		25	0	23.68	23.46	23.43	1.00	24.50
	16QAM	1	0	23.78	23.59	23.61	1.00	24.50
		1	12	23.89	23.69	23.69	1.00	24.50
		1	24	23.75	23.60	23.56	1.00	24.50
		12	0	22.68	22.56	22.36	2.00	23.50
		12	7	22.73	22.60	22.48	2.00	23.50
		12	13	22.59	22.56	22.44	2.00	23.50
		25	0	22.67	22.51	22.47	2.00	23.50
	64QAM	1	0	22.91	22.78	22.65	2.00	23.50
		1	12	22.89	22.78	22.64	2.00	23.50
		1	24	22.79	22.69	22.60	2.00	23.50
		12	0	21.73	21.53	21.36	3.00	22.50
		12	7	21.78	21.57	21.48	3.00	22.50
		12	13	21.65	21.55	21.43	3.00	22.50
		25	0	21.70	21.50	21.44	3.00	22.50
	256QAM	1	0	19.75	19.70	19.52	5.00	20.50
		1	12	19.79	19.72	19.61	5.00	20.50
		1	24	19.63	19.62	19.53	5.00	20.50
		12	0	19.70	19.53	19.35	5.00	20.50
		12	7	19.76	19.54	19.46	5.00	20.50
		12	13	19.63	19.52	19.42	5.00	20.50
		25	0	19.71	19.49	19.43	5.00	20.50

LTE Band 5 Measured Results_(Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20415.00	20525.00	20635.00		
				825.5 MHz	836.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.70	24.44	24.35	0.00	25.50
		1	8	24.78	24.54	24.47	0.00	25.50
		1	14	24.62	24.44	24.34	0.00	25.50
		8	0	23.68	23.50	23.31	1.00	24.50
		8	4	23.66	23.52	23.35	1.00	24.50
		8	7	23.65	23.52	23.34	1.00	24.50
		15	0	23.62	23.49	23.32	1.00	24.50
	16QAM	1	0	23.87	23.65	23.54	1.00	24.50
		1	8	23.93	23.73	23.63	1.00	24.50
		1	14	23.73	23.61	23.52	1.00	24.50
		8	0	22.72	22.54	22.34	2.00	23.50
		8	4	22.67	22.60	22.39	2.00	23.50
		8	7	22.64	22.57	22.39	2.00	23.50
		15	0	22.64	22.49	22.32	2.00	23.50
	64QAM	1	0	22.83	22.63	22.52	2.00	23.50
		1	8	22.89	22.73	22.61	2.00	23.50
		1	14	22.78	22.55	22.53	2.00	23.50
		8	0	21.71	21.56	21.35	3.00	22.50
		8	4	21.72	21.57	21.39	3.00	22.50
		8	7	21.69	21.59	21.39	3.00	22.50
		15	0	21.65	21.52	21.34	3.00	22.50
	256QAM	1	0	19.78	19.67	19.41	5.00	20.50
		1	8	19.89	19.71	19.59	5.00	20.50
		1	14	19.72	19.58	19.47	5.00	20.50
		8	0	19.71	19.52	19.34	5.00	20.50
		8	4	19.69	19.55	19.39	5.00	20.50
		8	7	19.67	19.55	19.37	5.00	20.50
		15	0	19.65	19.50	19.31	5.00	20.50

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20407.00	20525.00	20643.00		
				824.7 MHz	836.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.64	24.45	24.31	0.00	25.50
		1	3	24.67	24.48	24.38	0.00	25.50
		1	5	24.62	24.45	24.37	0.00	25.50
		3	0	24.68	24.47	24.39	0.00	25.50
		3	1	24.68	24.49	24.37	0.00	25.50
		3	3	24.67	24.48	24.35	0.00	25.50
		6	0	23.65	23.45	23.37	1.00	24.50
	16QAM	1	0	23.80	23.58	23.48	1.00	24.50
		1	3	23.85	23.62	23.56	1.00	24.50
		1	5	23.74	23.64	23.50	1.00	24.50
		3	0	23.75	23.57	23.47	1.00	24.50
		3	1	23.76	23.56	23.49	1.00	24.50
		3	3	23.76	23.58	23.50	1.00	24.50
		6	0	22.75	22.47	22.35	2.00	23.50
	64QAM	1	0	22.73	22.72	22.54	2.00	23.50
		1	3	22.77	22.61	22.61	2.00	23.50
		1	5	22.67	22.56	22.55	2.00	23.50
		3	0	22.78	22.59	22.53	2.00	23.50
		3	1	22.80	22.61	22.51	2.00	23.50
		3	3	22.78	22.58	22.51	2.00	23.50
		6	0	21.73	21.50	21.43	3.00	22.50
	256QAM	1	0	19.80	19.56	19.43	5.00	20.50
		1	3	19.80	19.74	19.54	5.00	20.50
		1	5	19.84	19.49	19.54	5.00	20.50
		3	0	19.76	19.50	19.41	5.00	20.50
		3	1	19.81	19.49	19.42	5.00	20.50
		3	3	19.79	19.47	19.40	5.00	20.50
		6	0	19.74	19.53	19.45	5.00	20.50

LTE Band 12 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
				DSI = 0, 1, 2, 3, 4				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				23060	23095	23130		
				704 MHz	707.5 MHz	711 MHz		
10 MHz	QPSK	1	0	[redacted]	22.94	[redacted]	0.00	25.00
		1	25		23.19		0.00	25.00
		1	49		23.22		0.00	25.00
		25	0		22.00		1.00	24.00
		25	12		22.13		1.00	24.00
		25	25		22.20		1.00	24.00
		50	0		22.11		1.00	24.00
	16QAM	1	0		22.05		1.00	24.00
		1	25		22.21		1.00	24.00
		1	49		22.32		1.00	24.00
		25	0		20.99		2.00	23.00
		25	12		21.11		2.00	23.00
		25	25		21.16		2.00	23.00
		50	0		21.08		2.00	23.00
	64QAM	1	0		21.19		2.00	23.00
		1	25		21.43		2.00	23.00
		1	49		21.53		2.00	23.00
		25	0		20.02		3.00	22.00
		25	12		20.16		3.00	22.00
		25	25		20.22		3.00	22.00
		50	0		20.12		3.00	22.00
	256QAM	1	0		18.12		5.00	20.00
		1	25		18.35		5.00	20.00
		1	49		18.43		5.00	20.00
		25	0		18.01		5.00	20.00
		25	12		18.13		5.00	20.00
		25	25		18.18		5.00	20.00
		50	0		18.12		5.00	20.00

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23035.00	23095.00	23155.00		
				701.5 MHz	707.5 MHz	713.5 MHz		
5 MHz	QPSK	1	0	22.78	23.10	23.37	0.00	25.00
		1	12	22.95	23.32	23.47	0.00	25.00
		1	24	22.97	23.22	23.40	0.00	25.00
		12	0	21.81	22.17	22.33	1.00	24.00
		12	7	21.94	22.20	22.37	1.00	24.00
		12	13	21.94	22.24	22.42	1.00	24.00
		25	0	21.90	22.17	22.34	1.00	24.00
	16QAM	1	0	21.90	22.18	22.52	1.00	24.00
		1	12	22.07	22.35	22.58	1.00	24.00
		1	24	22.05	22.32	22.55	1.00	24.00
		12	0	20.87	21.09	21.34	2.00	23.00
		12	7	21.00	21.15	21.38	2.00	23.00
		12	13	20.97	21.20	21.44	2.00	23.00
		25	0	20.95	21.19	21.36	2.00	23.00
	64QAM	1	0	20.95	21.17	21.45	2.00	23.00
		1	12	21.05	21.34	21.54	2.00	23.00
		1	24	21.12	21.28	21.51	2.00	23.00
		12	0	19.85	20.14	20.37	3.00	22.00
		12	7	19.99	20.19	20.42	3.00	22.00
		12	13	19.99	20.28	20.49	3.00	22.00
		25	0	19.94	20.19	20.38	3.00	22.00
	256QAM	1	0	18.00	18.17	18.40	5.00	20.00
		1	12	18.14	18.43	18.57	5.00	20.00
		1	24	18.16	18.37	18.49	5.00	20.00
		12	0	17.86	18.17	18.35	5.00	20.00
		12	7	17.97	18.25	18.40	5.00	20.00
		12	13	17.99	18.29	18.46	5.00	20.00
		25	0	17.94	18.19	18.38	5.00	20.00

LTE Band 12 Measured Results_(Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025.00	23095.00	23165.00		
				700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	22.81	23.14	23.32	0.00	25.00
		1	8	22.93	23.27	23.45	0.00	25.00
		1	14	22.86	23.19	23.36	0.00	25.00
		8	0	21.79	22.14	22.35	1.00	24.00
		8	4	21.93	22.19	22.39	1.00	24.00
		8	7	21.92	22.27	22.46	1.00	24.00
		15	0	21.91	22.16	22.34	1.00	24.00
	16QAM	1	0	21.96	22.26	22.52	1.00	24.00
		1	8	22.06	22.39	22.64	1.00	24.00
		1	14	21.97	22.31	22.57	1.00	24.00
		8	0	20.85	21.21	21.37	2.00	23.00
		8	4	20.95	21.26	21.42	2.00	23.00
		8	7	20.97	21.33	21.48	2.00	23.00
		15	0	20.91	21.17	21.37	2.00	23.00
	64QAM	1	0	20.89	21.25	21.65	2.00	23.00
		1	8	20.99	21.38	21.78	2.00	23.00
		1	14	20.96	21.33	21.66	2.00	23.00
		8	0	19.80	20.18	20.41	3.00	22.00
		8	4	19.91	20.21	20.45	3.00	22.00
		8	7	19.91	20.30	20.50	3.00	22.00
		15	0	19.86	20.17	20.38	3.00	22.00
	256QAM	1	0	17.94	18.32	18.42	5.00	20.00
		1	8	18.06	18.48	18.57	5.00	20.00
		1	14	17.96	18.37	18.51	5.00	20.00
		8	0	17.80	18.19	18.41	5.00	20.00
		8	4	17.94	18.22	18.44	5.00	20.00
		8	7	17.90	18.28	18.50	5.00	20.00
		15	0	17.91	18.16	18.39	5.00	20.00

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23017.00	23095.00	23173.00		
				699.7 MHz	707.5 MHz	715.3 MHz		
1.4 MHz	QPSK	1	0	22.82	23.17	23.40	0.00	25.00
		1	3	22.83	23.20	23.46	0.00	25.00
		1	5	22.81	23.21	23.41	0.00	25.00
		3	0	22.81	23.17	23.41	0.00	25.00
		3	1	22.83	23.23	23.43	0.00	25.00
		3	3	22.80	23.23	23.45	0.00	25.00
		6	0	21.79	22.11	22.33	1.00	24.00
	16QAM	1	0	21.89	22.38	22.51	1.00	24.00
		1	3	21.96	22.33	22.63	1.00	24.00
		1	5	21.92	22.38	22.59	1.00	24.00
		3	0	21.84	22.24	22.55	1.00	24.00
		3	1	21.81	22.27	22.56	1.00	24.00
		3	3	21.83	22.29	22.56	1.00	24.00
		6	0	20.81	21.13	21.40	2.00	23.00
	64QAM	1	0	20.93	21.25	21.57	2.00	23.00
		1	3	20.99	21.31	21.63	2.00	23.00
		1	5	20.94	21.27	21.60	2.00	23.00
		3	0	20.92	21.32	21.51	2.00	23.00
		3	1	20.93	21.31	21.54	2.00	23.00
		3	3	20.93	21.36	21.53	2.00	23.00
		6	0	19.86	20.08	20.34	3.00	22.00
	256QAM	1	0	17.95	18.22	18.49	5.00	20.00
		1	3	18.02	18.25	18.68	5.00	20.00
		1	5	17.93	18.29	18.63	5.00	20.00
		3	0	17.91	18.16	18.44	5.00	20.00
		3	1	17.91	18.22	18.52	5.00	20.00
		3	3	17.91	18.28	18.52	5.00	20.00
		6	0	17.86	18.04	18.40	5.00	20.00

LTE Band 13 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			MPR	Tune-up Limit
				DSI = 0, 1, 2, 3, 4				
				Measured Pwr (dBm)				
				[redacted]	23230	[redacted]		
					782 MHz			
10 MHz	QPSK	1	0		23.45		0.00	25.00
		1	25		23.43		0.00	25.00
		1	49		23.35		0.00	25.00
		25	0		22.38		1.00	24.00
		25	12		22.35		1.00	24.00
		25	25		22.35		1.00	24.00
		50	0		22.42		1.00	24.00
	16QAM	1	0		22.55		1.00	24.00
		1	25		22.55		1.00	24.00
		1	49		22.47		1.00	24.00
		25	0		21.33		2.00	23.00
		25	12		21.32		2.00	23.00
		25	25		21.30		2.00	23.00
		50	0		21.35		2.00	23.00
	64QAM	1	0		21.51		2.00	23.00
		1	25		21.56		2.00	23.00
		1	49		21.49		2.00	23.00
		25	0		20.42		3.00	22.00
		25	12		20.35		3.00	22.00
		25	25		20.37		3.00	22.00
		50	0		20.42		3.00	22.00
	256QAM	1	0		18.43		5.00	20.00
		1	25		18.58		5.00	20.00
		1	49		18.51		5.00	20.00
		25	0		18.39		5.00	20.00
		25	12		18.37		5.00	20.00
		25	25		18.38		5.00	20.00
		50	0		18.41		5.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23205.00	23230.00	23255.00		
				779.5 MHz	782 MHz	784.5 MHz		
5 MHz	QPSK	1	0		23.41		0.00	25.00
		1	12		23.45		0.00	25.00
		1	24		23.35		0.00	25.00
		12	0		22.32		1.00	24.00
		12	7		22.35		1.00	24.00
		12	13		22.40		1.00	24.00
		25	0		22.39		1.00	24.00
	16QAM	1	0		22.52		1.00	24.00
		1	12		22.55		1.00	24.00
		1	24		22.41		1.00	24.00
		12	0		21.36		2.00	23.00
		12	7		21.40		2.00	23.00
		12	13		21.42		2.00	23.00
		25	0		21.40		2.00	23.00
	64QAM	1	0		21.62		2.00	23.00
		1	12		21.64		2.00	23.00
		1	24		21.55		2.00	23.00
		12	0		20.36		3.00	22.00
		12	7		20.36		3.00	22.00
		12	13		20.41		3.00	22.00
		25	0		20.39		3.00	22.00
	256QAM	1	0		18.46		5.00	20.00
		1	12		18.59		5.00	20.00
		1	24		18.50		5.00	20.00
		12	0		18.36		5.00	20.00
		12	7		18.35		5.00	20.00
		12	13		18.41		5.00	20.00
		25	0		18.41		5.00	20.00

LTE Band 25 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)														
				DSI = 0, 2					DSI = 3					DSI = 1, 4				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590			26140	26365	26590			26140	26365	26590		
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	22.46	22.57	22.61	0.00	24.00	17.79	17.94	18.11	0.00	19.50	19.13	19.39	19.52	0.00	20.00
		1	49	22.47	22.56	22.62	0.00	24.00	17.86	18.13	18.14	0.00	19.50	19.24	19.49	19.52	0.00	20.00
		1	99	22.45	22.54	22.63	0.00	24.00	17.94	18.02	18.28	0.00	19.50	19.28	19.53	19.55	0.00	20.00
		50	0	21.45	21.55	21.62	1.00	23.00	17.85	18.05	18.19	0.00	19.50	19.26	19.48	19.56	0.00	20.00
		50	24	21.55	21.64	21.71	1.00	23.00	17.96	18.10	18.24	0.00	19.50	19.36	19.50	19.64	0.00	20.00
		50	50	21.50	21.62	21.70	1.00	23.00	17.95	18.14	18.23	0.00	19.50	19.35	19.56	19.63	0.00	20.00
		100	0	21.53	21.64	21.73	1.00	23.00	17.97	18.07	18.20	0.00	19.50	19.37	19.49	19.66	0.00	20.00
	16QAM	1	0	21.65	21.70	21.82	1.00	23.00	17.93	18.13	18.32	0.00	19.50	19.29	19.42	19.74	0.00	20.00
		1	49	21.72	21.77	21.89	1.00	23.00	18.13	18.25	18.50	0.00	19.50	19.45	19.57	19.77	0.00	20.00
		1	99	21.65	21.71	21.82	1.00	23.00	18.04	18.17	18.32	0.00	19.50	19.43	19.54	19.80	0.00	20.00
		50	0	20.46	20.51	20.61	2.00	22.00	17.68	17.88	17.97	0.00	19.50	19.25	19.46	19.54	0.00	20.00
		50	24	20.53	20.61	20.69	2.00	22.00	17.79	17.91	17.98	0.00	19.50	19.35	19.48	19.63	0.00	20.00
		50	50	20.51	20.58	20.68	2.00	22.00	17.76	17.94	18.06	0.00	19.50	19.32	19.52	19.65	0.00	20.00
		100	0	20.54	20.62	20.72	2.00	22.00	17.80	17.89	18.03	0.00	19.50	19.36	19.44	19.62	0.00	20.00
	64QAM	1	0	20.63	20.66	20.71	2.00	22.00	17.66	17.93	18.08	0.00	19.50	19.24	19.49	19.68	0.00	20.00
		1	49	20.67	20.73	20.79	2.00	22.00	17.83	18.03	18.14	0.00	19.50	19.39	19.60	19.73	0.00	20.00
		1	99	20.62	20.72	20.80	2.00	22.00	17.88	18.02	18.11	0.00	19.50	19.35	19.57	19.80	0.00	20.00
		50	0	19.44	19.54	19.60	3.00	21.00	17.66	17.88	17.97	0.00	19.50	19.25	19.45	19.53	0.00	20.00
		50	24	19.55	19.60	19.71	3.00	21.00	17.79	17.90	17.99	0.00	19.50	19.35	19.45	19.66	0.00	20.00
		50	50	19.48	19.58	19.68	3.00	21.00	17.77	17.96	18.07	0.00	19.50	19.31	19.52	19.64	0.00	20.00
		100	0	19.52	19.60	19.71	3.00	21.00	17.76	17.89	18.02	0.00	19.50	19.34	19.45	19.66	0.00	20.00
	256QAM	1	0	17.66	17.75	17.79	5.00	19.00	17.24	17.46	17.60	0.50	19.00	17.61	17.56	17.85	1.00	19.00
		1	49	17.68	17.74	17.75	5.00	19.00	17.23	17.72	17.64	0.50	19.00	17.51	17.63	17.85	1.00	19.00
		1	99	17.62	17.74	17.86	5.00	19.00	17.37	17.70	17.74	0.50	19.00	17.61	17.71	18.00	1.00	19.00
		50	0	17.45	17.52	17.60	5.00	19.00	17.17	17.39	17.47	0.50	19.00	17.61	17.53	17.64	1.00	19.00
		50	24	17.54	17.63	17.69	5.00	19.00	17.28	17.41	17.48	0.50	19.00	17.62	17.56	17.76	1.00	19.00
		50	50	17.52	17.61	17.70	5.00	19.00	17.28	17.52	17.55	0.50	19.00	17.61	17.62	17.76	1.00	19.00
		100	0	17.53	17.59	17.69	5.00	19.00	17.28	17.41	17.50	0.50	19.00	17.52	17.55	17.76	1.00	19.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115.00	26365.00	26615.00			26115.00	26365.00	26615.00			26115.00	26365.00	26615.00		
				1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	QPSK	1	0	22.31	22.40	22.54	0.00	24.00	17.63	17.83	17.94	0.00	19.50	18.07	18.26	18.36	0.00	20.00
		1	37	22.23	22.46	22.57	0.00	24.00	17.66	17.91	17.96	0.00	19.50	18.11	18.32	18.42	0.00	20.00
		1	74	22.28	22.35	22.56	0.00	24.00	17.77	17.85	17.96	0.00	19.50	18.17	18.24	18.34	0.00	20.00
		36	0	21.19	21.43	21.52	1.00	23.00	17.66	17.88	17.95	0.00	19.50	18.10	18.32	18.42	0.00	20.00
		36	20	21.25	21.43	21.51	1.00	23.00	17.74	17.88	17.95	0.00	19.50	18.18	18.33	18.40	0.00	20.00
		36	39	21.27	21.51	21.61	1.00	23.00	17.75	17.93	18.05	0.00	19.50	18.18	18.40	18.52	0.00	20.00
		75	0	21.28	21.45	21.54	1.00	23.00	17.75	17.87	18.05	0.00	19.50	18.17	18.32	18.44	0.00	20.00
	16QAM	1	0	21.48	21.80	21.88	1.00	23.00	18.05	18.12	18.25	0.00	19.50	18.44	18.71	18.63	0.00	20.00
		1	37	21.44	21.86	21.95	1.00	23.00	17.96	18.12	18.31	0.00	19.50	18.41	18.70	18.67	0.00	20.00
		1	74	21.57	21.73	21.94	1.00	23.00	18.09	18.10	18.29	0.00	19.50	18.48	18.71	18.66	0.00	20.00
		36	0	20.23	20.45	20.55	2.00	22.00	17.70	17.88	17.97	0.00	19.50	18.11	18.36	18.41	0.00	20.00
		36	20	20.29	20.44	20.54	2.00	22.00	17.76	17.89	17.95	0.00	19.50	18.17	18.36	18.44	0.00	20.00
		36	39	20.30	20.53	20.65	2.00	22.00	17.77	17.99	18.05	0.00	19.50	18.18	18.45	18.55	0.00	20.00
		75	0	20.28	20.43	20.54	2.00	22.00	17.76	17.90	18.07	0.00	19.50	18.18	18.36	18.45	0.00	20.00
	64QAM	1	0	20.41	20.45	20.61	2.00	22.00	17.93	18.00	18.11	0.00	19.50	18.28	18.45	18.62	0.00	20.00
		1	37	20.38	20.61	20.67	2.00	22.00	17.88	18.09	18.12	0.00	19.50	18.32	18.48	18.60	0.00	20.00
		1	74	20.38	20.54	20.67	2.00	22.00	17.99	18.05	18.03	0.00	19.50	18.38	18.46	18.61	0.00	20.00
		36	0	19.18	19.41	19.50	3.00	21.00	17.65	17.88	17.96	0.00	19.50	18.11	18.35	18.43	0.00	20.00
		36	20	19.23	19.43	19.52	3.00	21.00	17.73	17.86	17.97	0.00	19.50	18.19	18.33	18.43	0.00	20.00
		36	39	19.26	19.49	19.58	3.00	21.00	17.73	17.94	18.05	0.00	19.50	18.21	18.42	18.52	0.00	20.00
		75	0	19.26	19.44	19.51	3.00	21.00	17.78	17.88	18.04	0.00	19.50	18.20	18.32	18.44	0.00	20.00
	256QAM	1	0	17.19	17.32	17.58	5.00	19.00	17.25	17.43	17.51	0.50	19.00	17.51	17.51	17.63	1.00	19.00
		1	37	17.31	17.44	17.65	5.00	19.00	17.31	17.55	17.60	0.50	19.00	17.52	17.61	17.72	1.00	19.00
		1	74	17.35	17.48	17.70	5.00	19.00	17.36	17.57	17.67	0.50	19.00	17.53	17.70	17.75	1.00	19.00
		36	0	17.19	17.42	17.50	5.00	19.00	17.16	17.39	17.48	0.50	19.00	17.51	17.74	17.56	1.00	19.00
		36	20	17.26	17.39	17.51	5.00	19.00	17.25	17.38	17.44	0.50	19.00	17.54	17.72	17.54	1.00	19.00
		36	39	17.24	17.47	17.59	5.00	19.00	17.24	17.44	17.55	0.50	19.00	17.52	17.56	17.63	1.00	19.00
		75	0	17.27	17.40	17.52	5.00	19.00	17.23	17.39	17.53	0.50	19.00	17.53	17.54	17.56	1.00	19.00

LTE Band 25 Measured Results_(Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26090.00	26365.00	26640.00			26090.00	26365.00	26640.00			26090.00	26365.00	26640.00		
				1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	QPSK	1	0	22.33	22.53	22.69	0.00	24.00	17.76	18.06	18.17	0.00	19.50	18.24	18.43	18.64	0.00	20.00
		1	25	22.44	22.66	22.76	0.00	24.00	17.84	18.16	18.18	0.00	19.50	18.29	18.50	18.67	0.00	20.00
		1	49	22.35	22.63	22.69	0.00	24.00	17.77	18.08	18.15	0.00	19.50	18.25	18.45	18.65	0.00	20.00
		25	0	21.30	21.57	21.66	1.00	23.00	17.73	18.04	18.10	0.00	19.50	18.23	18.43	18.57	0.00	20.00
		25	12	21.41	21.57	21.68	1.00	23.00	17.84	18.08	18.14	0.00	19.50	18.32	18.45	18.61	0.00	20.00
		25	25	21.40	21.64	21.76	1.00	23.00	17.85	18.13	18.18	0.00	19.50	18.29	18.51	18.67	0.00	20.00
		50	0	21.41	21.56	21.66	1.00	23.00	17.87	18.07	18.17	0.00	19.50	18.31	18.43	18.61	0.00	20.00
	16QAM	1	0	21.66	21.97	22.00	1.00	23.00	18.08	18.25	18.50	0.00	19.50	18.56	18.83	18.91	0.00	20.00
		1	25	21.68	22.01	22.11	1.00	23.00	18.19	18.44	18.51	0.00	19.50	18.62	18.90	18.92	0.00	20.00
		1	49	21.70	22.14	22.06	1.00	23.00	18.17	18.35	18.52	0.00	19.50	18.66	18.92	18.87	0.00	20.00
		25	0	20.32	20.56	20.63	2.00	22.00	17.76	18.03	18.16	0.00	19.50	18.25	18.40	18.55	0.00	20.00
		25	12	20.44	20.58	20.67	2.00	22.00	17.89	18.05	18.19	0.00	19.50	18.35	18.44	18.58	0.00	20.00
		25	25	20.42	20.65	20.73	2.00	22.00	17.87	18.11	18.27	0.00	19.50	18.33	18.49	18.65	0.00	20.00
		50	0	20.41	20.55	20.67	2.00	22.00	17.90	18.02	18.13	0.00	19.50	18.34	18.42	18.58	0.00	20.00
	64QAM	1	0	20.55	20.64	20.79	2.00	22.00	17.97	18.29	18.25	0.00	19.50	18.48	18.67	18.80	0.00	20.00
		1	25	20.67	20.74	20.86	2.00	22.00	17.99	18.34	18.32	0.00	19.50	18.55	18.78	18.83	0.00	20.00
		1	49	20.59	20.68	20.83	2.00	22.00	17.95	18.25	18.29	0.00	19.50	18.49	18.69	18.82	0.00	20.00
		25	0	19.30	19.52	19.55	3.00	21.00	17.78	18.04	18.13	0.00	19.50	18.23	18.50	18.57	0.00	20.00
		25	12	19.44	19.57	19.64	3.00	21.00	17.88	18.05	18.14	0.00	19.50	18.34	18.53	18.61	0.00	20.00
		25	25	19.38	19.62	19.71	3.00	21.00	17.88	18.12	18.22	0.00	19.50	18.30	18.58	18.65	0.00	20.00
		50	0	19.40	19.53	19.65	3.00	21.00	17.88	18.02	18.14	0.00	19.50	18.34	18.47	18.60	0.00	20.00
	256QAM	1	0	17.31	17.57	17.73	5.00	19.00	17.30	17.62	17.76	0.50	19.00	17.50	17.72	17.75	1.00	19.00
		1	25	17.46	17.72	17.84	5.00	19.00	17.45	17.73	17.87	0.50	19.00	17.62	17.89	17.87	1.00	19.00
		1	49	17.43	17.69	17.80	5.00	19.00	17.40	17.68	17.75	0.50	19.00	17.59	17.81	17.79	1.00	19.00
		25	0	17.30	17.52	17.62	5.00	19.00	17.31	17.57	17.62	0.50	19.00	17.54	17.60	17.68	1.00	19.00
		25	12	17.39	17.53	17.69	5.00	19.00	17.40	17.60	17.64	0.50	19.00	17.52	17.62	17.71	1.00	19.00
		25	25	17.38	17.61	17.70	5.00	19.00	17.38	17.64	17.72	0.50	19.00	17.51	17.67	17.78	1.00	19.00
		50	0	17.37	17.53	17.64	5.00	19.00	17.39	17.55	17.65	0.50	19.00	17.50	17.56	17.68	1.00	19.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26065.00	26365.00	26665.00			26065.00	26365.00	26665.00			26065.00	26365.00	26665.00		
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	QPSK	1	0	22.33	22.54	22.73	0.00	24.00	17.70	18.01	18.16	0.00	19.50	18.22	18.39	18.63	0.00	20.00
		1	12	22.40	22.66	22.77	0.00	24.00	17.79	18.13	18.18	0.00	19.50	18.35	18.53	18.70	0.00	20.00
		1	24	22.34	22.61	22.75	0.00	24.00	17.73	18.05	18.16	0.00	19.50	18.24	18.47	18.64	0.00	20.00
		12	0	21.31	21.55	21.67	1.00	23.00	17.75	18.05	18.09	0.00	19.50	18.22	18.43	18.61	0.00	20.00
		12	7	21.43	21.55	21.78	1.00	23.00	17.87	18.11	18.19	0.00	19.50	18.30	18.48	18.74	0.00	20.00
		12	13	21.42	21.62	21.77	1.00	23.00	17.84	18.15	18.18	0.00	19.50	18.30	18.50	18.70	0.00	20.00
		25	0	21.37	21.54	21.77	1.00	23.00	17.79	18.03	18.20	0.00	19.50	18.30	18.43	18.69	0.00	20.00
	16QAM	1	0	21.70	21.89	22.18	1.00	23.00	18.11	18.37	18.43	0.00	19.50	18.50	18.83	19.02	0.00	20.00
		1	12	21.76	22.09	22.29	1.00	23.00	18.27	18.42	18.46	0.00	19.50	18.60	18.89	19.10	0.00	20.00
		1	24	21.74	21.95	22.18	1.00	23.00	18.15	18.44	18.36	0.00	19.50	18.65	18.87	19.02	0.00	20.00
		12	0	20.34	20.62	20.65	2.00	22.00	17.76	18.05	18.09	0.00	19.50	18.36	18.42	18.62	0.00	20.00
		12	7	20.46	20.65	20.75	2.00	22.00	17.89	18.09	18.20	0.00	19.50	18.46	18.46	18.72	0.00	20.00
		12	13	20.42	20.70	20.72	2.00	22.00	17.87	18.12	18.18	0.00	19.50	18.44	18.49	18.71	0.00	20.00
		25	0	20.39	20.53	20.80	2.00	22.00	17.87	18.03	18.18	0.00	19.50	18.33	18.45	18.71	0.00	20.00
	64QAM	1	0	20.44	20.75	20.90	2.00	22.00	17.81	18.09	18.42	0.00	19.50	18.42	18.59	18.77	0.00	20.00
		1	12	20.51	20.83	20.97	2.00	22.00	17.93	18.22	18.44	0.00	19.50	18.49	18.66	18.85	0.00	20.00
		1	24	20.42	20.79	20.91	2.00	22.00	17.86	18.12	18.37	0.00	19.50	18.41	18.60	18.80	0.00	20.00
		12	0	19.33	19.55	19.70	3.00	21.00	17.78	18.02	18.18	0.00	19.50	18.20	18.47	18.62	0.00	20.00
		12	7	19.43	19.60	19.82	3.00	21.00	17.89	18.06	18.28	0.00	19.50	18.31	18.52	18.73	0.00	20.00
		12	13	19.40	19.62	19.78	3.00	21.00	17.86	18.11	18.26	0.00	19.50	18.31	18.55	18.73	0.00	20.00
		25	0	19.36	19.53	19.78	3.00	21.00	17.84	18.03	18.23	0.00	19.50	18.30	18.49	18.67	0.00	20.00
	256QAM	1	0	17.36	17.54	17.76	5.00	19.00	17.45	17.57	17.63	0.50	19.00	17.51	17.72	17.73	1.00	19.00
		1	12	17.49	17.75	17.91	5.00	19.00	17.63	17.69	17.81	0.50	19.00	17.59	17.88	17.90	1.00	19.00
		1	24	17.41	17.64	17.82	5.00	19.00	17.56	17.65	17.74	0.50	19.00	17.53	17.82	17.81	1.00	19.00
		12	0	17.29	17.54	17.68	5.00	19.00	17.29	17.53	17.67	0.50	19.00	17.51	17.56	17.74	1.00	19.00
		12	7	17.41	17.58	17.80	5.00	19.00	17.39	17.56	17.77	0.50	19.00	17.52	17.59	17.85	1.00	19.00
		12	13	17.39	17.64	17.76	5.00	19.00	17.37	17.63	17.72	0.50	19.00	17.53	17.62	17.80	1.00	19.00
		25	0	17.38	17.52	17.75	5.00	19.00	17.34	17.52	17.73	0.50	19.00	17.54	17.58	17.80	1.00	19.00

LTE Band 25 Measured Results_(Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26055.00	26365.00	26675.00			26055.00	26365.00	26675.00			26055.00	26365.00	26675.00		
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	22.33	22.52	22.71	0.00	24.00	17.69	18.01	18.05	0.00	19.50	18.19	18.40	18.60	0.00	20.00
		1	8	22.45	22.63	22.83	0.00	24.00	17.80	18.13	18.18	0.00	19.50	18.31	18.52	18.72	0.00	20.00
		1	14	22.33	22.55	22.74	0.00	24.00	17.73	18.02	18.09	0.00	19.50	18.21	18.44	18.62	0.00	20.00
		8	0	21.38	21.54	21.70	1.00	23.00	17.79	18.02	18.08	0.00	19.50	18.30	18.43	18.58	0.00	20.00
		8	4	21.41	21.59	21.81	1.00	23.00	17.85	18.05	18.21	0.00	19.50	18.32	18.45	18.71	0.00	20.00
		8	7	21.42	21.66	21.81	1.00	23.00	17.86	18.16	18.20	0.00	19.50	18.30	18.54	18.71	0.00	20.00
		15	0	21.41	21.54	21.76	1.00	23.00	17.80	18.02	18.17	0.00	19.50	18.27	18.43	18.68	0.00	20.00
	16QAM	1	0	21.61	21.98	22.04	1.00	23.00	18.02	18.33	18.41	0.00	19.50	18.50	18.84	18.82	0.00	20.00
		1	8	21.77	22.06	22.14	1.00	23.00	18.05	18.43	18.50	0.00	19.50	18.61	18.94	18.88	0.00	20.00
		1	14	21.70	22.02	22.03	1.00	23.00	18.07	18.28	18.42	0.00	19.50	18.58	18.87	18.86	0.00	20.00
		8	0	20.47	20.62	20.82	2.00	22.00	17.88	18.03	18.12	0.00	19.50	18.37	18.51	18.61	0.00	20.00
		8	4	20.50	20.64	20.91	2.00	22.00	17.92	18.09	18.24	0.00	19.50	18.39	18.57	18.72	0.00	20.00
		8	7	20.53	20.74	20.90	2.00	22.00	17.91	18.16	18.27	0.00	19.50	18.42	18.64	18.73	0.00	20.00
		15	0	20.40	20.56	20.80	2.00	22.00	17.90	18.01	18.15	0.00	19.50	18.35	18.46	18.67	0.00	20.00
	64QAM	1	0	20.51	20.63	20.89	2.00	22.00	17.85	18.18	18.27	0.00	19.50	18.35	18.65	18.73	0.00	20.00
		1	8	20.54	20.80	21.05	2.00	22.00	18.05	18.25	18.41	0.00	19.50	18.55	18.76	18.83	0.00	20.00
		1	14	20.48	20.71	20.86	2.00	22.00	17.92	18.19	18.28	0.00	19.50	18.37	18.63	18.75	0.00	20.00
		8	0	19.41	19.54	19.71	3.00	21.00	17.85	18.03	18.14	0.00	19.50	18.31	18.46	18.65	0.00	20.00
		8	4	19.46	19.56	19.81	3.00	21.00	17.89	18.07	18.25	0.00	19.50	18.36	18.48	18.77	0.00	20.00
		8	7	19.43	19.66	19.80	3.00	21.00	17.87	18.12	18.20	0.00	19.50	18.36	18.55	18.77	0.00	20.00
		15	0	19.36	19.52	19.75	3.00	21.00	17.88	17.99	18.19	0.00	19.50	18.25	18.43	18.71	0.00	20.00
	256QAM	1	0	17.36	17.60	17.68	5.00	19.00	17.30	17.55	17.66	0.50	19.00	17.50	17.64	17.81	1.00	19.00
		1	8	17.50	17.80	17.85	5.00	19.00	17.48	17.75	17.80	0.50	19.00	17.53	17.91	17.94	1.00	19.00
		1	14	17.46	17.67	17.73	5.00	19.00	17.39	17.68	17.80	0.50	19.00	17.54	17.76	17.83	1.00	19.00
		8	0	17.35	17.54	17.64	5.00	19.00	17.36	17.54	17.60	0.50	19.00	17.53	17.56	17.70	1.00	19.00
		8	4	17.42	17.57	17.80	5.00	19.00	17.38	17.58	17.75	0.50	19.00	17.52	17.60	17.84	1.00	19.00
		8	7	17.40	17.63	17.83	5.00	19.00	17.36	17.65	17.78	0.50	19.00	17.53	17.70	17.82	1.00	19.00
		15	0	17.35	17.51	17.78	5.00	19.00	17.35	17.51	17.72	0.50	19.00	17.54	17.57	17.78	1.00	19.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26047.00	26365.00	26683.00			26047.00	26365.00	26683.00			26047.00	26365.00	26683.00		
				1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz		
1.4 MHz	QPSK	1	0	22.32	22.49	22.64	0.00	24.00	17.80	18.02	18.17	0.00	19.50	18.20	18.49	18.72	0.00	20.00
		1	3	22.32	22.60	22.79	0.00	24.00	17.84	18.12	18.19	0.00	19.50	18.23	18.49	18.75	0.00	20.00
		1	5	22.27	22.59	22.76	0.00	24.00	17.81	18.06	18.16	0.00	19.50	18.21	18.48	18.70	0.00	20.00
		3	0	22.33	22.55	22.76	0.00	24.00	17.78	18.05	18.13	0.00	19.50	18.24	18.43	18.70	0.00	20.00
		3	1	22.32	22.59	22.75	0.00	24.00	17.78	18.10	18.18	0.00	19.50	18.25	18.50	18.74	0.00	20.00
		3	3	22.34	22.57	22.76	0.00	24.00	17.79	18.10	18.14	0.00	19.50	18.21	18.47	18.72	0.00	20.00
		6	0	21.30	21.47	21.77	1.00	23.00	17.81	18.01	18.15	0.00	19.50	18.23	18.40	18.71	0.00	20.00
	16QAM	1	0	21.51	21.80	22.12	1.00	23.00	18.01	18.18	18.34	0.00	19.50	18.39	18.79	18.99	0.00	20.00
		1	3	21.45	21.92	22.17	1.00	23.00	18.05	18.29	18.46	0.00	19.50	18.42	18.85	19.00	0.00	20.00
		1	5	21.47	21.85	22.07	1.00	23.00	17.97	18.22	18.41	0.00	19.50	18.42	18.84	18.96	0.00	20.00
		3	0	21.44	21.66	21.94	1.00	23.00	17.93	18.18	18.25	0.00	19.50	18.36	18.60	18.84	0.00	20.00
		3	1	21.39	21.68	21.94	1.00	23.00	17.93	18.22	18.28	0.00	19.50	18.32	18.69	18.81	0.00	20.00
		3	3	21.43	21.77	21.97	1.00	23.00	17.97	18.22	18.21	0.00	19.50	18.33	18.69	18.82	0.00	20.00
		6	0	20.31	20.46	20.88	2.00	22.00	17.86	17.99	18.15	0.00	19.50	18.31	18.50	18.69	0.00	20.00
	64QAM	1	0	20.53	20.50	20.93	2.00	22.00	17.93	18.17	18.39	0.00	19.50	18.39	18.63	18.78	0.00	20.00
		1	3	20.46	20.64	20.94	2.00	22.00	17.96	18.27	18.43	0.00	19.50	18.41	18.79	18.85	0.00	20.00
		1	5	20.53	20.58	20.92	2.00	22.00	17.88	18.21	18.42	0.00	19.50	18.38	18.76	18.79	0.00	20.00
		3	0	20.33	20.65	20.81	2.00	22.00	17.81	18.03	18.24	0.00	19.50	18.35	18.67	18.69	0.00	20.00
		3	1	20.32	20.70	20.83	2.00	22.00	17.80	18.01	18.23	0.00	19.50	18.40	18.71	18.70	0.00	20.00
		3	3	20.34	20.70	20.82	2.00	22.00	17.81	18.05	18.23	0.00	19.50	18.38	18.69	18.70	0.00	20.00
		6	0	19.30	19.49	19.86	3.00	21.00	17.87	18.02	18.12	0.00	19.50	18.33	18.51	18.68	0.00	20.00
	256QAM	1	0	17.35	17.55	17.82	5.00	19.00	17.31	17.56	17.70	0.50	19.00	17.52	17.61	17.87	1.00	19.00
		1	3	17.36	17.75	17.82	5.00	19.00	17.37	17.73	17.73	0.50	19.00	17.55	17.78	17.85	1.00	19.00
		1	5	17.38	17.63	17.81	5.00	19.00	17.32	17.69	17.70	0.50	19.00	17.52	17.65	17.86	1.00	19.00
		3	0	17.42	17.59	17.80	5.00	19.00	17.33	17.56	17.72	0.50	19.00	17.51	17.56	17.82	1.00	19.00
		3	1	17.40	17.67	17.77	5.00	19.00	17.32	17.66	17.70	0.50	19.00	17.51	17.64	17.83	1.00	19.00
		3	3	17.36	17.66	17.78	5.00	19.00	17.28	17.68	17.70	0.50	19.00	17.52	17.69	17.84	1.00	19.00
		6	0	17.18	17.37	17.80	5.00	19.00	17.44	17.48	17.61	0.50	19.00	17.51	17.56	17.79	1.00	19.00

LTE Band 26 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)					
				DSI = 0, 1, 2, 3, 4					
				Measured Pwr (dBm)				MPR	Tune-up Limit
				26765	26790	26865	26965		
				821.5 MHz	824 MHz	831.5 MHz	841.5 MHz		
15 MHz	QPSK	1	0		24.10	23.90		0.00	25.00
		1	37		24.05	23.76		0.00	25.00
		1	74		23.96	23.68		0.00	25.00
		36	0		23.10	22.92		1.00	24.00
		36	20		23.08	22.85		1.00	24.00
		36	39		23.07	22.83		1.00	24.00
		75	0		23.07	22.87		1.00	24.00
	16QAM	1	0		23.39	23.04		1.00	24.00
		1	37		23.38	22.96		1.00	24.00
		1	74		23.21	22.84		1.00	24.00
		36	0		22.13	21.93		2.00	23.00
		36	20		22.10	21.86		2.00	23.00
		36	39		22.10	21.84		2.00	23.00
		75	0		22.11	21.87		2.00	23.00
	64QAM	1	0		22.32	22.05		2.00	23.00
		1	37		22.27	21.99		2.00	23.00
		1	74		22.11	21.91		2.00	23.00
		36	0		21.14	20.92		3.00	22.00
		36	20		21.09	20.87		3.00	22.00
		36	39		21.06	20.86		3.00	22.00
		75	0		21.08	20.89		3.00	22.00
	256QAM	1	0		19.26	19.07		5.00	20.00
		1	37		19.19	18.96		5.00	20.00
		1	74		19.24	18.98		5.00	20.00
		36	0		19.14	18.94		5.00	20.00
		36	20		19.10	18.88		5.00	20.00
		36	39		19.06	18.85		5.00	20.00
		75	0		19.12	18.90		5.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26740.00	26790.00	26865.00	26990.00		
				819 MHz	824 MHz	831.5 MHz	844 MHz		
10 MHz	QPSK	1	0	24.19	24.25	24.08	23.98	0.00	25.00
		1	25	24.20	24.25	24.07	23.99	0.00	25.00
		1	49	24.08	24.13	23.98	23.91	0.00	25.00
		25	0	23.19	23.25	23.00	22.89	1.00	24.00
		25	12	23.16	23.25	23.07	22.96	1.00	24.00
		25	25	23.15	23.22	23.02	22.94	1.00	24.00
		50	0	23.16	23.21	23.09	22.94	1.00	24.00
	16QAM	1	0	23.36	23.62	23.23	23.15	1.00	24.00
		1	25	23.35	23.60	23.25	23.10	1.00	24.00
		1	49	23.20	23.51	23.15	23.00	1.00	24.00
		25	0	22.19	22.29	21.99	21.90	2.00	23.00
		25	12	22.17	22.26	22.09	21.98	2.00	23.00
		25	25	22.16	22.23	22.05	21.93	2.00	23.00
		50	0	22.16	22.25	22.05	21.95	2.00	23.00
	64QAM	1	0	22.49	22.46	22.27	22.90	2.00	23.00
		1	25	22.45	22.44	22.27	22.07	2.00	23.00
		1	49	22.37	22.35	22.18	22.06	2.00	23.00
		25	0	21.20	21.23	20.99	20.88	3.00	22.00
		25	12	21.22	21.28	21.07	20.91	3.00	22.00
		25	25	21.16	21.22	21.07	20.90	3.00	22.00
		50	0	21.22	21.21	21.08	20.84	3.00	22.00
	256QAM	1	0	19.27	19.39	19.15	19.01	5.00	20.00
		1	25	19.37	19.38	19.24	19.10	5.00	20.00
		1	49	19.27	19.35	19.17	19.08	5.00	20.00
		25	0	19.22	19.25	19.00	18.89	5.00	20.00
		25	12	19.23	19.25	19.06	18.87	5.00	20.00
		25	25	19.18	19.23	19.05	18.88	5.00	20.00
		50	0	19.19	19.24	19.06	18.86	5.00	20.00

Note(s):

For Orange box's output power results, There are measured for test of Part.90.

LTE Band 26 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26715.00	26790.00	26865.00	27015.00		
				816.5 MHz	824 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	24.21	24.20	24.06	23.93	0.00	25.00
		1	12	24.26	24.24	24.08	23.97	0.00	25.00
		1	24	24.17	24.15	24.02	23.92	0.00	25.00
		12	0	23.20	23.20	23.01	22.81	1.00	24.00
		12	7	23.23	23.23	23.12	22.95	1.00	24.00
		12	13	23.20	23.19	23.09	22.93	1.00	24.00
		25	0	23.19	23.19	23.07	22.92	1.00	24.00
	16QAM	1	0	23.28	23.71	23.17	23.10	1.00	24.00
		1	12	23.32	23.79	23.29	23.21	1.00	24.00
		1	24	23.21	23.60	23.21	23.16	1.00	24.00
		12	0	22.14	22.22	22.07	21.84	2.00	23.00
		12	7	22.16	22.23	22.22	21.99	2.00	23.00
		12	13	22.16	22.21	22.15	21.94	2.00	23.00
		25	0	22.21	22.24	22.05	21.93	2.00	23.00
	64QAM	1	0	22.29	22.34	22.19	22.06	2.00	23.00
		1	12	22.32	22.36	22.25	22.11	2.00	23.00
		1	24	22.24	22.31	22.20	22.05	2.00	23.00
		12	0	21.22	21.25	20.99	20.83	3.00	22.00
		12	7	21.25	21.28	21.13	20.95	3.00	22.00
		12	13	21.22	21.25	21.07	20.93	3.00	22.00
		25	0	21.18	21.23	21.07	20.93	3.00	22.00
	256QAM	1	0	19.30	19.40	19.07	19.05	5.00	20.00
		1	12	19.36	19.45	19.21	19.18	5.00	20.00
		1	24	19.27	19.36	19.11	19.13	5.00	20.00
		12	0	19.18	19.23	19.02	18.85	5.00	20.00
		12	7	19.25	19.25	19.13	18.97	5.00	20.00
		12	13	19.19	19.23	19.10	18.92	5.00	20.00
		25	0	19.20	19.19	19.06	18.93	5.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26705.00	26790.00	26865.00	27025.00		
				815.5 MHz	824 MHz	831.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.21	24.19	24.05	23.92	0.00	25.00
		1	8	24.23	24.24	24.10	24.00	0.00	25.00
		1	14	24.14	24.16	23.99	23.86	0.00	25.00
		8	0	23.19	23.23	23.08	22.83	1.00	24.00
		8	4	23.24	23.23	23.09	22.88	1.00	24.00
		8	7	23.21	23.23	23.09	22.97	1.00	24.00
		15	0	23.20	23.21	23.04	22.85	1.00	24.00
	16QAM	1	0	23.39	23.51	23.25	23.08	1.00	24.00
		1	8	23.37	23.62	23.29	23.16	1.00	24.00
		1	14	23.29	23.46	23.13	23.04	1.00	24.00
		8	0	22.22	22.29	22.13	21.88	2.00	23.00
		8	4	22.29	22.30	22.18	21.92	2.00	23.00
		8	7	22.25	22.33	22.17	22.02	2.00	23.00
		15	0	22.19	22.29	22.07	21.88	2.00	23.00
	64QAM	1	0	22.42	22.38	22.21	22.07	2.00	23.00
		1	8	22.49	22.45	22.30	22.16	2.00	23.00
		1	14	22.38	22.35	22.19	22.10	2.00	23.00
		8	0	21.19	21.22	21.12	20.86	3.00	22.00
		8	4	21.25	21.30	21.14	20.89	3.00	22.00
		8	7	21.19	21.27	21.12	20.96	3.00	22.00
		15	0	21.17	21.22	21.07	20.84	3.00	22.00
	256QAM	1	0	19.22	19.25	19.18	18.94	5.00	20.00
		1	8	19.35	19.37	19.27	19.09	5.00	20.00
		1	14	19.21	19.31	19.18	18.97	5.00	20.00
		8	0	19.22	19.28	19.06	18.83	5.00	20.00
		8	4	19.28	19.23	19.09	18.88	5.00	20.00
		8	7	19.24	19.25	19.06	18.95	5.00	20.00
		15	0	19.21	19.23	19.06	18.84	5.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit
				26697.00	26790.00	26865.00	27033.00		
				814.7 MHz	824 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.19	24.20	24.03	23.89	0.00	25.00
		1	3	24.21	24.19	24.09	23.93	0.00	25.00
		1	5	24.19	24.17	24.05	23.89	0.00	25.00
		3	0	24.18	24.18	24.07	23.91	0.00	25.00
		3	1	24.21	24.20	24.05	23.89	0.00	25.00
		3	3	24.21	24.18	24.04	23.92	0.00	25.00
		6	0	22.69	22.65	22.52	22.50	1.00	24.00
	16QAM	1	0	23.32	23.38	23.29	23.10	1.00	24.00
		1	3	23.28	23.47	23.26	23.07	1.00	24.00
		1	5	23.26	23.36	23.21	23.06	1.00	24.00
		3	0	23.25	23.34	23.11	23.00	1.00	24.00
		3	1	23.31	23.37	23.15	23.01	1.00	24.00
		3	3	23.26	23.35	23.14	23.01	1.00	24.00
		6	0	22.21	22.21	21.96	21.85	2.00	23.00
	64QAM	1	0	22.30	22.32	22.23	22.17	2.00	23.00
		1	3	22.30	22.34	22.25	22.16	2.00	23.00
		1	5	22.26	22.29	22.22	22.15	2.00	23.00
		3	0	22.28	22.28	22.13	21.97	2.00	23.00
		3	1	22.29	22.29	22.12	21.99	2.00	23.00
		3	3	22.28	22.29	22.13	21.99	2.00	23.00
		6	0	21.11	21.23	21.07	20.88	3.00	22.00
	256QAM	1	0	19.31	19.33	19.17	18.97	5.00	20.00
		1	3	19.32	19.35	19.21	19.00	5.00	20.00
		1	5	19.31	19.28	19.17	18.99	5.00	20.00
		3	0	19.21	19.18	19.08	18.91	5.00	20.00
		3	1	19.20	19.18	19.09	18.88	5.00	20.00
		3	3	19.21	19.23	19.09	18.91	5.00	20.00
		6	0	19.16	19.25	18.95	18.99	5.00	20.00

Note(s):

For Orange box's output power results, There are measured for test of Part.90.

