



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 and WPT**

**MODEL NUMBER: SM-S921U, SM-S921U1**

**FCC ID: A3LSMS921U**

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**TL-637**

**Revision History**

Rev.	Date	Revisions	Revised By
V1	10/27/2023	Initial Issue	--
V2	11/3/2023	1.Revised WLAN/BT tune-up table in Sec6.4. 2.Removed ULCA 7C in Sec.10.7. 3.Added note in Sec.10.24. 4.Revised table in Sec.6.3. 5.Changed target power for LTE B2/4/25/66, NR Bn2/n25/n66/n70/n77/n78 in Ant.F -Revised target power in sec.6.4. -Added Dielectric property Measurements and System check in Sec.8. -Revised output power results in Sec.9.3 (LTE bands) and Sec.9.4 (NR bands). -Revised SAR test results in Sec.1, Sec.1.1 and Sec.10. -Revised SAR Measurement Variability table in Sec.11. -Revised SAR test results of Ant.F in Sec.12.1.1 and Sec.12.1.2. -Revised Appendix B, C and I. 6.Changed target power for BT (DUAL). -Revised target power in sec.6.4. -Added Dielectric property Measurements and System check in Sec.8. -Revised output power results and duty plot in Sec.9.7. -Revised SAR test results in Sec.1, Sec.1.1 and Sec.10.32. -Revised SAR test results of BT in Sec.12.1.1. & Sec.12.1.2. -Revised Appendix B.	Sunghoon Kim
V3	11/6/2023	Revised Highest reported SAR in BT in Sec.1 and Sec.1.1. Revised Sub6/mmW antenna group analysis in Sec.12.1.2. Added RSDB tune-up in Sec.6.4.	Sunghoon Kim
V4	11/8/2023	Revised note.2 in Sec.6.2.	Sunghoon Kim
V5	11/24/2023	Revised SAR char table in 6.3. Revised Sec.12.1.1.	Sunghoon Kim
V6	12/20/2023	Revised table in Sec.9.7.	Sunghoon Kim

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# 1. Attestation of Test Results

Applicant Name		SAMSUNG ELECTRONICS CO.,LTD.					
FCC ID		A3LSMS921U					
Model Number		SM-S921U, SM-S921U1					
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 & Extremity 10g (10g of tissue)		
General population / Uncontrolled exposure		1.6			4.0		
RF Exposure Conditions		Equipment Class - The Highest Reported SAR (W/kg)					
		PCE	CBE	DTS	NII	DSS	DXX
Phablet-Head		1.23	1.19	0.99	0.88	0.60	N/A
Phablet-Body-worn & Hotspot		1.14	1.10	0.36	0.88	0.57	N/A
Phablet-Product Specific 10g		N/A	N/A	N/A	3.08	N/A	< 0.10
Simultaneous TX	Head	1.58	1.58	1.58	1.58	1.58	N/A
	Body-worn & Hotspot	1.57	1.57	1.57	1.57	1.57	N/A
	Product Specific 10g	N/A	N/A	N/A	3.10	N/A	3.10
Date Tested		9/1/2023 to 11/3/2023					
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)			Equipment Class	Band	Antenna	The Highest Reported SAR (W/kg)		
			Phablet mode						Phablet mode		
			1g of tissue		Product Specific Exposure condition				1g of tissue		Product Specific Exposure condition
			Head Exposure condition	Body-worn & Hotspot Exposure condition					Head Exposure condition	Body-worn & Hotspot Exposure condition	
PCE	GSM850	Ant.A	0.233	0.606	NA	PCE	NR Band n71	Ant.A	0.122	0.357	NA
	GSM850	Ant.E	1.066	0.821	NA		NR Band n71	Ant.E	0.399	0.195	NA
	GSM1900	Ant.A	0.089	0.733	NA		NR Band n12	Ant.A	0.163	0.418	NA
	WCDMA Band V	Ant.A	0.227	0.468	NA		NR Band n12	Ant.E	1.109	0.710	NA
	WCDMA Band V	Ant.E	1.175	0.584	NA		NR Band n26	Ant.A	0.229	0.593	NA
	WCDMA Band IV	Ant.A	0.252	1.006	NA		NR Band n26	Ant.E	1.101	0.570	NA
	WCDMA Band II	Ant.A	0.054	1.141	NA		NR Band n5	Ant.A	0.238	0.621	NA
	LTE Band 71	Ant.A	0.174	0.380	NA		NR Band n5	Ant.E	1.041	0.570	NA
	LTE Band 71	Ant.E	0.840	0.245	NA		NR Band n70	Ant.A	0.322	1.041	NA
	LTE Band 12	Ant.A	0.196	0.438	NA		NR Band n70	Ant.F	0.924	0.961	NA
	LTE Band 12	Ant.E	0.982	0.704	NA		NR Band n66	Ant.A	0.311	0.893	NA
	LTE Band 13	Ant.A	0.224	0.600	NA		NR Band n66	Ant.F	0.880	0.720	NA
	LTE Band 13	Ant.E	0.787	0.377	NA		NR Band n25	Ant.A	0.154	0.867	NA
	LTE Band 14	Ant.A	0.232	0.611	NA		NR Band n25	Ant.F	0.802	0.538	NA
	LTE Band 14	Ant.E	0.712	0.341	NA		NR Band n2	Ant.A	N/A	N/A	NA
	LTE Band 26	Ant.A	0.233	0.531	NA		NR Band n2	Ant.F	N/A	N/A	NA
	LTE Band 26	Ant.E	1.160	0.622	NA		NR Band n7	Ant.B	0.364	0.528	NA
	LTE Band 5	Ant.A	0.224	0.528	NA		NR Band n7	Ant.F	1.228	0.744	NA
	LTE Band 5	Ant.E	1.125	0.642	NA		NR Band n30	Ant.A	0.111	1.071	NA
	LTE Band 66	Ant.A	0.252	1.090	NA		NR Band n30	Ant.F	1.204	0.708	NA
	LTE Band 66	Ant.F	1.036	0.954	NA		NR Band n38	Ant.B	N/A	N/A	NA
	LTE Band 4	Ant.A	N/A	N/A	NA		NR Band n38	Ant.F	N/A	N/A	NA
	LTE Band 4	Ant.F	N/A	N/A	NA		NR Band n41(PC2)-SRS0/1	Ant.B / Ant.F	1.113	0.888	NA
	LTE Band 25	Ant.A	0.143	1.129	NA		NR Band n41(PC2)-SRS1/0	Ant.B / Ant.F	0.093	0.568	NA
	LTE Band 25	Ant.F	0.745	0.472	NA		NR Band n41(PC2)-SRS2/3	Ant.D / Ant.E	0.351	0.028	NA
	LTE Band 2	Ant.A	N/A	N/A	NA		NR Band n41(PC2)-SRS3/2	Ant.D / Ant.E	0.015	0.191	NA
	LTE Band 2	Ant.F	N/A	N/A	NA		NR Band n77(PC2)-SRS0	Ant.F	1.052	0.864	NA
	LTE Band 30	Ant.A	0.098	1.069	NA		NR Band n77(PC2)-SRS1	Ant.C	0.035	0.327	NA
	LTE Band 30	Ant.F	1.233	0.670	NA		NR Band n77(PC2)-SRS2	Ant.I	0.828	0.378	NA
	LTE Band 7	Ant.B	0.389	0.759	NA		NR Band n77(PC2)-SRS3	Ant.D	0.001	0.471	NA
	LTE Band 7	Ant.F	1.036	0.607	NA		NR Band n78(PC2)-SRS0	Ant.F	N/A	N/A	NA
	LTE Band 38	Ant.B	N/A	N/A	NA		NR Band n78(PC2)-SRS1	Ant.C	N/A	N/A	NA
LTE Band 38	Ant.F	N/A	N/A	NA	NR Band n78(PC2)-SRS2	Ant.I	N/A	N/A	NA		
LTE Band 41 (PC2/PC3)	Ant.B	0.155	0.891	NA	NR Band n78(PC2)-SRS3	Ant.D	N/A	N/A	NA		
LTE Band 41 (PC2/PC3)	Ant.F	1.147	0.996	NA							
CBE	LTE Band 48	Ant.F	1.158	1.037	NA						
	NR Band n48-SRS0	Ant.F	1.044	1.097	NA						
	NR Band n48-SRS1	Ant.C	0.002	0.097	NA						
	NR Band n48-SRS2	Ant.I	1.192	0.518	NA						
	NR Band n48-SRS3	Ant.D	0.000	0.345	NA						
DTS	2.4GHz WLAN		0.993	0.357	NA						
NII	UNII 1/2A		0.543	0.878	3.080						
	UNII 2C		0.736	0.484	2.350						
	UNII 3		0.606	0.679	NA						
	UNII 4		0.877	0.722	2.117						
DSS	Bluetooth		0.601	0.572	NA						
DXX	NFC		N/A	N/A	0.016						

## 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)
- [TCB workshop](#) October, 2022; RF Exposure Policies & Procedures (SAR test frequencies in multi-rule)

## 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;

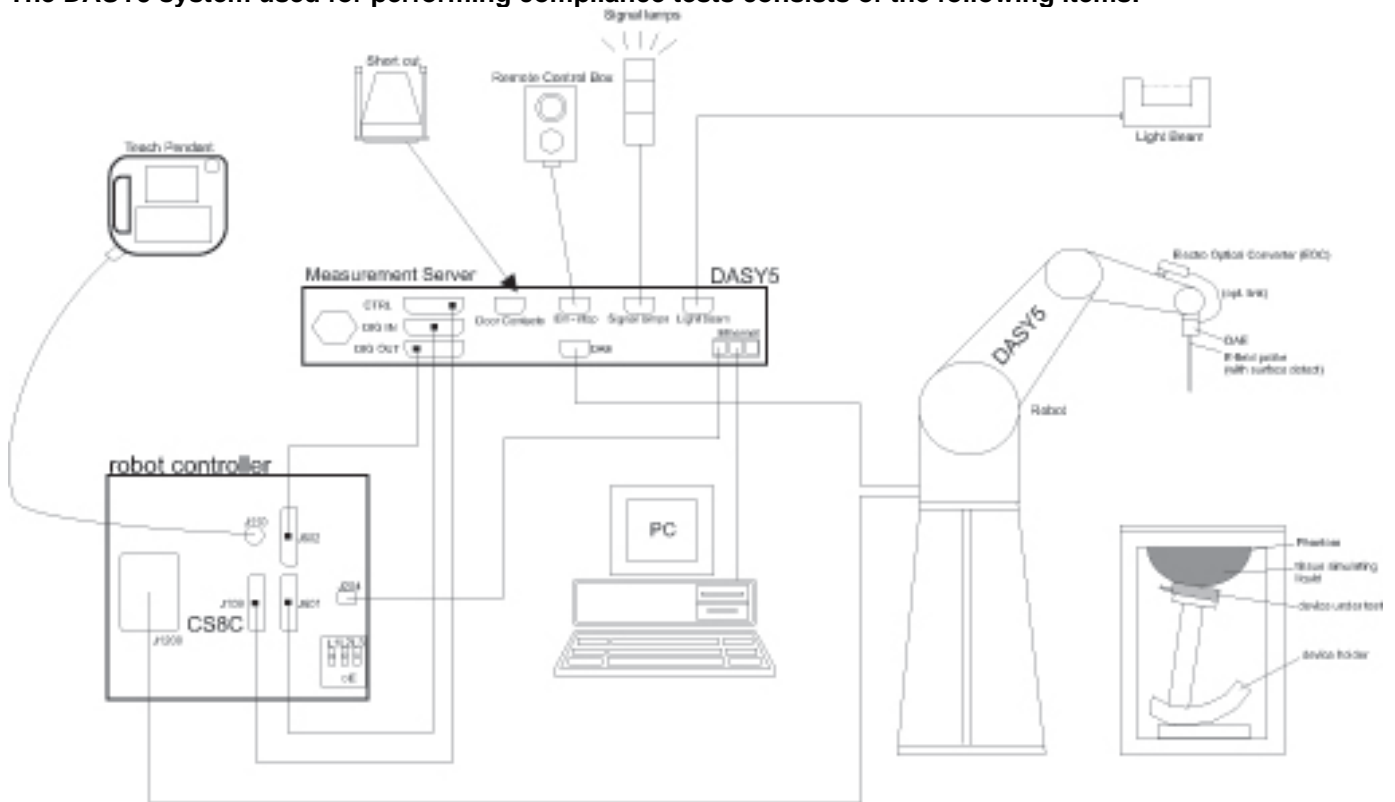
<https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.



## 4. SAR Measurement System & Test Equipment

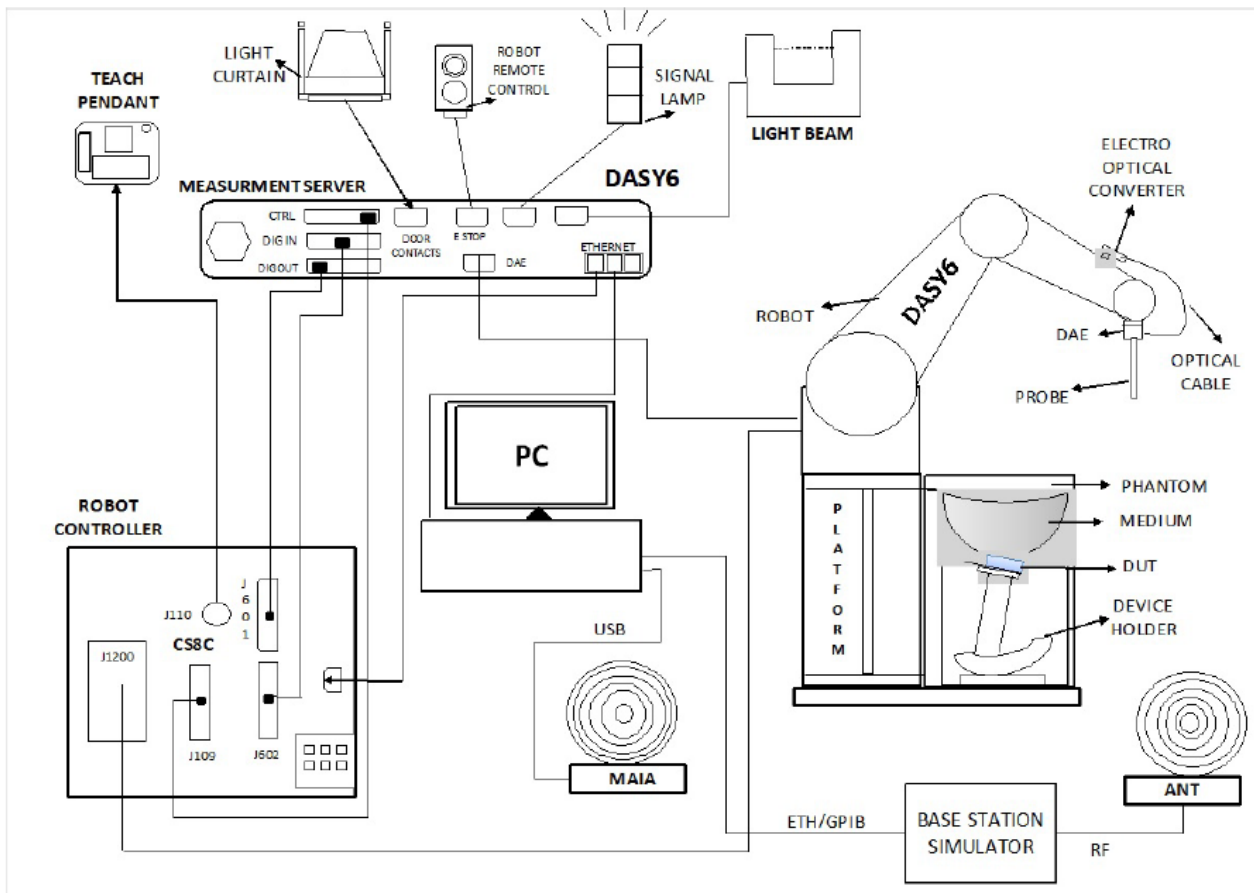
### 4.1. SAR Measurement System

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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: $\Delta x_{Area}$ , $\Delta y_{Area}$	≤ 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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{Zoom}, \Delta y_{Zoom}$			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$ : between subsequent points	≤ 1.5 · $\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