LTE Band 66 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)													
				DSI = 0, 2					DSI = 3					DSI = 1, 4			
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572			132072	132322	132572			132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	22.64	22.50	22.42	0.00	24.00	17.43	17.41	17.33	0.00	19.00	18.53	18.33	18.28	0.00	20.0
		1	49	22.56	22.41	22.41	0.00	24.00	17.36	17.36	17.34	0.00	19.00	18.42	18.28	18.25	0.00	20.0
		1	99	22.56	22.41	22.35	0.00	24.00	17.42	17.34	17.23	0.00	19.00	18.36	18.35	18.21	0.00	20.0
		50	0	21.69	21.51	21.44	1.00	23.00	17.52	17.36	17.35	0.00	19.00	18.54	18.43	18.29	0.00	20.0
		50	24	21.66	21.48	21.44	1.00	23.00	17.51	17.37	17.36	0.00	19.00	18.51	18.36	18.28	0.00	20.0
		50	50	21.62	21.46	21.48	1.00	23.00	17.46	17.42	17.40	0.00	19.00	18.41	18.33	18.33	0.00	20.0
		100	0	21.66	21.50	21.42	1.00	23.00	17.48	17.35	17.32	0.00	19.00	18.45	18.38	18.28	0.00	20.0
	16QAM	1	0	21.83	21.59	21.60	1.00	23.00	17.71	17.81	17.69	0.00	19.00	18.82	18.82	18.59	0.00	20.0
		1	49	21.78	21.55	21.64	1.00	23.00	17.68	17.85	17.82	0.00	19.00	18.80	18.77	18.68	0.00	20.0
		1	99	21.71	21.50	21.52	1.00	23.00	17.69	17.77	17.65	0.00	19.00	18.69	18.70	18.52	0.00	20.0
		50	0	20.67	20.49	20.42	2.00	22.00	17.41	17.39	17.38	0.00	19.00	18.54	18.39	18.29	0.00	20.0
		50	24	20.65	20.48	20.42	2.00	22.00	17.52	17.40	17.38	0.00	19.00	18.54	18.39	18.30	0.00	20.0
		50	50	20.62	20.47	20.49	2.00	22.00	17.50	17.43	17.43	0.00	19.00	18.43	18.35	18.33	0.00	20.0
		100	0	20.63	20.50	20.43	2.00	22.00	17.47	17.36	17.33	0.00	19.00	18.44	18.36	18.27	0.00	20.0
	64QAM	1	0	20.91	20.76	20.61	2.00	22.00	17.70	17.62	17.60	0.00	19.00	18.76	18.59	18.43	0.00	20.0
		1	49	20.76	20.64	20.64	2.00	22.00	17.68	17.65	17.64	0.00	19.00	18.73	18.52	18.45	0.00	20.0
		1	99	20.69	20.66	20.52	2.00	22.00	17.64	17.72	17.54	0.00	19.00	18.55	18.55	18.40	0.00	20.0
		50	0	19.66	19.51	19.43	3.00	21.00	17.50	17.47	17.46	0.00	19.00	18.56	18.42	18.32	0.00	20.0
		50	24	19.66	19.50	19.44	3.00	21.00	17.58	17.47	17.47	0.00	19.00	18.56	18.41	18.31	0.00	20.0
		50	50	19.63	19.50	19.49	3.00	21.00	17.55	17.54	17.54	0.00	19.00	18.45	18.39	18.35	0.00	20.0
		100	0	19.67	19.49	19.42	3.00	21.00	17.57	17.44	17.45	0.00	19.00	18.47	18.40	18.28	0.00	20.0
	256QAM	1	0	17.73	17.69	17.62	5.00	19.00	17.70	17.72	17.49	0.00	19.00	17.76	17.74	17.57	1.00	19.0
		1	49	17.58	17.65	17.66	5.00	19.00	17.75	17.63	17.51	0.00	19.00	17.60	17.67	17.51	1.00	19.0
		1	99	17.66	17.59	17.70	5.00	19.00	17.73	17.69	17.57	0.00	19.00	17.66	17.65	17.63	1.00	19.0
		50	0	17.67	17.51	17.44	5.00	19.00	17.52	17.50	17.47	0.00	19.00	17.63	17.52	17.51	1.00	19.0
		50	24	17.67	17.53	17.47	5.00	19.00	17.57	17.46	17.52	0.00	19.00	17.66	17.51	17.52	1.00	19.0
		50	50	17.62	17.48	17.50	5.00	19.00	17.55	17.54	17.54	0.00	19.00	17.53	17.50	17.53	1.00	19.0
		100	0	17.65	17.52	17.42	5.00	19.00	17.57	17.47	17.48	0.00	19.00	17.55	17.51	17.50	1.00	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047.00	132322.00	132597.00			132047.00	132322.00	132597.00			132047.00	132322.00	132597.00		
				1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	QPSK	1	0	22.62	22.44	22.42	0.00	24.00	17.36	17.29	17.34	0.00	19.00	18.45	18.30	18.30	0.00	20.0
		1	37	22.56	22.40	22.46	0.00	24.00	17.34	17.31	17.32	0.00	19.00	18.41	18.27	18.30	0.00	20.0
		1	74	22.58	22.45	22.45	0.00	24.00	17.38	17.33	17.26	0.00	19.00	18.42	18.27	18.24	0.00	20.0
		36	0	21.66	21.47	21.44	1.00	23.00	17.39	17.32	17.34	0.00	19.00	18.52	18.37	18.30	0.00	20.0
		36	20	21.63	21.45	21.44	1.00	23.00	17.42	17.32	17.31	0.00	19.00	18.49	18.32	18.30	0.00	20.0
		36	39	21.60	21.46	21.51	1.00	23.00	17.41	17.38	17.38	0.00	19.00	18.48	18.31	18.36	0.00	20.0
		75	0	21.61	21.48	21.46	1.00	23.00	17.44	17.32	17.30	0.00	19.00	18.49	18.33	18.28	0.00	20.0
	16QAM	1	0	21.76	21.58	21.57	1.00	23.00	17.63	17.71	17.67	0.00	19.00	18.75	18.66	18.62	0.00	20.0
		1	37	21.72	21.57	21.61	1.00	23.00	17.62	17.73	17.66	0.00	19.00	18.68	18.58	18.73	0.00	20.0
		1	74	21.75	21.62	21.59	1.00	23.00	17.64	17.69	17.59	0.00	19.00	18.75	18.61	18.58	0.00	20.0
		36	0	20.64	20.48	20.45	2.00	22.00	17.37	17.35	17.36	0.00	19.00	18.50	18.38	18.32	0.00	20.0
		36	20	20.62	20.47	20.44	2.00	22.00	17.47	17.35	17.37	0.00	19.00	18.52	18.34	18.30	0.00	20.0
		36	39	20.61	20.45	20.53	2.00	22.00	17.48	17.40	17.42	0.00	19.00	18.50	18.32	18.36	0.00	20.0
		75	0	20.60	20.47	20.45	2.00	22.00	17.46	17.33	17.37	0.00	19.00	18.53	18.33	18.29	0.00	20.0
	64QAM	1	0	20.71	20.47	20.61	2.00	22.00	17.73	17.56	17.60	0.00	19.00	18.69	18.53	18.49	0.00	20.0
		1	37	20.69	20.48	20.68	2.00	22.00	17.72	17.59	17.60	0.00	19.00	18.66	18.49	18.48	0.00	20.0
		1	74	20.70	20.40	20.61	2.00	22.00	17.73	17.63	17.58	0.00	19.00	18.68	18.56	18.38	0.00	20.0
		36	0	19.57	19.37	19.46	3.00	21.00	17.48	17.47	17.47	0.00	19.00	18.57	18.40	18.31	0.00	20.0
		36	20	19.52	19.33	19.47	3.00	21.00	17.56	17.43	17.44	0.00	19.00	18.53	18.36	18.27	0.00	20.0
		36	39	19.52	19.33	19.54	3.00	21.00	17.54	17.51	17.52	0.00	19.00	18.50	18.37	18.36	0.00	20.0
		75	0	19.52	19.32	19.46	3.00	21.00	17.54	17.42	17.45	0.00	19.00	18.51	18.41	18.27	0.00	20.0
	256QAM	1	0	17.56	17.49	17.57	5.00	19.00	17.61	17.46	17.55	0.00	19.00	17.76	17.58	17.50	1.00	19.0
		1	37	17.53	17.44	17.64	5.00	19.00	17.68	17.54	17.60	0.00	19.00	17.75	17.62	17.52	1.00	19.0
		1	74	17.53	17.54	17.69	5.00	19.00	17.70	17.58	17.64	0.00	19.00	17.66	17.55	17.53	1.00	19.0
		36	0	17.55	17.42	17.45	5.00	19.00	17.51	17.44	17.49	0.00	19.00	17.66	17.51	17.51	1.00	19.0
		36	20	17.47	17.39	17.44	5.00	19.00	17.55	17.44	17.46	0.00	19.00	17.62	17.52	17.50	1.00	19.0
		36	39	17.54	17.37	17.53	5.00	19.00	17.53	17.52	17.52	0.00	19.00	17.59	17.53	17.52	1.00	19.0
		75	0	17.47	17.35	17.47	5.00	19.00	17.58	17.44	17.46	0.00	19.00	17.64	17.51	17.51	1.00	19.0

LTE Band 66 Measured Results_(Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022.00	132322.00	132622.00			132022.00	132322.00	132622.00			132022.00	132322.00	132622.00		
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	22.76	22.59	22.64	0.00	24.00	17.53	17.47	17.45	0.00	19.00	18.62	18.46	18.43	0.00	20.0
		1	25	22.81	22.64	22.71	0.00	24.00	17.60	17.52	17.54	0.00	19.00	18.64	18.48	18.50	0.00	20.0
		1	49	22.74	22.59	22.65	0.00	24.00	17.51	17.45	17.44	0.00	19.00	18.59	18.39	18.41	0.00	20.0
		25	0	21.77	21.61	21.59	1.00	23.00	17.51	17.47	17.43	0.00	19.00	18.66	18.46	18.40	0.00	20.0
		25	12	21.76	21.64	21.62	1.00	23.00	17.60	17.48	17.47	0.00	19.00	18.67	18.51	18.43	0.00	20.0
		25	25	21.75	21.61	21.66	1.00	23.00	17.56	17.54	17.52	0.00	19.00	18.66	18.44	18.46	0.00	20.0
		50	0	21.77	21.60	21.69	1.00	23.00	17.59	17.44	17.47	0.00	19.00	18.65	18.48	18.50	0.00	20.0
	16QAM	1	0	21.89	21.76	21.78	1.00	23.00	17.84	17.79	17.90	0.00	19.00	18.91	18.82	18.73	0.00	20.0
		1	25	21.96	21.74	21.85	1.00	23.00	17.88	17.76	17.89	0.00	19.00	18.87	18.83	18.82	0.00	20.0
		1	49	21.88	21.71	21.83	1.00	23.00	17.82	17.76	17.83	0.00	19.00	18.85	18.75	18.70	0.00	20.0
		25	0	20.77	20.61	20.61	2.00	22.00	17.53	17.45	17.50	0.00	19.00	18.66	18.51	18.48	0.00	20.0
		25	12	20.77	20.65	20.63	2.00	22.00	17.66	17.49	17.53	0.00	19.00	18.71	18.53	18.49	0.00	20.0
		25	25	20.74	20.62	20.68	2.00	22.00	17.58	17.51	17.57	0.00	19.00	18.65	18.51	18.54	0.00	20.0
		50	0	20.78	20.59	20.68	2.00	22.00	17.59	17.43	17.45	0.00	19.00	18.66	18.47	18.51	0.00	20.0
	64QAM	1	0	20.94	20.76	20.70	2.00	22.00	17.87	17.67	17.74	0.00	19.00	18.85	18.64	18.57	0.00	20.0
		1	25	20.93	20.81	20.81	2.00	22.00	17.95	17.73	17.86	0.00	19.00	18.83	18.75	18.75	0.00	20.0
		1	49	20.89	20.73	20.76	2.00	22.00	17.86	17.65	17.78	0.00	19.00	18.86	18.54	18.63	0.00	20.0
		25	0	19.71	19.56	19.52	3.00	21.00	17.59	17.59	17.56	0.00	19.00	18.69	18.55	18.43	0.00	20.0
		25	12	19.72	19.55	19.54	3.00	21.00	17.70	17.61	17.60	0.00	19.00	18.73	18.53	18.47	0.00	20.0
		25	25	19.67	19.51	19.57	3.00	21.00	17.66	17.63	17.63	0.00	19.00	18.65	18.50	18.54	0.00	20.0
		50	0	19.67	19.52	19.57	3.00	21.00	17.69	17.57	17.57	0.00	19.00	18.66	18.49	18.54	0.00	20.0
	256QAM	1	0	17.80	17.60	17.63	5.00	19.00	17.70	17.70	17.66	0.00	19.00	17.80	17.68	17.58	1.00	19.0
		1	25	17.85	17.62	17.75	5.00	19.00	17.81	17.82	17.78	0.00	19.00	17.82	17.71	17.67	1.00	19.0
		1	49	17.75	17.57	17.70	5.00	19.00	17.74	17.77	17.71	0.00	19.00	17.70	17.66	17.61	1.00	19.0
		25	0	17.73	17.56	17.54	5.00	19.00	17.62	17.57	17.59	0.00	19.00	17.81	17.64	17.52	1.00	19.0
		25	12	17.77	17.54	17.58	5.00	19.00	17.71	17.61	17.63	0.00	19.00	17.82	17.67	17.56	1.00	19.0
		25	25	17.72	17.53	17.64	5.00	19.00	17.68	17.64	17.67	0.00	19.00	17.76	17.63	17.59	1.00	19.0
		50	0	17.69	17.48	17.62	5.00	19.00	17.66	17.54	17.58	0.00	19.00	17.75	17.61	17.63	1.00	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131997.00	132322.00	132647.00			131997.00	132322.00	132647.00			131997.00	132322.00	132647.00		
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	22.76	22.61	22.62	0.00	24.00	17.48	17.47	17.49	0.00	19.00	18.57	18.42	18.37	0.00	20.0
		1	12	22.83	22.67	22.77	0.00	24.00	17.57	17.54	17.50	0.00	19.00	18.63	18.51	18.44	0.00	20.0
		1	24	22.74	22.60	22.67	0.00	24.00	17.51	17.49	17.44	0.00	19.00	18.59	18.37	18.46	0.00	20.0
		12	0	21.76	21.59	21.60	1.00	23.00	17.58	17.45	17.52	0.00	19.00	18.63	18.44	18.39	0.00	20.0
		12	7	21.81	21.61	21.73	1.00	23.00	17.62	17.53	17.55	0.00	19.00	18.68	18.52	18.52	0.00	20.0
		12	13	21.76	21.57	21.67	1.00	23.00	17.58	17.52	17.51	0.00	19.00	18.63	18.47	18.48	0.00	20.0
		25	0	21.79	21.60	21.67	1.00	23.00	17.61	17.43	17.50	0.00	19.00	18.67	18.47	18.45	0.00	20.0
	16QAM	1	0	21.97	21.74	21.73	1.00	23.00	17.85	17.80	17.92	0.00	19.00	19.01	18.80	18.81	0.00	20.0
		1	12	22.04	21.81	21.84	1.00	23.00	17.89	17.91	17.95	0.00	19.00	19.01	18.83	19.00	0.00	20.0
		1	24	21.94	21.74	21.83	1.00	23.00	17.91	17.79	17.94	0.00	19.00	19.02	18.72	18.81	0.00	20.0
		12	0	20.93	20.55	20.57	2.00	22.00	17.61	17.45	17.51	0.00	19.00	18.74	18.55	18.43	0.00	20.0
		12	7	20.97	20.56	20.70	2.00	22.00	17.65	17.58	17.52	0.00	19.00	18.80	18.59	18.55	0.00	20.0
		12	13	20.95	20.53	20.66	2.00	22.00	17.62	17.53	17.52	0.00	19.00	18.74	18.55	18.52	0.00	20.0
		25	0	20.78	20.62	20.66	2.00	22.00	17.58	17.45	17.50	0.00	19.00	18.68	18.49	18.49	0.00	20.0
	64QAM	1	0	20.80	20.72	20.79	2.00	22.00	17.81	17.63	17.79	0.00	19.00	18.73	18.66	18.60	0.00	20.0
		1	12	20.83	20.77	20.88	2.00	22.00	17.92	17.75	17.87	0.00	19.00	18.75	18.65	18.59	0.00	20.0
		1	24	20.77	20.74	20.80	2.00	22.00	17.85	17.62	17.81	0.00	19.00	18.69	18.61	18.50	0.00	20.0
		12	0	19.71	19.59	19.53	3.00	21.00	17.70	17.56	17.65	0.00	19.00	18.68	18.55	18.46	0.00	20.0
		12	7	19.72	19.63	19.65	3.00	21.00	17.73	17.67	17.67	0.00	19.00	18.71	18.58	18.57	0.00	20.0
		12	13	19.72	19.60	19.66	3.00	21.00	17.68	17.66	17.66	0.00	19.00	18.64	18.52	18.52	0.00	20.0
		25	0	19.69	19.54	19.58	3.00	21.00	17.71	17.57	17.63	0.00	19.00	18.71	18.52	18.54	0.00	20.0
	256QAM	1	0	17.78	17.60	17.59	5.00	19.00	17.71	17.63	17.67	0.00	19.00	17.82	17.70	17.61	1.00	19.0
		1	12	17.80	17.67	17.80	5.00	19.00	17.83	17.78	17.75	0.00	19.00	17.90	17.75	17.75	1.00	19.0
		1	24	17.73	17.56	17.70	5.00	19.00	17.76	17.68	17.71	0.00	19.00	17.85	17.67	17.64	1.00	19.0
		12	0	17.71	17.59	17.56	5.00	19.00	17.72	17.57	17.66	0.00	19.00	17.79	17.64	17.55	1.00	19.0
		12	7	17.76	17.61	17.66	5.00	19.00	17.76	17.66	17.69	0.00	19.00	17.83	17.66	17.65	1.00	19.0
		12	13	17.73	17.58	17.64	5.00	19.00	17.72	17.66	17.66	0.00	19.00	17.78	17.60	17.62	1.00	19.0
		25	0	17.73	17.57	17.60	5.00	19.00	17.72	17.55	17.68	0.00	19.00	17.77	17.61	17.61	1.00	19.0

LTE Band 66 Measured Results_(Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987.00	132322.00	132657.00			131987.00	132322.00	132657.00			131987.00	132322.00	132657.00		
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	22.74	22.54	22.61	0.00	24.00	17.54	17.44	17.43	0.00	19.00	18.57	18.37	18.41	0.00	20.0
		1	8	22.85	22.61	22.74	0.00	24.00	17.66	17.59	17.57	0.00	19.00	18.66	18.43	18.49	0.00	20.0
		1	14	22.75	22.54	22.66	0.00	24.00	17.55	17.45	17.47	0.00	19.00	18.57	18.37	18.39	0.00	20.0
		8	0	21.76	21.58	21.60	1.00	23.00	17.62	17.45	17.45	0.00	19.00	18.64	18.44	18.37	0.00	20.0
		8	4	21.78	21.63	21.62	1.00	23.00	17.62	17.56	17.57	0.00	19.00	18.65	18.49	18.43	0.00	20.0
		8	7	21.78	21.65	21.71	1.00	23.00	17.65	17.55	17.58	0.00	19.00	18.64	18.47	18.50	0.00	20.0
		15	0	21.77	21.57	21.59	1.00	23.00	17.62	17.46	17.44	0.00	19.00	18.61	18.44	18.37	0.00	20.0
	16QAM	1	0	21.90	21.67	21.83	1.00	23.00	17.80	17.81	17.72	0.00	19.00	18.86	18.76	18.72	0.00	20.0
		1	8	22.04	21.78	21.88	1.00	23.00	17.92	17.94	17.84	0.00	19.00	18.89	18.88	18.91	0.00	20.0
		1	14	21.93	21.71	21.82	1.00	23.00	17.78	17.82	17.78	0.00	19.00	18.84	18.74	18.74	0.00	20.0
		8	0	20.79	20.64	20.68	2.00	22.00	17.60	17.50	17.50	0.00	19.00	18.73	18.52	18.52	0.00	20.0
		8	4	20.83	20.69	20.71	2.00	22.00	17.66	17.64	17.60	0.00	19.00	18.70	18.55	18.48	0.00	20.0
		8	7	20.83	20.69	20.77	2.00	22.00	17.65	17.65	17.61	0.00	19.00	18.72	18.54	18.60	0.00	20.0
		15	0	20.79	20.58	20.61	2.00	22.00	17.65	17.46	17.47	0.00	19.00	18.65	18.48	18.45	0.00	20.0
	64QAM	1	0	20.79	20.73	20.61	2.00	22.00	17.88	17.63	17.75	0.00	19.00	18.78	18.54	18.66	0.00	20.0
		1	8	20.94	20.82	20.73	2.00	22.00	17.96	17.82	17.89	0.00	19.00	18.87	18.65	18.83	0.00	20.0
		1	14	20.80	20.71	20.65	2.00	22.00	17.83	17.66	17.79	0.00	19.00	18.83	18.57	18.65	0.00	20.0
		8	0	19.73	19.53	19.53	3.00	21.00	17.70	17.60	17.56	0.00	19.00	18.72	18.57	18.42	0.00	20.0
		8	4	19.77	19.54	19.59	3.00	21.00	17.73	17.73	17.70	0.00	19.00	18.74	18.59	18.48	0.00	20.0
		8	7	19.75	19.55	19.66	3.00	21.00	17.75	17.68	17.69	0.00	19.00	18.75	18.58	18.57	0.00	20.0
		15	0	19.72	19.51	19.54	3.00	21.00	17.68	17.55	17.56	0.00	19.00	18.71	18.53	18.41	0.00	20.0
	256QAM	1	0	17.78	17.56	17.58	5.00	19.00	17.69	17.66	17.60	0.00	19.00	17.78	17.74	17.55	1.00	19.0
		1	8	17.86	17.68	17.75	5.00	19.00	17.85	17.87	17.76	0.00	19.00	17.88	17.78	17.68	1.00	19.0
		1	14	17.76	17.57	17.68	5.00	19.00	17.78	17.71	17.66	0.00	19.00	17.75	17.73	17.68	1.00	19.0
		8	0	17.73	17.53	17.55	5.00	19.00	17.72	17.57	17.63	0.00	19.00	17.85	17.65	17.55	1.00	19.0
		8	4	17.79	17.59	17.59	5.00	19.00	17.73	17.69	17.69	0.00	19.00	17.81	17.65	17.59	1.00	19.0
		8	7	17.80	17.59	17.67	5.00	19.00	17.74	17.65	17.70	0.00	19.00	17.82	17.62	17.67	1.00	19.0
		15	0	17.74	17.54	17.52	5.00	19.00	17.68	17.54	17.56	0.00	19.00	17.79	17.61	17.56	1.00	19.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131979.00	132322.00	132665.00			131979.00	132322.00	132665.00			131979.00	132322.00	132665.00		
				1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz		
1.4 MHz	QPSK	1	0	22.72	22.57	22.66	0.00	24.00	17.59	17.49	17.52	0.00	19.00	18.62	18.38	18.42	0.00	20.0
		1	3	22.73	22.57	22.69	0.00	24.00	17.61	17.53	17.50	0.00	19.00	18.65	18.43	18.48	0.00	20.0
		1	5	22.73	22.57	22.69	0.00	24.00	17.57	17.51	17.50	0.00	19.00	18.60	18.40	18.42	0.00	20.0
		3	0	22.73	22.58	22.66	0.00	24.00	17.57	17.51	17.49	0.00	19.00	18.61	18.44	18.44	0.00	20.0
		3	1	22.73	22.62	22.67	0.00	24.00	17.56	17.54	17.53	0.00	19.00	18.64	18.44	18.44	0.00	20.0
		3	3	22.70	22.57	22.66	0.00	24.00	17.58	17.54	17.51	0.00	19.00	18.62	18.42	18.44	0.00	20.0
		6	0	21.69	21.56	21.63	1.00	23.00	17.58	17.50	17.47	0.00	19.00	18.60	18.38	18.42	0.00	20.0
	16QAM	1	0	21.79	21.63	21.86	1.00	23.00	17.91	17.72	17.78	0.00	19.00	18.85	18.78	18.76	0.00	20.0
		1	3	22.01	21.69	21.99	1.00	23.00	17.82	17.71	17.84	0.00	19.00	18.79	18.80	18.81	0.00	20.0
		1	5	21.94	21.68	21.84	1.00	23.00	17.82	17.65	17.73	0.00	19.00	18.84	18.81	18.88	0.00	20.0
		3	0	21.87	21.66	21.71	1.00	23.00	17.69	17.59	17.63	0.00	19.00	18.75	18.61	18.61	0.00	20.0
		3	1	21.85	21.69	21.73	1.00	23.00	17.68	17.65	17.66	0.00	19.00	18.77	18.62	18.62	0.00	20.0
		3	3	21.87	21.70	21.72	1.00	23.00	17.73	17.61	17.64	0.00	19.00	18.77	18.64	18.61	0.00	20.0
		6	0	20.66	20.53	20.66	2.00	22.00	17.62	17.55	17.50	0.00	19.00	18.68	18.49	18.53	0.00	20.0
	64QAM	1	0	20.89	20.72	20.86	2.00	22.00	17.85	17.76	17.66	0.00	19.00	18.81	18.75	18.65	0.00	20.0
		1	3	20.88	20.78	20.85	2.00	22.00	17.88	17.81	17.70	0.00	19.00	18.79	18.75	18.71	0.00	20.0
		1	5	20.83	20.70	20.84	2.00	22.00	17.88	17.74	17.61	0.00	19.00	18.77	18.69	18.62	0.00	20.0
		3	0	20.82	20.49	20.70	2.00	22.00	17.71	17.68	17.73	0.00	19.00	18.70	18.45	18.52	0.00	20.0
		3	1	20.87	20.52	20.67	2.00	22.00	17.77	17.66	17.72	0.00	19.00	18.68	18.48	18.51	0.00	20.0
		3	3	20.84	20.49	20.70	2.00	22.00	17.73	17.67	17.71	0.00	19.00	18.71	18.47	18.52	0.00	20.0
		6	0	19.72	19.53	19.63	3.00	21.00	17.61	17.56	17.60	0.00	19.00	18.64	18.54	18.46	0.00	20.0
	256QAM	1	0	17.74	17.65	17.67	5.00	19.00	17.74	17.73	17.75	0.00	19.00	17.82	17.68	17.71	1.00	19.0
		1	3	17.81	17.71	17.71	5.00	19.00	17.81	17.80	17.81	0.00	19.00	17.87	17.68	17.67	1.00	19.0
		1	5	17.79	17.64	17.64	5.00	19.00	17.72	17.70	17.69	0.00	19.00	17.89	17.70	17.62	1.00	19.0
		3	0	17.73	17.57	17.63	5.00	19.00	17.71	17.68	17.69	0.00	19.00	17.84	17.67	17.66	1.00	19.0
		3	1	17.73	17.58	17.62	5.00	19.00	17.73	17.72	17.72	0.00	19.00	17.85	17.62	17.63	1.00	19.0
		3	3	17.72	17.60	17.62	5.00	19.00	17.76	17.70	17.73	0.00	19.00	17.85	17.67	17.61	1.00	19.0
		6	0	17.56	17.63	17.55	5.00	19.00	17.64	17.59	17.50	0.00	19.00	17.71	17.67	17.66	1.00	19.0

LTE Band 41 (Power Class 3) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)																				
				DIS = 0, 2							DSI = 3							DSI = 1, 4						
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			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			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	23.89	23.45	23.72	23.79	23.76	0.00	25.00	22.13	21.74	21.78	22.06	21.99	0.00	23.00	22.18	21.83	21.84	22.09	22.03	0.00	23.00
		1	49	23.85	23.58	23.66	23.79	23.75	0.00	25.00	22.11	21.67	21.76	22.05	21.94	0.00	23.00	22.12	21.76	21.81	22.08	22.02	0.00	23.00
		1	99	23.87	23.52	23.75	23.86	23.83	0.00	25.00	21.94	21.60	21.85	22.07	21.98	0.00	23.00	22.01	21.68	21.91	22.14	22.04	0.00	23.00
		50	0	22.87	22.49	22.68	22.76	22.76	1.00	24.00	22.15	21.79	21.80	22.11	22.02	0.00	23.00	22.22	21.86	21.80	22.13	22.08	0.00	23.00
		50	24	22.80	22.58	22.77	22.85	22.82	1.00	24.00	22.14	21.80	21.89	22.11	22.02	0.00	23.00	22.21	21.87	21.93	22.16	22.07	0.00	23.00
		50	50	22.82	22.55	22.78	22.80	22.85	1.00	24.00	22.00	21.75	21.89	22.12	22.00	0.00	23.00	22.07	21.81	21.91	22.14	22.06	0.00	23.00
		100	0	22.76	22.55	22.77	22.82	22.79	1.00	24.00	22.14	21.77	21.88	22.10	22.01	0.00	23.00	22.12	21.84	21.94	22.14	22.07	0.00	23.00
	16QAM	1	0	22.92	22.61	22.67	22.72	22.97	1.00	24.00	22.08	21.54	21.96	22.14	21.80	0.00	23.00	22.23	21.92	21.74	21.95	22.09	0.00	23.00
		1	49	22.94	22.70	22.84	22.93	23.11	1.00	24.00	22.11	21.51	21.93	22.10	21.89	0.00	23.00	22.15	21.89	21.76	22.01	22.00	0.00	23.00
		1	99	22.70	22.66	22.88	22.87	23.00	1.00	24.00	21.93	21.43	22.00	22.11	21.81	0.00	23.00	22.03	21.75	21.79	21.97	22.05	0.00	23.00
		50	0	21.82	21.46	21.68	21.76	21.74	2.00	23.00	21.93	21.59	21.61	21.89	21.84	0.00	23.00	21.98	21.64	21.61	21.95	21.89	0.00	23.00
		50	24	21.73	21.57	21.79	21.76	21.80	2.00	23.00	21.91	21.56	21.70	21.94	21.84	0.00	23.00	21.98	21.64	21.76	21.95	21.88	0.00	23.00
		50	50	21.72	21.55	21.75	21.87	21.85	2.00	23.00	21.77	21.51	21.69	21.91	21.83	0.00	23.00	21.85	21.57	21.76	21.96	21.87	0.00	23.00
		100	0	21.75	21.57	21.77	21.75	21.76	2.00	23.00	21.81	21.56	21.70	21.92	21.81	0.00	23.00	21.91	21.64	21.72	21.95	21.85	0.00	23.00
	64QAM	1	0	21.89	21.69	21.70	21.76	21.81	2.00	23.00	21.83	21.68	21.66	21.87	21.72	0.00	23.00	21.96	21.68	21.73	21.96	21.84	0.00	23.00
		1	49	22.08	21.80	21.80	21.82	21.79	2.00	23.00	21.87	21.59	21.72	21.89	21.71	0.00	23.00	21.96	21.71	21.73	21.89	21.84	0.00	23.00
		1	99	21.87	21.82	21.76	21.84	21.86	2.00	23.00	21.71	21.60	21.74	21.84	21.73	0.00	23.00	21.79	21.63	21.84	21.94	21.99	0.00	23.00
		50	0	20.92	20.66	20.67	20.72	20.82	3.00	22.00	20.93	20.56	20.57	20.86	20.78	1.00	22.00	21.01	20.67	20.69	20.98	20.92	1.00	22.00
		50	24	20.92	20.80	20.77	20.77	20.84	3.00	22.00	20.93	20.55	20.67	20.90	20.82	1.00	22.00	21.00	20.67	20.80	21.02	20.91	1.00	22.00
		50	50	20.81	20.74	20.78	20.83	20.93	3.00	22.00	20.77	20.52	20.68	20.90	20.76	1.00	22.00	20.88	20.63	20.80	21.01	20.89	1.00	22.00
		100	0	20.78	20.76	20.78	20.74	20.84	3.00	22.00	20.82	20.54	20.67	20.90	20.78	1.00	22.00	20.92	20.68	20.79	20.99	20.91	1.00	22.00
	256QAM	1	0	18.82	18.40	18.72	18.75	18.83	5.00	20.00	18.90	18.42	18.60	18.83	18.65	3.00	20.00	18.96	18.57	18.66	18.90	18.81	3.00	20.00
		1	49	18.82	18.56	18.72	18.86	18.81	5.00	20.00	18.89	18.36	18.60	18.83	18.61	3.00	20.00	19.00	18.53	18.71	18.82	18.79	3.00	20.00
		1	99	18.89	18.71	18.79	18.90	18.84	5.00	20.00	18.78	18.46	18.77	18.77	18.67	3.00	20.00	18.88	18.51	18.82	18.85	18.77	3.00	20.00
		50	0	18.80	18.52	18.69	18.78	18.82	5.00	20.00	18.90	18.55	18.53	18.87	18.77	3.00	20.00	19.00	18.68	18.67	18.94	18.87	3.00	20.00
		50	24	18.75	18.60	18.77	18.77	18.79	5.00	20.00	18.90	18.57	18.64	18.88	18.77	3.00	20.00	19.00	18.68	18.77	19.00	18.89	3.00	20.00
		50	50	18.71	18.63	18.75	18.93	18.83	5.00	20.00	18.80	18.55	18.63	18.90	18.76	3.00	20.00	18.89	18.66	18.75	18.97	18.88	3.00	20.00
		100	0	18.73	18.59	18.75	18.79	18.77	5.00	20.00	18.83	18.55	18.65	18.83	18.77	3.00	20.00	18.94	18.65	18.77	18.97	18.86	3.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750.00	40185.00	40620.00	41055.00	41490.00			39750.00	40185.00	40620.00	41055.00	41490.00			39750.00	40185.00	40620.00	41055.00	41490.00		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	23.78	23.50	23.55	23.71	23.78	0.00	25.00	22.13	21.85	22.01	22.15	22.06	0.00	23.00	22.23	21.88	21.93	22.15	22.10	0.00	23.00
		1	37	23.82	23.53	23.69	23.81	23.82	0.00	25.00	22.14	21.82	22.02	22.18	22.07	0.00	23.00	22.20	21.90	21.93	22.15	22.09	0.00	23.00
		1	74	23.68	23.63	23.74	23.88	23.97	0.00	25.00	22.03	21.87	22.12	22.21	22.07	0.00	23.00	22.11	21.90	22.02	22.20	22.13	0.00	23.00
		36	0	22.80	22.45	22.65	22.80	22.80	1.00	24.00	22.21	21.90	22.05	22.29	22.14	0.00	23.00	22.29	21.93	21.94	22.23	22.15	0.00	23.00
		36	20	22.76	22.45	22.73	22.78	22.79	1.00	24.00	22.19	21.87	22.14	22.27	22.12	0.00	23.00	22.28	21.96	21.99	22.24	22.16	0.00	23.00
		36	39	22.73	22.54	22.75	22.85	22.85	1.00	24.00	22.09	21.88	22.12	22.25	22.11	0.00	23.00	22.16	21.90	22.01	22.23	22.15	0.00	23.00
		75	0	22.71	22.54	22.77	22.77	22.78	1.00	24.00	22.18	21.87	22.14	22.25	22.12	0.00	23.00	22.28	21.92	22.00	22.21	22.15	0.00	23.00
	16QAM	1	0	22.88	22.48	22.52	22.71	22.83	1.00	24.00	22.26	21.68	21.99	22.21	21.97	0.00	23.00	22.28	21.81	21.91	22.16	22.03	0.00	23.00
		1	37	22.76	22.54	22.74	22.67	22.75	1.00	24.00	22.21	21.73	22.10	22.22	21.97	0.00	23.00	22.28	21.76	21.97	22.20	21.98	0.00	23.00
		1	74	22.68	22.58	22.70	22.65	23.00	1.00	24.00	22.06	21.73	22.16	22.24	22.02	0.00	23.00	22.16	21.77	22.05	22.26	22.03	0.00	23.00
		36	0	21.81	21.43	21.66	21.74	21.76	2.00	23.00	22.01	21.66	21.87	22.05	21.93	0.00	23.00	22.06	21.72	21.76	22.04	21.98	0.00	23.00
		36	20	21.73	21.49	21.77	21.76	21.79	2.00	23.00	21.99	21.66	21.95	22.03	21.92	0.00	23.00	22.06	21.69	21.82	22.04	21.98	0.00	23.00
		36	39	21.67	21.56	21.71	21.84	21.85	2.00	23.00	21.87	21.65	21.94	22.01	21.92	0.00	23.00	21.93	21.70	21.83	22.05	21.95	0.00	23.00
		75	0	21.73	21.57	21.72	21.81	21.78	2.00	23.00	21.98	21.70	21.94	22.09	21.93	0.00	23.00	22.04	21.72	21.83	22.02	21.95	0.00	23.00
	64QAM	1	0	21.83	21.59	21.72	21.61	21.75	2.00	23.00	22.10	21.70	21.74	21.97	21.93	0.00	23.00	21.97	21.64	21.71	21.95	21.92	0.00	23.00
		1	37	21.74	21.71	21.81	21.77	21.99	2.00	23.00	22.00	21.68	21.77	21.94	21.93	0.00	23.00	21.95	21.58	21.75	22.02	21.85	0.00	23.00
		1	74	21.81	21.66	21.85	21.86	21.94	2.00	23.00	21.85	21.73	21.87	22.05	21.96	0.00	23.00	21.83	21.65	21.95	22.02	21.93	0.00	23.00
		36	0	20.94	20.64	20.64	20.71	20.82	3.00	22.00	21.05	20.71	20.74	21.04	20.93	1.00	22.00	21.05	20.72	20.77	21.07	20.99	1.00	22.00
		36	20	20.95	20.66	20.78	20.74	20.84	3.00	22.00	21.03	20.71	20.83	21.06	20.95	1.00	22.00	21.03	20.72	20.85	21.07	20.96	1.00	22.00
		36	39	20.79	20.77	20.74	20.82	20.90	3.00	22.00	20.91	20.68	20.84	21.05	20.92	1.00	22.00	20.94	20.72	20.85	21.07	20.96	1.00	22.00
		75	0	20.87	20.72	20.82	20.75	20.88	3.00	22.00	21.03	20.71	20.84	21.04	20.93	1.00	22.00	21.04	20.72	20.86	21.07	20.98	1.00	22.00
	256QAM	1	0	18.86	18.41	18.48	18.61	18.63	5.00	20.00	18.98	18.60	18.47	18.88	18.84	3.00	20.00	19.10	18.67	18.57	18.91	18.95	3.00	20.00
		1	37	18.67	18.51	18.56	18.83	18.86	5.00	20.00	18.96	18.58	18.59	18.89	18.83	3.00	20.00	19.02	18.63	18.64	18.96	18.94	3.00	20.00
		1	74	18.70	18.58	18.80	18.89	18.74	5.00	20.00	18.87	18.59	18.66	18.87	18.89	3.00	20.00	19.01	18.68	18.69	18.92	18.91	3.00	20.00
		36	0	18.86	18.51	18.65	18.75	18.78	5.00	20.00	19.09	18.73	18.74	19.01	18.89	3.00	20.00	19.06	18.75	18.74	19.02	18.97	3.00	20.00
		36	20	18.79	18.53	18.72	18.79	18.78	5.00	20.00	19.05	18.71	18.82	19.00	18.90	3.00	20.00	19.03	18.73	18.85	19.04	18.95	3.00	20.00
		36	39	18.75	18.64	18.71	18.90	18.88	5.00	20.00	18.90	18.68	18.81	19.00	18.90	3.00	20.00	18.94	18.71	18.83	19.04	18.95	3.00	20.00
		75	0	18.77	18.58	18.76	18.80	18.78	5.00	20.00	19.04	18.70	18.82	19.01	18.90	3.00	20.00	19.04	18.72	18.82	19.04	18.95	3.00	20.00

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	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750.00	40185.00	40620.00	41055.00	41490.00			39750.00	40185.00	40620.00	41055.00	41490.00			39750.00	40185.00	40620.00	41055.00	41490.00		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	24.01	23.57	23.76	23.85	24.00	0.00	25.00	22.37	21.98	22.08	22.29	22.23	0.00	23.00	22.40	21.98	22.06	22.31	22.24	0.00	23.00
		1	25	23.93	23.70	23.87	23.98	23.91	0.00	25.00	22.34	21.99	22.18	22.39	22.28	0.00	23.00	22.40	22.04	22.18	22.37	22.29	0.00	23.00
		1	49	23.87	23.59	23.79	23.90	23.84	0.00	25.00	22.25	21.97	22.14	22.27	22.18	0.00	23.00	22.28	21.98	22.11	22.29	22.23	0.00	23.00
		25	0	22.97	22.61	22.80	22.87	22.85	1.00	24.00	22.37	22.05	22.09	22.36	22.27	0.00	23.00	22.44	22.04	22.08	22.37	22.29	0.00	23.00
		25	12	22.94	22.75	22.90	22.92	22.89	1.00	24.00	22.42	22.04	22.19	22.39	22.31	0.00	23.00	22.42	22.08	22.17	22.40	22.32	0.00	23.00
		25	25	22.89	22.73	22.85	22.96	22.94	1.00	24.00	22.33	22.01	22.17	22.42	22.28	0.00	23.00	22.31	22.05	22.16	22.40	22.29	0.00	23.00
		50	0	22.91	22.72	22.87	22.90	22.84	1.00	24.00	22.36	22.03	22.14	22.39	22.29	0.00	23.00	22.40	22.05	22.14	22.40	22.26	0.00	23.00
	16QAM	1	0	23.02	22.52	22.81	22.91	22.77	1.00	24.00	22.47	21.93	22.07	22.32	22.06	0.00	23.00	22.46	22.13	21.91	22.34	22.30	0.00	23.00
		1	25	23.04	22.56	22.91	23.00	22.83	1.00	24.00	22.48	21.94	22.17	22.43	22.16	0.00	23.00	22.42	22.17	22.00	22.41	22.29	0.00	23.00
		1	49	22.88	22.56	22.91	23.00	22.76	1.00	24.00	22.40	21.90	22.10	22.35	22.08	0.00	23.00	22.35	22.10	21.98	22.30	22.29	0.00	23.00
		25	0	21.98	21.59	21.72	21.90	21.79	2.00	23.00	22.20	21.85	21.81	22.14	22.04	0.00	23.00	22.23	21.89	21.83	22.12	22.09	0.00	23.00
		25	12	21.94	21.69	21.88	21.94	21.84	2.00	23.00	22.22	21.90	21.93	22.20	22.09	0.00	23.00	22.22	21.92	21.89	22.17	22.12	0.00	23.00
		25	25	21.87	21.65	21.85	22.03	21.91	2.00	23.00	22.09	21.85	21.93	22.16	22.03	0.00	23.00	22.10	21.86	21.93	22.14	22.08	0.00	23.00
		50	0	21.89	21.68	21.83	21.89	21.84	2.00	23.00	22.20	21.84	21.95	22.16	22.06	0.00	23.00	22.20	21.85	21.93	22.16	22.04	0.00	23.00
	64QAM	1	0	21.99	21.62	21.87	22.00	21.90	2.00	23.00	22.14	21.74	21.88	22.18	22.07	0.00	23.00	22.07	21.71	21.92	22.18	21.88	0.00	23.00
		1	25	21.97	21.72	21.90	22.06	22.10	2.00	23.00	22.19	21.79	21.96	22.29	22.12	0.00	23.00	22.08	21.81	21.94	22.15	21.94	0.00	23.00
		1	49	21.85	21.77	21.81	22.05	22.01	2.00	23.00	22.09	21.79	21.90	22.18	22.07	0.00	23.00	22.00	21.77	21.84	22.07	21.89	0.00	23.00
		25	0	20.99	20.77	20.92	20.88	20.93	3.00	22.00	21.19	20.86	20.83	21.12	21.05	1.00	22.00	21.23	20.86	20.85	21.18	21.08	1.00	22.00
		25	12	20.97	20.87	20.95	20.91	20.98	3.00	22.00	21.19	20.87	20.99	21.15	21.06	1.00	22.00	21.25	20.92	20.99	21.17	21.07	1.00	22.00
		25	25	20.89	20.86	20.93	20.98	21.02	3.00	22.00	21.09	20.83	20.94	21.17	21.05	1.00	22.00	21.10	20.88	20.97	21.18	21.05	1.00	22.00
		50	0	20.95	20.88	20.92	20.83	20.94	3.00	22.00	21.16	20.85	20.94	21.13	21.04	1.00	22.00	21.23	20.90	20.98	21.19	21.03	1.00	22.00
	256QAM	1	0	18.84	18.55	18.58	18.86	18.67	5.00	20.00	19.13	18.73	18.67	18.88	18.98	3.00	20.00	19.13	18.81	18.66	19.08	19.07	3.00	20.00
		1	25	18.83	18.59	18.78	19.02	18.78	5.00	20.00	19.10	18.75	18.85	18.96	19.04	3.00	20.00	19.21	18.87	18.79	19.14	19.14	3.00	20.00
		1	49	18.72	18.51	18.67	19.03	18.63	5.00	20.00	18.96	18.76	18.79	18.91	18.91	3.00	20.00	18.95	18.76	18.73	19.02	19.02	3.00	20.00
		25	0	18.90	18.58	18.78	18.88	18.82	5.00	20.00	19.14	18.82	18.83	19.16	19.05	3.00	20.00	19.19	18.85	18.85	19.21	19.06	3.00	20.00
		25	12	18.86	18.70	18.88	18.99	18.87	5.00	20.00	19.19	18.81	18.96	19.17	19.06	3.00	20.00	19.18	18.89	18.97	19.24	19.08	3.00	20.00
		25	25	18.85	18.69	18.83	19.06	18.94	5.00	20.00	19.09	18.81	18.92	19.15	19.01	3.00	20.00	19.06	18.85	18.94	19.23	19.06	3.00	20.00
		50	0	18.81	18.66	18.87	18.87	18.88	5.00	20.00	19.13	18.82	18.92	19.18	19.05	3.00	20.00	19.18	18.86	18.95	19.19	19.02	3.00	20.00
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750.00	40185.00	40620.00	41055.00	41490.00			39750.00	40185.00	40620.00	41055.00	41490.00			39750.00	40185.00	40620.00	41055.00	41490.00		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	23.92	23.62	23.76	23.90	23.90	0.00	25.00	22.36	21.97	22.04	22.27	22.20	0.00	23.00	22.39	22.00	22.06	22.31	22.25	0.00	23.00
		1	12	23.95	23.69	23.90	23.92	23.92	0.00	25.00	22.39	22.05	22.18	22.36	22.28	0.00	23.00	22.41	22.07	22.19	22.39	22.30	0.00	23.00
		1	24	23.84	23.62	23.80	23.88	23.89	0.00	25.00	22.30	21.96	22.12	22.28	22.18	0.00	23.00	22.33	22.01	22.11	22.32	22.22	0.00	23.00
		12	0	22.99	22.63	22.84	22.83	22.85	1.00	24.00	22.42	22.02	22.17	22.35	22.27	0.00	23.00	22.39	22.05	22.18	22.35	22.27	0.00	23.00
		12	7	22.94	22.73	22.88	22.89	22.95	1.00	24.00	22.41	22.05	22.18	22.38	22.31	0.00	23.00	22.39	22.10	22.20	22.41	22.33	0.00	23.00
		12	13	22.89	22.70	22.86	22.97	22.92	1.00	24.00	22.28	22.01	22.14	22.36	22.27	0.00	23.00	22.29	22.08	22.20	22.36	22.28	0.00	23.00
		25	0	22.83	22.67	22.86	22.87	22.85	1.00	24.00	22.39	22.00	22.16	22.34	22.27	0.00	23.00	22.39	22.08	22.18	22.38	22.28	0.00	23.00
	16QAM	1	0	22.98	22.74	22.82	22.94	23.12	1.00	24.00	22.37	22.15	22.10	22.33	22.31	0.00	23.00	22.44	22.14	22.04	22.32	22.37	0.00	23.00
		1	12	22.97	22.79	22.89	23.05	23.08	1.00	24.00	22.39	22.23	22.20	22.39	22.38	0.00	23.00	22.49	22.20	22.24	22.43	22.41	0.00	23.00
		1	24	22.75	22.73	22.88	22.93	22.90	1.00	24.00	22.28	22.10	22.14	22.29	22.32	0.00	23.00	22.38	22.15	22.12	22.36	22.38	0.00	23.00
		12	0	22.03	21.67	21.86	21.79	21.83	2.00	23.00	22.31	21.70	22.02	22.09	22.01	0.00	23.00	22.16	21.89	22.04	22.21	22.07	0.00	23.00
		12	7	22.05	21.79	21.87	21.86	21.90	2.00	23.00	22.36	21.76	22.07	22.10	22.05	0.00	23.00	22.18	21.89	22.09	22.25	22.11	0.00	23.00
		12	13	22.01	21.75	21.85	21.90	21.87	2.00	23.00	22.23	21.71	22.01	22.08	22.01	0.00	23.00	22.08	21.87	22.05	22.21	22.07	0.00	23.00
		25	0	21.82	21.67	21.84	21.81	21.80	2.00	23.00	22.20	21.84	21.92	22.12	22.00	0.00	23.00	22.18	21.85	21.96	22.16	22.04	0.00	23.00
	64QAM	1	0	22.03	21.86	21.77	21.90	21.95	2.00	23.00	22.24	21.72	21.96	22.18	22.14	0.00	23.00	22.24	21.90	21.86	22.21	22.00	0.00	23.00
		1	12	22.09	22.02	21.93	22.06	22.10	2.00	23.00	22.21	21.89	22.08	22.21	21.98	0.00	23.00	22.23	22.01	22.06	22.31	22.10	0.00	23.00
		1	24	22.00	21.91	21.87	21.97	21.98	2.00	23.00	22.18	21.79	21.95	22.14	21.92	0.00	23.00	22.14	21.92	21.96	22.19	22.00	0.00	23.00
		12	0	21.01	20.78	20.91	20.89	20.94	3.00	22.00	21.18	20.81	20.93	21.11	21.00	1.00	22.00	21.24	20.86	20.94	21.16	21.02	1.00	22.00
		12	7	21.03	20.91	20.99	20.88	21.01	3.00	22.00	21.16	20.84	20.98	21.15	21.06	1.00	22.00	21.22	20.91	20.96	21.17	21.06	1.00	22.00
		12	13	20.90	20.85	20.94	20.88	20.93	3.00	22.00	21.06	20.83	20.93	21.12	21.01	1.00	22.00	21.13	20.86	20.95	21.20	21.02	1.00	22.00
		25	0	20.95	20.84	20.95	20.88	21.00	3.00	22.00	21.15	20.84	20.93	21.14	21.00	1.00	22.00	21.18	20.87	20.95	21.14	21.05	1.00	22.00
	256QAM	1	0	18.95	18.53	18.60	18.83	18.87	5.00	20.00	19.17	18.74	18.63	19.16	18.94	3.00	20.00	19.13	18.74	18.77	19.15	18.92	3.00	20.00
		1	12	18.91	18.58	18.64	18.96	19.07	5.00	20.00	19.24	18.80	18.78	19.28	19.06	3.00	20.00	19.17	18.81	18.95	19.25	18.99	3.00	20.00
		1	24	18.74	18.58	18.62	18.87	18.88	5.00	20.00	19.04	18.75	18.76	19.18	18.98	3.00	20.00	19.10	18.73	18.90	19.15	18.98	3.00	20.00
		12	0	18.88	18.54	18.82	18.89	18.84	5.00	20.00	19.14	18.79	18.89	19.14	19.01	3.00	20.00	19.14	18.85	18.92	19.14	19.05	3.00	20.00
		12	7	18.87	18.66	18.87	18.87	18.95	5.00	20.00	19.16	18.81	18.93	19.21	19.06	3.00	20.00	19.22	18.86	18.94	19.18	19.08	3.00	20.00
		12	13	18.83	18.70	18.85	18.89	18.88	5.00	20.00	19.04	18.78	18.91	19.16	19.02	3.00	20.00	19.09	18.80	18.91	19.16	19.06	3.00	20.00
		25	0	18.80	18.68	18.81	18.86	18.82	5.00	20.00	19.12	18.80	18.90	19.15	19.00	3.00	20.00	19.16	18.83	18.92	19.16	19.02	3.00	20.00

LTE Band 41 (Power Class 2) Measured Results

DSI	Modulation	BW (MHz)	Channel	Freq. (MHz)	RB/Offset	Output Power (dBm)	
						Tune-up Limit	Meas. Power
DSI = 0,2	QPSK	20	39750	2506	1/0	26.50	25.43
DSI = 1	QPSK	20	40185	2549.5	1/0	24.60	23.45
DSI = 3	QPSK	20	40185	2549.5	1/0	24.60	23.42

Notes:

Conducted Power measurement for LTE Band 41 Power Class 2 were performed with the highest SAR test configuration in Power Class 3 for each RF Exposure condition.