**Step 4: Power drift measurement**

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

### 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	7-24-2024
Network Analyzer	ROHDE & SCHWARZ	ZNB 20	102256	7-24-2024
Dielectric Assessment Kit	SPEAG	DAK-12	1158	11-17-2023
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-17-2024
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Shorting block	SPEAG	DAK-12 Short	SM DAK 220 AD	N/A
Thermometer	LKM	DTM3000	3851	7-25-2024
Thermometer	LKM	DTM3000	3862	7-25-2024

#### System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Agilent	N5181A	MY50145882	7-26-2024
MXG Analog Signal Generator	Keysight	N5181B	MY59100587	7-26-2024
MXG Analog Signal Generator	Keysight	N5173B	MY59101083	7-27-2024
Power Sensor	KEYSIGHT	U2000A	MY60180020	7-27-2024
Power Sensor	KEYSIGHT	U2000A	MY60490008	7-25-2024
Power Sensor	KEYSIGHT	U2000A	MY60160004	7-25-2024
Power Sensor	KEYSIGHT	U2000A	MY61010010	7-25-2024
Power Amplifier	EXODUS	AMP2027	1410025-AMP2027-10003	11-2-2023
Power Amplifier	MINI-CIRCUITS	TVA-R5-13A+	2111006	1-6-2024
Power Amplifier	EXODUS	AMP2027ADB	10002	1-6-2024
Directional Coupler	Agilent	772D	MY52180193	7-25-2024
Directional Coupler	H.P	778D	16133	7-25-2024
Directional Coupler	NARDA	4216-10	2835	7-25-2024
Directional Coupler	MINI-CIRCUITS	ZMDC-30-1+	SF569102123	7-25-2024
Low Pass Filter	FILTRON	L140012FL	1410003S	7-25-2024
Low Pass Filter	MICROLAB	LA-60N	3942	7-25-2024
Low Pass Filter	MINI-CIRCUITS	VLF-6000+	S0142	7-25-2024
Low Pass Filter	MINI-CIRCUITS	VLF-3000+	S0143	7-25-2024
Low Pass Filter	MINI-CIRCUITS	NLP-1200	VUU19301915	1-5-2024
Attenuator	KEYSIGHT	8491B/003	MY39272276	7-25-2024
Attenuator	KEYSIGHT	8491B/010	MY39271981	7-24-2024
Attenuator	KEYSIGHT	8491B/010	MY39272011	7-25-2024
Attenuator	KEYSIGHT	8491B/020	MY39272301	7-25-2024
Attenuator	KEYSIGHT	8491B/020	MY39272302	7-24-2024
Attenuator	KEYSIGHT	8491B/003	MY39272275	7-25-2024
E-Field Probe	SPEAG	EX3DV4	7313	3-24-2024
E-Field Probe	SPEAG	EX3DV4	7330	1-24-2024
E-Field Probe	SPEAG	EX3DV4	7545	8-25-2024
E-Field Probe	SPEAG	EX3DV4	7651	5-23-2024
E-Field Probe	SPEAG	EX3DV4	7646	3-23-2024
E-Field Probe	SPEAG	EX3DV4	7376	7-25-2024
E-Field Probe	SPEAG	EX3DV4	7314	5-23-2024
E-Field Probe	SPEAG	EX3DV4	3871	8-25-2024
E-Field Probe	SPEAG	EX3DV4	7652	4-24-2024
Data Acquisition Electronics	SPEAG	DAE4	1667	4-24-2024
Data Acquisition Electronics	SPEAG	DAE4	1447	3-22-2024
Data Acquisition Electronics	SPEAG	DAE4	1468	8-24-2024
Data Acquisition Electronics	SPEAG	DAE4	1494	7-17-2024
Data Acquisition Electronics	SPEAG	DAE4	1591	3-22-2024
Data Acquisition Electronics	SPEAG	DAE4	1668	4-26-2024
Data Acquisition Electronics	SPEAG	DAE4	1670	5-23-2024
Data Acquisition Electronics	SPEAG	DAE4	1671	5-23-2024
Data Acquisition Electronics	SPEAG	DAE4	1343	6-30-2024

#### Note(s):

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

**Test Equipment (Continued)**

System Validation Dipole	SPEAG	D750V3	1205	4-18-2024
System Validation Dipole	SPEAG	D750V3	1122	2-24-2024
System Validation Dipole	SPEAG	D835V2	4d194	3-24-2024
System Validation Dipole	SPEAG	D835V2	4d174	9-21-2024
System Validation Dipole	SPEAG	D1750V2	1125	11-30-2023
System Validation Dipole	SPEAG	D1900V2	5d190	11-16-2023
System Validation Dipole	SPEAG	D1900V2	5d199	3-25-2024
System Validation Dipole	SPEAG	D2300V2	1115	4-25-2024
System Validation Dipole	SPEAG	D2300V2	1090	11-15-2023
System Validation Dipole	SPEAG	D2450V2	939	7-19-2024
System Validation Dipole	SPEAG	D2450V2	960	3-24-2024
System Validation Dipole	SPEAG	D2600V2	1097	9-26-2024
System Validation Dipole	SPEAG	D5GHzV2	1325	4-21-2024
System Validation Dipole	SPEAG	D5GHzV2	1209	2-28-2024
System Validation Dipole	SPEAG	D3500V2	1121	4-20-2024
System Validation Dipole	SPEAG	D3700V2	1036	5-19-2024
System Validation Dipole	SPEAG	D3500V2	1075	5-19-2024
System Validation Dipole	SPEAG	D1750V2	1180	9-21-2024
System Validation Dipole	SPEAG	D2600V2	1178	4-25-2023
System Validation Dipole	SPEAG	D3900V2	1069	4-21-2024
System Validation Dipole	SPEAG	CLA -13	1015	8-22-2024
Thermometer	Lutron	MHB-382SD	AH.50215	1-9-2024
Thermometer	Lutron	MHB-382SD	AH.50213	1-11-2024
Thermometer	Lutron	MHB-382SD	AH.91463	1-11-2024
Thermometer	Lutron	MHB-382SD	AJ.45903	1-9-2024
Thermometer	Lutron	MHB-382SD	AJ.42446	7-26-2024
Thermometer	Lutron	MHB-382SD	AK.12102	7-31-2024
Thermometer	Lutron	MHB-382SD	AK.12103	7-31-2024
Thermometer	Lutron	MHB-382SD	AK.12123	1-9-2024
Thermometer	Lutron	MHB-382SD	AK.18789	7-27-2024

**Others**

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	150313	7-27-2024
Base Station Simulator	R & S	CMW500	150314	7-26-2024
Base Station Simulator	R & S	CMW500	162790	7-26-2024
Base Station Simulator	R & S	CMW500	169803	1-5-2024
Base Station Simulator	R & S	CMW500	169801	1-5-2024
Base Station Simulator	R & S	CMW500	169799	7-26-2024
Base Station Simulator	R & S	CMW500	169800	7-27-2024
Base Station Simulator	R & S	CMW500	169798	7-27-2024
UXM 5G Wireless Test Platform	KEY SIGHT	E7515B	MY57510596	7-27-2024
UXM 5G Wireless Test Platform	KEY SIGHT	E751B	MY59150850	1-9-2024
UXM 5G Wireless Test Platform	KEY SIGHT	E7515B	MY58120110	1-10-2024
Radio Communication Test Station	Anritsu	MT8000A	6272466165	10-18-2024
Radio Communication Analyzer	Anritsu	MT8821C	6161094351	11-29-2023

**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 9MHz to 19MHz

#### Measurement uncertainty for 9 MHz to 19 MHz

(According to IEEE 62209-1528)

a	b	c		d	e f(d,k)	f	g	h =	l =	k	
		Tol. 1 g (±%)	Tol. 10 g (±%)					1 g ui (±%)	10 g ui (±%)		
Uncertainty component	Reference			Prob. Dist.	Div.	ci (1 g)	ci (10 g)			vi	
<b>Measurement System Errors</b>											
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	∞	
<b>Phantom and Device Errors</b>											
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	∞	
<b>Correction to the SAR results</b>											
Deviation to Target	8.4.3.1	1.9		Normal	1	1	0.84	1.9	1.6	∞	
Combined Standard Uncertainty U <sub>c</sub> (y) =								RSS	12.13	12.02	
Expanded Uncertainty U, Coverage Factor = 2, > 95 % Confidence =									<b>24.26</b>	<b>24.05</b>	

### 5.1. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 2, Clause 4.4.3 in IEC Guide 115:2021.

## 6. Device Under Test (DUT) Information

### 6.1. DUT Description

Device Dimension	Refer to Appendix A.					
Back Cover	<input checked="" type="checkbox"/> The Back Cover is not removable.					
Battery Options	<input checked="" type="checkbox"/> The rechargeable battery is not user accessible					
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. <input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 2.4 GHz) <input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 5.8 GHz)					
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other <input checked="" type="checkbox"/> Wi-Fi Direct (Wi-Fi 2.4 GHz) <input checked="" type="checkbox"/> Wi-Fi Direct (Wi-Fi 5.2 GHz_UNII-1, Wi-Fi 5.8 GHz_UNII-3)					
Test Sample Information	<b>No.</b>	<b>S/N</b>	<b>Notes</b>	<b>No.</b>	<b>S/N</b>	<b>Notes</b>
	1	R3CW80J5C8X	Main Conducted	15	R3CW80J5C9L	SAR
	2	R3CW80J5CJH	Main Conducted	16	R3CW80J5CYE	SAR
	3	R3CW80J5CAN	Main Conducted	17	R3CW80J5BWB	SAR
	4	R3CW80J5QW	Main Conducted	18	R3CW80J5C4P	SAR
	5	R3CW805ZJWV	Main Conducted	19	R3CW80BFG6P	SAR
	6	R3CW805ZK8A	Main Conducted	20	R3CW80J5DHF	SAR
	7	R3CW805ZK4Z	Main Conducted	21	R3CW70MMKSR	SAR
	8	R3CW805ZK3R	Main Conducted	22	R3CW80J5ETA	SAR
	9	R3CW80BFFWT	Main Conducted	23	R3CW70MML5F	SAR
	10	R3CW80BFG4A	Main Conducted	24	R3CW70MMKTW	SAR
	11	R3CW80BFG6P	Main Conducted	25	R3CW90BXLV	SAR
	12	R3CW90BXLKA	WLAN/BT Conducted	26	R3CW90BXLDY	SAR
	13	R3CW90BXLGJ	WLAN/BT Conducted	27	R3CW90BXLBE	SAR
	14	R3CW80J5CGR	SAR	28	R3CW90BXL9W	SAR
				29	R3CW90HRRPN	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: <input type="checkbox"/> Class 8 - 1 Up, 4 Down <input type="checkbox"/> Class 10 - 2 Up, 4 Down <input type="checkbox"/> Class 12 - 4 Up, 4 Down <input checked="" type="checkbox"/> Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
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 71 / Band 12 FDD Band 13 / Band 14 FDD Band 26 / Band 5 FDD Band 66 / Band 4 FDD Band 25 / Band 2 FDD Band 30 / Band 7 TDD Band 38 / Band 48 TDD Band 41-PC3&PC2 <b>UL CA intraband-contiguous (2CC)</b> 41C / 48C / 66B / 66C	QPSK 16QAM 64QAM 256QAM Rel. 16 Carrier Aggregation (2 Uplink and 6 Downlinks)		100% (FDD) 63.3% (TDD) <small>Power Class 3</small> 43.3% (TDD) <small>Power Class 2</small>
		Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
NR (Sub6)	FDD Band n71 / Band n12 FDD Band n26 / Band n5 FDD Band n70 / Band n66 FDD Band n25 / Band n2 FDD Band n30 / Band n7 TDD Band n38 / Band 48 TDD Band n41-PC2 TDD Band n77-PC2 TDD Band n78-PC2	DFT-s-OFDM: ■ $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: ■ QPSK, 16QAM, 64QAM, 256QAM		100%
Wi-Fi	2.4 GHz	802.11b / 802.11g / 802.11n (HT20) 802.11ac (VHT20) / 802.11ax (HE20)		98.8% (802.11b-SISO) 98.8% (802.11b-MIMO)
	5 GHz	802.11a / 802.11n (HT20) & (HT40) 802.11ac (VHT20) & (VHT40) & (VHT80) & (VHT160) 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		97.1% (802.11ac (VHT80-SISO)) 98.2% (802.11n (HT40-SISO)) 94.5% (802.11ac (VHT80-MIMO)) 98.2% (802.11n (HT40-MIMO))
	6 GHz	802.11a 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		99.6% (802.11ax (HE160-SISO/MIMO))
	Does this device support bands 5.60 ~ 5.65 GHz? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Does this device support Band gap channel(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Bluetooth	2.4 GHz	Version 5.3 LE		85.4% (LE-1M) 76.8% (BDR-DH5)
NFC	13.56 MHz	Type A/B/F		100%

### Notes:

1. Wi-Fi & Bluetooth were tested SAR using highest duty cycle. Measured duty cycle plots are in Section.9.
2. This device supports UL CA intra band in LTE Band. Detail of configuration refer to appendix.G.
3. NR TDD Band n41 & n48 & n77 has support SRS(0,1,2,3) modes.
4. 6GHz RF Exposure report has test results of WiFi 6GHz.

### 6.3. Time-Averaging feature

The equipment under test (EUT) contains the Qualcomm modems supporting 2G/3G/4G/5G technologies and WLAN/BT technologies. These modems are 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/WLAN/BT technology bands, 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 D04.

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			Head (RCV)	Bodyworn & Hotspot	Phablet 10-g SAR	Pmax (Maximum tune-up Power) (dBm)
Spatial-average			1g	1g	10g	
Test distance (mm)			0	10	0	
DSI :			1	0	0	
RF Air Interface	Antenna	Antenna Group	P <sub>limit</sub> corresponding to 1.0 W/kg (SAR <sub>design_target</sub> ) (1g) / 2.5 W/kg (SAR <sub>design_target</sub> ) (10g)			
GSM 850	A	AG 0	28.8	28.6	27.2	25.4
GSM 850	E	AG 1	21.8	26.7	26.7	25.4
GSM 1900	A	AG 0	29.7	18.8	18.8	22.2
WCDMA 2	A	AG 0	32.7	19.0	19.0	23.0
WCDMA 4	A	AG 0	26.0	19.0	19.0	23.0
WCDMA 5	A	AG 0	27.3	28.2	26.9	24.0
WCDMA 5	E	AG 1	22.0	26.7	26.7	24.0
LTE Band 5	A	AG 0	27.4	27.7	27.0	24.0
LTE Band 5	E	AG 1	22.0	26.3	26.3	24.0
LTE Band 7	B	AG 0	24.1	22.0	22.0	23.0
LTE Band 7	F	AG 1	17.5	19.5	19.5	23.0
LTE Band 12	A	AG 0	28.3	28.7	27.3	24.2
LTE Band 12	E	AG 1	21.5	26.7	26.4	24.2
LTE Band 13	A	AG 0	27.5	27.2	27.2	24.0
LTE Band 13	E	AG 1	26.0	28.6	28.6	24.0
LTE Band 14	A	AG 0	27.2	27.1	27.5	24.0
LTE Band 14	E	AG 1	26.4	29.1	29.1	24.0
LTE Band 25(2)	A	AG 0	29.2	19.0	19.0	23.7
LTE Band 25(2)	F	AG 1	19.0	21.0	21.0	23.7
LTE Band 26	A	AG 0	27.2	27.7	26.8	24.0
LTE Band 26	E	AG 1	22.0	26.5	26.5	24.0
LTE Band 30	A	AG 0	29.6	20.0	20.0	22.5
LTE Band 30	F	AG 1	17.5	20.0	20.0	22.0
LTE Band 66(4)	A	AG 0	26.7	19.0	19.0	23.7
LTE Band 66(4)	F	AG 1	17.5	21.0	21.0	23.7
LTE Band 71	A	AG 0	28.9	29.5	27.5	24.3
LTE Band 71	E	AG 1	26.0	31.4	30.9	24.3
LTE Band 41(38) PC3	B	AG 0	20.4	21.0	21.0	22.0
LTE Band 41(38) PC3	F	AG 1	17.0	19.5	19.5	22.0
LTE Band 41(38) PC2	B	AG 0	20.4	21.0	21.0	22.1
LTE Band 41(38) PC2	F	AG 1	17.0	19.5	19.5	22.1
LTE Band 48	F	AG 1	16.0	20.8	20.0	20.0
NR Band n5	A	AG 0	27.1	27.0	27.3	24.0
NR Band n5	E	AG 1	22.0	27.4	27.0	24.0
NR Band n7	B	AG 0	24.4	22.0	22.0	23.0
NR Band n7	F	AG 1	17.5	19.5	19.5	23.0
NR Band n12	A	AG 0	29.1	28.9	27.3	24.2
NR Band n12	E	AG 1	21.5	26.6	26.1	24.2
NR Band n25(2)	A	AG 0	28.6	19.0	19.0	23.5
NR Band n25(2)	F	AG 1	19.0	21.0	21.0	23.5
NR Band n26	A	AG 0	27.2	27.2	27.3	24.0
NR Band n26	E	AG 1	22.0	26.9	26.9	24.0
NR Band n30	A	AG 0	29.1	20.0	20.0	22.5
NR Band n30	F	AG 1	17.5	20.0	20.0	22.0
NR Band n66	A	AG 0	25.6	19.0	19.0	23.5
NR Band n66	F	AG 1	17.5	21.0	21.0	23.5
NR Band n70	A	AG 0	24.9	20.0	20.0	23.0
NR Band n70	F	AG 1	17.0	21.0	21.0	23.0
NR Band n71	A	AG 0	30.3	29.7	27.4	24.3
NR Band n71	E	AG 1	29.2	32.4	32.2	24.3