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 6.2.2.3-1: 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]
	≤ 0.5[2]		0[2]
DFT-s-OFDM QPSK	≤ 1		0
DFT-s-OFDM 16 QAM	≤ 2		≤ 1
DFT-s-OFDM 64 QAM	≤ 2.5		
DFT-s-OFDM 256 QAM	≤ 4.5		
CP-OFDM QPSK	≤ 3		≤ 1.5
CP-OFDM 16 QAM	≤ 3		≤ 2
CP-OFDM 64 QAM	≤ 3.5		
CP-OFDM 256 QAM	≤ 6.5		

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

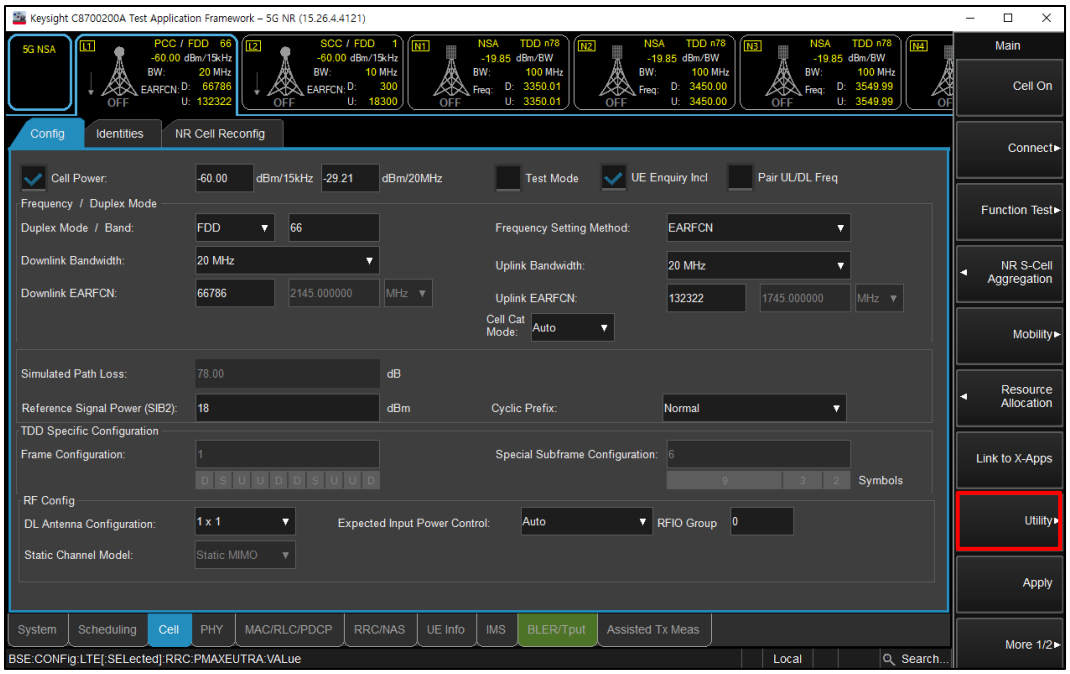
Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1.

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	36@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

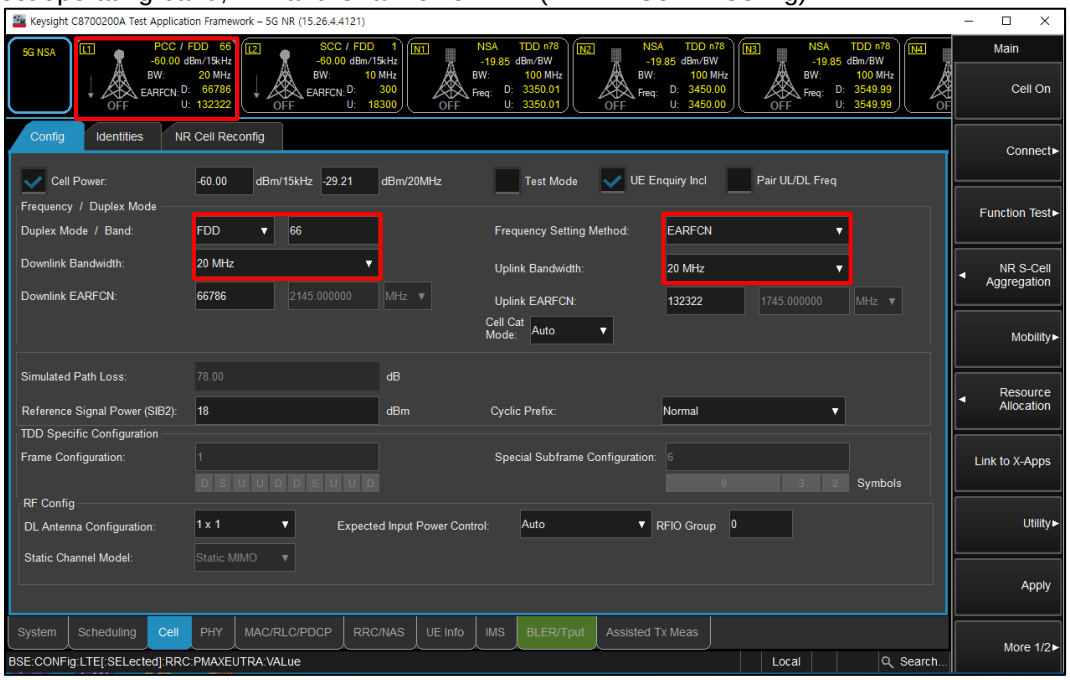


(Figure 1-1)

(Figure 1-2)

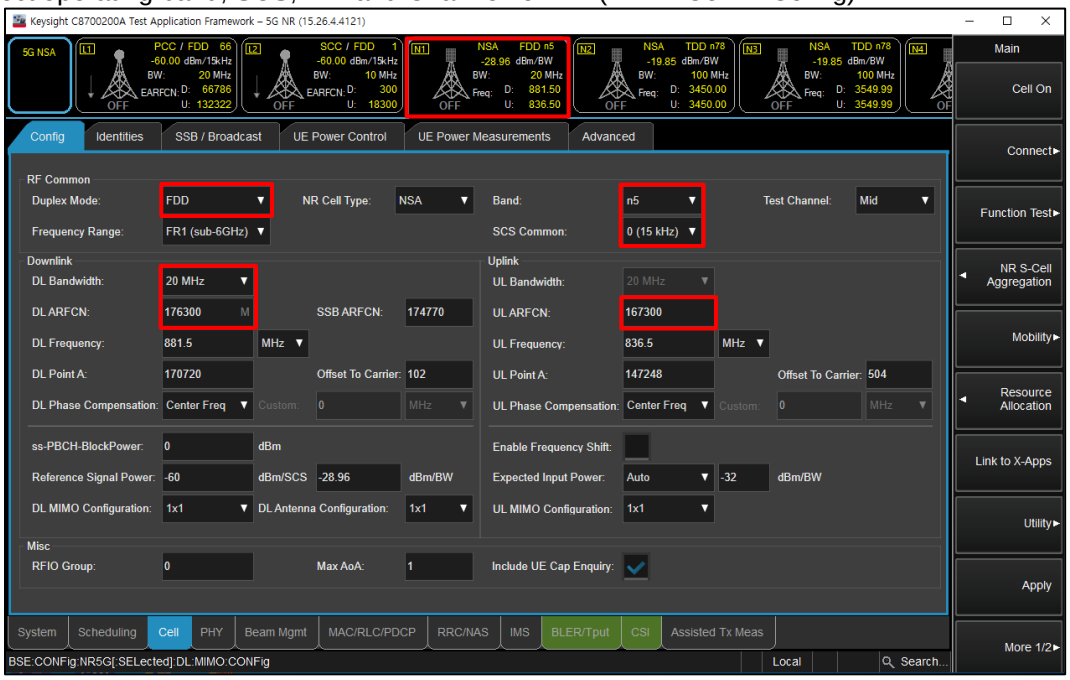
NSA Mode

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



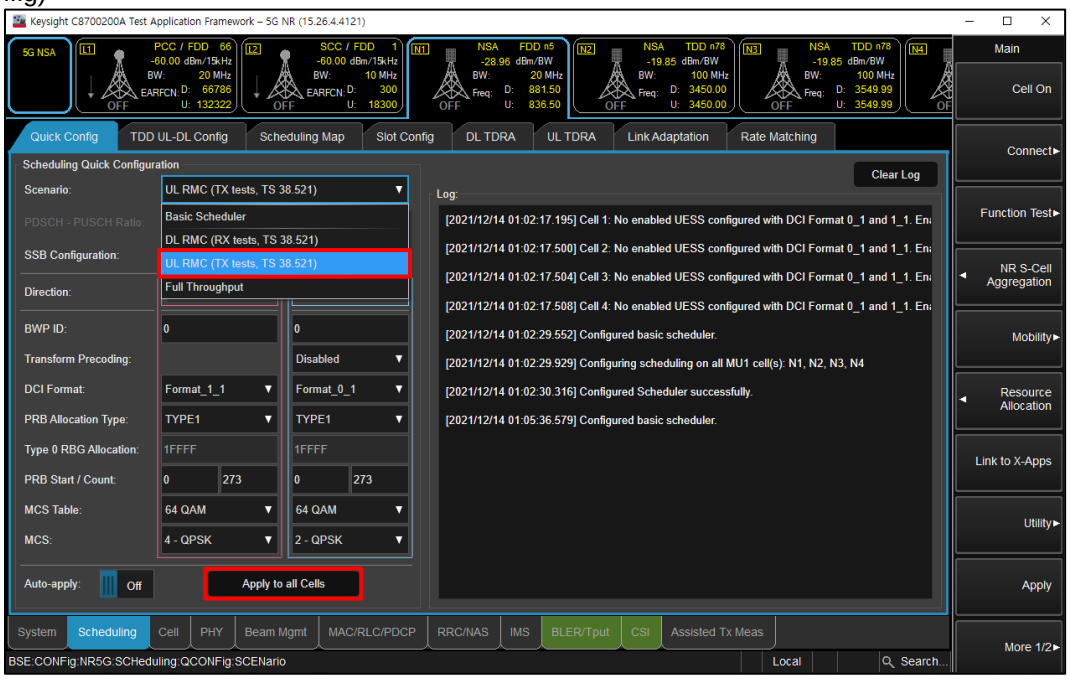
(Figure 2-1)

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



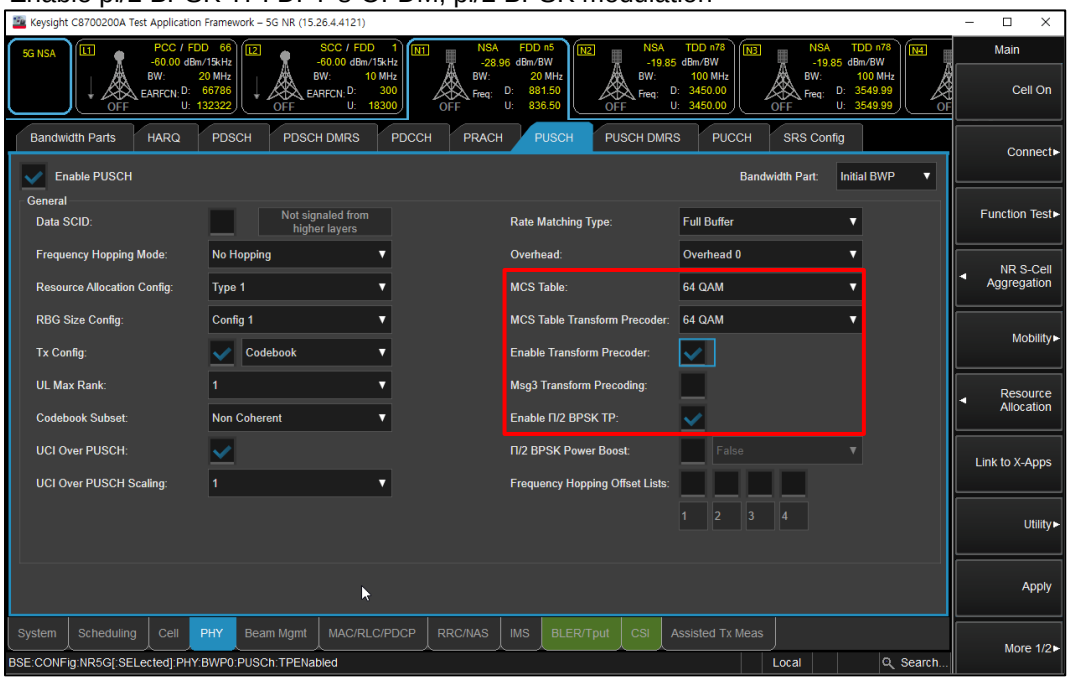
(Figure 2-2)

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



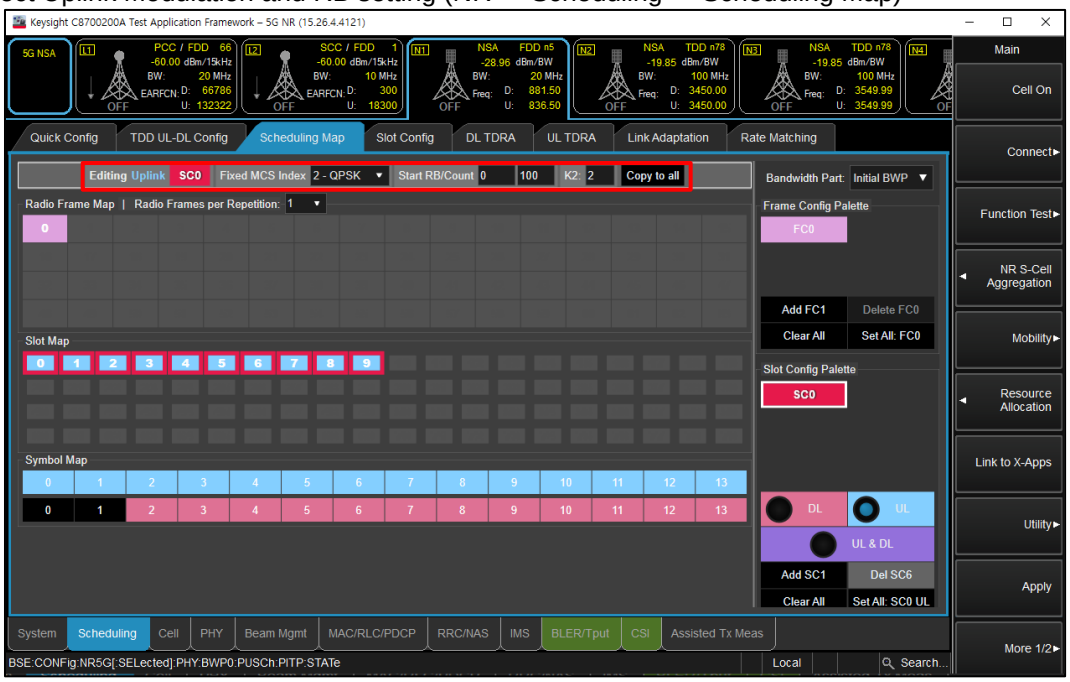
(Figure 2-3)

- 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



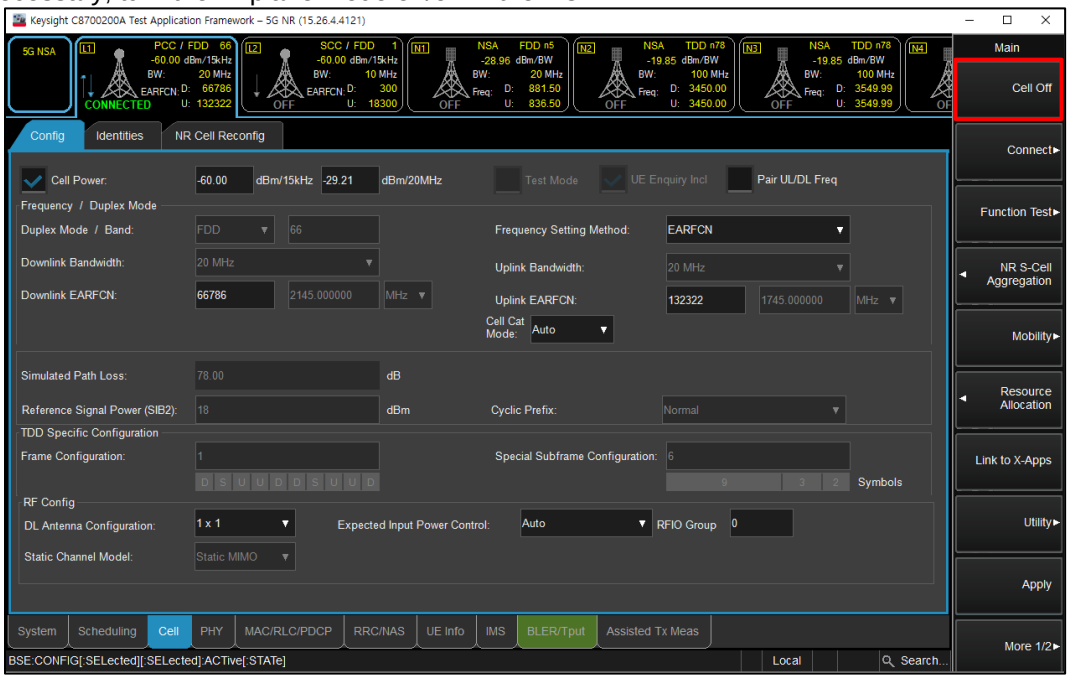
(Figure 2-4)

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



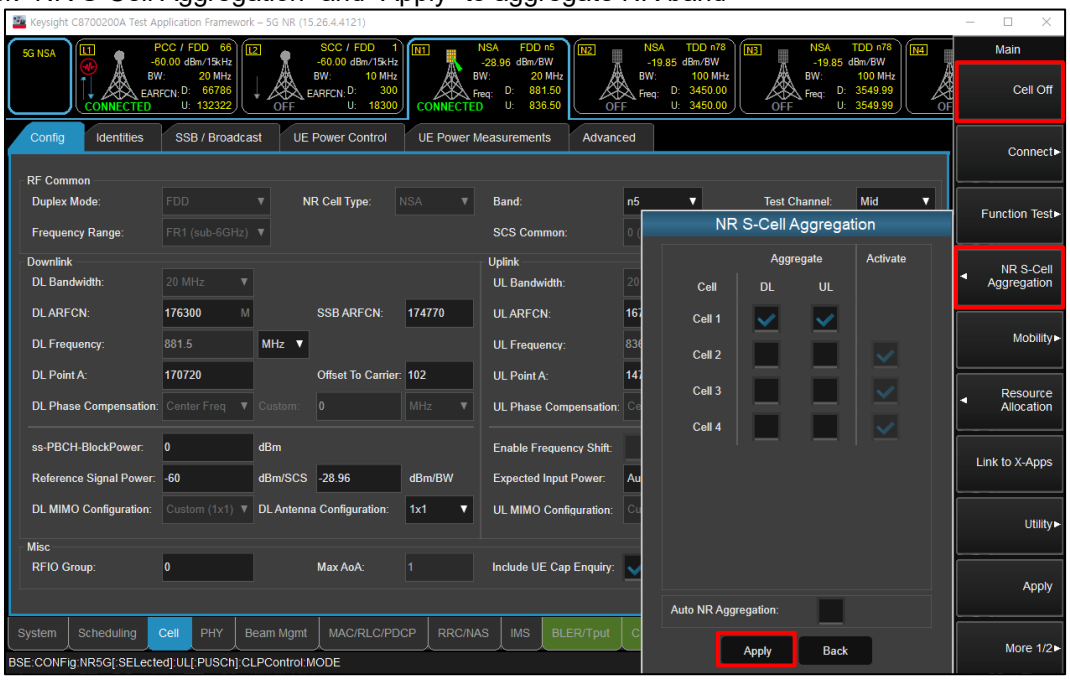
(Figure 2-5)

- 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



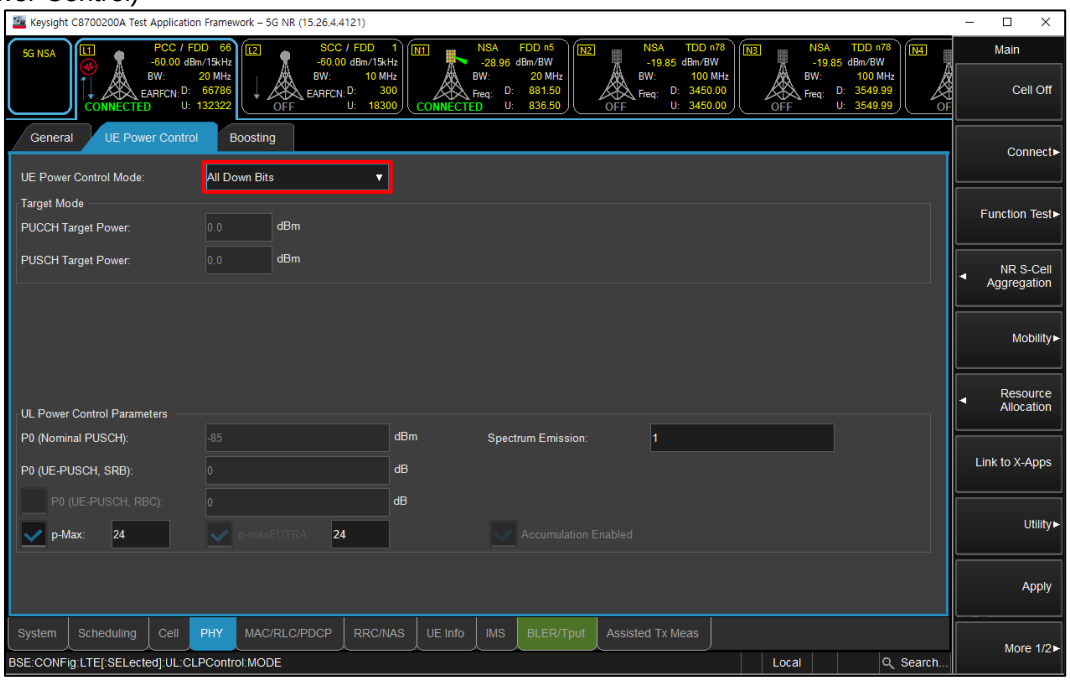
(Figure 2-6)

- 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



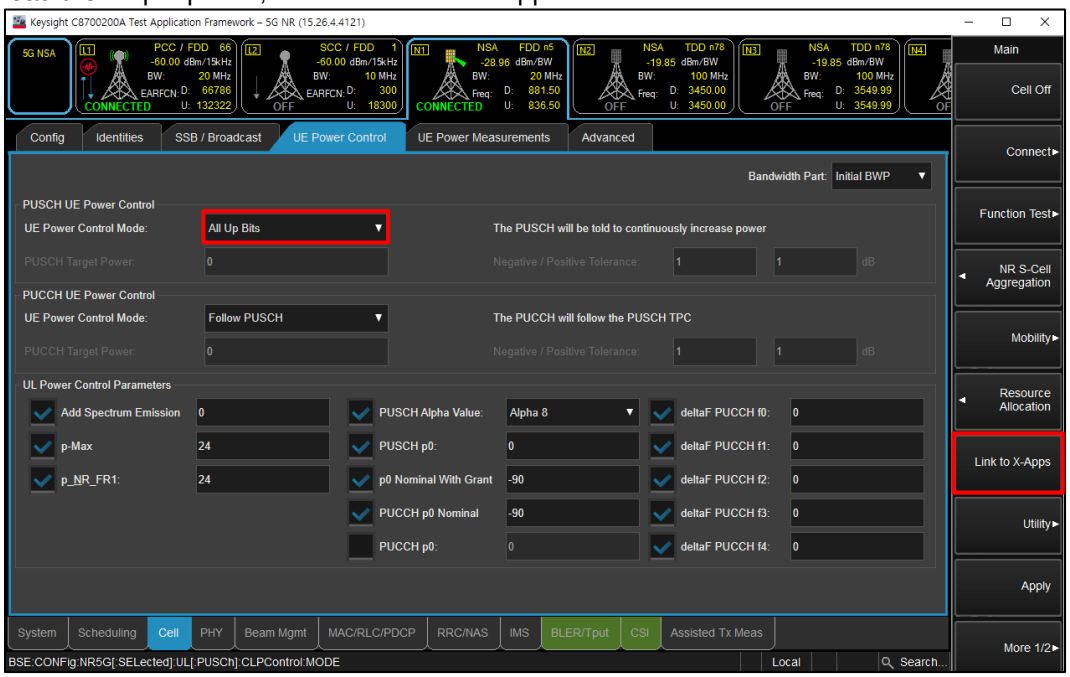
(Figure 2-7)

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



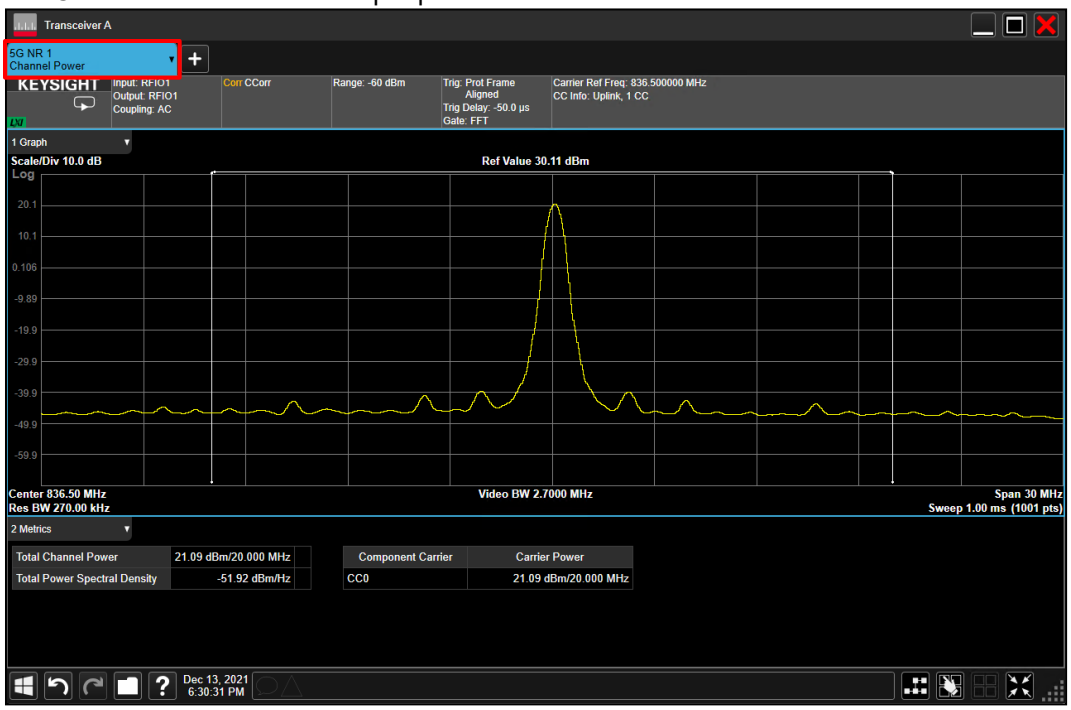
(Figure 2-8)

- 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”



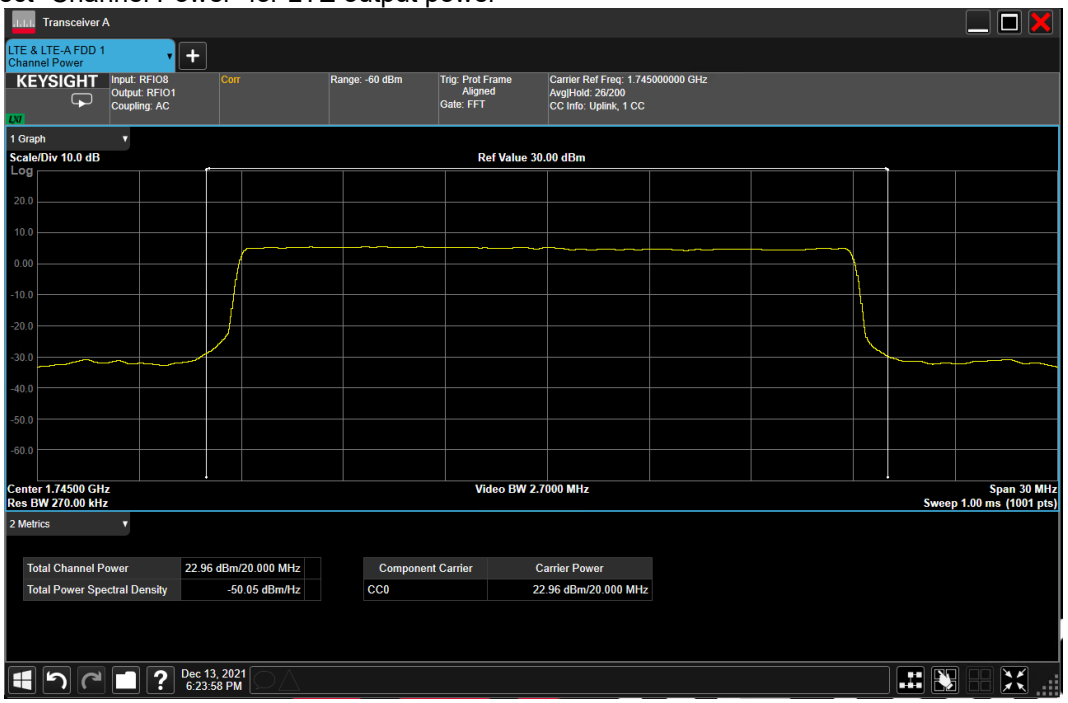
(Figure 2-9)

- Select “Channel Power” for NR output power



(Figure 2-10)

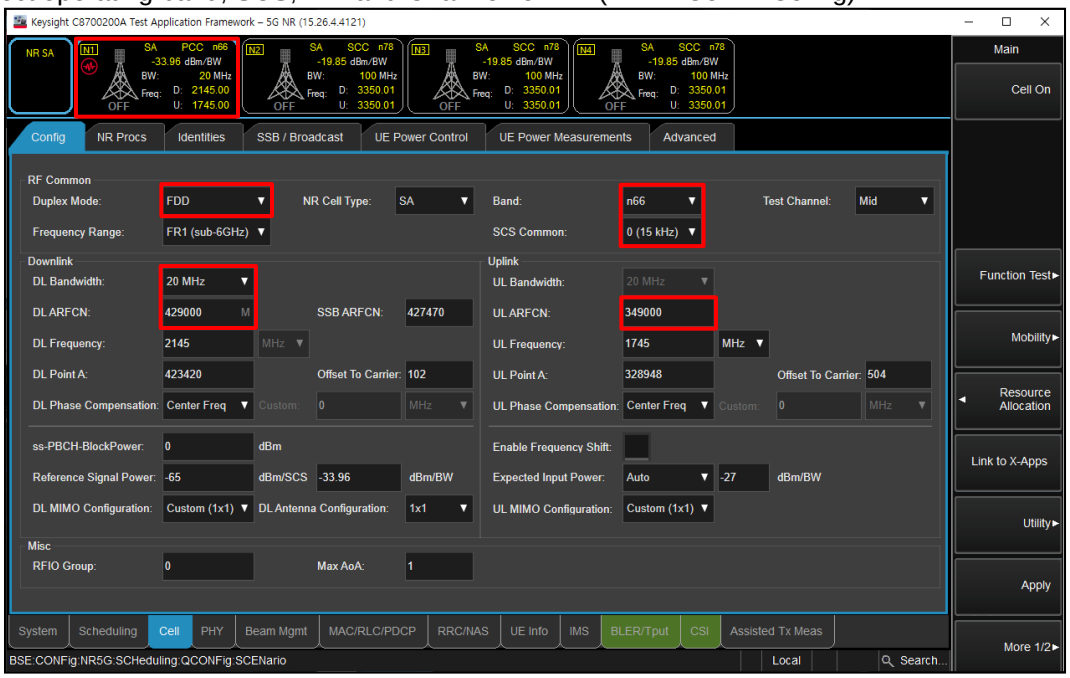
- Select “Channel Power” for LTE output power



(Figure 2-11)

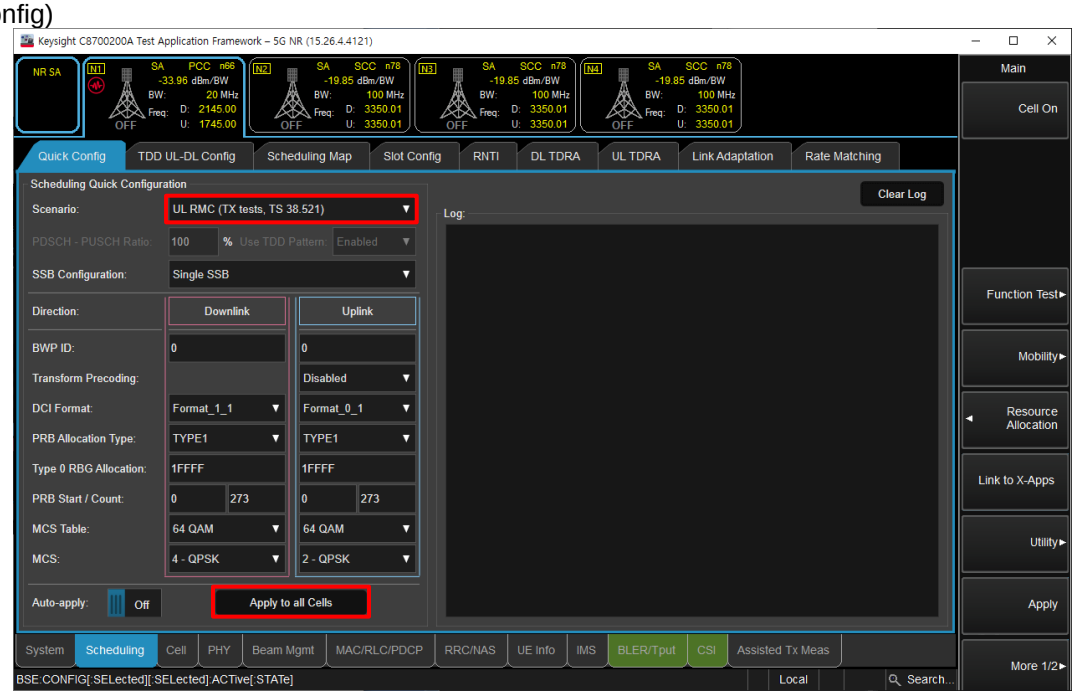
SA Mode

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



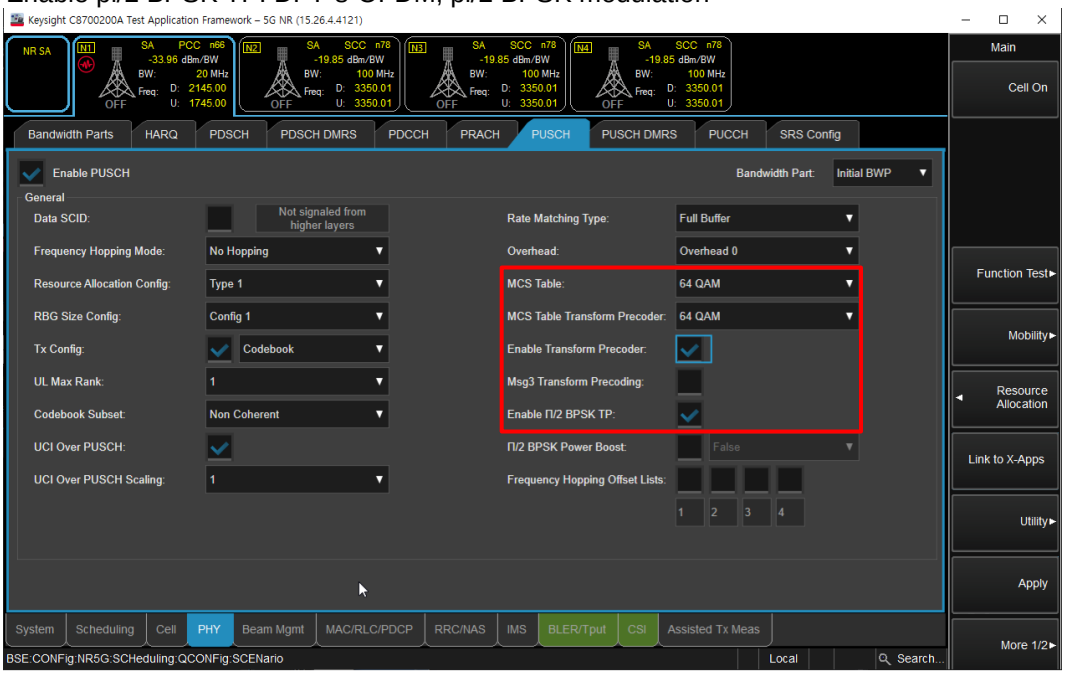
(Figure 3-1)

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



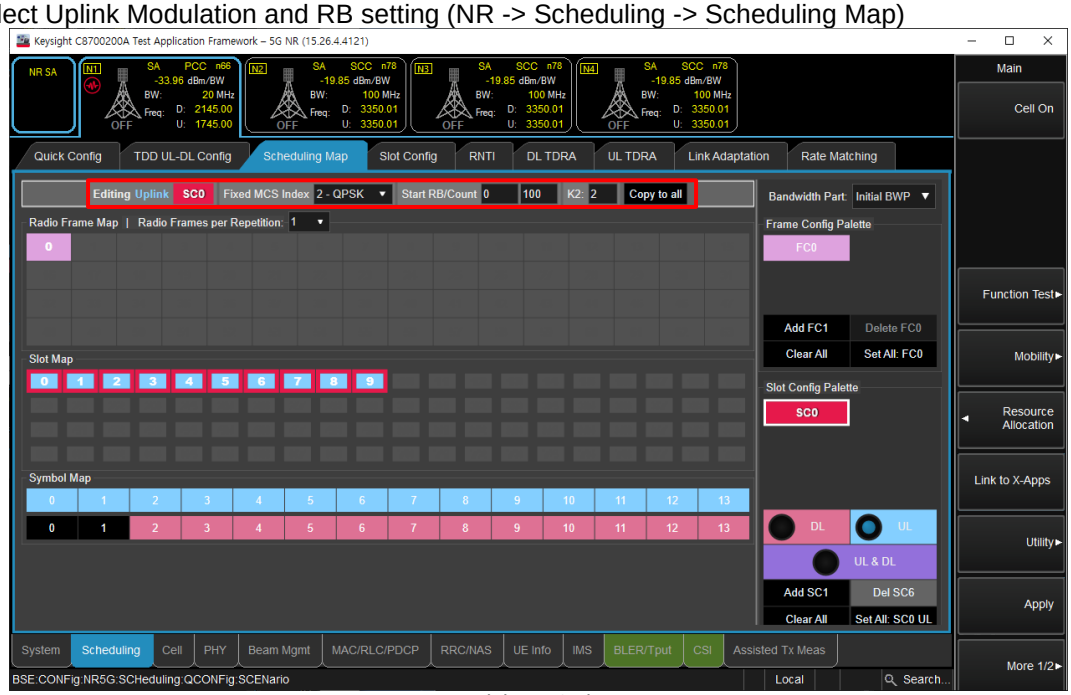
(Figure 3-2)

- 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



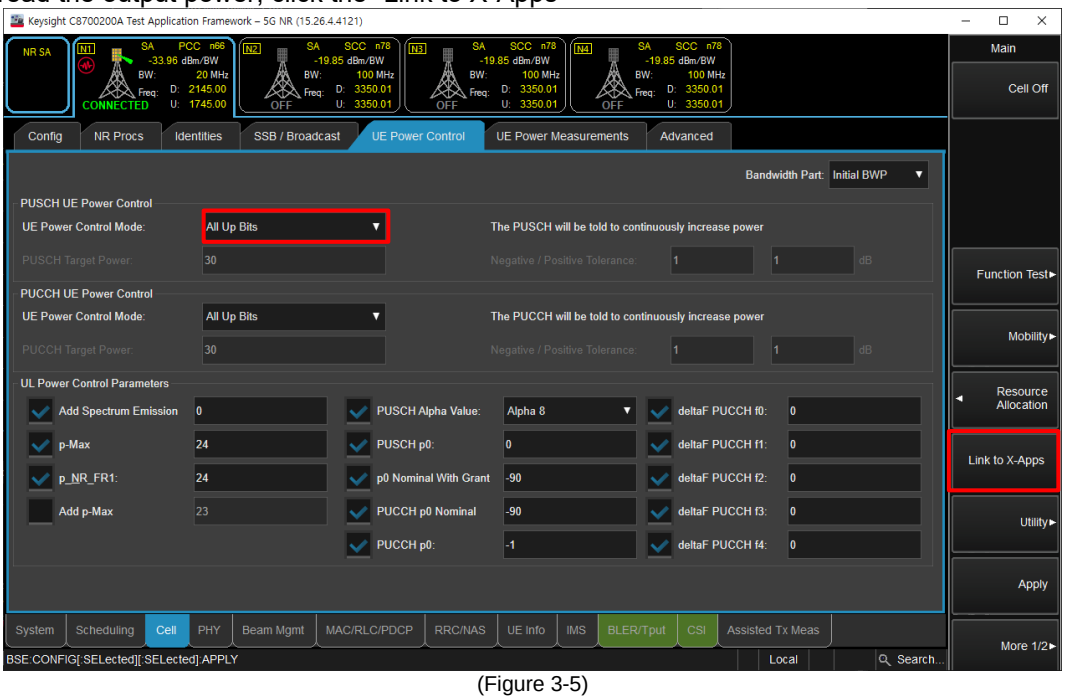
(Figure 3-3)

- 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)

NR Band n5 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
					DSI = 0, 1, 2, 3, 4				
					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		24.74		0.00	25.00
			1	53		24.68		0.00	25.00
			1	104		24.57		0.00	25.00
			50	0		24.33		0.50	24.50
			50	28		24.76		0.00	25.00
			50	56		24.21		0.50	24.50
			100	0		24.30		0.50	24.50
		QPSK	1	1		24.85		0.00	25.00
			1	53		24.74		0.00	25.00
			1	104		24.59		0.00	25.00
			50	0		23.87		1.00	24.00
			50	28		24.76		0.00	25.00
			50	56		23.74		1.00	24.00
			100	0		23.84		1.00	24.00
		16QAM	1	1		23.86		1.00	24.00
			1	53		23.72		1.00	24.00
			1	104		23.57		1.00	24.00
		64QAM	1	1		22.53		1.50	23.50
		256QAM	1	1		19.89		4.50	20.50
	CP-OFDM	QPSK	1	1		23.34		1.50	23.50
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					166300.00	167300.00	168300.00		
					831.5 MHz	836.5 MHz	841.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.52	24.67	24.31	0.00	25.00
			1	40	24.35	24.59	24.21	0.00	25.00
			1	77	24.29	24.51	24.24	0.00	25.00
			36	0	23.52	23.79	23.44	0.50	24.50
			36	22	24.49	24.73	24.37	0.00	25.00
			36	43	23.42	23.69	23.36	0.50	24.50
			75	0	23.48	23.73	23.39	0.50	24.50
		QPSK	1	1	24.62	24.84	24.46	0.00	25.00
			1	40	24.45	24.65	24.39	0.00	25.00
			1	77	24.40	24.59	24.37	0.00	25.00
			36	0	23.54	23.81	23.46	1.00	24.00
			36	22	24.47	24.73	24.33	0.00	25.00
			36	43	23.44	23.69	23.34	1.00	24.00
			75	0	23.46	23.71	23.39	1.00	24.00
		16QAM	1	1	23.52	23.74	23.32	1.00	24.00
		64QAM	1	1	22.23	22.43	22.12	1.50	23.50
		256QAM	1	1	19.70	19.80	19.46	4.50	20.50
	CP-OFDM	QPSK	1	1	23.14	23.25	22.91	1.50	23.50