**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  $P_{max}$ .

## SAR Characterizations (Continued)

Exposure condition			Head (RCV)	Bodyworn & Hotspot	Phablet 10-g SAR	P <sub>max</sub> (Maximum tune-up Power) (dBm)
Spatial-average			1g	1g	10g	
Test distance (mm)			0	10	0	
DSI :			1	0	0	
RF Air Interface	Antenna	Antenna Group	P <sub>limit</sub> corresponding to 1.0 W/kg (SAR <sub>design_target</sub> ) (1g) / 2.5 W/kg (SAR <sub>design_target</sub> ) (10g)			
NR Band n41(38) PC2 -Main- (Switching SRS1)	F	AG 1	17.0	19.5	19.5	26.0
NR Band n41 PC2 -SRS2- (Switching SRS3)	E	AG 1	15.0	15.0	15.0	23.0
NR Band n41(38) swithcing PC2 -Main- (non switching SRS1)	B	AG 0	21.0	21.0	21.0	26.0
NR Band n41 swithcing PC2- SRS2- (non switching SRS3)	D	AG 0	17.0	17.0	17.0	22.5
NR Band n48 -Main-	F	AG 1	15.5	19.5	19.5	22.0
NR Band n48 -SRS1-	C	AG 0	18.0	18.0	18.0	20.5
NR Band n48 -SRS2-	I	AG 1	11.5	18.0	18.0	20.5
NR Band n48 -SRS3-	D	AG 0	17.0	17.0	17.0	19.5
NR Band n77(78) PC2 -Main-	F	AG 1	16.0	18.5	18.5	26.0
NR Band n77(78) PC2 -SRS1-	C	AG 0	18.0	18.0	18.0	23.0
NR Band n77(78) PC2 -SRS2-	I	AG 1	11.5	19.0	19.0	25.0
NR Band n77(78) PC2 -SRS3-	D	AG 0	16.5	16.5	16.5	23.0
DTS SISO Ant. 1	H	AG 1	14.0	23.5	21.7	18.0
DTS SISO Ant. 2	J	AG 1	14.0	27.1	22.6	18.0
DTS MIMO	H+J	AG 1	14.0	23.2	21.4	18.0
UNII-2A SISO Ant. 1	H	AG 1	13.0	16.0	16.0	17.0
UNII-2A SISO Ant. 2	E	AG 1	13.0	16.0	16.0	17.0
UNII-2A MIMO	H+E	AG 1	13.0	16.0	16.0	17.0
UNII-2C SISO Ant. 1	H	AG 1	13.0	16.0	16.0	17.0
UNII-2C SISO Ant. 2	E	AG 1	13.0	16.0	16.0	17.0
UNII-2C MIMO	H+E	AG 1	13.0	16.0	16.0	17.0
UNII-3 SISO Ant. 1	H	AG 1	13.0	16.0	16.0	17.0
UNII-3 SISO Ant. 2	E	AG 1	13.0	16.0	16.0	17.0
UNII-3 MIMO	H+E	AG 1	13.0	16.0	16.0	17.0
UNI-4 SISO Ant. 1	H	AG 1	13.0	16.0	16.0	17.0
UNI-4 SISO Ant. 2	E	AG 1	13.0	16.0	16.0	17.0
UNI-4 MIMO	H+E	AG 1	13.0	16.0	16.0	17.0
WiFi 6E SISO Ant. 1	H	AG 1	9.0	9.0	9.0	15.0
WiFi 6E SISO Ant. 2	E	AG 1	9.0	9.0	9.0	15.0
WiFi 6E MIMO	H+E	AG 1	9.0	9.0	9.0	15.0
Bluetooth Ant. 1	H	AG 1	16.0	23.5	21.6	20.0
Bluetooth Ant. 2	J	AG 1	13.0	24.9	21.1	17.0
Bluetooth MIMO	H+J	AG 1	18.5	22.5	22.2	13.5

## 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.

#### GSM Bands

RF Air interface	Antenna	Mode	Time Slots	Maximum allowed output power (dBm)					
				Pmax		PLimit			
						DSI = 0 (Body)		DSI = 1 (Head)	
				Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM 850	Ant.A	Voice	1	33.00	23.97	33.00	23.97	33.00	23.97
		GPRS	1	33.00	23.97	33.00	23.97	33.00	23.97
		GPRS	2	32.50	26.48	32.50	26.48	32.50	26.48
		GPRS	3	30.50	26.24	30.50	26.24	30.50	26.24
		GPRS	4	28.50	25.49	28.50	25.49	28.50	25.49
		EGPRS	1	28.00	18.97	28.00	18.97	28.00	18.97
		EGPRS	2	26.00	19.98	26.00	19.98	26.00	19.98
		EGPRS	3	25.50	21.24	25.50	21.24	25.50	21.24
	EGPRS	4	25.50	22.49	25.50	22.49	25.50	22.49	
	Ant.E	Voice	1	33.00	23.97	33.00	23.97	32.00	22.97
		GPRS	1	33.00	23.97	33.00	23.97	32.00	22.97
		GPRS	2	32.50	26.48	32.50	26.48	29.00	22.98
		GPRS	3	30.50	26.24	30.50	26.24	27.20	22.94
		GPRS	4	28.50	25.49	28.50	25.49	26.00	22.99
EGPRS		1	28.00	18.97	28.00	18.97	28.00	18.97	
EGPRS		2	26.00	19.98	26.00	19.98	26.00	19.98	
EGPRS		3	25.50	21.24	25.50	21.24	25.50	21.24	
EGPRS	4	25.50	22.49	25.50	22.49	25.50	22.49		
GSM 1900	Ant.A	Voice	1	30.00	20.97	29.00	19.97	30.00	20.97
		GPRS	1	30.00	20.97	29.00	19.97	30.00	20.97
		GPRS	2	29.00	22.98	26.00	19.98	29.00	22.98
		GPRS	3	27.50	23.24	24.20	19.94	27.50	23.24
		GPRS	4	25.50	22.49	23.00	19.99	25.50	22.49
		EGPRS	1	27.00	17.97	27.00	17.97	27.00	17.97
		EGPRS	2	25.00	18.98	25.00	18.98	25.00	18.98
		EGPRS	3	24.50	20.24	24.20	19.94	24.50	20.24
EGPRS	4	24.50	21.49	23.00	19.99	24.50	21.49		

#### WCDMA Bands

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)		
			Pmax	PLimit	
				DSI = 0 (Body)	DSI = 1 (Head)
W-CDMA Band V	Ant.A	R99	25.00	25.00	25.00
		HSDPA	24.00	24.00	24.00
		HSUPA	24.00	24.00	24.00
		DC-HSDPA	24.00	24.00	24.00
W-CDMA Band V	Ant.E	R99	25.00	25.00	23.00
		HSDPA	24.00	24.00	22.00
		HSUPA	24.00	24.00	22.00
		DC-HSDPA	24.00	24.00	22.00
W-CDMA Band IV	Ant.A	R99	24.00	20.00	24.00
		HSDPA	23.00	19.00	23.00
		HSUPA	23.00	19.00	23.00
		DC-HSDPA	23.00	19.00	23.00
W-CDMA Band II	Ant.A	R99	24.00	20.00	24.00
		HSDPA	23.00	19.00	23.00
		HSUPA	23.00	19.00	23.00
		DC-HSDPA	23.00	19.00	23.00

#### Note(s):

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.

### LTE Bands

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)		
			Pmax	PLimit	
				DSI = 0 (Body)	DSI = 1 (Head)
LTE Band 71	Ant.A	QPSK	25.30	25.30	25.30
LTE Band 71	Ant.E	QPSK	25.30	25.30	25.30
LTE Band 12	Ant.A	QPSK	25.20	25.20	25.20
LTE Band 12	Ant.E	QPSK	25.20	25.20	22.50
LTE Band 13	Ant.A	QPSK	25.00	25.00	25.00
LTE Band 13	Ant.E	QPSK	25.00	25.00	25.00
LTE Band 14	Ant.A	QPSK	25.00	25.00	25.00
LTE Band 14	Ant.E	QPSK	25.00	25.00	25.00
LTE Band 26	Ant.A	QPSK	25.00	25.00	25.00
LTE Band 26	Ant.E	QPSK	25.00	25.00	23.00
LTE Band 5	Ant.A	QPSK	25.00	25.00	25.00
LTE Band 5	Ant.E	QPSK	25.00	25.00	23.00
LTE Band 66	Ant.A	QPSK	24.70	20.00	24.70
LTE Band 66	Ant.F	QPSK	24.70	22.00	18.50
LTE Band 4	Ant.A	QPSK	24.70	20.00	24.70
LTE Band 4	Ant.F	QPSK	24.70	22.00	18.50
LTE Band 25	Ant.A	QPSK	24.70	20.00	24.70
LTE Band 25	Ant.F	QPSK	24.70	22.00	20.00
LTE Band 2	Ant.A	QPSK	24.70	20.00	24.70
LTE Band 2	Ant.F	QPSK	24.70	22.00	20.00
LTE Band 30	Ant.A	QPSK	23.50	21.00	23.50
LTE Band 30	Ant.F	QPSK	23.00	21.00	18.50
LTE Band 7	Ant.B	QPSK	24.00	23.00	24.00
LTE Band 7	Ant.F	QPSK	24.00	20.50	18.50
LTE Band 38	Ant.B	QPSK	25.00	24.00	23.40
LTE Band 38	Ant.F	QPSK	25.00	22.50	20.00
LTE Band 41 (PC3)	Ant.B	QPSK	25.00	24.00	23.40
LTE Band 41 (PC3)	Ant.F	QPSK	25.00	22.50	20.00
LTE Band 41 (PC2)	Ant.B	QPSK	26.70	25.60	25.00
LTE Band 41 (PC2)	Ant.F	QPSK	26.70	24.10	21.60
LTE Band 48	Ant.F	QPSK	23.00	23.00	19.00

### Note(s):

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.

### NR-Sub6 Bands

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)		
			Pmax	PLimit	
				DSI = 0 (Body)	DSI = 1 (Head)
NR Band n71	Ant.A	DFT-s-OFDM QPSK	25.30	25.30	25.30
NR Band n71	Ant.E	DFT-s-OFDM QPSK	25.30	25.30	25.30
NR Band n12	Ant.A	DFT-s-OFDM QPSK	25.20	25.20	25.20
NR Band n12	Ant.E	DFT-s-OFDM QPSK	25.20	25.20	22.50
NR Band n26	Ant.A	DFT-s-OFDM QPSK	25.00	25.00	25.00
NR Band n26	Ant.E	DFT-s-OFDM QPSK	25.00	25.00	23.00
NR Band n5	Ant.A	DFT-s-OFDM QPSK	25.00	25.00	25.00
NR Band n5	Ant.E	DFT-s-OFDM QPSK	25.00	25.00	23.00
NR Band n70	Ant.A	DFT-s-OFDM QPSK	24.00	21.00	24.00
NR Band n70	Ant.F	DFT-s-OFDM QPSK	24.00	22.00	18.00
NR Band n66	Ant.A	DFT-s-OFDM QPSK	24.50	20.00	24.50
NR Band n66	Ant.F	DFT-s-OFDM QPSK	24.50	22.00	18.50
NR Band n25	Ant.A	DFT-s-OFDM QPSK	24.50	20.00	24.50
NR Band n25	Ant.F	DFT-s-OFDM QPSK	24.50	22.00	20.00
NR Band n2	Ant.A	DFT-s-OFDM QPSK	24.50	20.00	24.50
NR Band n2	Ant.F	DFT-s-OFDM QPSK	24.50	22.00	20.00
NR Band n7	Ant.B	DFT-s-OFDM QPSK	24.00	23.00	24.00
NR Band n7	Ant.F	DFT-s-OFDM QPSK	24.00	20.50	18.50
NR Band n30	Ant.A	DFT-s-OFDM QPSK	23.50	21.00	23.50
NR Band n30	Ant.F	DFT-s-OFDM QPSK	23.00	21.00	18.50

### 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.

**NR-Sub6 Bands (Continued)**

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)		
			Pmax	Plimit	
				DSI = 0 (Body)	DSI = 1 (Head)
NR Band n38	Ant.F	DFT-s-OFDM QPSK	25.00	20.50	18.00
NR Band n38	Ant.B	DFT-s-OFDM QPSK	25.00	22.00	22.00
NR Band n48 (Voice/Data/SRS0)	Ant.F	DFT-s-OFDM QPSK	23.00	20.50	16.50
NR Band n48 (SRS1)	Ant.C	SRS CW	21.50	19.00	19.00
NR Band n48 (SRS2)	Ant.I	SRS CW	21.50	19.00	12.50
NR Band n48 (SRS3)	Ant.D	SRS CW	20.50	18.00	18.00
NR Band n41 (PC2) (Voice/Data/SRS0)	Ant.F	DFT-s-OFDM QPSK	27.00	20.50	18.00
NR Band n41 (PC2) (SRS1)	Ant.B	SRS CW	24.00	18.00	18.00
NR Band n41 (PC2) (SRS2)	Ant.E	SRS CW	24.00	16.00	16.00
NR Band n41 (PC2) (SRS3)	Ant.D	SRS CW	21.50	14.00	14.00
NR Band n41 (PC2) (Voice/Data/SRS0)	Ant.B	DFT-s-OFDM QPSK	27.00	22.00	22.00
NR Band n41 (PC2) (SRS1)	Ant.F	SRS CW	24.00	16.00	16.00
NR Band n41 (PC2) (SRS2)	Ant.D	SRS CW	23.50	18.00	18.00
NR Band n41 (PC2) (SRS3)	Ant.E	SRS CW	18.00	12.00	12.00
NR Band n77 (PC2) (Voice/Data/SRS0)	Ant.F	DFT-s-OFDM QPSK	27.00	19.50	17.00
NR Band n77 (PC2) (SRS1)	Ant.C	SRS CW	24.00	19.00	19.00
NR Band n77 (PC2) (SRS2)	Ant.I	SRS CW	26.00	20.00	12.50
NR Band n77 (PC2) (SRS3)	Ant.D	SRS CW	24.00	17.50	17.50
NR Band n78 (PC2) (Voice/Data/SRS0)	Ant.F	DFT-s-OFDM QPSK	27.00	19.50	17.00
NR Band n78 (PC2) (SRS1)	Ant.C	SRS CW	24.00	19.00	19.00
NR Band n78 (PC2) (SRS2)	Ant.I	SRS CW	26.00	20.00	12.50
NR Band n78 (PC2) (SRS3)	Ant.D	SRS CW	24.00	17.50	17.50