NR Band n5 Measured Results_(Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					165800.00	167300.00	168800.00		
					829 MHz	836.5 MHz	844 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.39	24.49	24.09	0.00	25.00
			1	26	24.31	24.46	24.06	0.00	25.00
			1	50	24.20	24.40	24.09	0.00	25.00
			25	0	23.51	23.61	23.23	0.50	24.50
			25	14	24.40	24.58	24.15	0.00	25.00
			25	27	23.33	23.61	23.23	0.50	24.50
			50	0	23.40	23.60	23.21	0.50	24.50
		QPSK	1	1	24.47	24.62	24.20	0.00	25.00
			1	26	24.49	24.58	24.17	0.00	25.00
			1	50	24.29	24.54	24.20	0.00	25.00
			25	0	23.54	23.66	23.27	1.00	24.00
			25	14	24.37	24.64	24.21	0.00	25.00
			25	27	23.37	23.60	23.31	1.00	24.00
			50	0	23.41	23.58	23.22	1.00	24.00
		16QAM	1	1	23.43	23.58	23.18	1.00	24.00
		64QAM	1	1	22.14	22.30	21.88	1.50	23.50
		256QAM	1	1	19.48	19.61	19.24	4.50	20.50
	CP-OFDM	QPSK	1	1	22.94	23.01	21.15	1.50	23.50
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					165300.00	167300.00	169300.00		
					826.5 MHz	836.5 MHz	846.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.83	24.53	24.56	0.00	25.00
			1	13	24.76	24.47	24.43	0.00	25.00
			1	23	24.72	24.48	24.41	0.00	25.00
			12	0	23.86	23.63	23.61	0.50	24.50
			12	7	24.81	24.58	24.53	0.00	25.00
			12	13	23.84	23.57	23.56	0.50	24.50
			25	0	23.83	23.59	23.56	0.50	24.50
		QPSK	1	1	24.89	24.64	24.66	0.00	25.00
			1	13	24.83	24.58	24.57	0.00	25.00
			1	23	24.87	24.63	24.56	0.00	25.00
			12	0	23.88	23.61	23.57	1.00	24.00
			12	7	24.80	24.54	24.51	0.00	25.00
			12	13	23.83	23.60	23.54	1.00	24.00
			25	0	23.82	23.60	23.55	1.00	24.00
		16QAM	1	1	23.81	23.57	23.52	1.00	24.00
		64QAM	1	1	22.45	22.34	22.29	1.50	23.50
		256QAM	1	1	19.88	19.64	19.57	4.50	20.50
	CP-OFDM	QPSK	1	1	23.27	23.03	23.00	1.50	23.50

NR Band n25 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)													
					DSI = 0, 2					DSI = 3					DSI = 1, 4				
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					372000	376500	381000			372000	376500	381000			372000	376500	381000		
					1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.28	22.41	22.51	0.00	24.00	17.79	17.68	17.78	0.00	18.50	18.30	18.54	18.74	0.00	19.0
			1	53	22.36	22.46	22.58	0.00	24.00	17.75	17.61	17.79	0.00	18.50	18.37	18.62	18.76	0.00	19.0
			1	104	22.47	22.49	22.58	0.00	24.00	17.65	17.60	17.86	0.00	18.50	18.56	18.61	18.78	0.00	19.0
			50	0	21.40	21.59	21.65	0.50	23.50	17.92	17.69	17.84	0.00	18.50	18.48	18.68	18.85	0.00	19.0
			50	28	22.51	22.62	22.71	0.00	24.00	17.89	17.67	18.01	0.00	18.50	18.53	18.69	18.93	0.00	19.0
			50	56	21.49	21.60	21.77	0.50	23.50	17.89	17.71	18.12	0.00	18.50	18.63	18.74	18.89	0.00	19.0
			100	0	21.52	21.63	21.77	0.50	23.50	17.90	17.70	17.98	0.00	18.50	18.52	18.73	18.91	0.00	19.0
		QPSK	1	1	22.40	22.50	22.64	0.00	24.00	17.91	17.71	17.84	0.00	18.50	18.32	18.59	18.79	0.00	19.0
			1	53	22.47	22.56	22.72	0.00	24.00	17.86	17.63	17.90	0.00	18.50	18.35	18.68	18.90	0.00	19.0
			1	104	22.51	22.62	22.74	0.00	24.00	17.77	17.72	17.97	0.00	18.50	18.56	18.75	18.91	0.00	19.0
			50	0	21.47	21.62	21.69	1.00	23.00	17.91	17.72	17.93	0.00	18.50	18.51	18.76	18.83	0.00	19.0
			50	28	22.50	22.64	22.77	0.00	24.00	17.87	17.71	18.03	0.00	18.50	18.47	18.69	18.89	0.00	19.0
			50	56	21.50	21.60	21.71	1.00	23.00	17.85	17.66	18.00	0.00	18.50	18.65	18.71	18.85	0.00	19.0
			100	0	21.55	21.65	21.77	1.00	23.00	17.89	17.74	17.98	0.00	18.50	18.25	18.71	18.97	0.00	19.0
		16QAM	1	1	21.39	21.45	21.68	1.00	23.00	17.84	17.59	17.79	0.00	18.50	18.48	18.61	18.77	0.00	19.0
			1	53	21.48	21.29	21.66	1.00	23.00	17.78	17.57	17.86	0.00	18.50	18.39	18.70	18.85	0.00	19.0
			1	104	21.33	21.32	21.66	1.00	23.00	17.69	17.60	17.92	0.00	18.50	18.55	18.77	18.93	0.00	19.0
		64QAM	1	1	20.09	20.15	20.31	2.50	21.50	18.02	17.80	17.97	0.00	18.50	18.55	18.76	18.95	0.00	19.0
		256QAM	1	1	17.37	17.53	17.64	4.50	19.50	17.46	17.23	17.36	0.00	18.50	17.47	17.68	17.84	0.50	18.5
	CP-OFDM	QPSK	1	1	20.84	20.98	21.50	1.50	22.50	17.94	17.72	17.84	0.00	18.50	18.45	18.67	18.81	0.00	19.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					371500.00	376500.00	381500.00			371500.00	376500.00	381500.00			371500.00	376500.00	381500.00		
					1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.33	22.72	22.62	0.00	24.00	17.82	17.67	17.88	0.00	18.50	18.45	18.70	18.70	0.00	19.0
			1	40	22.35	22.62	22.65	0.00	24.00	17.78	17.54	17.89	0.00	18.50	18.42	18.56	18.76	0.00	19.0
			1	77	22.49	22.61	22.69	0.00	24.00	17.79	17.59	17.93	0.00	18.50	18.56	18.60	18.83	0.00	19.0
			36	0	21.53	21.78	21.88	0.50	23.50	17.88	17.64	18.00	0.00	18.50	18.58	18.72	18.92	0.00	19.0
			36	22	22.51	22.77	22.83	0.00	24.00	17.84	17.62	17.94	0.00	18.50	18.52	18.72	18.92	0.00	19.0
			36	43	21.62	21.80	21.83	0.50	23.50	17.88	17.62	17.98	0.00	18.50	18.62	18.77	18.91	0.00	19.0
			75	0	21.54	21.75	21.84	0.50	23.50	17.87	17.63	17.96	0.00	18.50	18.52	18.74	18.93	0.00	19.0
		QPSK	1	1	22.49	22.84	22.78	0.00	24.00	17.90	17.69	17.96	0.00	18.50	18.52	18.76	18.79	0.00	19.0
			1	40	22.48	22.72	22.76	0.00	24.00	17.85	17.64	17.92	0.00	18.50	18.55	18.71	18.85	0.00	19.0
			1	77	22.63	22.73	22.87	0.00	24.00	17.87	17.69	18.06	0.00	18.50	18.62	18.71	18.94	0.00	19.0
			36	0	21.55	21.79	21.89	1.00	23.00	17.87	17.64	17.95	0.00	18.50	18.56	18.74	18.94	0.00	19.0
			36	22	22.54	22.76	22.87	0.00	24.00	17.89	17.62	17.92	0.00	18.50	18.51	18.75	18.94	0.00	19.0
			36	43	21.67	21.78	21.84	1.00	23.00	17.88	17.62	17.95	0.00	18.50	18.67	18.75	18.95	0.00	19.0
			75	0	21.50	21.76	21.83	1.00	23.00	17.85	17.62	17.94	0.00	18.50	18.55	18.72	18.88	0.00	19.0
		16QAM	1	1	21.41	21.79	21.77	1.00	23.00	17.85	17.61	17.89	0.00	18.50	18.48	18.75	18.79	0.00	19.0
		64QAM	1	1	20.19	20.48	20.34	2.50	21.50	18.06	17.80	18.04	0.00	18.50	18.63	18.91	18.94	0.00	19.0
		256QAM	1	1	17.33	17.65	17.61	4.50	19.50	17.38	17.17	17.44	0.00	18.50	17.49	17.90	17.81	0.50	18.5
	CP-OFDM	QPSK	1	1	20.87	21.24	21.14	1.50	22.50	17.88	17.70	17.96	0.00	18.50	18.51	18.81	18.81	0.00	19.0

NR Band n25 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	Measured Pwr (dBm)			MPR	Tune-up Limit
					371000.00	376500.00	382000.00			371000.00	376500.00	382000.00			371000.00	376500.00	382000.00		
					1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.20	22.49	22.61	0.00	24.00	17.83	17.58	17.84	0.00	18.50	18.28	18.51	18.63	0.00	19.0
			1	26	22.36	22.56	22.58	0.00	24.00	17.84	17.57	17.88	0.00	18.50	18.43	18.58	18.62	0.00	19.0
			1	50	22.30	22.48	22.61	0.00	24.00	17.77	17.50	17.95	0.00	18.50	18.35	18.52	18.71	0.00	19.0
			25	0	21.45	21.65	21.74	0.50	23.50	17.95	17.64	17.99	0.00	18.50	18.52	18.68	18.72	0.00	19.0
			25	14	22.48	22.68	22.69	0.00	24.00	17.95	17.65	18.00	0.00	18.50	18.47	18.69	18.73	0.00	19.0
			25	27	21.40	21.65	21.74	0.50	23.50	17.91	17.63	17.94	0.00	18.50	18.46	18.67	18.82	0.00	19.0
			50	0	21.43	21.66	21.75	0.50	23.50	17.85	17.60	18.02	0.00	18.50	18.49	18.65	18.82	0.00	19.0
		QPSK	1	1	22.31	22.53	22.73	0.00	24.00	17.91	17.63	17.90	0.00	18.50	18.37	18.52	18.78	0.00	19.0
			1	26	22.41	22.65	22.71	0.00	24.00	17.88	17.61	18.00	0.00	18.50	18.48	18.64	18.77	0.00	19.0
			1	50	22.34	22.60	22.75	0.00	24.00	17.80	17.55	18.09	0.00	18.50	18.45	18.60	18.81	0.00	19.0
			25	0	21.42	21.68	21.75	1.00	23.00	17.93	17.64	18.00	0.00	18.50	18.54	18.67	18.74	0.00	19.0
			25	14	22.46	22.63	22.73	0.00	24.00	17.94	17.65	17.99	0.00	18.50	18.52	18.61	18.75	0.00	19.0
			25	27	21.47	21.64	21.77	1.00	23.00	17.91	17.59	17.99	0.00	18.50	18.46	18.59	18.84	0.00	19.0
			50	0	21.43	21.64	21.67	1.00	23.00	17.94	17.61	17.99	0.00	18.50	18.49	18.67	18.71	0.00	19.0
		16QAM	1	1	21.26	21.47	21.70	1.00	23.00	17.84	17.50	17.80	0.00	18.50	18.36	18.47	18.74	0.00	19.0
		64QAM	1	1	20.02	20.17	20.41	2.50	21.50	18.01	17.78	18.00	0.00	18.50	18.51	18.62	18.87	0.00	19.0
		256QAM	1	1	17.21	17.36	17.54	4.50	19.50	17.36	17.10	17.34	0.00	18.50	17.35	17.50	17.72	0.50	18.5
	CP-OFDM	QPSK	1	1	20.70	20.91	21.08	1.50	22.50	17.90	17.62	17.89	0.00	18.50	18.36	18.82	18.75	0.00	19.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					370500.00	376500.00	382500.00			370500.00	376500.00	382500.00			370500.00	376500.00	382500.00		
					1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.27	22.60	22.55	0.00	24.00	17.97	17.78	17.83	0.00	18.50	18.33	18.61	18.65	0.00	19.0
			1	13	22.34	22.54	22.63	0.00	24.00	17.87	17.67	17.92	0.00	18.50	18.39	18.54	18.69	0.00	19.0
			1	23	22.37	22.57	22.62	0.00	24.00	17.81	17.77	18.00	0.00	18.50	18.40	18.57	18.69	0.00	19.0
			12	0	21.46	21.65	21.72	0.50	23.50	18.00	17.81	18.05	0.00	18.50	18.40	18.64	18.76	0.00	19.0
			12	7	22.40	22.62	22.71	0.00	24.00	17.99	17.74	18.02	0.00	18.50	18.41	18.60	18.82	0.00	19.0
			12	13	21.48	21.66	21.77	0.50	23.50	17.98	17.77	18.15	0.00	18.50	18.42	18.62	18.78	0.00	19.0
			25	0	21.51	21.64	21.78	0.50	23.50	18.00	17.80	18.04	0.00	18.50	18.43	18.62	18.79	0.00	19.0
		QPSK	1	1	22.37	22.70	22.67	0.00	24.00	18.03	17.83	17.97	0.00	18.50	18.37	18.68	18.71	0.00	19.0
			1	13	22.43	22.67	22.80	0.00	24.00	17.92	17.74	17.99	0.00	18.50	18.43	18.63	18.78	0.00	19.0
			1	23	22.48	22.64	22.79	0.00	24.00	17.90	17.84	18.07	0.00	18.50	18.45	18.66	18.80	0.00	19.0
			12	0	21.46	21.66	21.71	1.00	23.00	18.01	17.79	18.04	0.00	18.50	18.48	18.64	18.68	0.00	19.0
			12	7	22.44	22.64	22.78	0.00	24.00	17.99	17.76	18.05	0.00	18.50	18.48	18.60	18.76	0.00	19.0
			12	13	21.45	21.68	21.79	1.00	23.00	17.98	17.78	18.16	0.00	18.50	18.47	18.64	18.83	0.00	19.0
			25	0	21.48	21.63	21.82	1.00	23.00	18.01	17.80	18.02	0.00	18.50	18.48	18.64	18.85	0.00	19.0
		16QAM	1	1	21.37	21.70	21.67	1.00	23.00	17.98	17.75	17.84	0.00	18.50	18.39	18.64	18.68	0.00	19.0
		64QAM	1	1	20.10	20.39	20.35	2.50	21.50	18.19	17.92	18.03	0.00	18.50	18.56	18.76	18.87	0.00	19.0
		256QAM	1	1	17.26	17.60	17.63	4.50	19.50	17.53	17.30	17.47	0.00	18.50	17.31	17.63	17.67	0.50	18.5
	CP-OFDM	QPSK	1	1	20.77	21.05	21.07	1.50	22.50	18.07	17.87	17.96	0.00	18.50	18.40	18.63	18.72	0.00	19.0

NR Band n66 (Main.1 Ant) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)														
					DSI = 0, 2					DSI = 3					DSI = 1, 4				
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000			344000	349000	354000			344000	349000	354000		
					1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.65	22.71	22.78	0.00	24.00	17.91	17.96	17.90	0.00	19.00	18.88	18.93	18.83	0.00	20.00
			1	53	22.75	22.70	22.67	0.00	24.00	17.88	17.90	17.89	0.00	19.00	18.81	18.87	18.89	0.00	20.00
			1	104	22.82	22.80	22.85	0.00	24.00	17.97	17.95	17.96	0.00	19.00	18.87	18.89	18.92	0.00	20.00
			50	0	21.88	21.83	21.87	0.50	23.50	17.96	17.98	17.95	0.00	19.00	18.97	19.02	18.98	0.00	20.00
			50	28	22.91	22.94	22.87	0.00	24.00	18.03	18.00	17.92	0.00	19.00	18.95	19.03	18.96	0.00	20.00
			50	56	22.54	22.49	22.54	0.50	23.50	17.99	18.00	18.03	0.00	19.00	18.98	19.00	19.03	0.00	20.00
			100	0	22.45	22.42	22.50	0.50	23.50	18.01	18.05	17.94	0.00	19.00	18.98	19.02	18.95	0.00	20.00
		QPSK	1	1	22.94	22.86	22.93	0.00	24.00	18.04	18.04	17.99	0.00	19.00	19.00	19.02	18.97	0.00	20.00
			1	53	22.82	22.82	22.77	0.00	24.00	17.94	17.97	17.99	0.00	19.00	18.95	18.97	18.99	0.00	20.00
			1	104	22.90	22.94	22.95	0.00	24.00	18.02	18.03	18.06	0.00	19.00	18.97	19.01	19.04	0.00	20.00
			50	0	21.90	21.88	21.85	1.00	23.00	17.99	17.99	17.97	0.00	19.00	19.01	19.03	18.97	0.00	20.00
			50	28	22.93	22.83	22.94	0.00	24.00	18.03	18.01	18.05	0.00	19.00	19.03	18.98	19.04	0.00	20.00
			50	56	21.94	21.89	21.85	1.00	23.00	18.00	17.99	18.04	0.00	19.00	18.98	19.03	19.03	0.00	20.00
			100	0	21.89	21.87	21.93	1.00	23.00	18.04	18.06	17.94	0.00	19.00	18.99	19.00	19.01	0.00	20.00
		16QAM	1	1	21.76	21.87	21.81	1.00	23.00	17.93	17.95	17.87	0.00	19.00	18.94	19.04	18.96	0.00	20.00
			1	53	21.97	22.03	21.96	1.00	23.00	17.88	17.92	17.91	0.00	19.00	18.91	18.98	19.00	0.00	20.00
			1	104	22.12	22.12	22.09	1.00	23.00	17.99	18.00	17.95	0.00	19.00	18.92	18.97	19.04	0.00	20.00
		64QAM	1	1	20.48	20.51	20.52	2.50	21.50	18.15	18.12	18.09	0.00	19.00	19.03	19.11	19.14	0.00	20.00
		256QAM	1	1	17.70	17.71	17.74	4.50	19.50	17.62	17.48	17.40	0.00	19.00	17.88	17.94	17.90	1.50	18.50
	CP-OFDM	QPSK	1	1	21.34	21.30	21.31	1.50	22.50	17.99	17.95	18.05	0.00	19.00	19.02	19.03	18.98	0.00	20.00
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500.00	349000.00	354500.00			343500.00	349000.00	354500.00			343500.00	349000.00	354500.00		
					1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.91	22.84	22.80	0.00	24.00	17.99	17.93	17.80	0.00	19.00	18.96	18.93	18.82	0.00	20.00
			1	40	22.83	22.78	22.86	0.00	24.00	17.88	17.94	17.83	0.00	19.00	18.95	18.93	18.83	0.00	20.00
			1	77	22.95	22.93	22.90	0.00	24.00	18.01	17.95	17.89	0.00	19.00	19.00	18.97	18.91	0.00	20.00
			36	0	21.99	21.95	21.92	0.50	23.50	18.08	17.99	17.88	0.00	19.00	19.06	19.05	18.90	0.00	20.00
			36	22	22.99	22.93	22.97	0.00	24.00	18.06	17.98	17.92	0.00	19.00	19.06	19.04	18.97	0.00	20.00
			36	43	22.03	22.01	22.01	0.50	23.50	18.06	18.05	17.97	0.00	19.00	19.08	19.09	18.98	0.00	20.00
			75	0	22.03	21.99	21.99	0.50	23.50	18.05	18.00	17.95	0.00	19.00	19.11	19.03	18.98	0.00	20.00
		QPSK	1	1	23.00	22.97	22.92	0.00	24.00	18.01	18.02	17.92	0.00	19.00	19.10	19.00	18.94	0.00	20.00
			1	40	22.96	22.92	22.94	0.00	24.00	18.03	17.97	17.94	0.00	19.00	19.01	18.99	18.93	0.00	20.00
			1	77	23.07	22.96	23.05	0.00	24.00	18.07	18.07	17.97	0.00	19.00	19.16	19.08	19.03	0.00	20.00
			36	0	22.00	21.98	21.98	1.00	23.00	18.04	17.98	17.89	0.00	19.00	19.13	19.06	18.94	0.00	20.00
			36	22	23.00	22.94	23.03	0.00	24.00	18.06	17.97	17.97	0.00	19.00	19.11	19.02	18.98	0.00	20.00
			36	43	22.06	22.00	22.02	1.00	23.00	18.10	18.05	18.00	0.00	19.00	19.06	19.03	18.99	0.00	20.00
			75	0	22.07	21.97	22.05	1.00	23.00	18.09	18.00	17.99	0.00	19.00	19.12	19.03	18.99	0.00	20.00
		16QAM	1	1	21.93	21.94	21.87	1.00	23.00	17.98	17.94	17.84	0.00	19.00	19.06	18.98	18.95	0.00	20.00
		64QAM	1	1	20.66	20.60	20.61	2.50	21.50	18.18	18.07	18.01	0.00	19.00	19.22	19.14	19.04	0.00	20.00
		256QAM	1	1	17.86	17.76	17.77	4.50	19.50	17.49	17.46	17.28	0.00	19.00	18.03	17.90	17.87	1.50	18.50
	CP-OFDM	QPSK	1	1	21.39	21.35	21.36	1.50	22.50	18.04	18.04	17.90	0.00	19.00	19.11	19.00	18.90	0.00	20.00

NR Band n66 (Main.1 Ant) 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	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000.00	349000.00	355000.00			343000.00	349000.00	355000.00			343000.00	349000.00	355000.00		
					1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.72	22.82	22.81	0.00	24.00	17.78	17.87	17.89	0.00	19.00	18.81	18.89	18.81	0.00	20.00
			1	26	22.73	22.82	22.86	0.00	24.00	17.83	17.89	17.92	0.00	19.00	18.85	18.91	18.78	0.00	20.00
			1	50	22.76	22.83	22.78	0.00	24.00	17.82	17.89	17.90	0.00	19.00	18.87	18.87	18.80	0.00	20.00
			25	0	21.76	21.89	21.89	0.50	23.50	17.88	17.95	17.93	0.00	19.00	18.88	18.97	18.89	0.00	20.00
			25	14	22.84	22.93	22.92	0.00	24.00	17.87	17.96	17.99	0.00	19.00	18.91	18.98	18.92	0.00	20.00
			25	27	21.84	21.92	21.92	0.50	23.50	17.91	17.94	17.99	0.00	19.00	18.92	18.94	18.88	0.00	20.00
			50	0	21.79	21.86	21.90	0.50	23.50	17.88	17.89	17.89	0.00	19.00	18.86	18.96	18.87	0.00	20.00
		QPSK	1	1	22.77	22.90	22.91	0.00	24.00	17.89	17.95	17.93	0.00	19.00	18.95	18.95	18.92	0.00	20.00
			1	26	22.79	22.92	22.94	0.00	24.00	17.89	17.98	17.95	0.00	19.00	18.92	18.99	18.92	0.00	20.00
			1	50	22.83	22.91	22.92	0.00	24.00	17.87	17.95	17.94	0.00	19.00	18.93	18.96	18.91	0.00	20.00
			25	0	21.79	21.86	21.90	1.00	23.00	17.90	17.89	17.93	0.00	19.00	18.92	18.91	18.93	0.00	20.00
			25	14	22.80	22.90	22.93	0.00	24.00	17.92	17.94	17.97	0.00	19.00	18.90	18.99	18.96	0.00	20.00
			25	27	21.82	21.90	21.94	1.00	23.00	17.87	17.95	17.96	0.00	19.00	18.88	18.95	18.88	0.00	20.00
			50	0	21.77	21.86	21.92	1.00	23.00	17.88	17.91	17.96	0.00	19.00	18.94	18.92	18.90	0.00	20.00
		16QAM	1	1	21.77	21.88	21.86	1.00	23.00	17.83	17.91	17.88	0.00	19.00	18.90	18.96	18.90	0.00	20.00
		64QAM	1	1	20.48	20.60	20.60	2.50	21.50	18.03	18.07	18.08	0.00	19.00	19.07	19.12	19.09	0.00	20.00
		256QAM	1	1	17.60	17.74	17.80	4.50	19.50	17.37	17.39	17.43	0.00	19.00	17.88	17.90	17.87	1.50	18.50
	CP-OFDM	QPSK	1	1	21.19	21.22	21.30	1.50	22.50	17.88	17.92	17.94	0.00	19.00	18.89	18.88	18.94	0.00	20.00

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500.00	349000.00	355500.00			342500.00	349000.00	355500.00			342500.00	349000.00	355500.00		
					1712.5 MHz	1745 MHz	1777.5 MHz			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	22.70	22.79	22.77	0.00	24.00	17.72	17.89	17.84	0.00	19.00	18.76	18.86	18.81	0.00	20.00
			1	13	22.76	22.85	22.81	0.00	24.00	17.79	17.88	17.82	0.00	19.00	18.75	18.87	18.86	0.00	20.00
			1	23	22.73	22.78	22.79	0.00	24.00	17.75	17.89	17.82	0.00	19.00	18.73	18.86	18.80	0.00	20.00
			12	0	21.76	21.90	21.93	0.50	23.50	17.87	17.91	17.87	0.00	19.00	18.81	18.95	18.85	0.00	20.00
			12	7	22.83	22.89	22.90	0.00	24.00	17.86	17.95	17.88	0.00	19.00	18.82	18.92	18.88	0.00	20.00
			12	13	21.78	21.93	21.91	0.50	23.50	17.83	17.95	17.91	0.00	19.00	18.85	18.95	18.92	0.00	20.00
			25	0	21.79	21.87	21.91	0.50	23.50	17.88	17.96	17.88	0.00	19.00	18.79	18.96	18.89	0.00	20.00
		QPSK	1	1	22.82	22.88	22.91	0.00	24.00	17.84	17.89	17.90	0.00	19.00	18.79	18.93	18.88	0.00	20.00
			1	13	22.81	22.90	22.95	0.00	24.00	17.85	17.97	17.88	0.00	19.00	18.86	18.96	18.93	0.00	20.00
			1	23	22.80	22.89	22.92	0.00	24.00	17.83	17.90	17.87	0.00	19.00	18.82	18.95	18.86	0.00	20.00
			12	0	21.76	21.85	21.92	1.00	23.00	17.85	17.93	17.90	0.00	19.00	18.80	18.89	18.89	0.00	20.00
			12	7	22.78	22.86	22.89	0.00	24.00	17.85	17.95	17.92	0.00	19.00	18.80	18.93	18.85	0.00	20.00
			12	13	21.81	21.93	21.93	1.00	23.00	17.83	17.96	17.88	0.00	19.00	18.86	18.91	18.92	0.00	20.00
			25	0	21.84	21.85	21.95	1.00	23.00	17.87	17.91	17.88	0.00	19.00	18.81	18.92	18.89	0.00	20.00
		16QAM	1	1	21.76	21.88	21.80	1.00	23.00	17.78	17.91	17.87	0.00	19.00	18.84	18.91	18.93	0.00	20.00
		64QAM	1	1	20.46	20.54	20.59	2.50	21.50	18.00	18.06	18.01	0.00	19.00	18.99	19.07	19.08	0.00	20.00
		256QAM	1	1	17.66	17.70	17.78	4.50	19.50	17.31	17.36	17.38	0.00	19.00	17.80	17.89	17.88	1.50	18.50
	CP-OFDM	QPSK	1	1	21.19	21.25	21.29	1.50	22.50	17.84	17.90	17.85	0.00	19.00	18.83	18.92	18.89	0.00	20.00

NR Band n66 (Sub.2 Ant) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					DSI = 0, 1, 2, 3, 4				
					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	19.33	19.15	18.92	0.00	20.00
			1	53	19.30	18.98	19.00	0.00	20.00
			1	104	19.23	18.99	19.06	0.00	20.00
			50	0	19.41	19.17	19.15	0.00	20.00
			50	28	19.44	19.16	19.19	0.00	20.00
			50	56	19.39	19.20	19.24	0.00	20.00
			100	0	19.40	19.15	19.12	0.00	20.00
		QPSK	1	1	19.34	19.37	19.30	0.00	20.00
			1	53	19.27	19.06	18.97	0.00	20.00
			1	104	19.29	19.01	19.05	0.00	20.00
			50	0	19.41	19.20	19.17	0.00	20.00
			50	28	19.40	19.45	19.17	0.00	20.00
			50	56	19.40	19.20	19.18	0.00	20.00
			100	0	19.33	19.41	19.23	0.00	20.00
		16QAM	1	1	19.45	19.34	19.15	0.00	20.00
			1	53	19.23	18.99	18.95	0.00	20.00
			1	104	19.43	19.21	19.25	0.00	20.00
		64QAM	1	1	19.31	19.14	19.06	0.00	20.00
		256QAM	1	1	18.15	17.99	17.80	1.00	19.00
	CP-OFDM	QPSK	1	1	19.39	19.20	19.07	0.00	20.00
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500.00	349000.00	354500.00		
					1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.34	19.14	19.06	0.00	20.00
			1	40	19.29	19.10	19.05	0.00	20.00
			1	77	19.33	19.14	19.14	0.00	20.00
			36	0	19.48	19.25	19.24	0.00	20.00
			36	22	19.50	19.25	19.21	0.00	20.00
			36	43	19.47	19.25	19.25	0.00	20.00
			75	0	19.48	19.28	19.24	0.00	20.00
		QPSK	1	1	19.49	19.13	19.10	0.00	20.00
			1	40	19.40	19.12	19.00	0.00	20.00
			1	77	19.47	19.18	19.10	0.00	20.00
			36	0	19.50	19.29	19.25	0.00	20.00
			36	22	19.50	19.21	19.23	0.00	20.00
			36	43	19.46	19.29	19.27	0.00	20.00
			75	0	19.52	19.31	19.27	0.00	20.00
		16QAM	1	1	19.37	19.38	19.27	0.00	20.00
		64QAM	1	1	19.62	19.11	19.07	0.00	20.00
		256QAM	1	1	18.18	17.97	18.00	1.00	19.00
	CP-OFDM	QPSK	1	1	19.46	19.24	19.14	0.00	20.00

NR Band n66 (Sub.2 Ant) Measured Results_(Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000.00	349000.00	355000.00		
					1715 MHz	1745 MHz	1775 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.15	19.05	19.06	0.00	20.00
			1	26	19.91	19.43	19.09	0.00	20.00
			1	50	19.21	19.04	19.01	0.00	20.00
			25	0	19.65	19.51	19.18	0.00	20.00
			25	14	19.83	19.69	19.21	0.00	20.00
			25	27	19.66	19.51	19.21	0.00	20.00
			50	0	19.73	19.54	19.20	0.00	20.00
		QPSK	1	1	19.23	19.13	19.09	0.00	20.00
			1	26	19.85	19.67	19.12	0.00	20.00
			1	50	19.18	19.06	19.07	0.00	20.00
			25	0	19.64	19.55	19.21	0.00	20.00
			25	14	19.88	19.73	19.22	0.00	20.00
			25	27	19.66	19.56	19.22	0.00	20.00
			50	0	19.75	19.59	19.15	0.00	20.00
		16QAM	1	1	19.27	19.21	19.25	0.00	20.00
		64QAM	1	1	19.15	19.13	19.07	0.00	20.00
		256QAM	1	1	18.03	17.92	17.86	1.00	19.00
	CP-OFDM	QPSK	1	1	19.27	19.11	19.13	0.00	20.00

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500.00	349000.00	355500.00		
					1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.62	19.02	19.01	0.00	20.00
			1	13	19.70	19.07	19.01	0.00	20.00
			1	23	19.62	19.04	19.05	0.00	20.00
			12	0	19.78	19.17	19.12	0.00	20.00
			12	7	19.81	19.16	19.13	0.00	20.00
			12	13	19.76	19.14	19.14	0.00	20.00
			25	0	19.78	19.18	19.11	0.00	20.00
		QPSK	1	1	19.60	19.02	19.01	0.00	20.00
			1	13	19.71	19.09	19.09	0.00	20.00
			1	23	19.65	19.00	19.07	0.00	20.00
			12	0	19.77	19.13	19.10	0.00	20.00
			12	7	19.81	19.22	19.11	0.00	20.00
			12	13	19.74	19.16	19.13	0.00	20.00
			25	0	19.78	19.13	19.13	0.00	20.00
		16QAM	1	1	19.83	19.25	19.16	0.00	20.00
		64QAM	1	1	19.59	19.05	18.98	0.00	20.00
		256QAM	1	1	18.42	17.85	17.82	1.00	19.00
	CP-OFDM	QPSK	1	1	19.67	19.12	19.07	0.00	20.00

NR Band n41 (Voice/data/SRS0) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
					DSI = 0, 1, 4						DSI = 2, 3					
					Measured Pwr (dBm)			MPR	Tune-up Limit		Measured Pwr (dBm)			MPR	Tune-up Limit	
					509202	518598	528000				509202	518598	528000			
					2546.01 MHz	2592.99 MHz	2640 MHz				2546.01 MHz	2592.99 MHz	2640 MHz			
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1		18.52		0.00	19.50			16.73		0.00	17.50	
			1	137		18.41		0.00	19.50			16.52		0.00	17.50	
			1	271		18.48		0.00	19.50			16.60		0.00	17.50	
			135	0		18.57		0.00	19.50			16.62		0.00	17.50	
			135	69		18.46		0.00	19.50			16.50		0.00	17.50	
			135	138		18.60		0.00	19.50			16.58		0.00	17.50	
			270	0		18.58		0.00	19.50			16.54		0.00	17.50	
		QPSK	1	1		18.67		0.00	19.50			16.62		0.00	17.50	
			1	137		18.54		0.00	19.50			16.52		0.00	17.50	
			1	271		18.64		0.00	19.50			16.54		0.00	17.50	
			135	0		18.64		0.00	19.50			16.62		0.00	17.50	
			135	69		18.51		0.00	19.50			16.47		0.00	17.50	
			135	138		18.58		0.00	19.50			16.59		0.00	17.50	
			270	0		18.48		0.00	19.50			16.58		0.00	17.50	
		16QAM	1	1		18.75		0.00	19.50			16.71		0.00	17.50	
			1	137		18.60		0.00	19.50			16.54		0.00	17.50	
			1	271		18.65		0.00	19.50			16.60		0.00	17.50	
		64QAM	1	1		18.71		0.00	19.50			16.60		0.00	17.50	
		256QAM	1	1		17.82		0.00	19.50			16.53		0.00	17.50	
	CP-OFDM	QPSK	1	1		18.68		0.00	19.50			16.63		0.00	17.50	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					508200.00		528996.00			508200.00		528996.00		
					2541 MHz		2644.98 MHz			2541 MHz		2644.98 MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.53		18.11	0.00	19.50	16.57		16.24	0.00	17.50
			1	123	18.53		18.32	0.00	19.50	16.52		16.37	0.00	17.50
			1	243	18.38		18.38	0.00	19.50	16.37		16.35	0.00	17.50
			120	0	18.64		18.31	0.00	19.50	16.60		16.35	0.00	17.50
			120	63	18.61		18.42	0.00	19.50	16.54		16.43	0.00	17.50
			120	125	18.44		18.39	0.00	19.50	16.40		16.38	0.00	17.50
			243	0	18.54		18.43	0.00	19.50	16.53		16.40	0.00	17.50
		QPSK	1	1	18.54		18.32	0.00	19.50	16.50		16.32	0.00	17.50
			1	123	18.54		18.46	0.00	19.50	16.51		16.47	0.00	17.50
			1	243	18.38		18.48	0.00	19.50	16.38		16.45	0.00	17.50
			120	0	18.64		18.36	0.00	19.50	16.64		16.35	0.00	17.50
			120	63	18.53		18.43	0.00	19.50	16.53		16.46	0.00	17.50
			120	125	18.45		18.45	0.00	19.50	16.38		16.44	0.00	17.50
			243	0	18.57		18.44	0.00	19.50	16.51		16.48	0.00	17.50
		16QAM	1	1	18.51		18.35	0.00	19.50	16.46		16.43	0.00	17.50
		64QAM	1	1	18.36		18.16	0.00	19.50	16.34		16.13	0.00	17.50
		256QAM	1	1	18.68		18.22	0.00	19.50	16.66		16.21	0.00	17.50
	CP-OFDM	QPSK	1	1	18.64		18.32	0.00	19.50	16.63		16.31	0.00	17.50

Notes:

NR Band n41 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n41 (Voice/data/SRS0) 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
					507204.00				529998.00			507204.00				529998.00		
					2536.02 MHz				2649.99 MHz			2536.02 MHz				2649.99 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.58				18.20	0.00	19.50	16.47				16.33	0.00	17.50
			1	109	18.69				18.45	0.00	19.50	16.57				16.46	0.00	17.50
			1	215	18.52				18.48	0.00	19.50	16.40				16.44	0.00	17.50
			108	0	18.64				18.51	0.00	19.50	16.56				16.47	0.00	17.50
			108	55	18.69				18.47	0.00	19.50	16.64				16.53	0.00	17.50
			108	109	18.58				18.48	0.00	19.50	16.50				16.49	0.00	17.50
			216	0	18.64				18.54	0.00	19.50	16.64				16.46	0.00	17.50
		QPSK	1	1	18.67				18.34	0.00	19.50	16.60				16.36	0.00	17.50
			1	109	18.63				18.52	0.00	19.50	16.61				16.46	0.00	17.50
			1	215	18.45				18.53	0.00	19.50	16.46				16.48	0.00	17.50
			108	0	18.61				18.51	0.00	19.50	16.60				16.53	0.00	17.50
			108	55	18.64				18.51	0.00	19.50	16.63				16.47	0.00	17.50
			108	109	18.55				18.52	0.00	19.50	16.56				16.47	0.00	17.50
			216	0	18.65				18.52	0.00	19.50	16.64				16.50	0.00	17.50
		16QAM	1	1	18.80				18.50	0.00	19.50	16.76				16.47	0.00	17.50
		64QAM	1	1	18.35				18.15	0.00	19.50	16.34				16.14	0.00	17.50
		256QAM	1	1	18.71				18.17	0.00	19.50	16.68				16.13	0.00	17.50
	CP-OFDM	QPSK	1	1	18.68				18.29	0.00	19.50	16.65				16.24	0.00	17.50

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					526202.00				531000.00			526202.00				531000.00		
					2631.01 MHz				2655 MHz			2631.01 MHz				2655 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.67				18.65	0.00	19.50	16.43				16.49	0.00	17.50
			1	95	18.58				18.66	0.00	19.50	16.35				16.46	0.00	17.50
			1	187	18.48				18.57	0.00	19.50	16.46				16.36	0.00	17.50
			90	0	18.53				18.77	0.00	19.50	16.44				16.44	0.00	17.50
			90	50	18.54				18.65	0.00	19.50	16.48				16.54	0.00	17.50
			90	99	18.34				18.67	0.00	19.50	16.43				16.53	0.00	17.50
			180	0	18.52				18.66	0.00	19.50	16.13				16.50	0.00	17.50
		QPSK	1	1	18.53				18.60	0.00	19.50	16.46				16.64	0.00	17.50
			1	95	18.51				18.63	0.00	19.50	16.60				16.76	0.00	17.50
			1	187	18.32				18.64	0.00	19.50	16.63				16.34	0.00	17.50
			90	0	18.46				18.65	0.00	19.50	16.56				16.57	0.00	17.50
			90	50	18.48				18.65	0.00	19.50	16.46				16.55	0.00	17.50
			90	99	18.44				18.61	0.00	19.50	16.34				16.61	0.00	17.50
			180	0	18.54				18.59	0.00	19.50	16.66				16.38	0.00	17.50
		16QAM	1	1	18.54				18.57	0.00	19.50	16.63				16.40	0.00	17.50
		64QAM	1	1	18.77				18.66	0.00	19.50	16.81				16.32	0.00	17.50
		256QAM	1	1	18.67				18.69	0.00	19.50	16.71				16.47	0.00	17.50
	CP-OFDM	QPSK	1	1	18.78				18.74	0.00	19.50	16.56				16.45	0.00	17.50

Notes:

NR Band n41 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n41 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
					505200.00	518598.00	531996.00			505200.00	518598.00	531996.00		
					2526 MHz	2592.99 MHz	2659.98 MHz			2526 MHz	2592.99 MHz	2659.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.80	18.46	18.52	0.00	19.50	16.64	16.64	16.43	0.00	17.50
			1	81	18.71	18.41	18.66	0.00	19.50	16.64	16.57	16.52	0.00	17.50
			1	160	18.67	18.40	18.69	0.00	19.50	16.62	16.46	16.61	0.00	17.50
			81	0	18.81	18.54	18.55	0.00	19.50	16.74	16.58	16.48	0.00	17.50
			81	41	18.76	18.45	18.58	0.00	19.50	16.75	16.49	16.54	0.00	17.50
			81	81	18.80	18.42	18.65	0.00	19.50	16.81	16.42	16.52	0.00	17.50
			162	0	18.89	18.50	18.59	0.00	19.50	16.71	16.45	16.50	0.00	17.50
		QPSK	1	1	18.81	18.56	18.61	0.00	19.50	16.82	16.52	16.57	0.00	17.50
			1	81	18.79	18.45	18.68	0.00	19.50	16.76	16.45	16.61	0.00	17.50
			1	160	18.75	18.44	18.71	0.00	19.50	16.70	16.43	16.65	0.00	17.50
			81	0	18.82	18.51	18.56	0.00	19.50	16.76	16.55	16.49	0.00	17.50
			81	41	18.76	18.48	18.58	0.00	19.50	16.72	16.49	16.55	0.00	17.50
			81	81	18.83	18.44	18.65	0.00	19.50	16.83	16.43	16.56	0.00	17.50
			162	0	18.78	18.49	18.58	0.00	19.50	16.72	16.48	16.56	0.00	17.50
		16QAM	1	1	19.09	18.37	18.41	0.00	19.50	17.00	16.37	16.40	0.00	17.50
		64QAM	1	1	18.82	18.48	18.33	0.00	19.50	16.49	16.52	16.30	0.00	17.50
		256QAM	1	1	18.33	18.42	18.52	0.00	19.50	16.81	16.41	16.53	0.00	17.50
	CP-OFDM	QPSK	1	1	18.93	18.57	18.56	0.00	19.50	16.86	16.57	16.57	0.00	17.50

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					504204.00	518598.00	532998.00			504204.00	518598.00	532998.00		
					2512.02 MHz	2592.99 MHz	2664.99 MHz			2512.02 MHz	2592.99 MHz	2664.99 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.76	18.55	18.74	0.00	19.50	16.57	16.77	16.57	0.00	17.50
			1	67	18.77	18.56	18.73	0.00	19.50	16.55	16.74	16.54	0.00	17.50
			1	131	18.74	18.42	18.75	0.00	19.50	16.57	16.72	16.57	0.00	17.50
			64	0	18.81	18.57	18.84	0.00	19.50	16.59	16.52	16.70	0.00	17.50
			64	35	18.82	18.73	18.83	0.00	19.50	16.55	16.45	16.68	0.00	17.50
			64	69	18.80	18.78	18.85	0.00	19.50	16.64	16.43	16.68	0.00	17.50
			128	0	18.74	18.73	18.67	0.00	19.50	16.62	16.55	16.72	0.00	17.50
		QPSK	1	1	18.71	18.41	18.54	0.00	19.50	16.57	16.49	16.64	0.00	17.50
			1	67	18.76	18.49	18.64	0.00	19.50	16.54	16.43	16.49	0.00	17.50
			1	131	18.77	18.36	18.66	0.00	19.50	16.55	16.48	16.46	0.00	17.50
			64	0	18.74	18.51	18.57	0.00	19.50	16.57	16.53	16.36	0.00	17.50
			64	35	18.72	18.72	18.70	0.00	19.50	16.50	16.49	16.46	0.00	17.50
			64	69	18.70	18.65	18.72	0.00	19.50	16.57	16.46	16.50	0.00	17.50
			128	0	18.57	18.64	18.64	0.00	19.50	16.54	16.36	16.49	0.00	17.50
		16QAM	1	1	18.98	18.87	18.88	0.00	19.50	16.58	16.46	16.57	0.00	17.50
		64QAM	1	1	18.78	18.84	18.76	0.00	19.50	16.66	16.64	16.59	0.00	17.50
		256QAM	1	1	18.47	18.46	18.53	0.00	19.50	16.64	16.67	16.50	0.00	17.50
	CP-OFDM	QPSK	1	1	18.77	18.74	18.76	0.00	19.50	16.68	16.54	16.54	0.00	17.50

Notes:

NR Band n41 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n41 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
					503202.00	513468.00		523734.00	534000.00			503202.00	513468.00		523734.00	534000.00		
					2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz			2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.81	18.59		18.47	18.53	0.00	19.50	16.66	16.71		16.34	16.60	0.00	17.50
			1	53	18.77	18.57		18.41	18.66	0.00	19.50	16.68	16.60		16.41	16.65	0.00	17.50
			1	104	18.73	18.58		18.49	18.06	0.00	19.50	16.68	16.57		16.47	16.07	0.00	17.50
			50	0	18.77	18.60		18.36	18.55	0.00	19.50	16.72	16.60		16.34	16.56	0.00	17.50
			50	28	18.76	18.59		18.41	18.56	0.00	19.50	16.64	16.57		16.40	16.52	0.00	17.50
			50	56	18.75	18.54		18.50	18.42	0.00	19.50	16.64	16.54		16.42	16.47	0.00	17.50
			100	0	18.71	18.61		18.47	18.57	0.00	19.50	16.67	16.57		16.43	16.47	0.00	17.50
		QPSK	1	1	18.73	18.75		18.53	18.54	0.00	19.50	16.73	16.70		16.42	16.53	0.00	17.50
			1	53	18.78	18.67		18.47	18.64	0.00	19.50	16.69	16.63		16.49	16.60	0.00	17.50
			1	104	18.73	18.64		18.59	18.07	0.00	19.50	16.65	16.55		16.47	16.03	0.00	17.50
			50	0	18.74	18.65		18.41	18.53	0.00	19.50	16.73	16.60		16.36	16.52	0.00	17.50
			50	28	18.72	18.62		18.43	18.56	0.00	19.50	16.71	16.55		16.37	16.55	0.00	17.50
			50	56	18.72	18.57		18.54	18.46	0.00	19.50	16.67	16.57		16.46	16.46	0.00	17.50
			100	0	18.76	18.49		18.52	18.51	0.00	19.50	16.68	16.53		16.45	16.47	0.00	17.50
		16QAM	1	1	18.98	18.77		18.66	18.72	0.00	19.50	16.89	16.74		16.62	16.68	0.00	17.50
		64QAM	1	1	18.77	18.41		18.29	18.65	0.00	19.50	16.74	16.42		16.27	16.64	0.00	17.50
		256QAM	1	1	18.03	18.79		18.36	18.69	0.00	19.50	16.59	16.76		16.34	16.67	0.00	17.50
	CP-OFDM	QPSK	1	1	18.88	18.63		18.50	18.53	0.00	19.50	16.84	16.63		16.46	16.54	0.00	17.50

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					502200.00	510402.00	518598.00	526800.00	534996.00			502200.00	510402.00	518598.00	526800.00	534996.00		
					2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz			2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.92	18.87	18.62	18.64	18.64	0.00	19.50	16.99	16.72	16.66	16.59	16.75	0.00	17.50
			1	26	18.77	18.71	18.54	18.65	18.72	0.00	19.50	16.81	16.61	16.52	16.62	16.75	0.00	17.50
			1	49	18.91	18.79	18.70	18.88	18.11	0.00	19.50	16.89	16.69	16.68	16.79	16.14	0.00	17.50
			25	0	18.85	18.74	18.51	18.66	18.67	0.00	19.50	16.90	16.68	16.53	16.61	16.68	0.00	17.50
			25	13	18.84	18.72	18.56	18.62	18.64	0.00	19.50	16.80	16.64	16.55	16.57	16.65	0.00	17.50
			25	26	18.88	18.76	18.57	18.70	18.57	0.00	19.50	16.88	16.68	16.50	16.61	16.56	0.00	17.50
			50	0	18.84	18.74	18.61	18.62	18.70	0.00	19.50	16.83	16.68	16.57	16.56	16.65	0.00	17.50
		QPSK	1	1	19.05	18.83	18.64	18.68	18.72	0.00	19.50	17.08	16.84	16.60	16.62	16.69	0.00	17.50
			1	26	18.97	18.71	18.57	18.66	18.74	0.00	19.50	16.91	16.81	16.55	16.60	16.70	0.00	17.50
			1	49	18.99	18.77	18.71	18.80	18.09	0.00	19.50	16.97	16.70	16.71	16.78	16.07	0.00	17.50
			25	0	18.89	18.71	18.54	18.64	18.70	0.00	19.50	16.85	16.72	16.48	16.61	16.68	0.00	17.50
			25	13	18.83	18.71	18.59	18.57	18.67	0.00	19.50	16.82	16.71	16.53	16.54	16.67	0.00	17.50
			25	26	18.85	18.71	18.56	18.71	18.59	0.00	19.50	16.84	16.65	16.51	16.65	16.58	0.00	17.50
			50	0	18.90	18.71	18.63	18.65	18.70	0.00	19.50	16.89	16.71	16.57	16.61	16.70	0.00	17.50
		16QAM	1	1	18.96	18.76	18.71	18.78	18.72	0.00	19.50	16.96	16.73	16.69	16.78	16.72	0.00	17.50
		64QAM	1	1	18.68	18.86	18.72	18.69	18.89	0.00	19.50	16.69	16.87	16.64	16.67	16.84	0.00	17.50
		256QAM	1	1	17.81	18.73	18.55	18.69	18.74	0.00	19.50	16.87	16.70	16.53	16.65	16.75	0.00	17.50
	CP-OFDM	QPSK	1	1	19.00	18.75	18.59	18.69	18.69	0.00	19.50	16.98	16.68	16.58	16.72	16.65	0.00	17.50

Notes:

NR Band n41 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n41 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
					501204.00	509898.00	518598.00	527298.00	535998.00			501204.00	509898.00	518598.00	527298.00	535998.00		
					2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz			2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.83	18.74	18.78	18.64	18.62	0.00	19.50	16.92	16.56	16.67	16.64	16.56	0.00	17.50
			1	26	18.70	18.60	18.67	18.58	18.59	0.00	19.50	16.78	16.50	16.67	16.58	16.57	0.00	17.50
			1	49	18.78	18.65	18.78	18.62	18.62	0.00	19.50	16.82	16.56	16.54	16.59	16.56	0.00	17.50
			25	0	18.84	18.74	18.73	18.69	18.67	0.00	19.50	16.79	16.61	16.56	16.67	16.56	0.00	17.50
			25	13	18.77	18.72	18.79	18.64	18.60	0.00	19.50	16.81	16.62	16.62	16.55	16.57	0.00	17.50
			25	26	18.78	18.67	18.75	18.58	18.62	0.00	19.50	16.78	16.60	16.63	16.59	16.56	0.00	17.50
			50	0	18.67	18.73	18.67	18.60	18.62	0.00	19.50	16.81	16.60	16.67	16.63	16.58	0.00	17.50
		QPSK	1	1	18.88	18.74	18.85	18.84	18.67	0.00	19.50	16.84	16.70	16.65	16.55	16.62	0.00	17.50
			1	26	18.76	18.60	18.73	18.76	18.59	0.00	19.50	16.74	16.57	16.65	16.57	16.58	0.00	17.50
			1	49	18.82	18.65	18.71	18.67	18.64	0.00	19.50	16.80	16.78	16.74	16.62	16.55	0.00	17.50
			25	0	18.81	18.71	18.72	18.69	18.71	0.00	19.50	16.76	16.67	16.72	16.58	16.64	0.00	17.50
			25	13	18.81	18.65	18.67	18.73	18.63	0.00	19.50	16.73	16.67	16.67	16.57	16.62	0.00	17.50
			25	26	18.78	18.64	18.72	18.72	18.64	0.00	19.50	16.76	16.64	16.68	16.83	16.50	0.00	17.50
			50	0	18.77	18.68	18.75	18.70	18.62	0.00	19.50	16.81	16.62	16.62	16.21	16.58	0.00	17.50
		16QAM	1	1	18.58	18.65	18.67	18.74	18.82	0.00	19.50	16.61	16.48	16.61	16.74	16.86	0.00	17.50
		64QAM	1	1	18.93	18.70	18.75	18.89	18.26	0.00	19.50	16.87	16.78	16.58	16.29	16.24	0.00	17.50
		256QAM	1	1	18.73	19.07	18.84	18.83	18.78	0.00	19.50	16.72	16.57	16.67	16.72	16.67	0.00	17.50
	CP-OFDM	QPSK	1	1	18.86	18.83	18.84	18.84	18.56	0.00	19.50	16.77	16.62	16.68	16.55	16.55	0.00	17.50

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					500700.00	509652.00	518598.00	527550.00	536496.00			500700.00	509652.00	518598.00	527550.00	536496.00		
					2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz			2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.74	18.65	18.65	18.62	18.65	0.00	19.50	16.60	16.62	16.60	16.56	16.52	0.00	17.50
			1	19	18.72	18.60	18.55	18.75	18.71	0.00	19.50	16.64	16.60	16.47	16.58	16.47	0.00	17.50
			1	36	18.68	18.57	18.56	18.70	18.72	0.00	19.50	16.64	16.78	16.53	16.62	16.47	0.00	17.50
			18	0	18.74	18.64	18.56	18.69	18.74	0.00	19.50	16.71	16.61	16.56	16.58	16.55	0.00	17.50
			18	10	18.77	18.74	18.54	18.64	18.65	0.00	19.50	16.75	16.54	16.56	16.86	16.59	0.00	17.50
			18	20	18.82	18.70	18.53	18.74	18.66	0.00	19.50	16.74	16.65	16.54	16.24	16.85	0.00	17.50
			36	0	18.72	18.74	18.57	18.54	18.61	0.00	19.50	16.68	16.67	16.55	16.57	16.82	0.00	17.50
		QPSK	1	1	18.71	18.60	18.69	18.60	18.64	0.00	19.50	16.57	16.55	16.73	16.78	16.84	0.00	17.50
			1	19	18.74	18.65	18.62	18.63	18.61	0.00	19.50	16.54	16.59	16.54	16.60	16.64	0.00	17.50
			1	36	18.64	18.64	18.68	18.71	18.71	0.00	19.50	16.55	16.63	16.63	16.70	16.58	0.00	17.50
			18	0	18.69	18.62	18.64	18.74	18.65	0.00	19.50	16.89	16.56	16.58	16.57	16.57	0.00	17.50
			18	10	18.65	18.61	18.55	18.68	18.70	0.00	19.50	16.90	16.62	16.53	16.62	16.83	0.00	17.50
			18	20	18.64	18.57	18.54	18.66	18.62	0.00	19.50	16.80	16.60	16.49	16.60	16.61	0.00	17.50
			36	0	18.61	18.64	18.57	18.70	18.61	0.00	19.50	16.88	16.78	16.53	16.78	16.62	0.00	17.50
		16QAM	1	1	18.78	18.80	18.76	18.65	18.69	0.00	19.50	16.67	16.61	16.74	16.61	16.65	0.00	17.50
		64QAM	1	1	18.77	18.73	18.66	18.67	18.59	0.00	19.50	16.65	16.75	16.57	16.54	16.69	0.00	17.50
		256QAM	1	1	18.67	18.74	18.56	18.72	18.64	0.00	19.50	16.65	16.54	16.54	16.65	16.58	0.00	17.50
	CP-OFDM	QPSK	1	1	18.70	18.76	18.61	18.68	18.65	0.00	19.50	16.54	16.57	16.57	16.84	16.57	0.00	17.50

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					500202.00	509400.00	518598.00	527802.00	537000.00			500202.00	509400.00	518598.00	527802.00	537000.00		
					2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz			2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.91	18.65	18.47	18.64	18.70	0.00	19.50	16.24	16.85	16.44	16.82	16.82	0.00	17.50
			1	12	18.85	18.64	18.42	18.61	18.62	0.00	19.50	16.65	16.54	16.42	16.84	16.84	0.00	17.50
			1	22	18.65	18.74	18.46	18.71	18.68	0.00	19.50	16.67	16.55	16.46	16.64	16.65	0.00	17.50
			12	0	18.64	18.70	18.42	18.65	18.66	0.00	19.50	16.55	16.73	16.47	16.60	16.70	0.00	17.50
			12	6	18.62	18.59	18.47	18.70	18.98	0.00	19.50	16.59	16.54	16.43	16.78	16.70	0.00	17.50
			12	12	18.67	18.70	18.45	18.62	18.77	0.00	19.50	16.68	16.75	16.47	16.61	16.57	0.00	17.50
			24	0	18.60	18.72	18.46	18.71	18.03	0.00	19.50	16.68	16.57	16.48	16.55	16.57	0.00	17.50
		QPSK	1	1	18.62	18.89	18.54	18.74	18.85	0.00	19.50	16.71	16.61	16.47	16.50	16.62	0.00	17.50
			1	12	18.62	18.72	18.51	18.60	18.73	0.00	19.50	16.75	16.54	16.48	16.57	16.60	0.00	17.50
			1	22	18.67	18.70	18.52	18.65	18.71	0.00	19.50	16.74	16.65	16.52	16.67	16.50	0.00	17.50
			12	0	18.59	18.74	18.49	18.71	18.72	0.00	19.50	16.57	16.60	16.51	16.55	16.73	0.00	17.50
			12	6	18.65	18.78	18.51	18.68	18.62	0.00	19.50	16.55	16.60	16.50	16.59	16.54	0.00	17.50
			12	12	18.70	18.64	18.43	18.66	18.68	0.00	19.50	16.50	16.52	16.48	16.63	16.63	0.00	17.50
			24	0	18.62	18.69	18.51	18.80	18.64	0.00	19.50	16.69	16.62	16.48	16.56	16.72	0.00	17.50
		16QAM	1	1	18.61	18.65	18.57	18.64	18.67	0.00	19.50	16.68	16.78	16.58	16.58	16.80	0.00	17.50
		64QAM	1	1	18.69	18.64	18.51	18.57	18.59	0.00	19.50	16.57	16.67	16.50	16.62	16.83	0.00	17.50
		256QAM	1	1	18.57	18.83	18.78	18.74	18.64	0.00	19.50	16.61	16.57	16.32	16.58	16.61	0.00	17.50
	CP-OFDM	QPSK	1	1	18.59	18.84	18.56	18.54	18.71	0.00	19.50	16.59	16.55	16.51	16.83	16.62	0.00	17.50

Notes:

NR Band n41 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n41 (SRS1) Measured Results

BW (MHz)	Modulation	Mode	Maximum Allowed Average Power (dBm)														
			DSI = 0, 1, 4							DSI =2, 3							
			Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			509202		518598		528000			509202		518598		528000		
			2546.01 MHz		2592.99 MHz		2640 MHz			2546.01 MHz		2592.99 MHz		2640 MHz		
100 MHz	DFT-s-OFDM	SRS CW			12.74			0.00	14.00			10.64			0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			508200.00				528996.00			508200.00				528996.00		
			2541 MHz				2644.98 MHz			2541 MHz				2644.98 MHz		
90 MHz	DFT-s-OFDM	SRS CW	13.11				12.60	0.00	14.00	11.10				10.60	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			507204.00				529998.00			507204.00				529998.00		
			2536.02 MHz				2649.99 MHz			2536.02 MHz				2649.99 MHz		
80 MHz	DFT-s-OFDM	SRS CW	13.05				12.57	0.00	14.00	11.12				10.59	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			526202.00				531000.00			526202.00				531000.00		
			2631.01 MHz				2655 MHz			2631.01 MHz				2655 MHz		
70 MHz	DFT-s-OFDM	SRS CW	13.02				12.54	0.00	14.00	11.07				10.54	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			505200.00		518598.00		531996.00			505200.00		518598.00		531996.00		
			2526 MHz		2592.99 MHz		2659.98 MHz			2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	DFT-s-OFDM	SRS CW	13.07		12.71		12.64	0.00	14.00	11.07		10.72		10.62	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			504204.00		518598.00		532998.00			504204.00		518598.00		532998.00		
			2512.02 MHz		2592.99 MHz		2664.99 MHz			2512.02 MHz		2592.99 MHz		2664.99 MHz		
50 MHz	DFT-s-OFDM	SRS CW	13.09		13.00		12.87	0.00	14.00	11.08		10.87		10.87	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			503202.00	513468.00		523734.00	534000.00			503202.00	513468.00		523734.00	534000.00		
			2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz			2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		
40 MHz	DFT-s-OFDM	SRS CW	13.14	13.06		12.69	12.67	0.00	14.00	11.07	11.09		10.66	10.73	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			502200.00	510402.00	518598.00	526800.00	534996.00			502200.00	510402.00	518598.00	526800.00	534996.00		
			2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz			2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		
30 MHz	DFT-s-OFDM	SRS CW	13.17	13.22	12.89	12.87	12.85	0.00	14.00	11.12	11.12	10.89	10.84	10.82	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			501204.00	509898.00	518598.00	527298.00	535998.00			501204.00	509898.00	518598.00	527298.00	535998.00		
			2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz			2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	SRS CW	13.16	13.06	12.89	12.85	12.87	0.00	14.00	11.13	11.13	10.91	10.84	10.84	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			500700.00	509652.00	518598.00	527550.00	536496.00			500700.00	509652.00	518598.00	527550.00	536496.00		
			2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz			2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		
15 MHz	DFT-s-OFDM	SRS CW	13.06	13.06	12.89	12.94	12.93	0.00	14.00	11.12	11.13	10.87	10.93	10.88	0.00	12.00
BW (MHz)	Modulation	Mode	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
			500202.00	509400.00	518598.00	527802.00	537000.00			500202.00	509400.00	518598.00	527802.00	537000.00		
			2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz			2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz		
10 MHz	DFT-s-OFDM	SRS CW	13.13	13.20	12.86	12.76	12.71	0.00	14.00	11.12	11.12	10.82	10.77	10.68	0.00	12.00

Notes:

NR Band n41 (SRS1) were measured output power through FTM mode provided by manufacturer.

NR Band n41 (SRS2) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)											
		DSI = 0, 1, 4						DSI =2, 3					
		Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		509202		518598		528000		509202		518598		528000	
		2546.01 MHz		2592.99 MHz		2640 MHz		2546.01 MHz		2592.99 MHz		2640 MHz	
100 MHz	SRS CW			14.37			15.00			12.50			13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		508200.00				528996.00		508200.00				528996.00	
		2541 MHz				2644.98 MHz		2541 MHz				2644.98 MHz	
90 MHz	SRS CW	14.38				14.54	15.00	12.51				12.63	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		507204.00				529998.00		507204.00				529998.00	
		2536.02 MHz				2649.99 MHz		2536.02 MHz				2649.99 MHz	
80 MHz	SRS CW	14.36				14.49	15.00	12.45				12.63	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		526202.00				531000.00		526202.00				531000.00	
		2631.01 MHz				2655 MHz		2631.01 MHz				2655 MHz	
70 MHz	SRS CW	14.37				14.48	15.00	12.54				12.55	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		505200.00		518598.00		531996.00		505200.00		518598.00		531996.00	
		2526 MHz		2592.99 MHz		2659.98 MHz		2526 MHz		2592.99 MHz		2659.98 MHz	
60 MHz	SRS CW	14.38		14.50		14.45	15.00	12.54		12.59		12.62	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		503202.00	513468.00		523734.00	534000.00		503202.00	513468.00		523734.00	534000.00	
		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
50 MHz	SRS CW	14.22	14.60		14.48	14.66	15.00	12.45	12.68		12.61	12.70	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		503202.00	513468.00		523734.00	534000.00		503202.00	513468.00		523734.00	534000.00	
		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	SRS CW	14.22	14.60		14.48	14.66	15.00	12.45	12.68		12.61	12.70	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		502200.00	510402.00	518598.00	526800.00	534996.00		502200.00	510402.00	518598.00	526800.00	534996.00	
		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz	
30 MHz	SRS CW	14.34	14.59	14.71	14.83	14.78	15.00	12.53	12.58	12.69	12.84	12.80	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		501204.00	509898.00	518598.00	527298.00	535998.00		501204.00	509898.00	518598.00	527298.00	535998.00	
		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
20 MHz	SRS CW	14.34	14.51	14.54	14.67	14.62	15.00	12.43	12.50	12.57	12.68	12.57	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		500700.00	509652.00	518598.00	527550.00	536496.00		500700.00	509652.00	518598.00	527550.00	536496.00	
		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz	
15 MHz	SRS CW	14.69	14.64	14.56	14.66	14.65	15.00	12.61	12.54	12.49	12.59	12.54	13.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		500202.00	509400.00	518598.00	527802.00	537000.00		500202.00	509400.00	518598.00	527802.00	537000.00	
		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz	
10 MHz	SRS CW	14.44	14.49	14.55	14.65	14.61	15.00	12.38	12.37	12.44	12.55	12.47	13.00

Notes:

NR Band n41 (SRS2) were measured output power through FTM mode provided by manufacturer.

NR Band n41 (SRS3) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)										
		DSI = 0, 1, 4						DSI =2, 3					
		Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		509202.00		518598.00		528000.00		509202.00		518598.00		528000.00	
		2546.01 MHz		2592.99 MHz		2640 MHz		2546.01 MHz		2592.99 MHz		2640 MHz	
100 MHz	SRS CW			12.08			13.00			10.13			11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		508200.00				528996.00		508200.00				528996.00	
		2541 MHz				2644.98 MHz		2541 MHz				2644.98 MHz	
90 MHz	SRS CW	12.22				12.07	13.00	10.35				10.11	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		507204.00				529998.00		507204.00				529998.00	
		2536.02 MHz				2649.99 MHz		2536.02 MHz				2649.99 MHz	
80 MHz	SRS CW	12.26				12.01	13.00	10.31				10.07	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		526202.00				531000.00		526202.00				531000.00	
		2631.01 MHz				2655 MHz		2631.01 MHz				2655 MHz	
70 MHz	SRS CW	12.27				12.01	13.00	10.27				10.08	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		505200.00		518598.00		531996.00		505200.00		518598.00		531996.00	
		2526 MHz		2592.99 MHz		2659.98 MHz		2526 MHz		2592.99 MHz		2659.98 MHz	
60 MHz	SRS CW	12.27		12.22		12.01	13.00	10.35		10.22		10.03	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		504204.00		518598.00		532998.00		504204.00		518598.00		532998.00	
		2512.02 MHz		2592.99 MHz		2664.99 MHz		2512.02 MHz		2592.99 MHz		2664.99 MHz	
50 MHz	SRS CW	12.43		12.34		12.21	13.00	10.50		10.33		10.20	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		503202.00	513468.00		523734.00	534000.00		503202.00	513468.00		523734.00	534000.00	
		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	SRS CW	12.34	12.41		12.22	12.09	13.00	10.40	10.41		10.26	10.11	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		502200.00	510402.00	518598.00	526800.00	534996.00		502200.00	510402.00	518598.00	526800.00	534996.00	
		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz	
30 MHz	SRS CW	12.52	12.49	12.32	12.19	12.03	13.00	10.53	10.45	10.39	10.22	10.09	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		501204.00	509898.00	518598.00	527298.00	535998.00		501204.00	509898.00	518598.00	527298.00	535998.00	
		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
20 MHz	SRS CW	12.47	12.38	12.29	12.23	12.06	13.00	10.46	10.44	10.32	10.32	10.09	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		500700.00	509652.00	518598.00	527550.00	536496.00		500700.00	509652.00	518598.00	527550.00	536496.00	
		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz	
15 MHz	SRS CW	12.52	12.53	12.47	12.48	12.28	13.00	10.51	10.48	10.51	10.49	10.27	11.00
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		500202.00	509400.00	518598.00	527802.00	537000.00		500202.00	509400.00	518598.00	527802.00	537000.00	
		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz	
10 MHz	SRS CW	12.31	12.28	12.28	12.26	12.01	13.00	10.31	10.29	10.24	10.26	10.00	11.00

Notes:

NR Band n41 (SRS3) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (Voice/data/SRS0) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
					DSI = 0, 1, 4					DSI = 2, 3			
					Measured Pwr (dBm)		MPR	Tune-up Limit		Measured Pwr (dBm)		MPR	Tune-up Limit
					633334.00					633334.00			
					3500.01 MHz					3500.01 MHz			
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.15		0.00	19.50		15.95		0.00	17.10
			1	137	18.57		0.00	19.50		16.30		0.00	17.10
			1	271	18.70		0.00	19.50		16.39		0.00	17.10
			135	0	18.49		0.00	19.50		16.04		0.00	17.10
			135	69	18.72		0.00	19.50		16.00		0.00	17.10
			135	138	18.76		0.00	19.50		16.28		0.00	17.10
			270	0	18.67		0.00	19.50		16.32		0.00	17.10
		QPSK	1	1	18.45		0.00	19.50		15.93		0.00	17.10
			1	137	18.70		0.00	19.50		16.34		0.00	17.10
			1	271	18.85		0.00	19.50		16.70		0.00	17.10
			135	0	18.53		0.00	19.50		16.04		0.00	17.10
			135	69	18.70		0.00	19.50		16.31		0.00	17.10
			135	138	18.77		0.00	19.50		16.64		0.00	17.10
			270	0	18.67		0.00	19.50		16.28		0.00	17.10
		16QAM	1	1	18.41		0.00	19.50		15.88		0.00	17.10
			1	137	18.75		0.00	19.50		16.34		0.00	17.10
			1	271	18.81		0.00	19.50		16.47		0.00	17.10
		64QAM	1	1	18.24		0.00	19.50		15.82		0.00	17.10
		256QAM	1	1	18.41		0.00	19.50		15.95		0.00	17.10
	CP-OFDM	QPSK	1	1	18.37		0.00	19.50		15.88		0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					633000.00	633334.00	633666.00			633000.00	633334.00	633666.00		
					3495 MHz	3500.01 MHz	3504.99 MHz			3495 MHz	3500.01 MHz	3504.99 MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1		18.15		0.00	19.50		15.91		0.00	17.10
			1	123		18.49		0.00	19.50		16.22		0.00	17.10
			1	243		18.61		0.00	19.50		16.35		0.00	17.10
			120	0		18.47		0.00	19.50		16.17		0.00	17.10
			120	63		18.59		0.00	19.50		16.27		0.00	17.10
			120	125		18.66		0.00	19.50		16.37		0.00	17.10
			243	0		18.62		0.00	19.50		16.31		0.00	17.10
		QPSK	1	1		18.38		0.00	19.50		15.85		0.00	17.10
			1	123		18.67		0.00	19.50		16.16		0.00	17.10
			1	243		18.63		0.00	19.50		16.29		0.00	17.10
			120	0		18.48		0.00	19.50		16.17		0.00	17.10
			120	63		18.68		0.00	19.50		16.26		0.00	17.10
			120	125		18.60		0.00	19.50		16.36		0.00	17.10
			243	0		18.58		0.00	19.50		16.29		0.00	17.10
		16QAM	1	1		18.21		0.00	19.50		15.59		0.00	17.10
		64QAM	1	1		18.34		0.00	19.50		15.85		0.00	17.10
		256QAM	1	1		18.34		0.00	19.50		15.92		0.00	17.10
	CP-OFDM	QPSK	1	1		18.38		0.00	19.50		15.86		0.00	17.10

Notes:

NR Band n77-DoD (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (Voice/data/SRS0) 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
					632668.00	633334.00	634000.00			632668.00	633334.00	634000.00		
					3490.02 MHz	3500.01 MHz	3510 MHz			3490.02 MHz	3500.01 MHz	3510 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1		18.18		0.00	19.50		15.96		0.00	17.10
			1	109		18.54		0.00	19.50		16.26		0.00	17.10
			1	215		18.64		0.00	19.50		16.34		0.00	17.10
			108	0		18.54		0.00	19.50		16.18		0.00	17.10
			108	55		18.67		0.00	19.50		16.27		0.00	17.10
			108	109		18.79		0.00	19.50		16.37		0.00	17.10
			216	0		18.67		0.00	19.50		16.25		0.00	17.10
		QPSK	1	1		18.49		0.00	19.50		15.98		0.00	17.10
			1	109		18.67		0.00	19.50		16.29		0.00	17.10
			1	215		18.84		0.00	19.50		16.41		0.00	17.10
			108	0		18.48		0.00	19.50		16.25		0.00	17.10
			108	55		18.76		0.00	19.50		16.30		0.00	17.10
			108	109		18.79		0.00	19.50		16.42		0.00	17.10
			216	0		18.67		0.00	19.50		16.18		0.00	17.10
		16QAM	1	1		18.42		0.00	19.50		15.98		0.00	17.10
		64QAM	1	1		18.21		0.00	19.50		16.06		0.00	17.10
		256QAM	1	1		18.43		0.00	19.50		15.85		0.00	17.10
	CP-OFDM	QPSK	1	1		18.42		0.00	19.50		15.99		0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					632334.00	633334.00	634332.00			632334.00	633334.00	634332.00		
					3485.01 MHz	3500.01 MHz	3514.98 MHz			3485.01 MHz	3500.01 MHz	3514.98 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1		18.21		0.00	19.50		15.92		0.00	17.10
			1	95		18.56		0.00	19.50		16.22		0.00	17.10
			1	188		18.74		0.00	19.50		16.31		0.00	17.10
			90	0		18.52		0.00	19.50		16.20		0.00	17.10
			90	50		18.67		0.00	19.50		16.29		0.00	17.10
			90	99		18.76		0.00	19.50		16.38		0.00	17.10
			180	0		18.67		0.00	19.50		16.26		0.00	17.10
		QPSK	1	1		18.54		0.00	19.50		15.90		0.00	17.10
			1	95		18.72		0.00	19.50		16.11		0.00	17.10
			1	188		18.87		0.00	19.50		16.20		0.00	17.10
			90	0		18.48		0.00	19.50		16.25		0.00	17.10
			90	50		18.67		0.00	19.50		16.31		0.00	17.10
			90	99		18.76		0.00	19.50		16.42		0.00	17.10
			180	0		18.78		0.00	19.50		16.35		0.00	17.10
		16QAM	1	1		18.42		0.00	19.50		16.05		0.00	17.10
		64QAM	1	1		18.21		0.00	19.50		15.79		0.00	17.10
		256QAM	1	1		18.38		0.00	19.50		16.22		0.00	17.10
	CP-OFDM	QPSK	1	1		18.38		0.00	19.50		15.77		0.00	17.10

Notes:

NR Band n77-DoD (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (Voice/data/SRS0) 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
					632000.00	633334.00	634666.00			632000.00	633334.00	634666.00		
					3480 MHz	3500.01 MHz	3519.99 MHz			3480 MHz	3500.01 MHz	3519.99 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1		18.18		0.00	19.50		15.81		0.00	17.10
			1	81		18.56		0.00	19.50		16.13		0.00	17.10
			1	160		18.67		0.00	19.50		16.25		0.00	17.10
			81	0		18.52		0.00	19.50		16.07		0.00	17.10
			81	41		18.72		0.00	19.50		16.17		0.00	17.10
			81	81		18.84		0.00	19.50		16.31		0.00	17.10
			162	0		18.56		0.00	19.50		16.21		0.00	17.10
		QPSK	1	1		18.54		0.00	19.50		15.75		0.00	17.10
			1	81		18.61		0.00	19.50		16.06		0.00	17.10
			1	160		18.87		0.00	19.50		16.19		0.00	17.10
			81	0		18.47		0.00	19.50		16.07		0.00	17.10
			81	41		18.67		0.00	19.50		16.22		0.00	17.10
			81	81		18.76		0.00	19.50		16.26		0.00	17.10
			162	0		18.62		0.00	19.50		16.19		0.00	17.10
		16QAM	1	1		18.40		0.00	19.50		15.55		0.00	17.10
		64QAM	1	1		18.18		0.00	19.50		15.75		0.00	17.10
		256QAM	1	1		18.37		0.00	19.50		15.82		0.00	17.10
	CP-OFDM	QPSK	1	1		18.39		0.00	19.50		15.86		0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					631668.00	633334.00	635000.00			631668.00	633334.00	635000.00		
					3475.02 MHz	3500.01 MHz	3525 MHz			3475.02 MHz	3500.01 MHz	3525 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.33		18.28	0.00	19.50	15.99		16.30	0.00	17.10
			1	67	18.40		18.38	0.00	19.50	16.02		16.46	0.00	17.10
			1	131	18.62		18.54	0.00	19.50	16.23		16.48	0.00	17.10
			64	0	18.47		18.48	0.00	19.50	16.15		16.33	0.00	17.10
			64	35	18.39		18.41	0.00	19.50	16.13		16.43	0.00	17.10
			64	69	18.49		18.54	0.00	19.50	16.17		16.51	0.00	17.10
			128	0	18.46		18.56	0.00	19.50	16.11		16.44	0.00	17.10
		QPSK	1	1	18.48		18.57	0.00	19.50	16.00		16.31	0.00	17.10
			1	67	18.69		18.67	0.00	19.50	16.13		16.41	0.00	17.10
			1	131	18.68		18.69	0.00	19.50	16.29		16.51	0.00	17.10
			64	0	18.55		18.62	0.00	19.50	16.11		16.35	0.00	17.10
			64	35	18.48		18.56	0.00	19.50	16.12		16.42	0.00	17.10
			64	69	18.56		18.64	0.00	19.50	16.22		16.48	0.00	17.10
			128	0	18.45		18.57	0.00	19.50	16.17		16.40	0.00	17.10
		16QAM	1	1	18.33		18.34	0.00	19.50	16.03		16.40	0.00	17.10
		64QAM	1	1	18.57		18.65	0.00	19.50	15.96		16.20	0.00	17.10
		256QAM	1	1	18.47		18.48	0.00	19.50	15.97		16.30	0.00	17.10
	CP-OFDM	QPSK	1	1	18.34		18.23	0.00	19.50	15.84		16.30	0.00	17.10

Notes:

NR Band n77-DoD (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (Voice/data/SRS0) 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
					631334.00	633334.00	635332.00			631334.00	633334.00	635332.00		
					3470.01 MHz	3500.01 MHz	3529.98 MHz			3470.01 MHz	3500.01 MHz	3529.98 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.28		18.16	0.00	19.50	16.34		16.63	0.00	17.10
			1	53	18.31		18.05	0.00	19.50	16.39		16.65	0.00	17.10
			1	104	18.45		18.31	0.00	19.50	16.62		16.81	0.00	17.10
			50	0	18.27		18.11	0.00	19.50	16.40		16.63	0.00	17.10
			50	28	18.27		18.05	0.00	19.50	16.51		16.72	0.00	17.10
			50	56	18.25		18.04	0.00	19.50	16.44		16.78	0.00	17.10
			100	0	18.30		18.12	0.00	19.50	16.46		16.77	0.00	17.10
		QPSK	1	1	18.29		18.04	0.00	19.50	16.32		16.68	0.00	17.10
			1	53	18.31		17.99	0.00	19.50	16.42		16.67	0.00	17.10
			1	104	18.45		18.18	0.00	19.50	16.69		16.87	0.00	17.10
			50	0	18.34		18.18	0.00	19.50	16.35		16.68	0.00	17.10
			50	28	18.26		18.10	0.00	19.50	16.43		16.79	0.00	17.10
			50	56	18.30		18.08	0.00	19.50	16.49		16.76	0.00	17.10
			100	0	18.32		18.10	0.00	19.50	16.46		16.83	0.00	17.10
		16QAM	1	1	18.24		17.86	0.00	19.50	16.31		16.70	0.00	17.10
		64QAM	1	1	18.31		18.12	0.00	19.50	16.16		16.51	0.00	17.10
		256QAM	1	1	18.27		17.91	0.00	19.50	16.46		16.60	0.00	17.10
	CP-OFDM	QPSK	1	1	18.20		18.12	0.00	19.50	16.33		16.59	0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					631000.00	633334.00	635666.00			631000.00	633334.00	635666.00		
					3465 MHz	3500.01 MHz	3534.99 MHz			3465 MHz	3500.01 MHz	3534.99 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.61	18.68	18.69	0.00	19.50	16.26	16.47	16.46	0.00	17.10
			1	39	18.64	18.65	18.56	0.00	19.50	16.37	16.42	16.57	0.00	17.10
			1	76	18.72	18.69	18.69	0.00	19.50	16.46	16.60	16.65	0.00	17.10
			36	0	18.70	18.77	18.71	0.00	19.50	16.35	16.56	16.55	0.00	17.10
			36	21	18.68	18.63	18.63	0.00	19.50	16.42	16.48	16.60	0.00	17.10
			36	42	18.70	18.73	18.64	0.00	19.50	16.40	16.64	16.60	0.00	17.10
			75	0	18.71	18.75	18.73	0.00	19.50	16.35	16.53	16.55	0.00	17.10
		QPSK	1	1	18.68	18.81	18.78	0.00	19.50	16.36	16.58	16.61	0.00	17.10
			1	39	18.70	18.60	18.62	0.00	19.50	16.37	16.54	16.68	0.00	17.10
			1	76	18.68	18.67	18.78	0.00	19.50	16.50	16.70	16.88	0.00	17.10
			36	0	18.75	18.66	18.75	0.00	19.50	16.34	16.51	16.70	0.00	17.10
			36	21	18.62	18.65	18.61	0.00	19.50	16.43	16.48	16.66	0.00	17.10
			36	42	18.71	18.70	18.66	0.00	19.50	16.44	16.64	16.71	0.00	17.10
			75	0	18.76	18.72	18.68	0.00	19.50	16.35	16.56	16.68	0.00	17.10
		16QAM	1	1	18.81	18.87	18.90	0.00	19.50	16.25	16.74	16.53	0.00	17.10
		64QAM	1	1	19.04	18.83	18.97	0.00	19.50	16.06	16.26	16.21	0.00	17.10
		256QAM	1	1	18.44	18.74	18.95	0.00	19.50	16.64	16.24	16.38	0.00	17.10
	CP-OFDM	QPSK	1	1	18.73	18.73	18.70	0.00	19.50	16.38	16.28	16.75	0.00	17.10

Notes:

NR Band n77-DoD (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (Voice/data/SRS0) 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
					630668.00	633334.00	636000.00			630668.00	633334.00	636000.00		
					3460.02 MHz	3500.01 MHz	3540 MHz			3460.02 MHz	3500.01 MHz	3540 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.61	18.68	18.69	0.00	19.50	16.21	16.42	16.67	0.00	17.10
			1	26	18.64	18.65	18.56	0.00	19.50	16.14	16.32	16.59	0.00	17.10
			1	49	18.72	18.69	18.69	0.00	19.50	16.31	16.44	16.56	0.00	17.10
			25	0	18.70	18.77	18.71	0.00	19.50	16.19	16.39	16.60	0.00	17.10
			25	13	18.68	18.63	18.63	0.00	19.50	16.17	16.35	16.55	0.00	17.10
			25	26	18.70	18.73	18.64	0.00	19.50	16.30	16.52	16.57	0.00	17.10
			50	0	18.71	18.75	18.73	0.00	19.50	16.15	16.42	16.61	0.00	17.10
		QPSK	1	1	18.68	18.81	18.78	0.00	19.50	16.25	16.51	16.55	0.00	17.10
			1	26	18.70	18.60	18.62	0.00	19.50	16.18	16.42	16.65	0.00	17.10
			1	49	18.68	18.67	18.78	0.00	19.50	16.31	16.53	16.67	0.00	17.10
			25	0	18.75	18.66	18.75	0.00	19.50	16.18	16.32	16.57	0.00	17.10
			25	13	18.62	18.65	18.61	0.00	19.50	16.16	16.36	16.55	0.00	17.10
			25	26	18.71	18.70	18.66	0.00	19.50	16.19	16.47	16.69	0.00	17.10
			50	0	18.76	18.72	18.68	0.00	19.50	16.22	16.39	16.54	0.00	17.10
		16QAM	1	1	18.81	18.87	18.90	0.00	19.50	16.10	16.29	16.79	0.00	17.10
		64QAM	1	1	19.04	18.83	18.97	0.00	19.50	16.47	16.45	16.61	0.00	17.10
		256QAM	1	1	18.44	18.74	18.95	0.00	19.50	16.12	16.17	16.73	0.00	17.10
	CP-OFDM	QPSK	1	1	18.73	18.73	18.70	0.00	19.50	16.19	16.38	16.50	0.00	17.10
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					630500.00	633334.00	636166.00			630500.00	633334.00	636166.00		
					3457.5 MHz	3500.01 MHz	3542.49 MHz			3457.5 MHz	3500.01 MHz	3542.49 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.61	18.68	18.69	0.00	19.50	16.11	16.31	16.45	0.00	17.10
			1	19	18.64	18.65	18.56	0.00	19.50	16.20	16.32	16.56	0.00	17.10
			1	36	18.72	18.69	18.69	0.00	19.50	16.39	16.29	16.54	0.00	17.10
			18	0	18.70	18.77	18.71	0.00	19.50	16.16	16.19	16.52	0.00	17.10
			18	10	18.68	18.63	18.63	0.00	19.50	16.17	16.25	16.49	0.00	17.10
			18	20	18.70	18.73	18.64	0.00	19.50	16.18	16.26	16.39	0.00	17.10
			36	0	18.71	18.75	18.73	0.00	19.50	16.20	16.30	16.50	0.00	17.10
		QPSK	1	1	18.68	18.81	18.78	0.00	19.50	16.08	16.24	16.45	0.00	17.10
			1	19	18.70	18.60	18.62	0.00	19.50	16.14	16.30	16.66	0.00	17.10
			1	36	18.68	18.67	18.78	0.00	19.50	16.33	16.49	16.67	0.00	17.10
			18	0	18.75	18.66	18.75	0.00	19.50	16.09	16.30	16.50	0.00	17.10
			18	10	18.62	18.65	18.61	0.00	19.50	16.16	16.36	16.62	0.00	17.10
			18	20	18.71	18.70	18.66	0.00	19.50	16.21	16.47	16.65	0.00	17.10
			36	0	18.76	18.72	18.68	0.00	19.50	16.16	16.38	16.62	0.00	17.10
		16QAM	1	1	18.81	18.87	18.90	0.00	19.50	16.13	16.48	16.80	0.00	17.10
		64QAM	1	1	19.04	18.83	18.97	0.00	19.50	15.92	16.13	16.41	0.00	17.10
		256QAM	1	1	18.44	18.74	18.95	0.00	19.50	15.99	16.34	16.46	0.00	17.10
	CP-OFDM	QPSK	1	1	18.73	18.73	18.70	0.00	19.50	16.02	16.23	16.40	0.00	17.10
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					630334.00	633334.00	636332.00			630334.00	633334.00	636332.00		
					3455.01 MHz	3500.01 MHz	3544.98 MHz			3455.01 MHz	3500.01 MHz	3544.98 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.45	18.45	18.49	0.00	19.50	15.99	16.17	16.48	0.00	17.10
			1	12	18.49	18.53	18.58	0.00	19.50	16.03	16.28	16.38	0.00	17.10
			1	22	18.56	18.56	18.62	0.00	19.50	16.14	16.26	16.52	0.00	17.10
			12	0	18.56	18.58	18.64	0.00	19.50	16.00	16.19	16.53	0.00	17.10
			12	6	18.57	18.54	18.65	0.00	19.50	16.06	16.35	16.49	0.00	17.10
			12	12	18.56	18.62	18.66	0.00	19.50	16.07	16.29	16.51	0.00	17.10
			24	0	18.63	18.61	18.66	0.00	19.50	16.05	16.30	16.47	0.00	17.10
		QPSK	1	1	18.68	18.59	18.71	0.00	19.50	16.06	16.25	16.54	0.00	17.10
			1	12	18.63	18.53	18.74	0.00	19.50	16.04	16.38	16.48	0.00	17.10
			1	22	18.65	18.55	18.71	0.00	19.50	16.19	16.45	16.52	0.00	17.10
			12	0	18.65	18.64	18.67	0.00	19.50	16.03	16.29	16.52	0.00	17.10
			12	6	18.59	18.58	18.72	0.00	19.50	16.06	16.33	16.56	0.00	17.10
			12	12	18.65	18.60	18.65	0.00	19.50	16.04	16.35	16.51	0.00	17.10
			24	0	18.67	18.58	18.67	0.00	19.50	16.09	16.35	16.55	0.00	17.10
		16QAM	1	1	18.56	18.73	18.79	0.00	19.50	15.71	16.11	16.45	0.00	17.10
		64QAM	1	1	18.60	18.57	18.78	0.00	19.50	15.80	16.19	16.52	0.00	17.10
		256QAM	1	1	18.43	18.45	18.58	0.00	19.50	15.98	15.82	16.33	0.00	17.10
	CP-OFDM	QPSK	1	1	18.50	18.55	18.60	0.00	19.50	15.99	16.03	16.40	0.00	17.10

Notes:

NR Band n77-DoD (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77 (Voice/data/SRS0) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
					DSI = 0, 1, 4					DSI = 2, 3				
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					650000.00	656000.00	662000.00			650000.00	656000.00	662000.00		
					3750 MHz	3840 MHz	3930 MHz			3750 MHz	3840 MHz	3930 MHz		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.00		19.02	0.00	19.50	16.58		16.62	0.00	17.10
			1	137	19.11		19.21	0.00	19.50	16.61		16.51	0.00	17.10
			1	271	18.95		19.23	0.00	19.50	16.41		16.38	0.00	17.10
			135	0	19.12		19.12	0.00	19.50	16.66		16.61	0.00	17.10
			135	69	19.12		19.19	0.00	19.50	16.59		16.52	0.00	17.10
			135	138	19.04		19.18	0.00	19.50	16.47		16.47	0.00	17.10
			270	0	19.14		19.16	0.00	19.50	15.89		16.53	0.00	17.10
		QPSK	1	1	19.18		18.98	0.00	19.50	16.46		16.53	0.00	17.10
			1	137	19.20		19.19	0.00	19.50	16.46		16.47	0.00	17.10
			1	271	19.04		19.21	0.00	19.50	16.61		16.59	0.00	17.10
			135	0	19.14		19.12	0.00	19.50	16.43		16.54	0.00	17.10
			135	69	19.15		19.13	0.00	19.50	16.42		16.52	0.00	17.10
			135	138	19.06		19.19	0.00	19.50	16.53		16.57	0.00	17.10
			270	0	19.13		19.17	0.00	19.50	16.50		16.52	0.00	17.10
		16QAM	1	1	19.37		18.73	0.00	19.50	17.01		16.99	0.00	17.10
			1	137	19.38		18.97	0.00	19.50	16.94		17.01	0.00	17.10
			1	271	19.28		18.93	0.00	19.50	16.81		16.89	0.00	17.10
		64QAM	1	1	18.92		18.73	0.00	19.50	16.37		16.39	0.00	17.10
		256QAM	1	1	19.28		19.07	0.00	19.50	16.63		16.66	0.00	17.10
	CP-OFDM	QPSK	1	1	19.16		18.99	0.00	19.50	16.58		16.56	0.00	17.10
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					649668.00	656000.00	662332.00			649668.00	656000.00	662332.00		
					3745.02 MHz	3840 MHz	3934.98 MHz			3745.02 MHz	3840 MHz	3934.98 MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.97	18.42	18.56	0.00	19.50	16.59	16.52	16.22	0.00	17.10
			1	123	18.90	18.56	18.76	0.00	19.50	16.62	16.56	16.47	0.00	17.10
			1	243	18.83	18.65	18.59	0.00	19.50	16.50	16.39	16.48	0.00	17.10
			120	0	18.91	18.65	18.59	0.00	19.50	16.62	16.60	16.50	0.00	17.10
			120	63	18.87	18.61	18.70	0.00	19.50	16.60	16.54	16.48	0.00	17.10
			120	125	18.75	18.64	18.62	0.00	19.50	16.49	16.46	16.43	0.00	17.10
			243	0	18.85	18.62	18.61	0.00	19.50	16.55	16.55	16.39	0.00	17.10
		QPSK	1	1	18.97	18.60	18.60	0.00	19.50	16.59	16.52	16.25	0.00	17.10
			1	123	18.94	18.68	18.80	0.00	19.50	16.60	16.60	16.52	0.00	17.10
			1	243	18.83	18.74	18.62	0.00	19.50	16.46	16.40	16.53	0.00	17.10
			120	0	18.86	18.72	18.67	0.00	19.50	16.67	16.65	16.46	0.00	17.10
			120	63	18.80	18.71	18.71	0.00	19.50	16.62	16.59	16.52	0.00	17.10
			120	125	18.78	18.70	18.66	0.00	19.50	16.45	16.47	16.51	0.00	17.10
			243	0	18.80	18.67	18.63	0.00	19.50	16.58	16.55	16.55	0.00	17.10
		16QAM	1	1	19.17	18.94	18.56	0.00	19.50	16.78	16.58	16.18	0.00	17.10
		64QAM	1	1	19.10	18.59	18.51	0.00	19.50	16.49	16.29	16.07	0.00	17.10
		256QAM	1	1	18.55	18.51	18.27	0.00	19.50	16.65	16.54	16.36	0.00	17.10
	CP-OFDM	QPSK	1	1	19.04	18.55	18.53	0.00	19.50	16.51	16.56	16.08	0.00	17.10

Notes:

NR Band n77 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77 (Voice/data/SRS0) 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
					649334.00		656000.00		662666.00				649334.00		656000.00		662666.00			
					3740.01 MHz		3840 MHz		3939.99 MHz				3740.01 MHz		3840 MHz		3939.99 MHz			
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.00		18.52		18.81		0.00	19.50	16.56		16.14		16.36		0.00	17.10
			1	109	18.96		18.65		19.03		0.00	19.50	16.65		16.24		16.55		0.00	17.10
			1	215	18.79		18.61		18.92		0.00	19.50	16.42		16.19		16.57		0.00	17.10
			108	0	18.93		18.72		18.98		0.00	19.50	16.66		16.26		16.60		0.00	17.10
			108	55	18.92		18.68		19.02		0.00	19.50	16.67		16.30		16.63		0.00	17.10
			108	109	18.85		18.64		18.92		0.00	19.50	16.52		16.26		16.58		0.00	17.10
			216	0	18.91		18.68		19.04		0.00	19.50	16.58		16.21		16.61		0.00	17.10
		QPSK	1	1	19.00		18.66		18.90		0.00	19.50	16.60		16.19		16.49		0.00	17.10
			1	109	18.96		18.71		19.08		0.00	19.50	16.61		16.33		16.31		0.00	17.10
			1	215	18.77		18.62		18.96		0.00	19.50	16.41		16.23		16.70		0.00	17.10
			108	0	18.92		18.71		18.97		0.00	19.50	16.37		16.31		16.56		0.00	17.10
			108	55	18.89		18.75		19.04		0.00	19.50	16.63		16.32		16.55		0.00	17.10
			108	109	18.88		18.65		18.97		0.00	19.50	16.55		16.21		16.56		0.00	17.10
			216	0	18.88		18.72		19.04		0.00	19.50	16.59		16.31		16.53		0.00	17.10
		16QAM	1	1	19.11		18.54		19.02		0.00	19.50	16.55		16.31		16.29		0.00	17.10
		64QAM	1	1	18.84		18.44		18.87		0.00	19.50	16.60		15.99		16.35		0.00	17.10
		256QAM	1	1	18.64		18.28		18.73		0.00	19.50	16.65		16.23		16.30		0.00	17.10
	CP-OFDM	QPSK	1	1	18.97		18.71		18.93		0.00	19.50	16.58		16.13		16.22		0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					649000.00	653666.00			658334.00	663000.00			649000.00	653666.00			658334.00	663000.00		
					3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz			3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.94	18.79			18.75	18.88	0.00	19.50	16.75	16.25			16.25	16.36	0.00	17.10
			1	95	18.92	18.71			18.76	19.03	0.00	19.50	16.68	16.25			16.26	16.41	0.00	17.10
			1	188	18.83	18.63			18.85	18.89	0.00	19.50	16.47	16.31			16.24	16.29	0.00	17.10
			90	0	18.94	18.72			18.71	18.96	0.00	19.50	16.66	16.29			16.30	16.31	0.00	17.10
			90	50	18.89	18.69			18.77	19.03	0.00	19.50	16.63	16.35			16.32	16.45	0.00	17.10
			90	99	18.80	18.68			18.83	18.93	0.00	19.50	16.55	16.35			16.29	16.46	0.00	17.10
			180	0	18.92	18.70			18.72	18.96	0.00	19.50	16.70	16.27			16.34	16.51	0.00	17.10
		QPSK	1	1	19.04	18.80			18.69	18.85	0.00	19.50	16.65	16.22			16.13	16.33	0.00	17.10
			1	95	18.93	18.69			18.83	19.00	0.00	19.50	16.66	16.30			16.27	16.59	0.00	17.10
			1	188	18.80	18.60			18.84	18.86	0.00	19.50	16.44	16.12			16.33	16.52	0.00	17.10
			90	0	18.99	18.75			18.64	18.95	0.00	19.50	16.70	16.33			16.22	16.56	0.00	17.10
			90	50	18.95	18.65			18.76	18.99	0.00	19.50	16.71	16.29			16.31	16.64	0.00	17.10
			90	99	18.85	18.71			18.75	18.94	0.00	19.50	16.58	16.27			16.36	16.57	0.00	17.10
			180	0	18.94	18.70			18.73	19.03	0.00	19.50	16.69	16.29			16.29	16.64	0.00	17.10
		16QAM	1	1	18.77	18.74			18.63	18.78	0.00	19.50	16.77	16.32			16.19	16.25	0.00	17.10
		64QAM	1	1	19.27	18.95			18.76	19.16	0.00	19.50	16.52	16.29			15.98	16.44	0.00	17.10
		256QAM	1	1	18.65	18.55			18.70	18.95	0.00	19.50	16.81	16.41			15.83	16.62	0.00	17.10
	CP-OFDM	QPSK	1	1	19.18	18.74			18.60	18.93	0.00	19.50	16.69	16.25			16.15	16.27	0.00	17.10

Notes:

NR Band n77 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77 (Voice/data/SRS0) 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
					648668.00	653556.00			658444.00	663332.00			648668.00	653556.00			658444.00	663332.00		
					3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz			3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.04	18.85			18.74	18.97	0.00	19.50	16.83	16.43			16.28	16.44	0.00	17.10
			1	81	18.98	18.83			18.71	19.14	0.00	19.50	16.79	16.42			16.31	16.48	0.00	17.10
			1	160	18.91	18.83			18.85	19.02	0.00	19.50	16.70	16.35			16.27	16.51	0.00	17.10
			81	0	19.07	18.82			18.75	19.01	0.00	19.50	16.86	16.39			16.28	16.53	0.00	17.10
			81	41	18.93	18.77			18.73	18.98	0.00	19.50	16.79	16.34			16.31	16.49	0.00	17.10
			81	81	18.96	18.86			18.82	19.08	0.00	19.50	16.71	16.33			16.33	16.51	0.00	17.10
			162	0	19.01	18.76			18.73	19.00	0.00	19.50	16.82	16.41			16.30	16.49	0.00	17.10
		QPSK	1	1	19.16	18.81			18.76	18.98	0.00	19.50	16.84	16.36			16.22	16.39	0.00	17.10
			1	81	19.04	18.72			18.71	19.12	0.00	19.50	16.80	16.38			16.25	16.56	0.00	17.10
			1	160	18.94	18.77			18.85	19.01	0.00	19.50	16.68	16.40			16.44	16.48	0.00	17.10
			81	0	19.03	18.75			18.73	19.01	0.00	19.50	16.89	16.44			16.35	16.57	0.00	17.10
			81	41	18.98	18.77			18.75	18.98	0.00	19.50	16.77	16.38			16.29	16.59	0.00	17.10
			81	81	18.96	18.82			18.77	19.07	0.00	19.50	16.78	16.39			16.42	16.65	0.00	17.10
			162	0	19.01	18.75			18.76	19.02	0.00	19.50	16.74	16.45			16.35	16.65	0.00	17.10
		16QAM	1	1	19.34	18.83			18.86	19.16	0.00	19.50	16.77	16.52			16.41	16.81	0.00	17.10
		64QAM	1	1	19.27	18.61			18.77	18.86	0.00	19.50	16.57	16.29			16.25	16.25	0.00	17.10
		256QAM	1	1	18.92	18.78			18.47	18.76	0.00	19.50	16.76	16.20			16.42	16.54	0.00	17.10
	CP-OFDM	QPSK	1	1	19.12	18.66			18.73	18.96	0.00	19.50	16.83	16.35			16.25	16.47	0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					648334.00	652166.00	656000.00		659834.00	663666.00			648334.00	652166.00	656000.00		659834.00	663666.00		
					3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz			3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.16	18.75	18.76		18.62	19.11	0.00	19.50	16.82	16.40	16.28		16.33	16.62	0.00	17.10
			1	67	19.16	18.76	18.85		18.84	19.00	0.00	19.50	16.82	16.37	16.32		16.42	16.61	0.00	17.10
			1	131	19.04	18.81	18.84		18.97	18.98	0.00	19.50	16.67	16.41	16.29		16.53	16.56	0.00	17.10
			64	0	19.18	18.82	18.83		18.81	19.03	0.00	19.50	16.87	16.39	16.31		16.41	16.59	0.00	17.10
			64	35	19.18	18.76	18.81		18.88	19.03	0.00	19.50	16.84	16.35	16.28		16.38	16.55	0.00	17.10
			64	69	19.14	18.72	18.78		18.83	18.94	0.00	19.50	16.74	16.31	16.41		16.43	16.48	0.00	17.10
			128	0	19.14	18.74	18.78		18.81	19.02	0.00	19.50	16.85	16.41	16.39		16.35	16.53	0.00	17.10
		QPSK	1	1	19.25	18.87	18.75		18.74	19.05	0.00	19.50	16.79	16.44	16.23		16.19	16.66	0.00	17.10
			1	67	19.25	18.82	18.82		18.88	18.98	0.00	19.50	16.79	16.43	16.29		16.34	16.64	0.00	17.10
			1	131	19.11	18.76	18.81		18.93	18.98	0.00	19.50	16.55	16.35	16.30		16.57	16.54	0.00	17.10
			64	0	19.22	18.77	18.84		18.84	19.06	0.00	19.50	16.88	16.49	16.38		16.36	16.65	0.00	17.10
			64	35	19.23	18.77	18.82		18.87	19.04	0.00	19.50	16.81	16.48	16.39		16.34	16.63	0.00	17.10
			64	69	19.17	18.67	18.71		18.83	19.00	0.00	19.50	16.80	16.40	16.28		16.42	16.48	0.00	17.10
			128	0	19.19	18.75	18.78		18.77	19.01	0.00	19.50	16.80	16.49	16.36		16.40	16.62	0.00	17.10
		16QAM	1	1	19.28	18.94	18.67		19.03	19.22	0.00	19.50	16.88	16.43	16.04		16.18	16.43	0.00	17.10
		64QAM	1	1	19.28	18.86	18.50		18.77	19.04	0.00	19.50	16.91	16.19	16.33		16.42	16.34	0.00	17.10
		256QAM	1	1	19.35	18.84	18.59		18.59	18.85	0.00	19.50	16.84	16.60	15.98		16.37	16.71	0.00	17.10
	CP-OFDM	QPSK	1	1	19.17	18.75	18.80		18.68	19.02	0.00	19.50	16.84	16.29	16.20		16.34	16.67	0.00	17.10

Notes:

NR Band n77 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77 (Voice/data/SRS0) 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
					648000.00	651200.00	654400.00	657600.00	660800.00	664000.00			648000.00	651200.00	654400.00	657600.00	660800.00	664000.00		
					3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz			3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.04	19.27	19.24	19.12	19.34	19.46	0.00	19.50	16.85	16.59	16.74	16.72	17.02	16.96	0.00	17.10
			1	53	19.01	19.04	18.98	19.05	19.27	19.38	0.00	19.50	16.64	16.41	16.56	16.72	16.94	16.88	0.00	17.10
			1	104	18.99	19.19	18.97	19.12	19.37	19.35	0.00	19.50	16.73	16.61	16.64	16.77	16.99	16.95	0.00	17.10
			50	0	18.99	19.15	19.15	19.13	19.22	19.33	0.00	19.50	17.05	16.50	16.65	16.76	17.03	16.95	0.00	17.10
			50	28	18.98	19.09	19.04	19.07	19.27	19.28	0.00	19.50	16.68	16.51	16.61	16.70	17.00	16.91	0.00	17.10
			50	56	18.97	19.13	19.07	19.09	19.28	19.29	0.00	19.50	16.75	16.60	16.63	16.79	17.02	16.86	0.00	17.10
			100	0	18.96	19.02	19.09	19.09	19.29	19.27	0.00	19.50	16.73	16.46	16.61	16.74	17.01	16.95	0.00	17.10
		QPSK	1	1	18.93	19.20	18.97	19.06	19.38	19.39	0.00	19.50	16.79	16.66	16.57	16.74	16.89	16.89	0.00	17.10
			1	53	18.90	19.04	18.98	19.05	19.25	19.29	0.00	19.50	16.59	16.64	16.57	16.74	16.97	16.78	0.00	17.10
			1	104	18.91	19.11	19.07	19.07	19.34	19.37	0.00	19.50	16.67	16.47	16.56	16.74	16.86	16.88	0.00	17.10
			50	0	19.02	19.13	19.04	19.08	19.24	19.37	0.00	19.50	16.68	16.61	16.61	16.78	16.90	16.94	0.00	17.10
			50	28	18.93	19.06	19.06	19.06	19.23	19.27	0.00	19.50	16.68	16.48	16.58	16.66	16.92	16.83	0.00	17.10
			50	56	18.94	19.23	19.07	19.15	19.27	19.33	0.00	19.50	16.57	16.52	16.59	16.82	16.98	16.84	0.00	17.10
			100	0	18.94	19.08	19.09	19.07	19.28	19.29	0.00	19.50	16.82	16.53	16.66	16.73	16.95	16.95	0.00	17.10
		16QAM	1	1	18.83	19.04	19.33	19.06	19.47	19.32	0.00	19.50	16.76	16.77	16.69	17.00	16.99	17.02	0.00	17.10
		64QAM	1	1	18.90	19.14	19.16	18.89	19.18	19.22	0.00	19.50	16.62	16.59	16.51	16.43	17.02	17.04	0.00	17.10
		256QAM	1	1	18.85	19.04	19.19	19.15	19.45	19.38	0.00	19.50	16.90	16.58	16.60	16.44	17.04	17.09	0.00	17.10
	CP-OFDM	QPSK	1	1	18.95	19.22	19.16	19.12	19.28	19.48	0.00	19.50	16.78	16.55	16.67	16.87	17.02	17.05	0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647668.00	651000.00	654334.00	657666.00	661000.00	664332.00			647668.00	651000.00	654334.00	657666.00	661000.00	664332.00		
					3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz			3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.19	19.14	19.08	19.08	19.22	19.45	0.00	19.50	17.02	16.87	16.87	16.94	16.84	16.91	0.00	17.10
			1	39	19.24	19.05	19.08	19.02	19.25	19.33	0.00	19.50	17.03	16.94	16.84	16.90	16.85	16.87	0.00	17.10
			1	76	19.21	19.06	19.05	19.12	19.34	19.27	0.00	19.50	16.87	16.88	16.82	16.87	16.78	16.91	0.00	17.10
			36	0	19.26	19.12	19.14	19.12	19.21	19.31	0.00	19.50	16.95	16.91	16.85	16.88	16.75	16.92	0.00	17.10
			36	21	19.30	19.05	19.05	19.07	19.25	19.28	0.00	19.50	16.94	16.87	16.80	16.80	16.72	16.87	0.00	17.10
			36	42	19.30	19.04	19.06	19.13	19.27	19.31	0.00	19.50	16.99	16.85	16.82	16.75	16.74	16.94	0.00	17.10
			75	0	19.25	19.11	19.02	19.08	19.29	19.31	0.00	19.50	16.72	16.80	16.76	16.77	16.75	16.87	0.00	17.10
		QPSK	1	1	19.31	19.09	19.12	19.13	19.25	19.33	0.00	19.50	17.00	16.87	16.77	16.76	16.77	16.75	0.00	17.10
			1	39	19.23	19.09	19.06	19.09	19.23	19.27	0.00	19.50	16.89	16.92	16.74	16.80	16.72	16.65	0.00	17.10
			1	76	19.28	19.11	19.05	19.21	19.34	19.28	0.00	19.50	16.97	16.90	16.75	16.75	16.71	16.70	0.00	17.10
			36	0	19.29	19.11	19.07	19.07	19.22	19.32	0.00	19.50	16.87	16.87	16.73	16.70	16.72	16.73	0.00	17.10
			36	21	19.23	19.04	19.05	19.06	19.24	19.25	0.00	19.50	16.88	16.84	16.70	16.75	16.75	16.84	0.00	17.10
			36	42	19.28	19.07	19.08	19.16	19.24	19.33	0.00	19.50	16.81	16.80	16.72	16.72	16.74	16.88	0.00	17.10
			75	0	19.30	19.06	19.06	19.09	19.26	19.29	0.00	19.50	16.90	16.84	16.75	16.73	16.77	16.84	0.00	17.10
		16QAM	1	1	19.50	18.99	18.93	19.08	19.42	19.44	0.00	19.50	16.91	16.91	16.77	16.70	16.73	16.84	0.00	17.10
		64QAM	1	1	19.46	19.02	19.08	19.18	19.15	19.27	0.00	19.50	16.94	16.92	16.80	16.74	16.75	16.76	0.00	17.10
		256QAM	1	1	19.05	18.95	19.25	19.23	19.15	19.25	0.00	19.50	16.84	16.95	16.78	16.75	16.77	16.85	0.00	17.10
	CP-OFDM	QPSK	1	1	19.31	19.17	19.02	19.15	19.34	19.38	0.00	19.50	16.94	16.84	16.74	16.77	16.71	16.88	0.00	17.10

Notes:

NR Band n77 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77 (Voice/data/SRS0) 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
					647334.00	650800.00	654266.00	657734.00	661200.00	664666.00			647334.00	650800.00	654266.00	657734.00	661200.00	664666.00		
					3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.35	19.05	19.11	19.01	19.15	19.26	0.00	19.50	16.63	16.49	16.62	16.58	16.81	16.78	0.00	17.10
			1	26	19.26	18.94	19.07	18.92	19.24	19.23	0.00	19.50	16.66	16.47	16.61	16.47	16.78	16.71	0.00	17.10
			1	49	19.32	19.08	19.06	19.06	19.34	19.28	0.00	19.50	16.72	16.49	16.62	16.81	16.93	16.77	0.00	17.10
			25	0	19.23	19.06	19.06	19.03	19.24	19.26	0.00	19.50	16.66	16.55	16.61	16.65	16.78	16.68	0.00	17.10
			25	13	19.29	19.04	19.04	18.96	19.22	19.24	0.00	19.50	16.64	16.51	16.56	16.59	16.82	16.69	0.00	17.10
			25	26	19.27	19.04	19.08	19.08	19.20	19.26	0.00	19.50	16.71	16.49	16.59	16.69	16.78	16.75	0.00	17.10
			50	0	19.29	19.04	19.10	19.02	19.18	19.25	0.00	19.50	16.67	16.47	16.60	16.60	16.77	16.77	0.00	17.10
		QPSK	1	1	19.38	19.01	19.14	19.05	19.20	19.28	0.00	19.50	16.68	16.49	16.59	16.62	16.81	16.74	0.00	17.10
			1	26	19.29	19.04	19.03	18.97	19.11	19.23	0.00	19.50	16.70	16.41	16.57	16.58	16.81	16.67	0.00	17.10
			1	49	19.32	19.07	19.08	19.14	19.28	19.20	0.00	19.50	16.68	16.51	16.65	16.76	16.95	16.75	0.00	17.10
			25	0	19.28	19.08	19.08	19.04	19.27	19.21	0.00	19.50	16.66	16.52	16.62	16.62	16.84	16.72	0.00	17.10
			25	13	19.28	19.03	19.05	19.02	19.19	19.24	0.00	19.50	16.65	16.48	16.57	16.57	16.81	16.75	0.00	17.10
			25	26	19.32	19.08	19.07	19.01	19.20	19.27	0.00	19.50	16.70	16.51	16.57	16.68	16.85	16.77	0.00	17.10
			50	0	19.29	19.11	19.07	18.98	19.25	19.24	0.00	19.50	16.69	16.49	16.61	16.65	16.87	16.74	0.00	17.10
		16QAM	1	1	19.08	19.11	19.15	19.11	18.91	19.38	0.00	19.50	16.37	16.37	16.59	16.62	16.82	16.67	0.00	17.10
		64QAM	1	1	19.23	18.96	18.82	18.77	19.07	19.37	0.00	19.50	16.54	16.43	16.40	16.66	16.78	16.38	0.00	17.10
		256QAM	1	1	19.43	18.86	19.21	19.08	19.16	19.42	0.00	19.50	16.56	16.38	16.88	16.59	16.75	16.73	0.00	17.10
	CP-OFDM	QPSK	1	1	19.37	18.95	19.13	19.01	19.27	19.34	0.00	19.50	16.69	16.40	16.56	16.76	16.82	16.81	0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647168.00	650700.00	654234.00	657766.00	661300.00	664832.00			647168.00	650700.00	654234.00	657766.00	661300.00	664832.00		
					3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz			3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.44	19.09	19.15	19.00	19.30	19.15	0.00	19.50	16.70	16.61	16.74	16.63	16.65	16.77	0.00	17.10
			1	19	19.36	18.99	19.09	18.91	19.17	19.14	0.00	19.50	16.62	16.47	16.72	16.52	16.70	16.75	0.00	17.10
			1	36	19.34	19.21	19.14	19.15	19.41	19.14	0.00	19.50	16.72	16.59	16.67	16.57	16.72	16.72	0.00	17.10
			18	0	19.36	19.08	19.08	18.98	19.20	19.20	0.00	19.50	16.65	16.56	16.68	16.55	16.73	16.75	0.00	17.10
			18	10	19.31	19.07	19.07	18.97	19.18	19.18	0.00	19.50	16.62	16.54	16.66	16.50	16.65	16.73	0.00	17.10
			18	20	19.39	19.11	19.13	19.08	19.25	19.21	0.00	19.50	16.71	16.54	16.76	16.57	16.57	16.77	0.00	17.10
			36	0	19.40	19.10	19.12	19.00	19.20	19.23	0.00	19.50	16.68	16.57	16.65	16.63	16.62	16.75	0.00	17.10
		QPSK	1	1	19.37	19.20	19.15	19.08	19.28	19.24	0.00	19.50	16.63	16.65	16.72	16.65	16.57	16.78	0.00	17.10
			1	19	19.30	19.08	19.09	18.93	19.17	19.21	0.00	19.50	16.61	16.54	16.70	16.66	16.80	16.77	0.00	17.10
			1	36	19.35	19.21	19.13	19.18	19.37	19.24	0.00	19.50	16.68	16.68	16.72	16.65	16.73	16.73	0.00	17.10
			18	0	19.35	19.13	19.13	19.07	19.18	19.19	0.00	19.50	16.63	16.61	16.65	16.64	16.72	16.74	0.00	17.10
			18	10	19.33	19.08	19.11	19.00	19.18	19.16	0.00	19.50	16.63	16.57	16.74	16.57	16.61	16.78	0.00	17.10
			18	20	19.37	19.07	19.09	19.14	19.17	19.20	0.00	19.50	16.70	16.55	16.77	16.67	16.66	16.77	0.00	17.10
			36	0	19.35	19.12	19.14	19.01	19.18	19.21	0.00	19.50	16.65	16.57	16.75	16.72	16.57	16.77	0.00	17.10
		16QAM	1	1	19.44	19.15	19.32	19.11	19.15	19.35	0.00	19.50	16.57	16.57	16.72	16.64	16.57	16.38	0.00	17.10
		64QAM	1	1	19.44	19.07	18.92	18.60	19.26	19.03	0.00	19.50	16.54	16.45	16.70	16.72	16.74	16.87	0.00	17.10
		256QAM	1	1	19.37	19.06	19.10	18.88	19.10	19.35	0.00	19.50	16.46	16.54	16.77	16.70	16.70	16.82	0.00	17.10
	CP-OFDM	QPSK	1	1	19.45	19.09	19.24	19.03	19.32	19.22	0.00	19.50	16.71	16.65	16.67	16.84	16.81	16.78	0.00	17.10

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647000.00	650600.00	654200.00	657800.00	661400.00	665000.00			647000.00	650600.00	654200.00	657800.00	661400.00	665000.00		
					3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz			3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.99	18.97	18.78	18.95	18.99	19.15	0.00	19.50	16.57	16.54	16.57	16.64	16.50	16.61	0.00	17.10
			1	12	19.32	18.96	18.85	19.09	19.22	19.12	0.00	19.50	16.54	16.57	16.62	16.65	16.65	16.67	0.00	17.10
			1	22	19.29	18.86	18.83	19.00	19.14	19.10	0.00	19.50	16.57	16.55	16.60	16.60	16.70	16.64	0.00	17.10
			12	0	19.25	18.97	18.80	18.90	19.09	19.12	0.00	19.50	16.67	16.60	16.61	16.67	16.68	16.66	0.00	17.10
			12	6	19.26	18.96	18.84	18.96	19.14	19.10	0.00	19.50	16.72	16.61	16.64	16.70	16.66	16.62	0.00	17.10
			12	12	19.27	18.97	18.78	18.94	19.14	19.08	0.00	19.50	16.70	16.54	16.67	16.64	16.57	16.61	0.00	17.10
			24	0	19.33	18.99	18.85	18.95	19.18	19.08	0.00	19.50	16.68	16.56	16.70	16.65	16.64	16.60	0.00	17.10
		QPSK	1	1	19.29	18.90	18.88	18.94	19.19	19.05	0.00	19.50	16.80	16.61	16.71	16.48	16.62	16.67	0.00	17.10
			1	12	19.31	18.93	18.91	19.09	19.32	19.05	0.00	19.50	16.75	16.62	16.72	16.54	16.66	16.64	0.00	17.10
			1	22	19.31	18.92	18.90	19.01	19.21	19.09	0.00	19.50	16.70	16.66	16.65	16.54	16.57	16.67	0.00	17.10
			12	0	19.24	18.90	18.85	18.85	19.08	19.14	0.00	19.50	16.72	16.64	16.73	16.60	16.65	16.72	0.00	17.10
			12	6	19.28	18.99	18.89	19.01	19.17	19.13	0.00	19.50	16.70	16.63	16.80	16.64	16.67	16.64	0.00	17.10
			12	12	19.26	18.95	18.80	18.92	19.18	19.16	0.00	19.50	16.64	16.61	16.77	16.65	16.55	16.61	0.00	17.10
			24	0	19.31	18.99	18.89	18.97	19.19	19.13	0.00	19.50	16.65	16.66	16.73	16.54	16.50	16.65	0.00	17.10
		16QAM	1	1	19.02	18.94	18.77	19.06	19.06	19.24	0.00	19.50	16.63	16.65	16.75	16.57	16.57	16.61	0.00	17.10
		64QAM	1	1	18.97	19.11	18.93	18.54	19.07	19.16	0.00	19.50	16.43	16.57	16.64	16.47	16.40	16.42	0.00	17.10
		256QAM	1	1	19.30	19.05	19.07	18.89	19.12	19.21	0.00	19.50	16.57	16.55	16.62	16.57	16.55	16.56	0.00	17.10
	CP-OFDM	QPSK	1	1	19.23	18.87	18.88	18.84	19.05	19.07	0.00	19.50	16.74	16.78	16.77	16.80	16.71	16.67	0.00	17.10

Notes:

NR Band n77 (Voice/data/SRS0) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (SRS1) & NR Band n77 (SRS1) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm) - NR Band n77-DoD (SRS1)								Maximum Allowed Average Power (dBm) - NR Band n77 (SRS1)													
		DSI = 0, 1, 4				DSI = 2, 3				DSI = 0, 1, 4								DSI = 2, 3					
		Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
			633334				633334			650000		656000		662000				650000		656000		662000	
			3500.01 MHz				3500.01 MHz			3750 MHz		3840 MHz		3930 MHz				3750 MHz		3840 MHz		3930 MHz	
100 MHz	SRS CW		12.65		14.00		10.62		11.60	13.24				13.04		14.00		10.64				10.62		11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		633000.00	633334.00	633666.00		633000.00	633334.00	633666.00		649668.00		656000.00		662332.00				649668.00		656000.00		662332.00	
		3495 MHz	3500.01 MHz	3504.99 MHz		3495 MHz	3500.01 MHz	3504.99 MHz		3745.02 MHz		3840 MHz		3934.98 MHz				3745.02 MHz		3840 MHz		3934.98 MHz	
90 MHz	SRS CW		12.51		14.00		10.61		11.60	13.17		12.84		12.96		14.00		10.66		10.33		10.56		11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632668.00	633334.00	634000.00		632668.00	633334.00	634000.00		649334.00		656000.00		662666.00				649334.00		656000.00		662666.00	
		3490.02 MHz	3500.01 MHz	3510 MHz		3490.02 MHz	3500.01 MHz	3510 MHz		3740.01 MHz		3840 MHz		3939.99 MHz				3740.01 MHz		3840 MHz		3939.99 MHz	
80 MHz	SRS CW		12.53		14.00		10.56		11.60	13.20		12.77		13.00		14.00		10.68		10.37		10.69		11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632334.00	633334.00	634332.00		632334.00	633334.00	634332.00		649000.00	653666.00			658334.00	663000.00			649000.00	653666.00			658334.00	663000.00	
		3485.01 MHz	3500.01 MHz	3514.98 MHz		3485.01 MHz	3500.01 MHz	3514.98 MHz		3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz			3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz	
70 MHz	SRS CW		12.47		14.00		10.62		11.60	13.23	12.84			12.84	13.03	14.00		10.71	10.33			10.38	10.69	11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632000.00	633334.00	634666.00		632000.00	633334.00	634666.00		648668.00	653556.00			658444.00	663332.00			648668.00	653556.00			658444.00	663332.00	
		3480 MHz	3500.01 MHz	3519.99 MHz		3480 MHz	3500.01 MHz	3519.99 MHz		3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz			3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz	
60 MHz	SRS CW		12.68		14.00		10.58		11.60	13.18	12.76			12.67	12.99	14.00		10.81	10.43			10.43	10.71	11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631668.00	633334.00	635000.00		631668.00	633334.00	635000.00		648334.00	652166.00	656000.00		659834.00	663666.00			648334.00	652166.00	656000.00		659834.00	663666.00	
		3475.02 MHz	3500.01 MHz	3525 MHz		3475.02 MHz	3500.01 MHz	3525 MHz		3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz			3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz	
50 MHz	SRS CW	12.50		12.66	14.00	10.55		10.57	11.60	13.39	12.98	12.81		12.71	13.00	14.00		10.94	10.44	10.42		10.40	10.68	11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631334.00	633334.00	635332.00		631334.00	633334.00	635332.00		648000.00	651200.00	654400.00	657600.00	660800.00	664000.00			648000.00	651200.00	654400.00	657600.00	660800.00	664000.00	
		3470.01 MHz	3500.01 MHz	3529.98 MHz		3470.01 MHz	3500.01 MHz	3529.98 MHz		3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz			3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz	
40 MHz	SRS CW	12.77		12.98	14.00	10.73		10.99	11.60	13.59	13.41	13.04	12.91	12.98	13.11	14.00		11.12	10.65	10.60	10.63	10.85	10.87	11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631000.00	633334.00	635666.00		631000.00	633334.00	635666.00		647668.00	651000.00	654334.00	657666.00	661000.00	664332.00			647668.00	651000.00	654334.00	657666.00	661000.00	664332.00	
		3465 MHz	3500.01 MHz	3534.99 MHz		3465 MHz	3500.01 MHz	3534.99 MHz		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz			3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz	
30 MHz	SRS CW	12.76	12.84	12.95	14.00	10.74	10.81	10.97	11.60	13.64	13.34	13.05	12.98	13.03	13.18	14.00		11.11	10.75	10.68	10.68	10.86	10.88	11.60
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		630668.00	633334.00	636000.00		630668.00	633334.00	636000.00		647334.00	650800.00	654266.00	657734.00	661200.00	664666.00			647334.00	650800.00	654266.00	657734.00	661200.00	664666.00	
		3460.02 MHz	3500.01 MHz	3540 MHz		3460.02 MHz	3500.01 MHz	3540 MHz		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz	
20 MHz	SRS CW	12.58	12.73	12.80	14.00	10.46	10.69	10.69	11.60	13.55	13.39	13.03	12.77	12.93	13.15	14.00		11.12	10.74	10.71	10.50	10.82	10.69	11.60

Notes:

NR Band n77-DoD (SRS1) & NR Band n77 (SRS1) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (SRS2) & NR Band n77 (SRS2) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm) - NR Band n77-DoD (SRS2)								Maximum Allowed Average Power (dBm) - NR Band n77 (SRS2)													
		DSI = 0, 1, 4				DSI = 2, 3				DSI = 0, 1, 4								DSI = 2, 3					
		Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
			633334.00				633334.00			650000.00		656000.00		662000.00				650000.00		656000.00		662000.00	
			3500.01 MHz				3500.01 MHz			3750 MHz		3840 MHz		3930 MHz				3750 MHz		3840 MHz		3930 MHz	
100 MHz	SRS OW		13.91		14.50		10.62		12.10	13.75				13.19		14.50		10.55				10.64		12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		633000.00	633334.00	633666.00		633000.00	633334.00	633666.00		649668.00		656000.00		662332.00				649668.00		656000.00		662332.00	
		3495 MHz	3500.01 MHz	3504.99 MHz		3495 MHz	3500.01 MHz	3504.99 MHz		3745.02 MHz		3840 MHz		3934.98 MHz				3745.02 MHz		3840 MHz		3934.98 MHz	
90 MHz	SRS OW		13.82		14.50		10.50		12.10	13.37		13.07		13.17		14.50		10.66		10.59		10.54		12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632668.00	633334.00	634000.00		632668.00	633334.00	634000.00		649334.00		656000.00		662666.00				649334.00		656000.00		662666.00	
		3490.02 MHz	3500.01 MHz	3510 MHz		3490.02 MHz	3500.01 MHz	3510 MHz		3740.01 MHz		3840 MHz		3939.99 MHz				3740.01 MHz		3840 MHz		3939.99 MHz	
80 MHz	SRS OW		13.83		14.50		10.61		12.10	13.36		13.07		13.16		14.50		10.48		10.49		10.52		12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632334.00	633334.00	634332.00		632334.00	633334.00	634332.00		649000.00	653666.00			658334.00	663000.00			649000.00	653666.00			658334.00	663000.00	
		3485.01 MHz	3500.01 MHz	3514.98 MHz		3485.01 MHz	3500.01 MHz	3514.98 MHz		3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz			3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz	
70 MHz	SRS OW		13.80		14.50		10.62		12.10	13.39	13.08			13.05	13.14	14.50		10.67	10.59			10.71	10.64	12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632000.00	633334.00	634666.00		632000.00	633334.00	634666.00		648668.00	653556.00			658444.00	663332.00			648668.00	653556.00			658444.00	663332.00	
		3480 MHz	3500.01 MHz	3519.99 MHz		3480 MHz	3500.01 MHz	3519.99 MHz		3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz			3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz	
60 MHz	SRS OW		13.79		14.50		10.61		12.10	13.72	13.20			13.07	13.22	14.50		10.62	10.64			10.61	10.57	12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631668.00	633334.00	635000.00		631668.00	633334.00	635000.00		648334.00	652166.00	656000.00		659834.00	663666.00			648334.00	652166.00	656000.00		659834.00	663666.00	
		3475.02 MHz	3500.01 MHz	3525 MHz		3475.02 MHz	3500.01 MHz	3525 MHz		3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz			3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz	
50 MHz	SRS OW	13.40		13.74	14.50	10.49		10.51	12.10	13.83	13.28	13.18		13.12	13.14	14.50		10.43	10.59	10.68		10.63	10.64	12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631334.00	633334.00	635332.00		631334.00	633334.00	635332.00		648000.00	651200.00	654400.00	657600.00	660800.00	664000.00			648000.00	651200.00	654400.00	657600.00	660800.00	664000.00	
		3470.01 MHz	3500.01 MHz	3529.98 MHz		3470.01 MHz	3500.01 MHz	3529.98 MHz		3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz			3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz	
40 MHz	SRS OW	13.28		13.70	14.50	10.60		10.57	12.10	14.00	13.80	13.43	13.38	13.67	13.68	14.50		10.49	10.54	10.51	10.59	10.56	10.59	12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631000.00	633334.00	635666.00		631000.00	633334.00	635666.00		647668.00	651000.00	654334.00	657666.00	661000.00	664332.00			647668.00	651000.00	654334.00	657666.00	661000.00	664332.00	
		3465 MHz	3500.01 MHz	3534.99 MHz		3465 MHz	3500.01 MHz	3534.99 MHz		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz			3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz	
30 MHz	SRS OW	13.85	14.01	14.10	14.50	10.62	10.59	10.57	12.10	14.10	13.83	13.64	13.35	13.67	13.70	14.50		10.72	10.48	10.66	10.72	10.68	10.73	12.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		630668.00	633334.00	636000.00		630668.00	633334.00	636000.00		647334.00	650800.00	654266.00	657734.00	661200.00	664666.00			647334.00	650800.00	654266.00	657734.00	661200.00	664666.00	
		3460.02 MHz	3500.01 MHz	3540 MHz		3460.02 MHz	3500.01 MHz	3540 MHz		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz	
20 MHz	SRS OW	13.70	13.94	14.00	14.50	10.64	10.66	10.62	12.10	14.01	13.85	13.62	13.22	13.43	13.01	14.50		10.56	10.61	10.58	10.67	10.65	10.71	12.10

Notes:

NR Band n77-DoD (SRS2) & NR Band n77 (SRS2) were measured output power through FTM mode provided by manufacturer.

NR Band n77-DoD (SRS3) & NR Band n77 (SRS3) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm) - NR Band n77-DoD (SRS3)								Maximum Allowed Average Power (dBm) - NR Band n77 (SRS3)													
		DSI = 0, 1, 4				DSI = 2, 3				DSI = 0, 1, 4								DSI = 2, 3					
		Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
			633334.00				633334.00			650000.00		656000.00		662000.00				650000.00		656000.00		662000.00	
			3500.01 MHz				3500.01 MHz			3750 MHz		3840 MHz		3930 MHz				3750 MHz		3840 MHz		3930 MHz	
100 MHz	SRS OW		12.90		13.50		10.48		11.10	12.85				12.33		13.50		10.34				9.88		11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		633000.00	633334.00	633666.00		633000.00	633334.00	633666.00		649668.00		656000.00		662332.00				649668.00		656000.00		662332.00	
		3495 MHz	3500.01 MHz	3504.99 MHz		3495 MHz	3500.01 MHz	3504.99 MHz		3745.02 MHz		3840 MHz		3934.98 MHz				3745.02 MHz		3840 MHz		3934.98 MHz	
90 MHz	SRS OW		12.93		13.50		10.40		11.10	12.75		12.25		12.22		13.50		10.20		9.57		9.56		11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632668.00	633334.00	634000.00		632668.00	633334.00	634000.00		649334.00		656000.00		662666.00				649334.00		656000.00		662666.00	
		3490.02 MHz	3500.01 MHz	3510 MHz		3490.02 MHz	3500.01 MHz	3510 MHz		3740.01 MHz		3840 MHz		3939.99 MHz				3740.01 MHz		3840 MHz		3939.99 MHz	
80 MHz	SRS OW		12.90		13.50		10.41		11.10	12.69		12.28		12.18		13.50		10.13		9.46		9.61		11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632334.00	633334.00	634332.00		632334.00	633334.00	634332.00		649000.00	653666.00			658334.00	663000.00			649000.00	653666.00			658334.00	663000.00	
		3485.01 MHz	3500.01 MHz	3514.98 MHz		3485.01 MHz	3500.01 MHz	3514.98 MHz		3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz			3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz	
70 MHz	SRS OW		13.06		13.50		10.36		11.10	12.66	12.39			12.19	12.30	13.50		10.15	9.65			9.36	9.58	11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		632000.00	633334.00	634666.00		632000.00	633334.00	634666.00		648668.00	653556.00			658444.00	663332.00			648668.00	653556.00			658444.00	663332.00	
		3480 MHz	3500.01 MHz	3519.99 MHz		3480 MHz	3500.01 MHz	3519.99 MHz		3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz			3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz	
60 MHz	SRS OW		13.00		13.50		10.42		11.10	12.65	12.35			12.14	12.27	13.50		10.21	9.76			9.44	9.57	11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit							Tune-up Limit
		631668.00	633334.00	635000.00		631668.00	633334.00	635000.00		648334.00	652166.00	656000.00		659834.00	663666.00			648334.00	652166.00	656000.00		659834.00	663666.00	
		3475.02 MHz	3500.01 MHz	3525 MHz		3475.02 MHz	3500.01 MHz	3525 MHz		3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz			3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz	
50 MHz	SRS OW	12.90		12.86	13.50	10.32		10.35	11.10	12.82	12.52	12.43		12.18	12.36	13.50		10.32	9.89	9.62		9.41	9.52	11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631334.00	633334.00	635332.00		631334.00	633334.00	635332.00		648000.00	651200.00	654400.00	657600.00	660800.00	664000.00			648000.00	651200.00	654400.00	657600.00	660800.00	664000.00	
		3470.01 MHz	3500.01 MHz	3529.98 MHz		3470.01 MHz	3500.01 MHz	3529.98 MHz		3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz			3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz	
40 MHz	SRS OW	13.18		13.25	13.50	10.68		10.73	11.10	13.07	12.73	12.73	12.59	12.67	12.55	13.50		10.55	10.18	9.95	9.76	9.83	9.72	11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		631000.00	633334.00	635666.00		631000.00	633334.00	635666.00		647668.00	651000.00	654334.00	657666.00	661000.00	664332.00			647668.00	651000.00	654334.00	657666.00	661000.00	664332.00	
		3465 MHz	3500.01 MHz	3534.99 MHz		3465 MHz	3500.01 MHz	3534.99 MHz		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz			3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz	
30 MHz	SRS OW	13.21	13.30	13.21	13.50	10.70	10.66	10.67	11.10	13.02	12.56	12.68	12.54	12.65	12.28	13.50		10.57	10.12	9.96	9.74	9.75	9.82	11.10
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit		Measured Pwr (dBm)					Tune-up Limit
		630668.00	633334.00	636000.00		630668.00	633334.00	636000.00		647334.00	650800.00	654266.00	657734.00	661200.00	664666.00			647334.00	650800.00	654266.00	657734.00	661200.00	664666.00	
		3460.02 MHz	3500.01 MHz	3540 MHz		3460.02 MHz	3500.01 MHz	3540 MHz		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz	
20 MHz	SRS OW	13.12	13.07	13.13	13.50	10.46	10.53	10.55	11.10	13.01	12.56	12.64	12.54	12.65	12.26	13.50		10.42	10.20	10.00	9.69	9.70	9.75	11.10

Notes:

NR Band n77-DoD (SRS3) & NR Band n77 (SRS3) were measured output power through FTM mode provided by manufacturer.

9.5. Wi-Fi 2.4 GHz (DTS Band)

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.2	802.11b	1 Mbps	1	2412.0	18.72	19.0	Yes	13.71	14.0	Yes
			6	2437.0	18.40			13.61		
			11	2462.0	18.47			13.53		
			12	2467.0	Not Required	6.0	No	Not Required	6.0	No
			13	2472.0	Not Required	0.0		Not Required	0.0	
	802.11g	6 Mbps	Not Required			18.0	No	Not Required	14.0	No
	802.11n	6.5 Mbps				18.0			14.0	
	802.11ax	7.3 Mbps				17.0			14.0	

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	802.11b	1 Mbps	1	2412.0	18.41	19.0	Yes	12.62	14.0	Yes
			6	2437.0	18.19			12.54		
			11	2462.0	18.44			12.65		
			12	2467.0	Not Required	6.0	No	Not Required	6.0	No
			13	2472.0	Not Required	0.0		Not Required	0.0	
	802.11g	6 Mbps	Not Required			18.0	No	Not Required	14.0	No
	802.11n	6.5 Mbps				18.0			14.0	
	802.11ax	7.3 Mbps				17.0			14.0	
WiFi 2.4G Ant.2	802.11b	1 Mbps	1	2412.0	18.72	19.0	Yes	13.57	14.0	Yes
			6	2437.0	18.40			13.65		
			11	2462.0	18.47			13.47		
			12	2467.0	Not Required	6.0	No	Not Required	6.0	No
			13	2472.0	Not Required	0.0		Not Required	0.0	
	802.11g	6 Mbps	Not Required			18.0	No	Not Required	14.0	No
	802.11n	6.5 Mbps				18.0			14.0	
	802.11ax	7.3 Mbps				17.0			14.0	

Note(s):

1. SAR is not required for 802.11g/n modes when the adjusted SAR for 802.11b is < 1.2 W/kg.
2. 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.
3. 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.
4. Head (RCV on) & Hotspot (RSDB mode) exposure conditions are tested using Reduced power.

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

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	16.96	18.0	Yes	Not Required	13.0	No
				56	5280	16.95					
				60	5300	17.00					
				64	5320	17.12					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	16.0	No	12.36	13.0	Yes
		802.11ac (VHT160)	58.5 Mbps	Not Required			15.0	No	Not Required	13.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	13.0	No
	UNII 1 & UNII 2A	802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	13.0	No
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500	17.14	18.0	Yes	Not Required	13.0	No
				120	5600	17.05					
				124	5620	17.01					
				144	5720	17.44					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	16.0	No	12.11	13.0	Yes
				122	5610.0	Not Required			12.32		
				138	5690.0	Not Required			11.85		
		802.11ac (VHT160)	58.5 Mbps	Not Required			15.0	No	Not Required	13.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	13.0	No

Note(s):

1. 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.
2. 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.
3. 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.
4. Head (RCV on) & Hotspot (RSDB mode) exposure conditions are tested using Reduced power.

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 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	5.8 (UNII 3)	802.11a	6 Mbps	149	5745	17.49	18.0	Yes	Not Required	13.0	No
				157	5785	17.53					
				165	5825	17.69					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	16.0	No	12.62	13.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	NO
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	13.0	No
	5.9 (U-NII 4)	802.11a	6 Mbps	169	5845	17.39	18.0	Yes	Not Required	13.0	No
				173	5865	17.42					
				177	5885	17.54					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	171	5855.0	Not Required	16.0	No	12.39	13.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE80)	30.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
	UNII 3 & UNII 4	802.11ac (VHT160)	58.5 Mbps	Not Required			15.0	No	Not Required	13.0	No
		802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	13.0	No

Note(s):

1. 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.
2. 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.
3. 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.
4. Head (RCV on) & Hotspot (RSDB mode) exposure conditions are tested using Reduced power.

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 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.2	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260	17.67	18.0	Yes	Not Required	13.0	No
				56	5280	17.70					
				60	5300	17.72					
				64	5320	17.54					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	16.0	No	12.62	13.0	Yes
		802.11ac (VHT160)	58.5 Mbps	Not Required			15.0	No	Not Required	13.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	13.0	No
	UNII 1 & UNII 2A	802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	13.0	No
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500	17.50	18.0	Yes	Not Required	13.0	No
				120	5600	17.50					
				124	5620	17.45					
				144	5720	17.51					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	16.0	No	12.61	13.0	Yes
				122	5610.0	Not Required			12.87		
				138	5690.0	Not Required			12.57		
		802.11ac (VHT160)	58.5 Mbps	Not Required			15.0	No	Not Required	13.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	13.0	No

Note(s):

1. 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.
2. 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.
3. 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.
4. Head (RCV on) & Hotspot (RSDB mode) exposure conditions are tested using Reduced power.

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 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.2	5.8 (UNII 3)	802.11a	6 Mbps	149	5745	17.56	18.0	Yes	Not Required	13.0	No
				157	5785	17.64					
				165	5825	17.57					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	16.0	No	12.05	13.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	NO
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No	Not Required	13.0	No
	5.9 (U-NII 4)	802.11a	6 Mbps	169	5845	17.00	18.0	Yes	Not Required	13.0	No
				173	5865	17.01					
				177	5885	17.46					
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ac (VHT80)	29.3 Mbps	171	5855.0	Not Required	16.0	No	12.54	13.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	13.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
		802.11ax (HE80)	30.6 Mbps	Not Required			16.0	No	Not Required	13.0	No
	UNII 3 & UNII 4	802.11ac (VHT160)	58.5 Mbps	Not Required			15.0	No	Not Required	13.0	No
		802.11ax (HE160)	72.0 Mbps	Not Required			15.0	No	Not Required	13.0	No

Note(s):

1. 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.
2. 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.
3. 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.
4. Head (RCV on) & Hotspot (RSDB mode) exposure conditions are tested using Reduced power.

9.7. Bluetooth

Bluetooth SISO output power Results

Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Max.Average Power (dBm)		Reduced.Average Power (dBm)	
					Meas Pwr	Tune-up Limit	Meas Pwr	Tune-up Limit
2.4	BT Ant.1	Bluetooth(1Mbps) in PL11	0	2402	16.46	18.0	14.02	15.0
			39	2441	17.09		14.77	
			78	2480	16.33		13.94	
2.4	BT Ant.2	Bluetooth(1Mbps) in PL11	0	2402	18.82	19.0	14.53	15.0
			39	2441	18.86		14.63	
			78	2480	17.80		13.88	

Bluetooth Dual output power Results

Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Max.Average Power (dBm)	
					Meas Pwr	Tune-up Limit
2.4	BT Ant.1	Bluetooth(1Mbps) in PL10	0	2402	12.81	14.0
			39	2441	13.28	
			78	2480	12.75	
2.4	BT Ant.2	Bluetooth(1Mbps) in PL10	0	2402	13.25	14.0
			39	2441	13.49	
			78	2480	12.84	

Duty Factor Measured Results

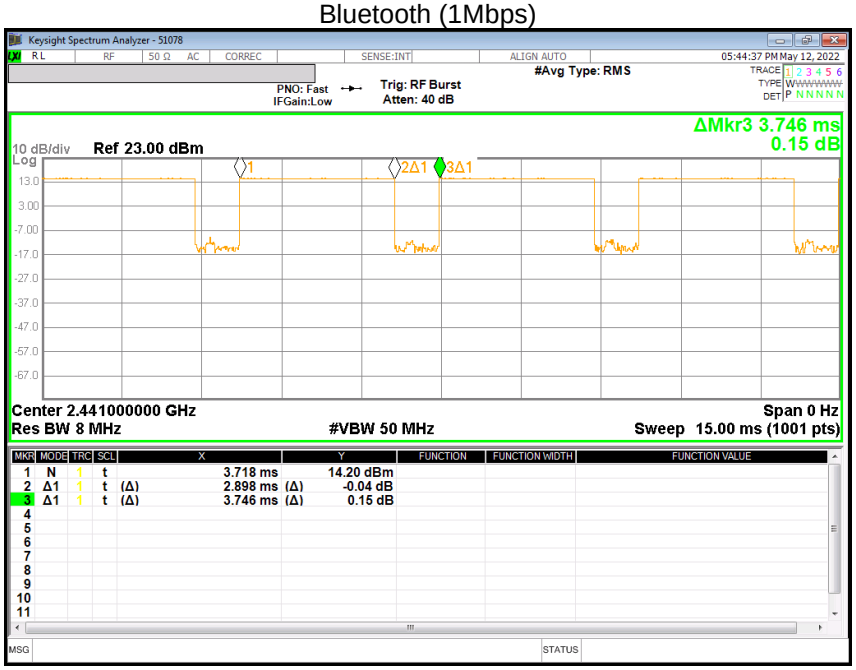
Mode	Type	T on (ms)	Period (ms)	Maximum Duty Cyle	Measured Duty Cycle	Crest Factor (maximum duty/ measured duty cycle)
GFSK	DH5	2.898	3.746	78.13%	76.72%	1.02

Note(s):

Maximum Duty Cycle is mentioned in Operational description. Detail of BT Duty Cycle refer to Operational description.