**NR Band n41 configuration's test case determination of SAR measurement**

Band	SRS	Ant	Plimit (dBm)		Test
			DSI 0	DSI 1	
NR Bn41 SA (PC2)	0	F	20.5	18.0	Yes
	1	B	18.0	18.0	No
	2	E	16.0	16.0	Yes
	3	D	14.0	14.0	No

Band	SRS	Ant	Plimit (dBm)		Test
			DSI 0	DSI 1	
NR Bn41 SA (PC2) (switching)	0	B	22.0	22.0	Yes
	1	F	16.0	16.0	No
	2	D	18.0	18.0	Yes
	3	E	12.0	12.0	No

**Note(s):**

1. Detail of DSI(Device State Index) conditions, please refer to Sec.6.5
2. NR Band n41 (including SRS0/1/2/3) has support switching mode for Ant.F & Ant.B and Ant.D & Ant.E according to above table. So SAR tested at worst power configuration of each antennas in DSI's scenarios using FTM(Factory test mode).



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

**WLAN output power-dBm (Pmax)**

a. Maximum Power (Pmax)  
Ch12, 13 Airplane mode only (SISO - Ch12 : 5, Ch13 : -1 / MIMO - SISO+3dB)

Mode	Band	SISO(ANT 1 / ANT 2)						MIMO					
		a	b	g	n	Ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		18	17 1ch : 15	17 1ch : 15	17 1ch : 15	17 1ch : 15		Ant1+2	Ant1+2	Ant1+2	Ant1+2	Ant1+2
5GHz (20MHz)	UNII 1	17			17	17	17	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 2A	17			17	17	17	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 2C	17			17	17	17	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 3	17			17	17	17	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 4	17			17	17	17	Ant1+2			Ant1+2	Ant1+2	Ant1+2
5GHz (40MHz)	UNII 1				17 Ch38:15.5	17 Ch38:15.5	17 Ch38:15.5				Ant1+2	Ant1+2	Ant1+2
	UNII 2A				17 Ch62:15.5	17 Ch62:15.5	17 Ch62:15.5				Ant1+2	Ant1+2	Ant1+2
	UNII 2C				17 Ch102:14.5	17 Ch102:14.5	17 Ch102:14.5				Ant1+2	Ant1+2	Ant1+2
	UNII 3				17	17	17				Ant1+2	Ant1+2	Ant1+2
	UNII 4				17	17	17				Ant1+2	Ant1+2	Ant1+2
5GHz (80MHz)	UNII 1					15.5	15.5					Ant1+2	Ant1+2
	UNII 2A					15.5	15.5					Ant1+2	Ant1+2
	UNII 2C					17 Ch106:16	17 Ch106:16					Ant1+2	Ant1+2
	UNII 3					17	17					Ant1+2	Ant1+2
	UNII 4					17	17					Ant1+2	Ant1+2
5GHz (160MHz)	UNII 1&2A					15	15					Ant1+2	Ant1+2
	UNII 2C					16	16					Ant1+2	Ant1+2
	UNII 3&4					17	17					Ant1+2	Ant1+2
6GHz_LPI (20MHz)	U-NII-5	9					9	Ant1+2					Ant1+2
	U-NII-6	9					9	Ant1+2					Ant1+2
	U-NII-7	9					9	Ant1+2					Ant1+2

(Upper tolerance target +1.0dB)

**WLAN output power-dBm (PLimit of DSI 0-Body)**

b. PLimit – Body (DSI = 0)

Mode	Band	SISO(ANT 1 / ANT 2)						MIMO					
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		18	17 1ch : 15	17 1ch : 15	17 1ch : 15	17 1ch : 15		Ant1+2	Ant1+2	Ant1+2	Ant1+2	Ant1+2
5GHz (20MHz)	UNII 1	16			16	16	16	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 2A	16			16	16	16	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 2C	16			16	16	16	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 3	16			16	16	16	Ant1+2			Ant1+2	Ant1+2	Ant1+2
	UNII 4	16			16	16	16	Ant1+2			Ant1+2	Ant1+2	Ant1+2
5GHz (40MHz)	UNII 1				16 Ch38:15.5	16 Ch38:15.5	16 Ch38:15.5				Ant1+2	Ant1+2	Ant1+2
	UNII 2A				16 Ch62:15.5	16 Ch62:15.5	16 Ch62:15.5				Ant1+2	Ant1+2	Ant1+2
	UNII 2C				16 Ch102:14.5	16 Ch102:14.5	16 Ch102:14.5				Ant1+2	Ant1+2	Ant1+2
	UNII 3				16	16	16				Ant1+2	Ant1+2	Ant1+2
	UNII 4				16	16	16				Ant1+2	Ant1+2	Ant1+2
5GHz (80MHz)	UNII 1					15.5	15.5					Ant1+2	Ant1+2
	UNII 2A					15.5	15.5					Ant1+2	Ant1+2
	UNII 2C					16	16					Ant1+2	Ant1+2
	UNII 3					16	16					Ant1+2	Ant1+2
	UNII 4					16	16					Ant1+2	Ant1+2
5GHz (160MHz)	UNII 1&2A					15	15					Ant1+2	Ant1+2
	UNII 2C					16	16					Ant1+2	Ant1+2
	UNII 3&4					16	16					Ant1+2	Ant1+2
6GHz_LPI (20MHz)	U-NII-5	9					9	Ant1+2					Ant1+2
	U-NII-6	9					9	Ant1+2					Ant1+2
	U-NII-7	9					9	Ant1+2					Ant1+2
	U-NII-8	9					9	Ant1+2					Ant1+2
	U-NII-5						9						Ant1+2

(Upper tolerance target +1.0dB)

**Notes:**

- WLAN has support SISO & MIMO mode.
- WLAN has support RSDB scenarios. detail of RSDB scenarios refer to section.12 in report.
- Above table, the Power is not consider Upper tolerance target (1.0dB). When testing SAR, we scaled up to target power + upper tolerance target (1.0dB) for Reported SAR.

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

**WLAN output power-dBm (PLimit of DSI 1-Head)**

c. PLimit – Head (DSI = 1)

Mode	Band	SISO(ANT 1 / ANT 2)						MIMO						
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)	
2.4GHz	2.45GHz		14	14	14	14	14		Ant1+2		Ant1+2	Ant1+2	Ant1+2	Ant1+2
5GHZ (20MHz)	UNII 1	13			13	13	13	Ant1+2			Ant1+2	Ant1+2	Ant1+2	
	UNII 2A	13			13	13	13	Ant1+2			Ant1+2	Ant1+2	Ant1+2	
	UNII 2C	13			13	13	13	Ant1+2			Ant1+2	Ant1+2	Ant1+2	
	UNII 3	13			13	13	13	Ant1+2			Ant1+2	Ant1+2	Ant1+2	
	UNII 4	13			13	13	13	Ant1+2			Ant1+2	Ant1+2	Ant1+2	
5GHZ (40MHz)	UNII 1				13	13	13				Ant1+2	Ant1+2	Ant1+2	
	UNII 2A				13	13	13				Ant1+2	Ant1+2	Ant1+2	
	UNII 2C				13	13	13				Ant1+2	Ant1+2	Ant1+2	
	UNII 3				13	13	13				Ant1+2	Ant1+2	Ant1+2	
	UNII 4				13	13	13				Ant1+2	Ant1+2	Ant1+2	
5GHZ (80MHz)	UNII 1					13	13					Ant1+2	Ant1+2	
	UNII 2A					13	13					Ant1+2	Ant1+2	
	UNII 2C					13	13					Ant1+2	Ant1+2	
	UNII 3					13	13					Ant1+2	Ant1+2	
	UNII 4					13	13					Ant1+2	Ant1+2	
5GHZ (160MHz)	UNII 1&2A					13	13					Ant1+2	Ant1+2	
	UNII 2C					13	13					Ant1+2	Ant1+2	
	UNII 3&4					13	13					Ant1+2	Ant1+2	
6GHz_LPI (20MHz)	U-NII-5	9					9	Ant1+2					Ant1+2	
	U-NII-6	9					9	Ant1+2					Ant1+2	
	U-NII-7	9					9	Ant1+2					Ant1+2	
	U-NII-8	9					9	Ant1+2					Ant1+2	
6GHz_LPI (40MHz)	U-NII-5						9						Ant1+2	
	U-NII-6						9						Ant1+2	
	U-NII-7						9						Ant1+2	