Duty Cycle plots

Bluetooth (1Mbps)



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
- Wi-Fi Duty Cycle scaling factor = 1 / Duty cycle (%)
- BT Duty Cycle scaling factor = Maximum Duty cycle / 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 ≤ 25mm 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 ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

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

KDB 248227 D01 SAR meas for 802.11:

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

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

- ≤ 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

Antenna	RF Exposure Conditions	Mode	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	0	Left Touch	251	848.8	32.00	31.52	0.109	0.122	1
				Left Tilt	251	848.8	32.00	31.52	0.060	0.067	
				Right Touch	251	848.8	32.00	31.52	0.084	0.093	
				Right Tilt	251	848.8	32.00	31.52	0.066	0.073	
	Body-worn	GPRS 2 Slots	15	Rear	251	848.8	32.00	31.52	0.377	0.421	2
				Front	251	848.8	32.00	31.52	0.263	0.294	
	Hotspot	GPRS 2 Slots	10	Rear	128	824.4	32.00	30.90	0.544	0.701	
					190	836.6	32.00	31.00	0.737	0.928	3
					251	848.8	32.00	31.52	0.809	0.904	
				Front	251	848.8	32.00	31.52	0.482	0.538	
				Edge 2	251	848.8	32.00	31.52	0.059	0.065	
				Edge 3	251	848.8	32.00	31.52	0.405	0.452	
				Edge 4	251	848.8	32.00	31.52	0.131	0.146	

10.2. GSM 1900

Antenna	RF Exposure Conditions	Mode	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	0	Left Touch	661	1880.0	29.00	27.43	0.045	0.065	
				Left Tilt	661	1880.0	29.00	27.43	0.058	0.083	
				Right Touch	661	1880.0	29.00	27.43	0.063	0.090	4
				Right Tilt	661	1880.0	29.00	27.43	0.029	0.041	
	Body-worn	GPRS 2 Slots	15	Rear	661	1880.0	29.00	27.43	0.350	0.502	5
				Front	661	1880.0	29.00	27.43	0.286	0.411	
	Hotspot	GPRS 2 Slots	10	Rear	810	1909.8	26.00	25.54	0.390	0.434	
				Front	810	1909.8	26.00	25.54	0.288	0.320	
				Edge 2	810	1909.8	26.00	25.54	0.062	0.069	
				Edge 3	512	1850.2	26.00	24.66	0.511	0.696	
					661	1880.0	26.00	25.12	0.598	0.732	
					810	1909.8	26.00	25.54	0.760	0.845	6
				Edge 4	810	1909.8	26.00	25.54	0.047	0.052	
Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	GPRS 2 Slots	15	Edge 3	661	1880.0	29.00	27.43	0.383	0.550	
			0	Edge 3	810	1909.8	26.00	25.39	1.550	1.784	7

10.3. WCDMA Band II

Antenna	RF Exposure Conditions	Mode	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	0	Left Touch	9400	1880.0	24.00	23.04	0.060	0.075	
				Left Tilt	9400	1880.0	24.00	23.04	0.108	0.135	
				Right Touch	9400	1880.0	24.00	23.04	0.131	0.163	8
				Rightt Tilt	9400	1880.0	24.00	23.04	0.053	0.066	
	Body-worn	Rel 99 RMC	15	Rear	9400	1880.0	24.00	23.04	0.630	0.786	9
				Front	9400	1880.0	24.00	23.04	0.491	0.612	
	Hotspot	Rel 99 RMC	10	Rear	9400	1880.0	19.00	17.79	0.471	0.622	
				Front	9400	1880.0	19.00	17.79	0.248	0.328	
				Edge 2	9400	1880.0	19.00	17.79	0.073	0.096	
				Edge 3	9262	1852.4	19.00	17.55	0.702	0.980	
					9400	1880.0	19.00	17.79	0.895	1.183	
					9538	1907.6	19.00	17.99	0.945	1.192	10
				Edge 4	9400	1880.0	19.00	17.79	0.050	0.066	
Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	Rel 99 RMC	11	Rear	9400	1880.0	24.00	23.04	0.521	0.650	
			15	Edge 3	9400	1880.0	24.00	23.04	0.791	0.987	
			0	Rear	9400	1880.0	21.00	19.93	1.180	1.510	
			0	Edge 3	9262	1852.4	21.00	19.70	1.920	2.590	
					9400	1880.0	21.00	19.93	2.350	3.007	11
					9538	1907.6	21.00	20.14	2.420	2.950	

10.4. WCDMA Band IV

Antenna	RF Exposure Conditions	Mode	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	0	Left Touch	1413	1732.6	24.00	22.87	0.101	0.131	
				Left Tilt	1413	1732.6	24.00	22.87	0.106	0.138	
				Right Touch	1413	1732.6	24.00	22.87	0.153	0.198	12
				Rightt Tilt	1413	1732.6	24.00	22.87	0.087	0.113	
	Body-worn	Rel 99 RMC	15	Rear	1312	1712.4	24.00	23.12	0.860	1.053	13
					1413	1732.6	24.00	22.87	0.807	1.047	
					1513	1752.6	24.00	22.80	0.743	0.979	
				Front	1312	1712.4	24.00	23.12	0.831	1.018	
					1413	1732.6	24.00	22.87	0.766	0.994	
					1513	1752.6	24.00	22.80	0.704	0.928	
	Hotspot	Rel 99 RMC	10	Rear	1413	1732.6	19.00	17.72	0.549	0.737	
				Front	1413	1732.6	19.00	17.72	0.340	0.457	
				Edge 2	1413	1732.6	19.00	17.72	0.112	0.150	
				Edge 3	1312	1712.4	19.00	17.88	0.927	1.200	
					1413	1732.6	19.00	17.72	0.895	1.202	14
					1513	1752.6	19.00	17.71	0.845	1.137	
				Edge 4	1413	1732.6	19.00	17.72	0.060	0.080	
Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		10-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	Rel 99 RMC	11	Rear	1413	1732.6	24.00	22.87	0.817	1.060	
			9	Front	1413	1732.6	24.00	22.87	0.734	0.952	
			15	Edge 3	1413	1732.6	24.00	22.87	0.914	1.186	
			0	Rear	1413	1732.6	20.00	18.68	1.210	1.640	
			0	Front	1413	1732.6	20.00	18.68	1.100	1.491	
			0	Edge 3	1312	1712.4	20.00	18.82	1.450	1.903	
					1413	1732.6	20.00	18.68	1.910	2.588	15
					1513	1752.6	20.00	18.66	1.640	2.233	

10.5. WCDMA Band V

Antenna	RF Exposure Conditions	Mode	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	0	Left Touch	4183	836.6	25.50	24.21	0.216	0.291	16
				Left Tilt	4183	836.6	25.50	24.21	0.114	0.153	
				Right Touch	4183	836.6	25.50	24.21	0.167	0.225	
				Rightt Tilt	4183	836.6	25.50	24.21	0.127	0.171	
	Body-worn	Rel 99 RMC	15	Rear	4183	836.6	25.50	24.21	0.258	0.347	17
				Front	4183	836.6	25.50	24.21	0.160	0.215	
	Hotspot	Rel 99 RMC	10	Rear	4132	826.4	25.50	24.39	0.735	0.949	
					4183	836.6	25.50	24.21	0.758	1.020	18
					4233	846.6	25.50	24.14	0.711	0.972	
				Front	4183	836.6	25.50	24.21	0.313	0.421	
				Edge 2	4183	836.6	25.50	24.21	0.099	0.133	
				Edge 3	4183	836.6	25.50	24.21	0.226	0.304	
				Edge 4	4183	836.6	25.50	24.21	0.197	0.265	

10.6. LTE Band 4 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Sub.2 Ant.	Head	QPSK	0	Left Touch	20175	1732.5	1	49	21.00	19.97	0.439	0.556	
							50	50	21.00	19.95	0.446	0.568	
				Left Tilt	20175	1732.5	1	49	21.00	19.97	0.551	0.698	
							50	50	21.00	19.95	0.558	0.711	
				Right Touch	20175	1732.5	1	49	21.00	19.97	0.567	0.719	
							50	50	21.00	19.95	0.574	0.731	
				Right Tilt	20175	1732.5	1	49	21.00	19.97	0.728	0.923	
							50	50	21.00	19.95	0.748	0.953	
							100	0	21.00	19.91	0.759	0.976	19
	Body-worn	QPSK	15	Rear	20175	1732.5	1	49	22.00	20.65	0.164	0.224	
							50	50	22.00	20.62	0.166	0.228	20
				Front	20175	1732.5	1	49	22.00	20.65	0.123	0.168	
							50	50	22.00	20.62	0.122	0.168	
	Hotspot	QPSK	10	Rear	20175	1732.5	1	49	21.00	19.88	0.331	0.428	
							50	50	21.00	19.94	0.243	0.310	
				Front	20175	1732.5	1	49	21.00	19.88	0.182	0.236	
							50	50	21.00	19.94	0.184	0.235	
				Edge 1	20175	1732.5	1	49	21.00	19.88	0.504	0.652	21
							50	50	21.00	19.94	0.508	0.648	
				Edge 4	20175	1732.5	1	49	21.00	19.88	0.100	0.129	
							50	50	21.00	19.94	0.102	0.130	

10.7. LTE Band 5 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	20525	836.5	1	25	25.50	24.57	0.198	0.245	22
							25	12	24.50	23.59	0.155	0.191	
				Left Tilt	20525	836.5	1	25	25.50	24.57	0.098	0.121	
							25	12	24.50	23.59	0.081	0.099	
				Right Touch	20525	836.5	1	25	25.50	24.57	0.152	0.188	
							25	12	24.50	23.59	0.115	0.142	
				Right Tilt	20525	836.5	1	25	25.50	24.57	0.131	0.162	
							25	12	24.50	23.59	0.104	0.128	
	Body-worn	QPSK	15	Rear	20525	836.5	1	25	25.50	24.57	0.266	0.330	23
							25	12	24.50	23.59	0.214	0.264	
				Front	20525	836.5	1	25	25.50	24.57	0.201	0.249	
							25	12	24.50	23.59	0.162	0.200	
	Hotspot	QPSK	10	Rear	20525	836.5	1	25	25.50	24.57	0.602	0.746	24
							25	12	24.50	23.59	0.488	0.602	
				Front	20525	836.5	1	25	25.50	24.57	0.375	0.465	
							25	12	24.50	23.59	0.301	0.371	
				Edge 2	20525	836.5	1	25	25.50	24.57	0.114	0.141	
							25	12	24.50	23.59	0.092	0.113	
				Edge 3	20525	836.5	1	25	25.50	24.57	0.212	0.263	
							25	12	24.50	23.59	0.164	0.202	
				Edge 4	20525	836.5	1	25	25.50	24.57	0.119	0.147	
							25	12	24.50	23.59	0.099	0.122	

10.8. LTE Band 12 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	23095	707.5	1	49	25.00	23.22	0.080	0.120	
							25	25	24.00	22.20	0.056	0.084	
				Left Tilt	23095	707.5	1	49	25.00	23.22	0.034	0.052	
							25	25	24.00	22.20	0.032	0.048	
				Right Touch	23095	707.5	1	49	25.00	23.22	0.100	0.151	25
							25	25	24.00	22.20	0.076	0.114	
				Right Tilt	23095	707.5	1	49	25.00	23.22	0.056	0.084	
							25	25	24.00	22.20	0.043	0.065	
	Body-worn	QPSK	15	Rear	23095	707.5	1	49	25.00	23.22	0.140	0.211	26
							25	25	24.00	22.20	0.074	0.112	
				Front	23095	707.5	1	49	25.00	23.22	0.088	0.132	
							25	25	24.00	22.20	0.070	0.106	
	Hotspot	QPSK	10	Rear	23095	707.5	1	49	25.00	23.22	0.364	0.548	27
							25	25	24.00	22.20	0.183	0.277	
				Front	23095	707.5	1	49	25.00	23.22	0.097	0.146	
							25	25	24.00	22.20	0.074	0.112	
				Edge 2	23095	707.5	1	49	25.00	23.22	0.110	0.166	
							25	25	24.00	22.20	0.089	0.135	
				Edge 3	23095	707.5	1	49	25.00	23.22	0.045	0.068	
							25	25	24.00	22.20	0.035	0.053	
				Edge 4	23095	707.5	1	49	25.00	23.22	0.111	0.167	
							25	25	24.00	22.20	0.088	0.132	

10.9. LTE Band 13 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	23230	782.0	1	0	25.00	23.45	0.144	0.206	
							25	0	24.00	22.38	0.118	0.171	
				Left Tilt	23230	782.0	1	0	25.00	23.45	0.073	0.104	
							25	0	24.00	22.38	0.061	0.089	
				Right Touch	23230	782.0	1	0	25.00	23.45	0.149	0.213	28
							25	0	24.00	22.38	0.125	0.182	
				Right Tilt	23230	782.0	1	0	25.00	23.45	0.071	0.101	
							25	0	24.00	22.38	0.058	0.084	
	Body-worn	QPSK	15	Rear	23230	782.0	1	0	25.00	23.45	0.236	0.337	29
							25	0	24.00	22.38	0.152	0.221	
				Front	23230	782.0	1	0	25.00	23.45	0.169	0.241	
							25	0	24.00	22.38	0.138	0.200	
	Hotspot	QPSK	10	Rear	23230	782.0	1	0	25.00	23.45	0.380	0.543	30
							25	0	24.00	22.38	0.322	0.468	
				Front	23230	782.0	1	0	25.00	23.45	0.275	0.393	
							25	0	24.00	22.38	0.227	0.330	
				Edge 2	23230	782.0	1	0	25.00	23.45	0.161	0.230	
							25	0	24.00	22.38	0.139	0.202	
				Edge 3	23230	782.0	1	0	25.00	23.45	0.157	0.224	
							25	0	24.00	22.38	0.127	0.184	
				Edge 4	23230	782.0	1	0	25.00	23.45	0.223	0.319	
							25	0	24.00	22.38	0.178	0.258	

10.10. LTE Band 25 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	26590	1905.0	1	99	24.00	22.63	0.068	0.093	
							50	24	23.00	21.71	0.056	0.075	
				Left Tilt	26590	1905.0	1	99	24.00	22.63	0.090	0.123	
							50	24	23.00	21.71	0.071	0.096	
				Right Touch	26590	1905.0	1	99	24.00	22.63	0.112	0.154	31
							50	24	23.00	21.71	0.097	0.131	
				Right Tilt	26590	1905.0	1	99	24.00	22.63	0.056	0.077	
							50	24	23.00	21.71	0.048	0.065	
	Body-worn	QPSK	15	Rear	26140	1860.0	1	99	24.00	22.45	0.636	0.909	
							50	24	23.00	21.55	0.492	0.687	
					26365	1882.5	1	99	24.00	22.54	0.716	1.002	
							50	24	23.00	21.64	0.548	0.750	
					26590	1905.0	1	99	24.00	22.63	0.801	1.098	32
							50	24	23.00	21.71	0.615	0.828	
							100	0	23.00	21.73	0.601	0.805	
				Front	26590	1905.0	1	99	24.00	22.63	0.524	0.718	
							50	24	23.00	21.71	0.403	0.542	
	Hotspot	QPSK	10	Rear	26590	1905.0	1	99	19.50	18.28	0.527	0.698	
							50	24	19.50	18.24	0.516	0.690	
				Front	26590	1905.0	1	99	19.50	18.28	0.383	0.507	
							50	24	19.50	18.24	0.380	0.508	
				Edge 2	26590	1905.0	1	99	19.50	18.28	0.070	0.092	
							50	24	19.50	18.24	0.068	0.091	
				Edge 3	26140	1860.0	1	99	19.50	17.94	0.724	1.037	
							50	24	19.50	17.96	0.720	1.026	
					26365	1882.5	1	99	19.50	18.02	0.808	1.136	
							50	24	19.50	18.10	0.795	1.097	
					26590	1905.0	1	99	19.50	18.28	0.902	1.195	33
							50	24	19.50	18.24	0.872	1.166	
							100	0	19.50	18.20	0.883	1.191	
				Edge 4	26590	1905.0	1	99	19.50	18.28	0.071	0.095	
							50	24	19.50	18.24	0.070	0.094	

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	QPSK	11	Rear	26590	1905.0	1	99	24.00	22.63	0.770	1.056	
							50	24	23.00	21.71	0.595	0.801	
			9	Front	26590	1905.0	1	99	24.00	22.63	0.556	0.762	
			15	Edge 3	26590	1905.0	1	99	24.00	22.63	0.920	1.261	
							50	24	23.00	21.71	0.704	0.947	
			0	Rear	26590	1905.0	1	99	20.00	19.55	1.250	1.386	
							50	24	20.00	19.64	1.280	1.391	
			0	Front	26590	1905.0	1	99	20.00	19.55	0.963	1.068	
			0	Edge 3	26590	1905.0	1	99	20.00	19.55	1.480	1.642	
							50	24	20.00	19.64	1.550	1.684	34

10.11. LTE Band 26 (15MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	26865	831.5	1	0	25.00	23.90	0.197	0.254	35
							36	0	24.00	22.92	0.149	0.191	
				Left Tilt	26865	831.5	1	0	25.00	23.90	0.099	0.127	
							36	0	24.00	22.92	0.079	0.101	
				Right Touch	26865	831.5	1	0	25.00	23.90	0.112	0.144	
							36	0	24.00	22.92	0.093	0.119	
				Right Tilt	26865	831.5	1	0	25.00	23.90	0.085	0.110	
							36	0	24.00	22.92	0.070	0.090	
	Body-worn	QPSK	15	Rear	26865	831.5	1	0	25.00	23.90	0.229	0.295	36
							36	0	24.00	22.92	0.191	0.245	
				Front	26865	831.5	1	0	25.00	23.90	0.185	0.238	
							36	0	24.00	22.92	0.146	0.187	
	Hotspot	QPSK	10	Rear	26865	831.5	1	0	25.00	23.90	0.493	0.635	37
							36	0	24.00	22.92	0.410	0.526	
				Front	26865	831.5	1	0	25.00	23.90	0.302	0.389	
							36	0	24.00	22.92	0.249	0.319	
				Edge 2	26865	831.5	1	0	25.00	23.90	0.129	0.166	
							36	0	24.00	22.92	0.104	0.133	
				Edge 3	26865	831.5	1	0	25.00	23.90	0.207	0.267	
							36	0	24.00	22.92	0.200	0.256	
				Edge 4	26865	831.5	1	0	25.00	23.90	0.222	0.286	
							36	0	24.00	22.92	0.177	0.227	

10.12. LTE Band 66 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	132072	1720.0	1	0	24.00	22.64	0.093	0.127	
							50	0	23.00	21.69	0.071	0.096	
				Left Tilt	132072	1720.0	1	0	24.00	22.64	0.071	0.097	
							50	0	23.00	21.69	0.048	0.065	
				Right Touch	132072	1720.0	1	0	24.00	22.64	0.101	0.138	38
							50	0	23.00	21.69	0.078	0.105	
				Right Tilt	132072	1720.0	1	0	24.00	22.64	0.056	0.077	
							50	0	23.00	21.69	0.044	0.059	
	Body-worn	QPSK	15	Rear	132072	1720.0	1	0	24.00	22.64	0.752	1.029	
							50	0	23.00	21.69	0.583	0.788	
					132322	1745.0	1	0	24.00	22.50	0.676	0.955	
					132572	1770.0	1	0	24.00	22.42	0.744	1.070	39
				Front	132072	1720.0	1	0	24.00	22.64	0.671	0.918	
							50	0	23.00	21.69	0.556	0.752	
					132322	1745.0	1	0	24.00	22.50	0.602	0.850	
					132572	1770.0	1	0	24.00	22.42	0.539	0.776	
	Hotspot	QPSK	10	Rear	132072	1720.0	1	0	19.00	17.43	0.422	0.606	
							50	0	19.00	17.52	0.417	0.586	
				Front	132072	1720.0	1	0	19.00	17.43	0.371	0.533	
							50	0	19.00	17.52	0.340	0.478	
				Edge 2	132072	1720.0	1	0	19.00	17.43	0.370	0.531	
							50	0	19.00	17.52	0.292	0.411	
				Edge 3	132072	1720.0	1	0	19.00	17.43	0.837	1.202	40
							50	0	19.00	17.52	0.834	1.173	
							100	0	19.00	17.48	0.842	1.195	
					132322	1745.0	1	0	19.00	17.41	0.825	1.190	
							50	0	19.00	17.36	0.812	1.185	
					132572	1770.0	1	0	19.00	17.33	0.749	1.100	
							50	0	19.00	17.35	0.771	1.127	
				Edge 4	132072	1720.0	1	0	19.00	17.43	0.145	0.208	
							50	0	19.00	17.52	0.113	0.159	

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	QPSK	11	Rear	132072	1720.0	1	0	24.00	22.64	0.784	1.072	
							50	0	23.00	21.69	0.555	0.750	
			9	Front	132072	1720.0	1	0	24.00	22.64	0.699	0.956	
							50	0	23.00	21.69	0.549	0.742	
			0	Edge 2	132072	1720.0	1	0	24.00	22.64	0.640	0.875	
			15	Edge 3	132072	1720.0	1	0	24.00	22.64	0.711	0.972	
							50	0	23.00	21.69	0.538	0.727	
			0	Rear	132072	1720.0	1	0	20.00	18.53	1.220	1.711	
							50	0	20.00	18.54	1.230	1.721	
			0	Front	132072	1720.0	1	0	20.00	18.53	1.090	1.529	
							50	0	20.00	18.54	1.100	1.540	
			0	Edge 3	132072	1720.0	1	0	20.00	18.53	1.400	1.964	
							50	0	20.00	18.54	1.500	2.099	
					132322	1745.0	50	0	20.00	18.43	1.520	2.182	
					132572	1770.0	50	0	20.00	18.29	1.540	2.283	41

10.13. LTE Band 41 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	39750	2506.0	1	0	25.00	23.89	0.013	0.017	
							50	0	24.00	22.87	0.008	0.011	
				Left Tilt	39750	2506.0	1	0	25.00	23.89	0.008	0.010	
							50	0	24.00	22.87	0.006	0.007	
				Right Touch	39750	2506.0	1	0	25.00	23.89	0.006	0.007	
							50	0	24.00	22.87	0.006	0.008	
				Right Tilt	39750	2506.0	1	0	25.00	23.89	0.015	0.019	42
							50	0	24.00	22.87	0.008	0.010	
	Body-worn	QPSK	15	Rear	39750	2506.0	1	0	25.00	23.89	0.316	0.408	43
							50	0	24.00	22.87	0.258	0.335	
				Front	39750	2506.0	1	0	25.00	23.89	0.268	0.346	
							50	0	24.00	22.87	0.215	0.279	
	Hotspot	QPSK	10	Rear	39750	2506.0	1	0	23.00	22.13	0.411	0.502	
							50	0	23.00	22.15	0.402	0.489	
				Front	39750	2506.0	1	0	23.00	22.13	0.285	0.348	
							50	0	23.00	22.15	0.233	0.283	
				Edge 2	39750	2506.0	1	0	23.00	22.13	0.210	0.257	
							50	0	23.00	22.15	0.211	0.257	
				Edge 3	39750	2506.0	1	0	23.00	22.13	0.737	0.900	
							50	0	23.00	22.15	0.763	0.928	
							100	0	23.00	22.14	0.745	0.908	
					40185	2549.5	1	0	23.00	21.74	0.769	1.028	
							50	0	23.00	21.79	0.635	0.839	
					40620	2593.0	1	0	23.00	21.78	0.715	0.947	
							50	0	23.00	21.80	0.582	0.767	
					41055	2636.5	1	0	23.00	22.06	0.542	0.673	
							50	0	23.00	22.11	0.446	0.547	
					41490	2680.0	1	0	23.00	21.99	0.580	0.732	
							50	0	23.00	22.02	0.470	0.589	

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Product Specific 10-g	QPSK	15	Edge 3	39750	2506.0	1	0	25.00	23.89	0.255	0.329	
			0	Edge 3	39750	2506.0	1	0	23.00	22.18	1.870	2.259	
					40185	2549.5	1	0	23.00	21.83	2.000	2.618	44
					40620	2593.0	1	0	23.00	21.84	1.810	2.364	
					41055	2636.5	1	0	23.00	22.09	2.030	2.503	
					41490	2680.0	1	0	23.00	22.03	2.000	2.501	

LTE Band 41 (20MHz Bandwidth) (Continued)

LTE Band 41 Power Class 2

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Right Tilt	39750	2506.0	1	0	26.50	25.43	0.014	0.018			
	Body-worn	QPSK	15	Rear	39750	2506.0	1	0	26.50	25.43	0.260	0.333			
	Hotspot	QPSK	10	Edge 3	40185	2549.5	1	0	24.60	23.42	0.801	1.051			45
	Product Specific 10-g	QPSK	0	Edge 3	40185	2549.5	1	0	24.60	23.45			1.970	2.567	

Note(s):

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	26.5	193.4	0.018	63.3	25.0	200.2	0.019	0.018	-2.0
	Body-worn	43.3	26.5	193.4	0.333	63.3	25.0	200.2	0.408	0.394	-15.5
	Hotspot	43.3	24.6	124.9	1.051	63.3	23.0	126.3	1.028	1.016	3.4
	Product Specfic 10-g	43.3	24.6	124.9	2.567	63.3	23.0	126.3	2.618	2.589	-0.8

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%.

10.14. NR Band n5 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	167300	836.5	1	1	25.00	24.85	0.165	0.171	46
								50	28	25.00	24.76	0.147	0.155	
					Left Tilt	167300	836.5	1	1	25.00	24.85	0.100	0.103	
								50	28	25.00	24.76	0.085	0.090	
					Right Touch	167300	836.5	1	1	25.00	24.85	0.139	0.144	
								50	28	25.00	24.76	0.131	0.138	
					Right Tilt	167300	836.5	1	1	25.00	24.85	0.109	0.113	
								50	28	25.00	24.76	0.100	0.105	
		CP-OFDM	QPSK	0	Left Touch	167300	836.5	1	1	23.50	23.34	0.152	0.158	
	Body-worn	DFT-s-OFDM	QPSK	15	Rear	167300	836.5	1	1	25.00	24.85	0.235	0.243	
								50	28	25.00	24.76	0.243	0.257	47
					Front	167300	836.5	1	1	25.00	24.85	0.170	0.176	
								50	28	25.00	24.76	0.171	0.181	
		CP-OFDM	QPSK	15	Rear	167300	836.5	1	1	23.50	23.34	0.170	0.176	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	167300	836.5	1	1	25.00	24.85	0.601	0.622	48
								50	28	25.00	24.76	0.572	0.604	
					Front	167300	836.5	1	1	25.00	24.85	0.256	0.265	
								50	28	25.00	24.76	0.262	0.277	
					Edge 2	167300	836.5	1	1	25.00	24.85	0.064	0.066	
								50	28	25.00	24.76	0.055	0.058	
					Edge 3	167300	836.5	1	1	25.00	24.85	0.199	0.206	
								50	28	25.00	24.76	0.201	0.212	
					Edge 4	167300	836.5	1	1	25.00	24.85	0.187	0.194	
								50	28	25.00	24.76	0.167	0.176	
		CP-OFDM	QPSK	10	Rear	167300	836.5	1	1	23.50	23.34	0.411	0.426	

Note(s):

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

10.15. NR Band n25 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	381000	1905.0	1	104	24.00	22.74	0.069	0.092	49
								50	28	24.00	22.77	0.068	0.090	
					Left Tilt	381000	1905.0	1	104	24.00	22.74	0.045	0.059	
								50	28	24.00	22.77	0.029	0.039	
					Right Touch	381000	1905.0	1	104	24.00	22.74	0.060	0.080	
								50	28	24.00	22.77	0.020	0.026	
					Right Tilt	381000	1905.0	1	104	24.00	22.74	0.012	0.016	
								50	28	24.00	22.77	0.015	0.020	
		CP-OFDM	QPSK	0	Left Touch	381000	1905.0	1	1	22.50	21.50	0.017	0.021	
	Body-worn	DFT-s-OFDM	QPSK	15	Rear	372000	1860.0	50	28	24.00	22.50	0.532	0.751	
						376500	1882.5	50	28	24.00	22.64	0.532	0.728	
						381000	1905.0	1	104	24.00	22.74	0.584	0.781	
								50	28	24.00	22.77	0.609	0.808	50
					Front	381000	1905.0	1	104	24.00	22.74	0.442	0.591	
								50	28	24.00	22.77	0.437	0.580	
		CP-OFDM	QPSK	15	Rear	381000	1905.0	1	1	22.50	21.50	0.378	0.476	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	381000	1905.0	1	104	18.50	17.97	0.325	0.367	
								50	28	18.50	18.03	0.377	0.420	
					Front	381000	1905.0	1	104	18.50	17.97	0.275	0.311	
								50	28	18.50	18.03	0.269	0.300	
					Edge 2	381000	1905.0	1	104	18.50	17.97	0.026	0.029	
								50	28	18.50	18.03	0.025	0.028	
					Edge 3	372000	1860.0	1	104	18.50	17.77	0.701	0.829	
								50	28	18.50	17.87	0.680	0.786	
						376500	1882.5	1	104	18.50	17.72	0.753	0.901	
								50	28	18.50	17.71	0.752	0.902	
						381000	1905.0	1	104	18.50	17.97	0.829	0.937	
								50	28	18.50	18.03	0.843	0.939	51
								100	0	18.50	17.98	0.829	0.934	
					Edge 4	381000	1905.0	1	104	18.50	17.97	0.031	0.035	
								50	28	18.50	18.03	0.032	0.036	
		CP-OFDM	QPSK	10	Edge 3	381000	1905.0	1	1	18.50	17.84	0.643	0.749	

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	DFT-s-OFDM	QPSK	11	Rear	381000	1905.0	1	104	24.00	22.74	0.526	0.703	
								50	28	24.00	22.77	0.558	0.741	
				15	Edge 3	381000	1905.0	1	104	24.00	22.74	0.658	0.879	
								50	28	24.00	22.77	0.669	0.888	
				0	Rear	381000	1905.0	1	104	19.00	18.91	1.090	1.113	
								50	28	19.00	18.89	1.120	1.149	
				0	Edge 3	381000	1905.0	1	104	19.00	18.91	1.140	1.164	
								50	28	19.00	18.89	1.190	1.221	52
		CP-OFDM	QPSK	0	Edge 3	381000	1905.0	1	1	19.00	18.81	1.140	1.191	

Note(s):

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

10.16. NR Band n66 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	354000	1770.0	1	104	24.00	22.95	0.089	0.114	
								50	28	24.00	22.94	0.089	0.114	
					Left Tilt	354000	1770.0	1	104	24.00	22.95	0.080	0.102	
								50	28	24.00	22.94	0.080	0.102	
					Right Touch	354000	1770.0	1	104	24.00	22.95	0.117	0.149	53
								50	28	24.00	22.94	0.117	0.149	
					Right Tilt	354000	1770.0	1	104	24.00	22.95	0.068	0.087	
								50	28	24.00	22.94	0.067	0.085	
		CP-OFDM	QPSK	0	Right Touch	354000	1770.0	1	1	22.50	21.31	0.067	0.088	
	Body-worn	DFT-s-OFDM	QPSK	15	Rear	344000	1720.0	1	104	24.00	22.90	0.612	0.788	
								50	28	24.00	22.93	0.686	0.878	
						349000	1745.0	1	104	24.00	22.94	0.710	0.906	
								50	28	24.00	22.83	0.755	0.988	54
						354000	1770.0	1	104	24.00	22.95	0.652	0.830	
								50	28	24.00	22.94	0.692	0.883	
								100	0	23.00	21.93	0.576	0.737	
					Front	354000	1770.0	1	104	24.00	22.95	0.502	0.639	
								50	28	24.00	22.94	0.538	0.687	
		CP-OFDM	QPSK	15	Rear	354000	1745.0	1	1	22.50	21.30	0.599	0.790	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	354000	1770.0	1	104	19.00	18.06	0.437	0.543	
								50	28	19.00	18.05	0.457	0.569	
					Front	354000	1770.0	1	104	19.00	18.06	0.396	0.492	
								50	28	19.00	18.05	0.418	0.520	
					Edge 2	354000	1770.0	1	104	19.00	18.06	0.069	0.086	
								50	28	19.00	18.05	0.076	0.094	
					Edge 3	344000	1720.0	1	104	19.00	18.02	0.821	1.029	
								50	28	19.00	18.03	0.862	1.078	55
						349000	1745.0	1	104	19.00	18.03	0.797	0.996	
								50	28	19.00	18.01	0.817	1.026	
								100	0	19.00	18.06	0.820	1.018	
						354000	1770.0	1	104	19.00	18.06	0.826	1.026	
								50	28	19.00	18.05	0.804	1.001	
					Edge 4	354000	1770.0	1	104	19.00	18.06	0.058	0.072	
								50	28	19.00	18.05	0.059	0.073	
		CP-OFDM	QPSK	10	Edge 3	344000	1720.0	1	1	19.00	17.99	0.787	0.993	
Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	DFT-s-OFDM	QPSK	11	Rear	354000	1770.0	1	104	24.00	22.95	0.634	0.807	
								50	28	24.00	22.94	0.666	0.850	
				9	Front	354000	1770.0	1	104	24.00	22.95	0.614	0.782	
								50	28	24.00	22.94	0.661	0.844	
				15	Edge 3	354000	1770.0	1	104	24.00	22.95	0.625	0.796	
								50	28	24.00	22.94	0.693	0.885	
				0	Rear	354000	1770.0	1	104	20.00	19.04	1.430	1.784	
								50	28	20.00	19.04	1.540	1.921	
				0	Front	354000	1770.0	1	104	20.00	19.04	1.260	1.572	
								50	28	20.00	19.04	1.560	1.946	
				0	Edge 3	344000	1720.0	1	104	20.00	18.97	2.080	2.637	
								50	28	20.00	19.03	2.200	2.751	
						349000	1745.0	1	104	20.00	19.01	2.190	2.751	
								50	28	20.00	18.98	2.230	2.820	
						354000	1770.0	1	104	20.00	19.04	2.190	2.732	
								50	28	20.00	19.04	2.250	2.807	
								100	0	20.00	19.01	2.320	2.914	56
		CP-OFDM	QPSK	0	Edge 3	354000	1770.0	1	1	20.00	18.98	2.140	2.707	

Note(s):

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

NR Band n66 (20MHz Bandwidth) (Continued)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Sub.2 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	349000	1745.0	1	1	20.00	19.37	0.311	0.360	
								50	28	20.00	19.45	0.290	0.329	
					Left Tilt	349000	1745.0	1	1	20.00	19.37	0.453	0.524	
								50	28	20.00	19.45	0.446	0.506	
					Right Touch	349000	1745.0	1	1	20.00	19.37	0.572	0.661	
								50	28	20.00	19.45	0.541	0.614	
					Right Tilt	344000	1720.0	1	1	20.00	19.34	0.651	0.758	
								50	28	20.00	19.40	0.652	0.749	
						349000	1745.0	1	1	20.00	19.37	0.765	0.884	57
								50	28	20.00	19.45	0.761	0.864	
								100	0	20.00	19.41	0.749	0.858	
						354000	1770.0	1	1	20.00	19.30	0.571	0.671	
								50	28	20.00	19.17	0.535	0.648	
		CP-OFDM	QPSK	0	Right Tilt	349000	1745.0	1	1	20.00	19.37	0.503	0.582	
	Body-worn	DFT-s-OFDM	QPSK	15	Rear	349000	1745.0	1	1	20.00	19.37	0.085	0.099	58
								50	28	20.00	19.45	0.081	0.092	
					Front	349000	1745.0	1	1	20.00	19.37	0.081	0.094	
								50	28	20.00	19.45	0.074	0.084	
		CP-OFDM	QPSK	15	Rear	349000	1745.0	1	1	20.00	19.37	0.031	0.035	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	349000	1745.0	1	1	20.00	19.37	0.285	0.329	
								50	28	20.00	19.45	0.279	0.317	
					Front	349000	1745.0	1	1	20.00	19.37	0.191	0.221	
								50	28	20.00	19.45	0.185	0.210	
					Edge 1	349000	1745.0	1	1	20.00	19.37	0.432	0.499	59
								50	28	20.00	19.45	0.421	0.478	
					Edge 4	349000	1745.0	1	1	20.00	19.37	0.091	0.105	
								50	28	20.00	19.45	0.087	0.099	
		CP-OFDM	QPSK	10	Edge 1	349000	1745.0	1	1	20.00	19.37	0.412	0.476	

Note(s):

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

10.17. NR Band n41 (Voice/Data/SRS0) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Sub.2 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	518598	2593.0	1	1	17.50	16.72	0.354	0.424	
								135	0	17.50	16.62	0.315	0.386	
					Left Tilt	518598	2593.0	1	1	17.50	16.72	0.389	0.466	
								135	0	17.50	16.62	0.368	0.451	
					Right Touch	518598	2593.0	1	1	17.50	16.72	0.631	0.755	
								135	0	17.50	16.62	0.553	0.677	
					Right Tilt	518598	2593.0	1	1	17.50	16.72	0.743	0.889	60
								135	0	17.50	16.62	0.680	0.833	
								270	0	17.50	16.58	0.672	0.831	
		CP-OFDM	QPSK	0	Right Tilt	518598	2593.0	1	1	17.50	16.63	0.661	0.808	
	Body-worn	DFT-s-OFDM	QPSK	15	Rear	518598	2593.0	1	1	19.50	18.67	0.212	0.257	61
								135	0	19.50	18.64	0.209	0.255	
					Front	518598	2593.0	1	1	19.50	18.67	0.084	0.102	
								135	0	19.50	18.64	0.072	0.088	
		CP-OFDM	QPSK	15	Rear	518598	2593.0	1	1	19.50	18.68	0.207	0.250	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	518598	2593.0	1	1	17.50	16.72	0.223	0.267	
								135	0	17.50	16.62	0.217	0.266	
					Front	518598	2593.0	1	1	17.50	16.72	0.114	0.136	
								135	0	17.50	16.62	0.095	0.116	
					Edge 1	518598	2593.0	1	1	17.50	16.72	0.270	0.323	62
								135	0	17.50	16.62	0.264	0.323	
					Edge 4	518598	2593.0	1	1	17.50	16.72	0.033	0.039	
								135	0	17.50	16.62	0.029	0.036	
		CP-OFDM	QPSK	10	Edge 1	518598	2593.0	1	1	17.50	16.63	0.185	0.226	

10.18. NR Band n41 (SRS1/SRS2/SRS3) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Main.2 Ant. (SRS 1)	Head	SRS CW	0	Left Touch	518598	2593.0	12.00	10.64	0.000	0.000	
				Left Tilt	518598	2593.0	12.00	10.64	0.000	0.000	
				Right Touch	518598	2593.0	12.00	10.64	0.000	0.000	
				Right Tilt	518598	2593.0	12.00	10.64	0.000	0.000	
	Body-worn	SRS CW	15	Rear	518598	2593.0	14.00	12.74	0.026	0.035	
				Front	518598	2593.0	14.00	12.74	0.028	0.038	
	Hotspot	SRS CW	10	Rear	518598	2593.0	12.00	10.64	0.043	0.059	
				Front	518598	2593.0	12.00	10.64	0.035	0.048	
				Edge 2	518598	2593.0	12.00	10.64	0.014	0.019	
				Edge 3	518598	2593.0	12.00	10.64	0.088	0.120	63
Sub.1 Ant. (SRS 2)	Head	SRS CW	0	Left Touch	518598	2593.0	13.00	12.50	0.250	0.281	64
				Left Tilt	518598	2593.0	13.00	12.50	0.164	0.184	
				Right Touch	518598	2593.0	13.00	12.50	0.173	0.194	
				Right Tilt	518598	2593.0	13.00	12.50	0.151	0.169	
	Body-worn	SRS CW	15	Rear	518598	2593.0	15.00	14.37	0.039	0.045	
				Front	518598	2593.0	15.00	14.37	0.012	0.014	
	Hotspot	SRS CW	10	Rear	518598	2593.0	13.00	12.50	0.046	0.052	
				Front	518598	2593.0	13.00	12.50	0.024	0.027	
				Edge 1	518598	2593.0	13.00	12.50	0.028	0.031	
				Edge 2	518598	2593.0	13.00	12.50	0.015	0.017	
Main 4 Ant. (SRS 3)	Head	SRS CW	0	Left Touch	518598	2593.0	11.00	10.13	0.000	0.000	
				Left Tilt	518598	2593.0	11.00	10.13	<0.001	<0.001	
				Right Touch	518598	2593.0	11.00	10.13	0.000	0.000	
				Right Tilt	518598	2593.0	11.00	10.13	<0.001	<0.001	
	Body-worn	SRS CW	15	Rear	518598	2593.0	13.00	12.08	0.038	0.046	65
				Front	518598	2593.0	13.00	12.08	0.000	0.000	
	Hotspot	SRS CW	10	Rear	518598	2593.0	11.00	10.13	0.059	0.071	
				Front	518598	2593.0	11.00	10.13	0.002	0.003	
				Edge 3	518598	2593.0	11.00	10.13	0.009	0.011	
				Edge 4	518598	2593.0	11.00	10.13	0.023	0.028	

Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.
2. NR Band n41 tested using FTM mode.

10.19. NR Band n77 (Voice/Data/SRS0) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.
										Tune-up limit	Meas.	Meas.	Scaled		
Sub.3 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	633334	3500.0	1	271	17.10	16.70	0.144	0.158		
								135	138	17.10	16.64	0.148	0.165		
					Left Tilt	633334	3500.0	1	271	17.10	16.70	0.161	0.177		
								135	138	17.10	16.64	0.130	0.145		
					Right Touch	633334	3500.0	1	271	17.10	16.70	0.690	0.757		66
								135	138	17.10	16.64	0.680	0.756		
						650000	3750.0	1	271	17.10	16.61	0.546	0.611	1	
						662000	3930.0	1	271	17.10	16.54	0.415	0.472	1	
					Right Tilt	633334	3500.0	1	271	17.10	16.70	0.497	0.545		
								135	138	17.10	16.64	0.472	0.525		
		CP-OFDM	QPSK	0	Right Touch	633334	3500.0	1	1	17.10	15.88	0.416	0.551		
	Body-worn	DFT-s-OFDM	QPSK	15	Rear	633334	3500.0	1	271	19.50	18.85	0.144	0.167		67
								135	138	19.50	18.77	0.128	0.151		
						650000	3750.0	1	271	19.50	19.04	0.115	0.128	1	
						662000	3930.0	1	271	19.50	19.21	0.120	0.128	1	
					Front	633334	3500.0	1	271	19.50	18.85	0.104	0.121		
								135	138	19.50	18.77	0.097	0.115		
		CP-OFDM	QPSK	15	Rear	633334	3500.0	1	1	18.50	18.13	0.122	0.133		
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	633334	3500.0	1	271	17.10	16.70	0.143	0.157		
								135	138	17.10	16.64	0.161	0.179		
					Front	633334	3500.0	1	271	17.10	16.70	0.081	0.089		
								135	138	17.10	16.64	0.091	0.101		
					Edge 1	633334	3500.0	1	271	17.10	16.70	0.140	0.154		
								135	138	17.10	16.64	0.122	0.136		
					Edge 4	633334	3500.0	1	271	17.10	16.70	0.169	0.185		68
								135	138	17.10	16.64	0.147	0.163		
						650000	3750.0	1	271	17.10	16.61	0.127	0.142	1	
						662000	3930.0	1	271	17.10	16.54	0.103	0.117	1	
		CP-OFDM	QPSK	10	Edge 4	633334	3500.0	1	1	17.10	15.88	0.137	0.181		

Note(s):

1. NR Band n77 are tested at worst configuration of NR Band n77-DoD band.
2. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.
3. NR Band n77 tested using FTM mode.

10.20. NR Band n77 (SRS1/SRS2/SRS3) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.
							Tune-up limit	Meas.	Meas.	Scaled		
Main.3 Ant. (SRS 1)	Head	SRS CW	0	Left Touch	633334	3500.0	11.60	10.62	0.000	0.000		
					650000	3750.0	11.60	10.64	0.000	0.000	1	
					662000	3930.0	11.60	10.62	0.000	0.000	1	
				Left Tilt	633334	3500.0	11.60	10.62	0.000	0.000		
				Right Touch	633334	3500.0	11.60	10.62	0.000	0.000		
				Right Tilt	633334	3500.0	11.60	10.62	0.000	0.000		
	Body-worn	SRS CW	15	Rear	633334	3500.0	14.00	12.65	0.017	0.023		
					650000	3750.0	14.00	13.24	0.006	0.007	1	
					662000	3930.0	14.00	13.04	0.004	0.005	1	
				Front	633334	3500.0	14.00	12.65	0.005	0.007		
	Hotspot	SRS CW	10	Rear	633334	3500.0	11.60	10.62	0.031	0.038		
				Front	633334	3500.0	11.60	10.62	0.009	0.011		
				Edge 2	633334	3500.0	11.60	10.62	0.050	0.063		
					650000	3750.0	11.60	10.64	0.016	0.020	1	
					662000	3930.0	11.60	10.62	0.007	0.008	1	
				Edge 3	633334	3500.0	11.60	10.62	0.007	0.009		
Sub.5 Ant. (SRS 2)	Head	SRS CW	0	Left Touch	633334	3500.0	12.10	10.62	0.147	0.207		69
					650000	3750.0	12.10	10.55	0.087	0.125	1	
					662000	3930.0	12.10	10.64	0.034	0.048	1	
				Left Tilt	633334	3500.0	12.10	10.62	0.063	0.088		
				Right Touch	633334	3500.0	12.10	10.62	0.107	0.150		
				Right Tilt	633334	3500.0	12.10	10.62	0.044	0.062		
	Body-worn	SRS CW	15	Rear	633334	3500.0	14.50	13.91	0.126	0.144		70
					650000	3750.0	14.50	13.75	0.121	0.144	1	
					662000	3930.0	14.50	13.19	0.064	0.086	1	
				Front	633334	3500.0	14.50	13.91	0.066	0.075		
	Hotspot	SRS CW	10	Rear	633334	3500.0	12.10	10.62	0.110	0.155		71
					650000	3750.0	12.10	10.55	0.050	0.071	1	
					662000	3930.0	12.10	10.64	0.028	0.039	1	
				Front	633334	3500.0	12.10	10.62	0.026	0.037		
				Edge 4	633334	3500.0	12.10	10.62	0.016	0.023		
Main 4 Ant. (SRS 3)	Head	SRS CW	0	Left Touch	633334	3500.0	11.10	10.48	<0.001	<0.001		
					650000	3750.0	11.10	10.34	<0.001	<0.001	1	
					662000	3930.0	11.10	9.88	<0.001	<0.001	1	
				Left Tilt	633334	3500.0	11.10	10.48	<0.001	<0.001		
				Right Touch	633334	3500.0	11.10	10.48	<0.001	<0.001		
				Right Tilt	633334	3500.0	11.10	10.48	0.000	0.000		
	Body-worn	SRS CW	15	Rear	633334	3500.0	13.50	12.90	0.041	0.047	2	
					650000	3750.0	13.50	12.85	0.064	0.074		
					662000	3930.0	13.50	12.33	0.041	0.054		
				Front	650000	3750.0	13.50	12.85	<0.001	<0.001		
	Hotspot	SRS CW	10	Rear	633334	3500.0	11.10	10.48	0.090	0.104	2	
					650000	3750.0	11.10	10.34	0.090	0.107		
					662000	3930.0	11.10	9.88	0.062	0.082		
				Front	650000	3750.0	11.10	10.34	0.001	0.002		
				Edge 3	650000	3750.0	11.10	10.34	0.015	0.017		
				Edge 4	650000	3750.0	11.10	10.34	0.006	0.007		

Note(s):

1. NR Band n77 are tested at worst configuration of NR Band n77-DoD band.
2. NR Band n77-DoD are tested at worst configuration of NR Band n77 band.
3. NR Band n77 tested using FTM mode.

10.21. Wi-Fi (DTS Band)

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.2	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	1	2412.0	0.464	98.8%	14.0	13.71	0.306	0.331	1	72
						Left Tilt	1	2412.0	0.048	98.8%	14.0	13.71	0.034	0.036	4	
						Right Touch	1	2412.0	0.310	98.8%	14.0	13.71	0.232	0.251	4	
						Rightt Tilt	1	2412.0	0.028	98.8%	14.0	13.71	0.010	0.011	4	
			Body-worn	Off	15	Rear	1	2412.0	0.085	98.8%	19.0	18.72	0.057	0.061	1	73
						Front	1	2412.0	0.076	98.8%	19.0	18.72	0.052	0.056	4	
			Hotspot	Off	10	Rear	1	2412.0	0.256	98.8%	19.0	18.72	0.167	0.180	1	74
						Front	1	2412.0	0.218	98.8%	19.0	18.72	0.159	0.172	4	
						Edge 2	1	2412.0	0.152	98.8%	19.0	18.72				

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	802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.306	98.8%	14.0	12.54				
						Left Tilt	6	2437.0	0.049	98.8%	14.0	12.54	0.033	0.046		
						Right Touch	6	2437.0	0.251	98.8%	14.0	12.54	0.171	0.242		
						Rightt Tilt	6	2437.0	0.134	98.8%	14.0	12.54	0.083	0.117	4	
			Body-worn	Off	15	Rear	1	2412.0	0.180	98.8%	19.0	18.41	0.108	0.125	1	75
						Front	1	2412.0	0.114	98.8%	19.0	18.41				
			Hotspot	Off	10	Rear	1	2412.0	0.342	98.8%	19.0	18.41	0.212	0.246	2	
						Front	1	2412.0	0.217	98.8%	19.0	18.41				
						Edge 1	1	2412.0	0.065	98.8%	19.0	18.41				
						Edge 2	1	2412.0	0.183	98.8%	19.0	18.41				
						Edge 4	1	2412.0	0.508	98.8%	19.0	18.41	0.396	0.459		76
WLAN MIMO Ant.2	2.4GHz	802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.306	98.8%	14.0	13.65	0.228	0.250	1	77
						Left Tilt	6	2437.0	0.049	98.8%	14.0	13.65	0.033	0.036	4	
						Right Touch	6	2437.0	0.251	98.8%	14.0	13.65	0.149	0.163	4	
						Rightt Tilt	6	2437.0	0.134	98.8%	14.0	13.65				
			Body-worn	Off	15	Rear	1	2412.0	0.180	98.8%	19.0	18.72	0.085	0.091	1	
						Front	1	2412.0	0.114	98.8%	19.0	18.72				
			Hotspot	Off	10	Rear	1	2412.0	0.342	98.8%	19.0	18.72	0.185	0.200		
						Front	1	2412.0	0.217	98.8%	19.0	18.72				
						Edge 1	1	2412.0	0.065	98.8%	19.0	18.72	0.039	0.042	4	
						Edge 2	1	2412.0	0.183	98.8%	19.0	18.72				
						Edge 4	1	2412.0	0.508	98.8%	19.0	18.72				

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.2	2.4GHz	802.11b 1 Mbps	Hotspot	Off	10	Rear	1	2412.0	0.092	98.8%	14.0	13.71	0.065	0.070	1	
						Front	1	2412.0	0.054	98.8%	14.0	13.71				
						Edge 2	1	2412.0	0.002	98.8%	14.0	13.71				

RSDB 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	802.11b	Hotspot	Off	10	Rear	6	2437.0	0.096	98.8%	14.0	12.54	0.071	0.100	4	
						Front	6	2437.0	0.069	98.8%	14.0	12.54				
						Edge 1	6	2437.0	0.018	98.8%	14.0	12.54				
						Edge 2	6	2437.0	0.051	98.8%	14.0	12.54				
						Edge 4	6	2437.0	0.201	98.8%	14.0	12.54	0.135	0.191	1	
WLAN MIMO Ant.2	2.4GHz	802.11b	Hotspot	Off	10	Rear	6	2437.0	0.096	98.8%	14.0	13.65	0.073	0.080		
						Front	6	2437.0	0.069	98.8%	14.0	13.65				
						Edge 1	6	2437.0	0.018	98.8%	14.0	13.65				
						Edge 2	6	2437.0	0.051	98.8%	14.0	13.65				
						Edge 4	6	2437.0	0.201	98.8%	14.0	13.65				

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 SAR additionally tested at hotspot exposure condition due to satisfy FCC simultaneous transmission limit criteria.

10.22. Wi-Fi (U-NII Bands)

U-NII 2A Results (Normal WLAN)

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	0.465	93.9%	13.0	12.36						
						Left Tilt	58	5290.0	0.349	93.9%	13.0	12.36						
						Right Touch	58	5290.0	0.271	93.9%	13.0	12.36	0.093	0.115				
						Right Tilt	58	5290.0	0.263	93.9%	13.0	12.36	0.074	0.091				
		802.11a 6 Mbps	Body-worn	Off	15	Rear	60	5300.0	0.345	96.5%	18.0	17.00	0.155	0.202			1	78
						Front	60	5300.0	0.094	96.5%	18.0	17.00						
			Product Specific 10-g	Off	0	Rear	60	5300.0	7.271	96.5%	18.0	17.00						
						Front	60	5300.0	3.463	96.5%	18.0	17.00			0.174	0.227		
						Edge 1	60	5300.0	2.406	96.5%	18.0	17.00						
						Edge 2	60	5300.0	4.667	96.5%	18.0	17.00						
						Edge 4	56	5280.0	13.216	96.5%	18.0	16.95			1.710	2.256	3	79
							60	5300.0	18.583	96.5%	18.0	17.00			1.620	2.113		
WLAN MIMO Ant.2	5.3 GHz U-NII 2A	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	58	5290.0	0.465	93.9%	13.0	12.62	0.183	0.213			1	80
						Left Tilt	58	5290.0	0.349	93.9%	13.0	12.62	0.151	0.175			4	
						Right Touch	58	5290.0	0.271	93.9%	13.0	12.62	0.112	0.130			4	
						Right Tilt	58	5290.0	0.263	93.9%	13.0	12.62	0.098	0.113			4	
		802.11a 6 Mbps	Body-worn	Off	15	Rear	60	5300.0	0.345	96.5%	18.0	17.72	0.161	0.178				
						Front	60	5300.0	0.094	96.5%	18.0	17.72						
			Product Specific 10-g	Off	0	Rear	60	5300.0	7.271	96.5%	18.0	17.72			0.933	1.031	2	
						Front	60	5300.0	3.463	96.5%	18.0	17.72			0.282	0.312	4	
						Edge 1	60	5300.0	2.406	96.5%	18.0	17.72						
						Edge 2	60	5300.0	4.667	96.5%	18.0	17.72						
						Edge 4	56	5280.0	13.216	96.5%	18.0	17.70						
							60	5300.0	18.583	96.5%	18.0	17.72						

U-NII 2C Results (Normal WLAN)

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	122	5610.0	0.493	93.9%	13.0	12.32	0.191	0.238			4	
						Left Tilt	122	5610.0	0.310	93.9%	13.0	12.32	0.193	0.240			4	
						Right Touch	122	5610.0	0.589	93.9%	13.0	12.32	0.219	0.273			1	81
						Right Tilt	122	5610.0	0.368	93.9%	13.0	12.32	0.156	0.194			4	
		802.11a 6 Mbps	Body-worn	Off	15	Rear	144	5720.0	0.323	96.5%	18.0	17.44	0.142	0.167			1	82
						Front	144	5720.0	0.079	96.5%	18.0	17.44						
			Product Specific 10-g	Off	0	Rear	144	5720.0	4.853	96.5%	18.0	17.44			0.576	0.679	2	
						Front	144	5720.0	3.414	96.5%	18.0	17.44						
						Edge 1	144	5720.0	1.844	96.5%	18.0	17.44						
						Edge 2	144	5720.0	2.105	96.5%	18.0	17.44						
						Edge 4	144	5720.0	11.930	96.5%	18.0	17.44			1.280	1.508		83
WLAN MIMO Ant.2	5.5 GHz U-NII 2C	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	122	5610.0	0.493	93.9%	13.0	12.87	0.187	0.205				
						Left Tilt	122	5610.0	0.310	93.9%	13.0	12.87						
						Right Touch	122	5610.0	0.589	93.9%	13.0	12.87						
						Right Tilt	122	5610.0	0.368	93.9%	13.0	12.87						
		802.11a 6 Mbps	Body-worn	Off	15	Rear	144	5720.0	0.323	96.5%	18.0	17.51	0.092	0.107				
						Front	144	5720.0	0.079	96.5%	18.0	17.51						
			Product Specific 10-g	Off	0	Rear	144	5720.0	4.853	96.5%	18.0	17.51			0.555	0.644		
						Front	144	5720.0	3.414	96.5%	18.0	17.51						
						Edge 1	144	5720.0	1.844	96.5%	18.0	17.51						
						Edge 2	144	5720.0	2.105	96.5%	18.0	17.51						
						Edge 4	144	5720.0	11.930	96.5%	18.0	17.51						

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 Bands) (Continued)

U-NII 3 Results (Normal WLAN)

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	0.238	93.9%	13.0	12.62	0.088	0.102	4	
						Left Tilt	155	5775.0	0.243	93.9%	13.0	12.62	0.080	0.093	4	
						Right Touch	155	5775.0	0.248	93.9%	13.0	12.62	0.098	0.114	4	
						Right Tilt	155	5775.0	0.260	93.9%	13.0	12.62	0.167	0.194	1	84
		802.11a 6 Mbps	Body-worn	Off	15	Rear	165	5825.0	0.276	96.5%	18.0	17.69	0.114	0.127	1	85
						Front	165	5825.0	0.067	96.5%	18.0	17.69				
			Hotspot	Off	10	Rear	149	5745.0	0.504	96.5%	18.0	17.49	0.212	0.247	1	86
						Front	149	5745.0	0.139	96.5%	18.0	17.49				
						Edge 1	149	5745.0	0.312	96.5%	18.0	17.49				
						Edge 2	149	5745.0	0.157	96.5%	18.0	17.49				
						Edge 4	149	5745.0	0.442	96.5%	18.0	17.49				
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	0.238	93.9%	13.0	12.05	0.066	0.087		
						Left Tilt	155	5775.0	0.243	93.9%	13.0	12.05	0.037	0.048		
						Right Touch	155	5775.0	0.248	93.9%	13.0	12.05				
						Right Tilt	155	5775.0	0.260	93.9%	13.0	12.05				
		802.11a 6 Mbps	Body-worn	Off	15	Rear	165	5825.0	0.276	96.5%	18.0	17.57	0.075	0.086		
						Front	165	5825.0	0.067	96.5%	18.0	17.57				
			Hotspot	Off	10	Rear	149	5745.0	0.504	96.5%	18.0	17.56	0.199	0.228		
						Front	149	5745.0	0.139	96.5%	18.0	17.56				
						Edge 1	149	5745.0	0.312	96.5%	18.0	17.56				
						Edge 2	149	5745.0	0.157	96.5%	18.0	17.56				
						Edge 4	149	5745.0	0.442	96.5%	18.0	17.56				

U-NII 3 Results (RSDB WLAN)

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	Hotspot	Off	10	Rear	155	5775.0	0.106	93.9%	13.0	12.62	0.031	0.036		
						Front	155	5775.0	0.033	93.9%	13.0	12.62				
						Edge 1	155	5775.0	0.082	93.9%	13.0	12.62				
						Edge 2	155	5775.0	0.035	93.9%	13.0	12.62				
						Edge 4	155	5775.0	0.132	93.9%	13.0	12.62	0.048	0.055	1	
WLAN MIMO Ant.2	5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Hotspot	Off	10	Rear	155	5775.0	0.106	93.9%	13.0	12.05	0.032	0.042	4	
						Front	155	5775.0	0.033	93.9%	13.0	12.05				
						Edge 1	155	5775.0	0.082	93.9%	13.0	12.05				
						Edge 2	155	5775.0	0.035	93.9%	13.0	12.05				
						Edge 4	155	5775.0	0.132	93.9%	13.0	12.05				

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 SAR additionally tested at hotspot exposure condition due to satisfy FCC simultaneous transmission limit criteria.

Wi-Fi (U-NII Bands) (Continued)

U-NII 4 Results (Normal WLAN)

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	0.218	93.9%	13.0	12.39	0.087	0.106				
						Left Tilt	171	5855.0	0.197	93.9%	13.0	12.39	0.073	0.090			4	
						Right Touch	171	5855.0	0.277	93.9%	13.0	12.39	0.150	0.184			1	87
						Right Tilt	171	5855.0	0.288	93.9%	13.0	12.39	0.102	0.125			4	
		802.11a 6 Mbps	Body-worn	Off	15	Rear	177	5885.0	0.260	96.5%	18.0	17.54	0.107	0.123			1	88
						Front	177	5885.0	0.082	96.5%	18.0	17.54						
			Product Specific 10-g	Off	0	Rear	177	5885.0	4.489	96.5%	18.0	17.54			0.547	0.630	4	
						Front	177	5885.0	2.398	96.5%	18.0	17.54						
						Edge 1	177	5885.0	1.718	96.5%	18.0	17.54						
						Edge 2	177	5885.0	2.091	96.5%	18.0	17.54						
						Edge 4	177	5885.0	7.913	96.5%	18.0	17.54						
WLAN MIMO Ant.2	5.9 GHz U-NII 4	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	171	5855.0	0.218	93.9%	13.0	12.54	0.090	0.107			4	
						Left Tilt	171	5855.0	0.197	93.9%	13.0	12.54	0.049	0.058				
						Right Touch	171	5855.0	0.277	93.9%	13.0	12.54	0.075	0.089				
						Right Tilt	171	5855.0	0.288	93.9%	13.0	12.54						
		802.11a 6 Mbps	Body-worn	Off	15	Rear	177	5885.0	0.260	96.5%	18.0	17.46	0.073	0.086				
						Front	177	5885.0	0.082	96.5%	18.0	17.46						
			Product Specific 10-g	Off	0	Rear	177	5885.0	4.489	96.5%	18.0	17.46			0.449	0.527		
						Front	177	5885.0	2.398	96.5%	18.0	17.46						
						Edge 1	177	5885.0	1.718	96.5%	18.0	17.46						
						Edge 2	177	5885.0	2.091	96.5%	18.0	17.46						
						Edge 4	177	5885.0	7.913	96.5%	18.0	17.46			0.735	0.862	1	89

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.

10.23. Bluetooth

Bluetooth 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	2.4GHz	GFSK (1 Mbps) DH5	Head	On	0	Left Touch	39	2441.0	76.7%	15.0	14.77	0.072	0.077	
						Left Tilt	39	2441.0	76.7%	15.0	14.77	0.031	0.033	
						Right Touch	39	2441.0	76.7%	15.0	14.77	0.287	0.308	90
						Rightt Tilt	39	2441.0	76.7%	15.0	14.77	0.094	0.100	
			Body-worn	Off	15	Rear	39	2441.0	76.7%	18.0	17.09	0.064	0.080	91
						Front	39	2441.0	76.7%	18.0	17.09	0.038	0.048	
			Hotspot	Off	10	Rear	39	2441.0	76.7%	18.0	17.09	0.165	0.207	
						Front	39	2441.0	76.7%	18.0	17.09	0.086	0.108	
						Edge 1	39	2441.0	76.7%	18.0	17.09	0.035	0.044	
						Edge 4	39	2441.0	76.7%	18.0	17.09	0.242	0.304	92
BT SISO Ant.2	2.4GHz	GFSK (1 Mbps) DH5	Head	On	0	Left Touch	39	2441.0	76.7%	15.0	14.63	0.329	0.365	93
						Left Tilt	39	2441.0	76.7%	15.0	14.63	0.049	0.054	
						Right Touch	39	2441.0	76.7%	15.0	14.63	0.186	0.206	
						Rightt Tilt	39	2441.0	76.7%	15.0	14.63	0.022	0.024	
			Body-worn	Off	15	Rear	39	2441.0	76.7%	19.0	18.86	0.080	0.084	94
						Front	39	2441.0	76.7%	19.0	18.86	0.052	0.055	
			Hotspot	Off	10	Rear	39	2441.0	76.7%	19.0	18.86	0.198	0.208	95
						Front	39	2441.0	76.7%	19.0	18.86	0.121	0.127	
						Edge 2	39	2441.0	76.7%	19.0	18.86	0.059	0.062	

Bluetooth Dual(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 Dual (MIMO) Ant.1	2.4GHz	GFSK (1 Mbps) DH5	Head	On	0	Left Touch	39	2441.0	76.7%	14.0	13.28	0.106	0.127	
						Left Tilt	39	2441.0	76.7%	14.0	13.28	0.062	0.075	
						Right Touch	39	2441.0	76.7%	14.0	13.28	0.156	0.187	96
						Rightt Tilt	39	2441.0	76.7%	14.0	13.28	0.048	0.058	
			Body-worn	Off	15	Rear	39	2441.0	76.7%	14.0	13.28			
						Front	39	2441.0	76.7%	14.0	13.28			
			Hotspot	Off	10	Rear	39	2441.0	76.7%	14.0	13.28			
						Front	39	2441.0	76.7%	14.0	13.28			
						Edge 1	39	2441.0	76.7%	14.0	13.28			
						Edge 2	39	2441.0	76.7%	14.0	13.28			
						Edge 4	39	2441.0	76.7%	14.0	13.28	0.005	0.006	
BT Dual (MIMO) Ant.2	2.4GHz	GFSK (1 Mbps) DH5	Head	On	0	Left Touch	39	2441.0	76.7%	14.0	13.49			
						Left Tilt	39	2441.0	76.7%	14.0	13.49			
						Right Touch	39	2441.0	76.7%	14.0	13.49			
						Rightt Tilt	39	2441.0	76.7%	14.0	13.49			
			Body-worn	Off	15	Rear	39	2441.0	76.7%	14.0	13.49	0.071	0.082	97
						Front	39	2441.0	76.7%	14.0	13.49	0.052	0.059	
			Hotspot	Off	10	Rear	39	2441.0	76.7%	14.0	13.49	0.195	0.223	98
						Front	39	2441.0	76.7%	14.0	13.49	0.121	0.139	
						Edge 1	39	2441.0	76.7%	14.0	13.49	0.003	0.004	
						Edge 2	39	2441.0	76.7%	14.0	13.49	0.052	0.060	
						Edge 4	39	2441.0	76.7%	14.0	13.49			

10.24. NFC

Antenna	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Test setup		Freq. (MHz)	10-g SAR (W/kg)	Plot No.
					Type	Bitrate		Meas.	
NFC	PBRS	Product Specific 10-g	0	Rear	A	106	13.6	0.027	
					A	212	13.6	0.026	
					A	423	13.6	0.025	
					B	106	13.6	0.030	99
					F	106	13.6	0.000	
				Front	B	106	13.6	0.000	
				Edge 2	B	106	13.6	0.000	
				Edge 4	B	106	13.6	0.000	

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
835	GSM 850	Hotspot	Rear	Yes	0.809	0.802	1.01
1750	WCDMA Band IV	Hotspot	Edge 3	Yes	0.927	0.922	1.01
	LTE Band 66	Hotspot	Edge 3	No	0.842	N/A	N/A
	NR Band n66	Hotspot	Edge 3	No	0.862	N/A	N/A
1900	WCDMA Band II	Hotspot	Edge 3	Yes	0.945	0.941	1.00
	LTE Band 25	Hotspot	Edge 3	No	0.902	N/A	N/A
	NR Band n25	Hotspot	Edge 3	No	0.843	N/A	N/A
2600	LTE Band 41	Hotspot	Edge 3	Yes	0.801	0.760	1.05

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	NR Band n66	Product Specific 10-g	Edge 3	Yes	2.320	2.320	1.00
1900	WCDMA Band II	Product Specific 10-g	Edge 3	Yes	2.420	2.400	1.01
2600	LTE Band 41	Product Specific 10-g	Edge 3	Yes	2.030	2.020	1.00

Note(s):

1. In above table, Only some bands above 0.8 or 2.0 W/kg (1-g or 10-g Measured SAR) were listed.

2. 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)	+	BT Ant.1					
	2	WWAN (2G/3G/LTE/NR)	+	BT Ant.2					
	3	WWAN (2G/3G/LTE/NR)	+	BT MIMO (Dual)					
	4	WWAN (2G/3G/LTE/NR)	+	BT Ant.1	+	DTS Ant.2			
	5	WWAN (2G/3G/LTE/NR)	+	DTS MIMO					
	6	WWAN (2G/3G/LTE/NR)	+	UNII MIMO					
	7	WWAN (2G/3G/LTE/NR)	+	BT Ant.1	+	UNII MIMO			
	8	WWAN (2G/3G/LTE/NR)	+	BT Ant.2	+	UNII MIMO			
	9	WWAN (2G/3G/LTE/NR)	+	BT MIMO (Dual)	+	UNII MIMO			
	10	WWAN (2G/3G/LTE/NR)	+	BT Ant.1	+	DTS Ant.2	+	UNII MIMO	
	11	WWAN (2G/3G/LTE/NR)	+	DTS MIMO	+	UNII MIMO			
	12	ENDC or ULCA	+	BT Ant.1					
	13	ENDC or ULCA	+	BT Ant.2					
	14	ENDC or ULCA	+	BT MIMO (Dual)					
	15	ENDC or ULCA	+	BT Ant.1	+	DTS Ant.2			
	16	ENDC or ULCA	+	DTS MIMO					
	17	ENDC or ULCA	+	UNII MIMO					
	18	ENDC or ULCA	+	BT Ant.1	+	UNII MIMO			
	19	ENDC or ULCA	+	BT Ant.2	+	UNII MIMO			
	20	ENDC or ULCA	+	BT MIMO (Dual)	+	UNII MIMO			
	21	ENDC or ULCA	+	BT Ant.1	+	DTS Ant.2	+	UNII MIMO	
	22	ENDC or ULCA	+	DTS MIMO	+	UNII MIMO			

Notes:

1. DTS supports Wi-Fi Direct, Hotspot and VoIP.
2. U-NII supports Wi-Fi Direct, Hotspot and VoIP.
3. GPRS, W-CDMA, LTE, NR supports Hotspot and VoIP
4. U-NII Radio can transmit simultaneously with Bluetooth Radio.
5. DTS Radio can transmit simultaneously with Bluetooth Radio.
6. RSDB support to both DTS & UNII bands.
7. NR Radio support to both SA and NSA(ENDC) Radio.
8. BT tethering is considered about each RF exposure conditions.
9. LTE support UL CA inter Band configuration.

Note(s):

For EN-DC mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.

For UL-CA (Inter band) mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from LTE-PCC and time-averaged RF exposure from LTE-SCC. Smart Transmit algorithm controls the total RF exposure from both LTE-PCC and LTE-SCC to not exceed FCC limit. Therefore, simultaneous transmission compliance between LTE-PCC + LTE-SCC operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of LTE-PCC or LTE-SCC.

12.1. Sub6 Antenna Groups

The 2nd generation of Smart Transmit (GEN2) operates based on pre-defined sub6 antenna groups(AG). Sub6 Tx antennas in UE are grouped based on spatial variation of RF exposure distributions, where the RF exposure of one AG is mutually exclusive from the other AG. This is accomplished by demonstrating below conditions for all RF exposure scenarios (This procedures are follow according to Qualcomm's document (80-W2112-4));

1. (Condition#1 Sum of SAR) : Demonstrate that the sum of maximum *reported* SAR from each of the sub6 AGs and the *reported* SAR values from radios outside Smart Transmit (WLAN/BT/NFC/UWB) should be less than the regulatory limit for each supported DSI.

2. If the condition#1 is not met, then for a given antenna grouping scheme plus external radios/antennas (ERs), demonstrate all AG pairs, all ER pairs and all (AG, ER) pairs in the configuration meet SPLSR (SAR to Peak Location Ratio) criteria for each supported DSI (each RF exposure scenarios).
   For a conservative assessment of SPLSR, the separation distance between each AGs were determined using only the y-axis coordinates of the peak locations.

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

   For a conservative assessment of SPLSR in Head exposure condition, the y-axis coordinates of the peak locations was used based on the ERP of each Right and Left phantoms.

This device supports antenna groups like below table.

Antenna Groups	Grouped antenna list			
AG0	Main.1	Main.2	Main.3	Main.4
AG1	Sub.1	Sub.2	Sub.3	Sub.5
ER(s)	WLAN/BT Ant.	NFC Ant.	UWB Ant.	
ER = Exteral radios/antennas suppored ourtside of Smart Transmit (ex; WLAN/BT…)				

This section is a step in evaluating whether each AGs are mutually exclusive using Condition#1 and Condition#2 guide. And If it is evaluated that each AGs are mutually exclusive for all DSIs (each RF exposure scenarios),

Additional analysis for Simultaneous transmission SAR test exclusion for Both AGs and ER(s) compliance demonstration evaluate at Section.12.2.

12.1.1 Head exposure (DSI = 2) Antenna group analysis

Condition#1

Antenna group : AG0

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG0				Highest SAR level
			Main.1	Main.2	Main.3	Main.4	
Head (1-g SAR)	DSI=2	Left Touch	0.291	0.017	0.000	0.001	0.291
		Left Tilt	0.153	0.010	0.000	0.001	0.153
		Right Touch	0.225	0.008	0.000	0.001	0.225
		Right Tilt	0.171	0.019	0.000	0.001	0.171

Antenna group : AG1

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG1				Highest SAR level
			Sub.1	Sub.2	Sub.3	Sub.5	
Head (1-g SAR)	DSI=2	Left Touch	0.281	0.568	0.165	0.207	0.568
		Left Tilt	0.184	0.711	0.177	0.088	0.711
		Right Touch	0.194	0.755	0.757	0.150	0.757
		Right Tilt	0.169	0.976	0.545	0.062	0.976

SUM for Antenna groups

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Groups			SUM SAR	
			AG0 Highest SAR	AG1 Highest SAR	ER Highest SAR		
Head (1-g SAR)	DSI=2	Left Touch	0.291	0.568	0.646	1.505	
		Left Tilt	0.153	0.711	0.315	1.179	
		Right Touch	0.225	0.757	0.832	1.814	***Note.2***
		Right Tilt	0.171	0.976	0.311	1.458	
ER = Exteral radios/antennas suppored ourtside of Smart Transmit (ex; WLAN/BT...)							

Note(s):

1. For ER' Highest SAR, please refer to section.12.2.
2. Additional evaluation is required due to over FCC limit. So please refer to Condition#2.

Condition#2

Test position	No.	Antenna pairs		AG0		AG1		ER SAR (W/kg)	AG0+AG1+ER SUM SAR (W/kg)	SPLSR of AG0 & AG1
		AG0	AG1	SAR (W/kg)	Y-axis location (mm)	SAR (W/kg)	Y-axis location (mm)			
Right Touch	1	Main 1 Ant.	Sub.1 Ant.	0.225	N/A	0.194	N/A	0.832	1.251	N/A
	2	Main 1 Ant.	Sub.2 Ant.	0.225	-53.3	0.755	5.0	0.832	1.812	0.02
	3	Main 1 Ant.	Sub.3 Ant.	0.225	-53.3	0.757	2.4	0.832	1.814	0.02
	4	Main 1 Ant.	Sub.5 Ant.	0.225	N/A	0.150	N/A	0.832	1.207	N/A
	5	Main 2 Ant.	Sub.1 Ant.	0.008	N/A	0.194	N/A	0.832	1.034	N/A
	6	Main 2 Ant.	Sub.2 Ant.	0.008	-63.4	0.755	5.0	0.832	1.595	0.01
	7	Main 2 Ant.	Sub.3 Ant.	0.008	-63.4	0.757	2.4	0.832	1.597	0.01
	8	Main 2 Ant.	Sub.5 Ant.	0.008	N/A	0.150	N/A	0.832	0.990	N/A
	9	Main 3 Ant.	Sub.1 Ant.	0.000	N/A	0.194	N/A	0.832	1.026	N/A
	10	Main 3 Ant.	Sub.2 Ant.	0.000	N/A	0.755	N/A	0.832	1.587	N/A
	11	Main 3 Ant.	Sub.3 Ant.	0.000	N/A	0.757	N/A	0.832	1.589	N/A
	12	Main 3 Ant.	Sub.5 Ant.	0.000	N/A	0.150	N/A	0.832	0.982	N/A
	13	Main 4 Ant.	Sub.1 Ant.	0.001	N/A	0.194	N/A	0.832	1.027	N/A
	14	Main 4 Ant.	Sub.2 Ant.	0.001	N/A	0.755	N/A	0.832	1.588	N/A
	15	Main 4 Ant.	Sub.3 Ant.	0.001	N/A	0.757	N/A	0.832	1.590	N/A
	16	Main 4 Ant.	Sub.5 Ant.	0.001	N/A	0.150	N/A	0.832	0.983	N/A

Highest Reported SAR and Peak SAR location (only Y-axis location) in each WWAN Bands in each Antennas

Antenna Group	Antenna	Bands	SAR (W/kg)	Y-axis(mm) from ERP point	Antenna Group	Antenna	Bands	SAR (W/kg)	Y-axis(mm) from ERP point
AG0	Main.1 Ant.	GSM 850	0.093	-63.0	AG1	Sub.2 Ant.	LTE Band 4	0.731	-0.2
		GSM 1900	0.090	-77.5			NR Band n66	0.661	-0.2
		WCDMA Band II	0.163	-78.1			NR Band n41-SRS0	**0.755**	**-0.2**
		WCDMA Band IV	0.198	-72.6			**Worst configuration**	**0.755**	**-0.2**
		WCDMA Band V	0.225	-59.4		Sub.3 Ant.	NR Band n77-SRS0	0.757	-0.2
		LTE Band 5	0.188	-60.1			**Worst configuration**	**0.757**	**-0.2**
		LTE Band 12	0.151	-64.6					
		LTE Band 13	0.213	-64.3					
		LTE Band 25	0.154	-74.6					
		LTE Band 26	0.144	**-53.3**					
		LTE Band 66	0.138	-75.9					
		NR Band n5	0.144	-61.3					
		NR Band n25	0.080	-77.1					
		NR Band n66	0.149	-71.0					
		Worst configuration	**0.225**	**-53.3**					
	Main.2 Ant.	LTE Band 41	0.008	-63.4					
		NR Band n41-SRS1	0.000	N/A					
		Worst configuration	**0.008**	**-63.4**					

Note(s):

1. If Antenna pair's SUM SAR results are below 1.6 or 4.0 W/kg (1-g or 10-g respectively), then Condition#2 is not required.
2. If SPLSR criteria is below 0.04 or 0.10 (1-g or 10-g respectively) in all antenna pair (AG0 & AG1), additional evaluation is not required.

12.1.2 Body-worn exposure (DSI = 0) Antenna group analysis

Condition#1

Antenna group : AG0

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG0				Highest SAR level
			Main.1	Main.2	Main.3	Main.4	
Body-worn (1-g SAR)	0	Rear	1.098	0.408	0.023	0.074	1.098
		Front	1.018	0.346	0.007	0.001	1.018

Antenna group : AG1

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG1				Highest SAR level
			Sub.1	Sub.2	Sub.3	Sub.5	
Body-worn (1-g SAR)	0	Rear	0.045	0.257	0.167	0.144	0.257
		Front	0.014	0.168	0.121	0.075	0.168

SUM for Antenna groups

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Groups			SUM SAR	
			AG0 Highest SAR	AG1 Highest SAR	ER Highest SAR		
Body-worn (1-g SAR)	0	Rear	1.098	0.257	0.343	1.698	***Note.2***
		Front	1.018	0.168	0.327	1.513	
ER = Exteral radios/antennas suppored ourtside of Smart Transmit (ex; WLAN/BT...)							

Note(s):

1. For ER' Highest SAR, please refer to section.12.2.
2. Additional evaluation is required due to over FCC limit. So please refer to Condition#2.

Condition#2

Test position	No.	Antenna pairs		AG0		AG1		ER SAR (W/kg)	AG0+AG1+ER SUM SAR (W/kg)	SPLSR of AG0 & AG1
		AG0	AG1	SAR (W/kg)	Y-axis location (mm)	SAR (W/kg)	Y-axis location (mm)			
Rear -15mm	1	Main 1 Ant.	Sub.1 Ant.	1.098	N/A	0.045	N/A	0.343	1.486	N/A
	2	Main 1 Ant.	Sub.2 Ant.	1.098	-1.5	0.257	71.5	0.343	1.698	0.02
	3	Main 1 Ant.	Sub.3 Ant.	1.098	-1.5	0.167	75.6	0.343	1.608	0.02
	4	Main 1 Ant.	Sub.5 Ant.	1.098	N/A	0.144	N/A	0.343	1.585	N/A
	5	Main 2 Ant.	Sub.1 Ant.	0.408	N/A	0.045	N/A	0.343	0.796	N/A
	6	Main 2 Ant.	Sub.2 Ant.	0.408	N/A	0.257	N/A	0.343	1.008	N/A
	7	Main 2 Ant.	Sub.3 Ant.	0.408	N/A	0.167	N/A	0.343	0.918	N/A
	8	Main 2 Ant.	Sub.5 Ant.	0.408	N/A	0.144	N/A	0.343	0.895	N/A
	9	Main 3 Ant.	Sub.1 Ant.	0.023	N/A	0.045	N/A	0.343	0.411	N/A
	10	Main 3 Ant.	Sub.2 Ant.	0.023	N/A	0.257	N/A	0.343	0.623	N/A
	11	Main 3 Ant.	Sub.3 Ant.	0.023	N/A	0.167	N/A	0.343	0.533	N/A
	12	Main 3 Ant.	Sub.5 Ant.	0.023	N/A	0.144	N/A	0.343	0.510	N/A
	13	Main 4 Ant.	Sub.1 Ant.	0.074	N/A	0.045	N/A	0.343	0.462	N/A
	14	Main 4 Ant.	Sub.2 Ant.	0.074	N/A	0.257	N/A	0.343	0.674	N/A
	15	Main 4 Ant.	Sub.3 Ant.	0.074	N/A	0.167	N/A	0.343	0.584	N/A
	16	Main 4 Ant.	Sub.5 Ant.	0.074	N/A	0.144	N/A	0.343	0.561	N/A

Highest Reported SAR and Peak SAR location (only Y-axis location) in each WWAN Bands in each Antennas

Antenna Group	Antenna	Bands	SAR (W/kg)	Y-axis(mm)	Antenna Group	Antenna	Bands	SAR (W/kg)	Y-axis(mm)
AG0	Main.1 Ant.	GSM 850	0.421	-70.5	AG1	Sub.2 Ant.	LTE Band 4	0.228	85.5
		GSM 1900	0.502	-81.0			NR Band n66	0.099	85.5
		WCDMA Band II	0.786	-82.5			NR Band n41-SRS0	**0.257**	**71.5**
		WCDMA Band IV	1.053	-86.0			**Worst configuration**	**0.257**	71.5
		WCDMA Band V	0.347	-72.5		Sub.3 Ant.	NR Band n77-SRS0	0.167	75.6
		LTE Band 5	0.330	-70.5			**Worst configuration**	**0.167**	**75.6**
		LTE Band 12	0.211	**-1.5**					
		LTE Band 13	0.337	-72.0					
		LTE Band 25	**1.098**	-80.0					
		LTE Band 26	0.295	-70.5					
		LTE Band 66	1.070	-82.5					
		NR Band n5	0.257	-82.5					
		NR Band n25	0.808	-78.5					
		NR Band n66	0.988	-81.5					
		Worst configuration	**1.098**	**-1.5**					

Note(s):

1. If Antenna pair's SUM SAR results are below 1.6 or 4.0 W/kg (1-g or 10-g respectively), then Condition#2 is not required.
2. If SPLSR criteria is below 0.04 or 0.10 (1-g or 10-g respectively) in all antenna pair (AG0 & AG1), additional evaluation is not required.

12.1.3 Hotspot exposure (DSI = 3) Antenna group analysis

Condition#1

Antenna group : AG0

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG0				Highest SAR level
			Main.1	Main.2	Main.3	Main.4	
Hotspot (1-g SAR)	3	Rear	1.020	0.502	0.038	0.107	1.020
		Front	0.538	0.348	0.011	0.003	0.538
		Edge 1	0.000	0.000	0.000	0.000	0.000
		Edge 2	0.531	0.257	0.020	0.000	0.531
		Edge 3	1.202	1.051	0.009	0.017	1.202
		Edge 4	0.319	0.000	0.000	0.028	0.319

Antenna group : AG1

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG1				Highest SAR level
			Sub.1	Sub.2	Sub.3	Sub.4	
Hotspot (1-g SAR)	3	Rear	0.052	0.428	0.179	0.155	0.428
		Front	0.027	0.236	0.101	0.037	0.236
		Edge 1	0.031	0.652	0.154	0.000	0.652
		Edge 2	0.017	0.000	0.000	0.000	0.017
		Edge 3	0.000	0.000	0.000	0.000	0.000
		Edge 4	0.000	0.130	0.185	0.023	0.185

SUM for Antenna groups

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Groups			SUM SAR	
			AG0 Highest SAR	AG1 Highest SAR	ER Highest SAR		
Hotspot (1-g SAR)	3	Rear	1.020	0.428	0.470	1.918	***Note.2***
		Front	0.538	0.236	0.459	1.233	
		Edge 1	0.000	0.652	0.291	0.943	
		Edge 2	0.531	0.017	0.459	1.007	
		Edge 3	1.202	0.000	0.000	1.202	
		Edge 4	0.319	0.185	0.551	1.055	
ER = Exteral radios/antennas suppored ourtside of Smart Transmit (ex; WLAN/BT…)							

Note(s):

1. For ER' Highest SAR, please refer to section.12.2.
2. Additional evaluation is required due to over FCC limit. So please refer to Condition#2.

Condition#2

Test position	No.	Antenna pairs		AG0		AG1		ER SAR (W/kg)	AG0+AG1+ER SUM SAR (W/kg)	SPLSR of AG0 & AG1
		AG0	AG1	SAR (W/kg)	Y-axis location (mm)	SAR (W/kg)	Y-axis location (mm)			
Rear -10mm	1	Main 1 Ant.	Sub.1 Ant.	1.020	N/A	0.052	N/A	0.470	1.542	N/A
	2	Main 1 Ant.	Sub.2 Ant.	1.020	-65.0	0.428	75.5	0.470	1.918	0.01
	3	Main 1 Ant.	Sub.3 Ant.	1.020	-65.0	0.179	68.6	0.470	1.669	0.01
	4	Main 1 Ant.	Sub.5 Ant.	1.020	-65.0	0.155	12.0	0.470	1.645	0.02
	5	Main 2 Ant.	Sub.1 Ant.	0.502	N/A	0.052	N/A	0.470	1.024	N/A
	6	Main 2 Ant.	Sub.2 Ant.	0.502	N/A	0.428	N/A	0.470	1.400	N/A
	7	Main 2 Ant.	Sub.3 Ant.	0.502	N/A	0.179	N/A	0.470	1.151	N/A
	8	Main 2 Ant.	Sub.5 Ant.	0.502	N/A	0.155	N/A	0.470	1.127	N/A
	9	Main 3 Ant.	Sub.1 Ant.	0.038	N/A	0.052	N/A	0.470	0.560	N/A
	10	Main 3 Ant.	Sub.2 Ant.	0.038	N/A	0.428	N/A	0.470	0.936	N/A
	11	Main 3 Ant.	Sub.3 Ant.	0.038	N/A	0.179	N/A	0.470	0.687	N/A
	12	Main 3 Ant.	Sub.5 Ant.	0.038	N/A	0.155	N/A	0.470	0.663	N/A
	13	Main 4 Ant.	Sub.1 Ant.	0.107	N/A	0.052	N/A	0.470	0.629	N/A
	14	Main 4 Ant.	Sub.2 Ant.	0.107	N/A	0.428	N/A	0.470	1.005	N/A
	15	Main 4 Ant.	Sub.3 Ant.	0.107	N/A	0.179	N/A	0.470	0.756	N/A
	16	Main 4 Ant.	Sub.5 Ant.	0.107	N/A	0.155	N/A	0.470	0.732	N/A

Highest Reported SAR and Peak SAR location (only Y-axis location) in each WWAN Bands in each Antennas

Antenna Group	Antenna	Bands	SAR (W/kg)	Y-axis(mm) from ERP point	Antenna Group	Antenna	Bands	SAR (W/kg)	Y-axis(mm) from ERP point
AG0	Main.1 Ant.	GSM 850	0.928	-72.0	AG1	Sub.1 Ant.	NR Band n41-SRS2	0.052	64.8
		GSM 1900	0.434	-79.5			**Worst configuration**	**0.052**	**64.8**
		WCDMA Band II	0.622	-80.0		Sub.2 Ant.	LTE Band 4	**0.428**	89.0
		WCDMA Band IV	0.737	-80.0			NR Band n66	0.329	87.0
		WCDMA Band V	**1.020**	**-65.0**			NR Band n41-SRS0	0.267	**75.5**
		LTE Band 5	0.746	-70.5			**Worst configuration**	**0.428**	**75.5**
		LTE Band 12	0.449	-72.0		Sub.3 Ant.	NR Band n77-SRS0	0.179	68.6
		LTE Band 13	0.759	-70.5			**Worst configuration**	**0.179**	**68.6**
		LTE Band 25	0.698	-76.5		Sub.5 Ant.	NR Band n77-SRS2	0.155	12.0
		LTE Band 26	0.635	-72.0			**Worst configuration**	**0.155**	**12.0**
		LTE Band 66	0.606	-79.5					
		NR Band n5	0.622	-72.0					
		NR Band n25	0.420	-85.5					
		NR Band n66	0.489	-83.0					
		Worst configuration	**1.020**	**-65.0**					

Note(s):

1. If Antenna pair's SUM SAR results are below 1.6 or 4.0 W/kg (1-g or 10-g respectively), then Condition#2 is not required.
2. If SPLSR criteria is below 0.04 or 0.10 (1-g or 10-g respectively) in all antenna pair (AG0 & AG1), additional evaluation is not required.

12.1.4 Product Specific 10-g exposure (DSI = 0, 1, 4) Antenna group analysis

Condition#1

Antenna group : AG0

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG0				Highest SAR level
			Main.1	Main.2	Main.3	Main.4	
Product Specific 10-g (10-g SAR)	0,1,4	Rear	1.921	0.000	0.000	0.000	1.921
		Front	1.946	0.000	0.000	0.000	1.946
		Edge 1	0.000	0.000	0.000	0.000	0.000
		Edge 2	0.875	0.000	0.000	0.000	0.875
		Edge 3	3.007	2.618	0.000	0.000	3.007
		Edge 4	0.000	0.000	0.000	0.000	0.000

Antenna group : AG1

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)				
			Antenna Group : AG1				Highest SAR level
			Sub.1	Sub.2	Sub.3	Sub.5	
Product Specific 10-g (10-g SAR)	0,1,4	Rear	0.000	0.000	0.000	0.000	0.000
		Front	0.000	0.000	0.000	0.000	0.000
		Edge 1	0.000	0.000	0.000	0.000	0.000
		Edge 2	0.000	0.000	0.000	0.000	0.000
		Edge 3	0.000	0.000	0.000	0.000	0.000
		Edge 4	0.000	0.000	0.000	0.000	0.000

SUM for Antenna groups

RF Exposure	DSI state	Test Position	Standalone SAR (W/kg)			
			Antenna Groups			SUM SAR
			AG0 Highest SAR	AG1 Highest SAR	ER Highest SAR	
Product Specific 10-g (10-g SAR)	0,1,4	Rear	1.921	0.000	1.063	2.984
		Front	1.946	0.000	0.314	2.260
		Edge 1	0.000	0.000	2.256	2.256
		Edge 2	0.875	0.000	2.256	3.131
		Edge 3	3.007	0.000	0.000	3.007
		Edge 4	0.000	0.000	2.256	2.256
ER = Exteral radios/antennas suppored ourtside of Smart Transmit (ex; WLAN/BT…)						

Note(s):

1. For ER' Highest SAR, please refer to section.12.2.
2. Additional evaluation is not required due to below FCC limit.

Conclusion:

1. Product Specific 10-g exposure condition (DSI = 0, 1, 4) : AG0+AG1+ER's sum is below FCC limit. So additional analysis is not required for AG0 and AG1.
2. Head & Body-worn & Hotspot exposure condition (DSI = 0, 2, 3) : Sub6 antenna group is demonstrated to show that AG0 is mutually exclusive from AG1 according to SPLSR criteria.

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 Separation 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:

SAR_1 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

SAR_2 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 SAR_1.or SAR_2. 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 SPSLR 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 SPSLR calculation.

Sum to Peak Location Separation Ratio

Instead of doing a small volume scan over a co-located antenna pair (Hybrid SPLSR guide), Simultaneous transmission SAR test exclusion may algebraically sum the SAR values of the co-located pair and use that value in SPLSR calculation;

-In the calculation Separation distance must use the minimum distance between the spatially separated antenna and the closest antenna of the co-located antenna pair to be conservative.

12.2. Simultaneous transmission analysis

12.2.1. Head exposure condition

ER's SAR (DTS & BT & UNII)

RF Exposure	Test Position	ER's SAR (W/kg)						
		BT Ant.1	BT Ant.2	BT Dual(MIMO)	2.4G Ant.2	2.4G MIMO	5G MIMO	6G MIMO
		1	2	3	4	5	6	7
Head (1-g SAR)	Left Touch	0.077	0.365	0.127	0.331	0.250	0.238	0.036
	Left Tilt	0.033	0.054	0.075	0.036	0.046	0.240	0.037
	Right Touch	0.308	0.206	0.187	0.251	0.242	0.273	0.087
	Right Tilt	0.100	0.024	0.058	0.011	0.117	0.194	0.059

Test Position	ER's SAR (W/kg)											Worst case Combination
	2.4G MIMO + 5G MIMO	2.4G MIMO + 6G MIMO	BT Ant.1 + 2.4G Ant.2	BT Ant.1 + 5G MIMO	BT Ant.1 + 6G MIMO	BT Ant.2 + 5G MIMO	BT Ant.2 + 6G MIMO	BT MIMO + 5G MIMO	BT MIMO + 6G MIMO	BT Ant.1 + 2.4G Ant.2 + 5G MIMO	BT Ant.1 + 2.4G Ant.2 + 6G MIMO	
	5 + 6	5 + 7	1 + 4	1 + 6	1 + 7	2 + 6	2 + 7	3 + 6	3 + 7	1 + 4 + 6	1 + 4 + 7	
Left Touch	0.488	0.286	0.408	0.315	0.113	0.603	0.401	0.365	0.163	0.646	0.444	**0.646**
Left Tilt	0.286	0.083	0.069	0.273	0.070	0.294	0.091	0.315	0.112	0.309	0.106	**0.315**
Right Touch	0.515	0.329	0.559	0.581	0.395	0.479	0.293	0.460	0.274	0.832	0.646	**0.832**
Right Tilt	0.311	0.176	0.111	0.294	0.159	0.218	0.083	0.252	0.117	0.305	0.170	**0.311**

Simultaneous Transmission Analysis

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)		
		AG0	AG1	ER	AG0 + ER	AG1 + ER	AG0 + AG1 + ER
				BT Ant.1 + 2.4GHz Ant.2 + 5GHZ MIMO			
Head (1-g SAR)	Left Touch	0.291	0.568	0.646			1.505
	Left Tilt	0.153	0.711	0.315			1.179
	Right Touch	0.225	0.757	0.832	1.057	1.589	
	Right Tilt	0.171	0.976	0.311			1.458

Highest simultaneous transmission value of both section 12.1.1 & 12.2.1

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)
		AG0 (Main 4 Ant)	AG1 (Sub.5 Ant)	ER BT Ant.1 + 2.4GHz Ant.2 + 5GHZ MIMO	AG0 + AG1 + ER
Head (1-g SAR)	Right Touch	0.001	0.757	0.832	1.590

Note(s):

1. For Right Touch, AG0 and AG1 were individually considered with ER for satisfy simultaneous transmission analysis according to Antenna group analysis. So Right Touch was considered AG0+ER and AG1+ER, respectively. And to find the highest simultaneous transmission value, the highest value among Section 12.1.1 and 12.2.1 were considered.

12.2.2. Body-worn exposure condition

ER's SAR (DTS & BT & UNII)

RF Exposure	Test Position	ER's SAR (W/kg)						
		BT Ant.1	BT Ant.2	BT Dual(MIMO)	2.4G Ant.2	2.4G MIMO	5G MIMO	6G MIMO
		1	2	3	4	5	6	7
Body-worn (1-g SAR)	Rear	0.080	0.084	0.082	0.061	0.125	0.202	0.146
	Front	0.048	0.055	0.059	0.056	0.125	0.202	0.013

RF Exposure	Test Position	ER's SAR (W/kg)											Worst case Combination
		2.4G MIMO + 5G MIMO	2.4G MIMO + 6G MIMO	BT Ant.1 + 2.4G Ant.2	BT Ant.1 + 5G MIMO	BT Ant.1 + 6G MIMO	BT Ant.2 + 5G MIMO	BT Ant.2 + 6G MIMO	BT MIMO + 5G MIMO	BT MIMO + 6G MIMO	BT Ant.1 + 2.4G Ant.2 + 5G MIMO	BT Ant.1 + 2.4G Ant.2 + 6G MIMO	
		5 + 6	5 + 7	1 + 4	1 + 6	1 + 7	2 + 6	2 + 7	3 + 6	3 + 7	1 + 4 + 6	1 + 4 + 7	
Body-worn (1-g SAR)	Rear	0.327	0.271	0.141	0.282	0.226	0.286	0.230	0.284	0.228	0.343	0.287	**0.343**
	Front	0.327	0.138	0.104	0.250	0.061	0.257	0.068	0.261	0.072	0.306	0.117	**0.327**

Simultaneous Transmission Analysis

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)		
		AG0	AG1	ER BT Ant.1 + 2.4GHz Ant.2 + 5GHZ MIMO	AG0 + ER	AG1 + ER	AG0 + AG1 +ER
Body-worn (1-g SAR)	Rear	1.098	0.257	0.343	1.441	0.600	
	Front	1.018	0.168	0.327			1.513

Highest simultaneous transmission of both section 12.1.2 & 12.2.2

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)
		AG0 (Main 1 Ant)	AG1 (Sub.5 Ant)	ER BT Ant.1 + 2.4GHz Ant.2 + 5GHZ MIMO	AG0 + AG1 + ER
Body-worn (1-g SAR)	Rear	1.098	0.144	0.343	1.585

Note(s):

1. For Rear at 15mm, AG0 and AG1 were individually considered with ER for satisfy simultaneous transmission analysis according to Antenna group analysis. So Rear at 15mm was considered AG0+ER and AG1+ER, respectively. And to find the highest simultaneous transmission value, the highest value among Section 12.1.2 and 12.2.2 were considered.
2. Green value is estimated SAR value.

12.2.3. Hotspot exposure condition

ER's SAR (DTS & BT & UNII)

RF Exposure	Test Position	ER's SAR (W/kg)									
		BT Ant.1	BT Ant.2	BT Dual(MIMO)	2.4G Ant.2	2.4G MIMO	5G MIMO	6G MIMO	2.4G Ant.2 (RSDB)	2.4G MIMO (RSDB)	5G MIMO (RSDB)
		1	2	3	4	5	6	7	8	9	10
Hotspot (1-g SAR)	Rear	0.207	0.208	0.223	0.180	0.246	0.247		0.070	0.100	0.042
	Front	0.108	0.127	0.139	0.172	0.459	0.247		0.070	0.191	0.055
	Edge 1	0.044	0.000	0.004	0.000	0.042	0.247		0.000	0.191	0.055
	Edge 2	0.000	0.062	0.060	0.180	0.459	0.247		0.070	0.191	0.055
	Edge 3	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000
	Edge 4	0.304	0.000	0.006	0.000	0.459	0.247		0.000	0.191	0.055

Hotspot (1-g SAR)	Test Position	ER's SAR (W/kg)											Worst case Combination
		2.4G MIMO + 5G MIMO	2.4G MIMO + 6G MIMO	BT Ant.1 + 2.4G Ant.2	BT Ant.1 + 5G MIMO	BT Ant.1 + 6G MIMO	BT Ant.2 + 5G MIMO	BT Ant.2 + 6G MIMO	BT MIMO + 5G MIMO	BT MIMO + 6G MIMO	BT Ant.1 + 2.4G Ant.2 + 5G MIMO	BT Ant.1 + 2.4G Ant.2 + 6G MIMO	
		9 + 10	5 + 7	1 + 4	1 + 6	1 + 7	2 + 6	2 + 7	3 + 6	3 + 7	1 + 8 + 10	1 + 4 + 7	
	Rear	0.142		0.387	0.454		0.455		0.470		0.319		**0.470**
	Front	0.246		0.280	0.355		0.374		0.386		0.233		**0.459**
	Edge 1	0.246		0.044	0.291		0.247		0.251		0.099		**0.291**
	Edge 2	0.246		0.180	0.247		0.309		0.307		0.125		**0.459**
	Edge 3	0.000		0.000	0.000		0.000		0.000		0.000		**0.000**
	Edge 4	0.246		0.304	0.551		0.247		0.253		0.359		**0.551**

Simultaneous Transmission Analysis

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)		
		AG0	AG1	ER	AG0 + ER	AG1 + ER	AG0 + AG1 + ER
Hotspot (1-g SAR)	Rear	1.020	0.428	0.470	1.490	0.898	
	Front	0.538	0.236	0.459			1.233
	Edge 1	0.000	0.652	0.291			0.943
	Edge 2	0.531	0.017	0.459			1.007
	Edge 3	1.202	0.000	0.000			1.202
	Edge 4	0.319	0.185	0.551			1.055

Highest simultaneous transmission of both section 12.1.3 & 12.2.3

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)	
		AG0 (Main 1 Ant)	AG1 (Sub.1 Ant)	ER	AG0 + ER (BT MIMO + UNII MIMO)	AG0 + ER (BT Ant.1 + 2.4GHz Ant.2)
Hotspot (1-g SAR)	Rear	1.020	0.052	0.470	1.542	
		1.020	0.052	0.387		1.459

Note(s):

1. For Rear at 10mm, AG0 and AG1 were individually considered with ER for satisfy simultaneous transmission analysis according to Antenna group analysis. So Rear at 10mm was considered AG0+ER and AG1+ER, respectively. And to find the highest simultaneous transmission value, the highest value among Section 12.1.3 and 12.2.3 were considered.
2. Green value is estimated SAR value.
3. For Yellow box SAR results, Additionally SAR tested for RSDB scenarios using RSDB power in Hotspot exposure condition due to satisfy FCC simultaneous transmission limit criteria.

12.2.4. Product Specific 10-g exposure condition

ER's SAR (UNII & NFC & UWB)

RF Exposure	Test Position	ER's SAR (W/kg)							Worst case Combination
		5G MIMO	6G MIMO	NFC	UWB Ant.1	UWB Ant.2	5G MIMO + NFC + UWB Ant.2	6G MIMO + NFC + UWB Ant.2	
		1	2	3	4	5	1 + 3 + 5	2 + 3 + 5	
Product Specific (10-g SAR)	Rear	1.031	0.091	0.030	0.000	0.002	1.063	0.123	**1.063**
	Front	0.312	0.055	0.000	0.000	0.002	0.314	0.057	**0.314**
	Edge 1	2.256	0.043	0.000	0.000	0.000	2.256	0.043	**2.256**
	Edge 2	2.256	0.069	0.000	0.000	0.000	2.256	0.069	**2.256**
	Edge 3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**
	Edge 4	2.256	0.217	0.000	0.000	0.000	2.256	0.217	**2.256**

Simultaneous Transmission Analysis

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)
		AG0	AG1	ER NFC + UWB + 5GHZ MIMO	AG0 + AG1 + ER
Product Specific (10-g SAR)	Rear	1.921	0.000	1.063	2.984
	Front	1.946	0.000	0.314	2.260
	Edge 1	0.000	0.000	2.256	2.256
	Edge 2	0.875	0.000	2.256	3.131
	Edge 3	3.007	0.000	0.000	3.007
	Edge 4	0.000	0.000	2.256	2.256

Highest simultaneous transmission of both section 12.1.4 & 12.2.4

RF Exposure	Test Position	Highest SAR (W/kg)			Sum SAR (W/kg)
		AG0	AG1	ER NFC + UWB + 5GHZ MIMO	AG0 + AG1 + ER
Product Specific (10-g SAR)	Rear	0.875	0.000	2.256	3.131

Note(s):

1. Green value is estimated SAR value.

Conclusion:

Simultaneous Transmission SAR analysis results is satisfied the FCC Limit requirement.

Appendixes

Refer to separated files for the following appendixes.

4790541052-S1 FCC Report SAR_App A_Photos & Ant. Locations

4790541052-S1 FCC Report SAR_App B_Highest SAR Test Plots

4790541052-S1 FCC Report SAR_App C_System Check Plots

4790541052-S1 FCC Report SAR_App D_SAR Tissue Ingredients

4790541052-S1 FCC Report SAR_App E_Probe Cal. Certificates

4790541052-S1 FCC Report SAR_App F_Dipole Cal. Certificates

4790541052-S1 FCC Report SAR_App G_Proximity Sensor feature

4790541052-S1 FCC Report SAR_App H_LTE Carrier Aggregation

4790541052-S1 FCC Report SAR_App I_Dynamic Antenna tuner testing

END OF REPORT