(Upper tolerance target +1.0dB)

**RSDB\_DTS 2.4GHz output power-dBm (Pmax, DSI=0, 1)**

d. DBS -Pmax, Plimit DSI=1(Head), Plimit DSI=0(Body)

Mode	Band	SISO(ANT 1 / ANT 2)						MIMO					
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		10	10	10	10	10		Ant1+2	Ant1+2	Ant1+2	Ant1+2	Ant1+2

(Upper tolerance target +1.0dB)

**Notes:**

1. WLAN has support SISO & MIMO mode.
2. WLAN has support RSDB scenarios. detail of RSDB scenarios refer to section.12 in report.
3. Above table, the Power is not consider Upper tolerance target (1.0dB). When testing SAR, we scaled up to target power + upper tolerance target (1.0dB) for Reported SAR.
4. DTS 2.4GHz Band operate specific target power during RSDB scenarios in Pmax and DSI=0,1.

**Bluetooth & Bluetooth LE maximum output power (Pmax, Plimit (DSI=0, 1))**

## a. Maximum (= Pmax)

MODE	DATA RATE	SISO		Dual(iPA)		
		ANT1	ANT2	ANT1	ANT2	ANT1+2
BDR(in dBm)	1Mbps	19	17	13.5	13.0	16.5
EDR(in dBm)	2Mbps	16	13	10.5	8	12.5
	3Mbps	16	13	10.5	8	12.5
LE	1M	20	17	13	13	16
	2M	20	17	13	13	16
	125K	10	9	n/a	n/a	n/a
	500k	10	9	n/a	n/a	n/a

## b. Body (DSI=0)

(MODE	DATA RATE	SISO		Dual(iPA)		
		ANT1	ANT2	ANT1	ANT2	ANT1+2
BDR(in dBm)	1Mbps	19	17	13.5	13.0	16.5
EDR(in dBm)	2Mbps	16	13	10.5	8	12.5
	3Mbps	16	13	10.5	8	12.5
LE	1M	20	17	13	13	16
	2M	20	17	13	13	16
	125K	10	9	n/a	n/a	n/a
	500k	10	9	n/a	n/a	n/a

## c. Receiver Active (DSI=1)

(MODE	DATA RATE	SISO		Dual(iPA)		
		ANT1	ANT2	ANT1	ANT2	ANT1+2
BDR(in dBm)	1Mbps	16	13	13.5	13.0	16.5
EDR(in dBm)	2Mbps	16	13	10.5	8	12.5
	3Mbps	16	13	10.5	8	12.5
LE	1M	16	13	13	13	16
	2M	16	13	13	13	16
	125K	10	9	n/a	n/a	n/a
	500k	10	9	n/a	n/a	n/a

(Upper tolerance target +1.0dB)

**Notes:**

- BT has support SISO & MIMO(Dual) mode.
- Above table, the Power is not consider Upper tolerance target (1.0dB). When testing SAR, we scaled up to target power + upper tolerance target (1.0dB) for Reported SAR.

## 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	Technologies Supported	DSI conditions	Description
Head	WWAN/WLAN/BT bands	DSI = 1 (Head)	1. Device positioned next to head. 2. Receiver Active.
Body-worn	WWAN/WLAN/BT bands	DSI = 0 (Body)	1. Device being used with a body-worn accessory.
Hotspot	WWAN/WLAN/BT bands		1. Device transmits in hotspot mode near body. 2. Hotspot Mode Active.
Product Specific 10-g	WWAN/WLAN/BT bands		1. Device is held with hand.

### Note(s):

1. DSI Scenarios priority : DSI=1 → DSI=0.

### 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 7	Frequency range: 2500 - 2570 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20850/ 2510	20825/ 2507.5	20800/ 2505	20775/ 2502.5		
	Mid	21100/ 2535	21100/ 2535	21100/ 2535	21100/ 2535		
	High	21350/ 2560	21375/ 2562.5	21400/ 2565	21425/ 2567.5		
	Band 12	Frequency range: 699 - 716 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low			23060/ 704	23035/ 701.5	23025/ 700.5	23017/ 699.7	
Mid			23095/ 707.5	23095/ 707.5	23095/ 707.5	23095/ 707.5	
High			23130/ 711	23155/ 713.5	23165/ 714.5	23173/ 715.3	
Band 13	Frequency range: 777 - 787 MHz						
	Channel Bandwidth						
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	
Low				23205/ 779.5			
Mid			23230/ 782	23230/ 782			
High				23255/ 784.5			
Band 14	Frequency range: 788 - 798 MHz						
	Channel Bandwidth						
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	
Low				23305/ 790.5			
Mid			23330/ 793	23330/ 793			
High				23355/ 795.5			
Band 25	Frequency range: 1850 - 1915 MHz						
	Channel Bandwidth						
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	
Low	26140/ 1860	26115/ 1857.5	26090/ 1855	26065/ 1852.5	26055/ 1851.5	26047/ 1850.7	
Mid	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	
High	26590/ 1905	26615/ 1907.5	26640/ 1910	26665/ 1912.5	26675/ 1913.5	26683/ 1914.3	
Band 26	Frequency range: 814 - 849 MHz						
	Channel Bandwidth						
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	
Low		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	

**General LTE SAR Test and Reporting Considerations (Continued)**

Item	Description																																																																																																																																																																																																																																																																																																																																										
Frequency range, Channel Bandwidth, Numbers and Frequencies	<table border="1"> <tr> <td rowspan="2">Band 30</td> <td colspan="6">Frequency range: 2305 - 2315 MHz</td> </tr> <tr> <td colspan="6">Channel Bandwidth</td> </tr> <tr> <td></td> <td>20 MHz</td> <td>15 MHz</td> <td>10 MHz</td> <td>5 MHz</td> <td>3 MHz</td> <td>1.4 MHz</td> </tr> <tr> <td>Low</td> <td></td> <td></td> <td></td> <td>27685/ 2307.5</td> <td></td> <td></td> </tr> <tr> <td>Mid</td> <td></td> <td></td> <td>27710/ 2310</td> <td>27710/ 2310</td> <td></td> <td></td> </tr> <tr> <td>High</td> <td></td> <td></td> <td></td> <td>27735/ 2312.5</td> <td></td> <td></td> </tr> <tr> <td rowspan="2">Band 38</td> <td colspan="6">Frequency range: 2570 - 2620 MHz</td> </tr> <tr> <td colspan="6">Channel Bandwidth</td> </tr> <tr> <td></td> <td>20 MHz</td> <td>15 MHz</td> <td>10 MHz</td> <td>5 MHz</td> <td>3 MHz</td> <td>1.4 MHz</td> </tr> <tr> <td>Low</td> <td>37850/ 2580</td> <td>37825/ 2577.5</td> <td>37800/ 2575</td> <td>37775/ 2572.5</td> <td></td> <td></td> </tr> <tr> <td>Mid</td> <td>38000/ 2595</td> <td>38000/ 2595</td> <td>38000/ 2595</td> <td>38000/ 2595</td> <td></td> <td></td> </tr> <tr> <td>High</td> <td>38150/ 2610</td> <td>38175/ 2612.5</td> <td>38200/ 2615</td> <td>38225/ 2617.5</td> <td></td> <td></td> </tr> <tr> <td rowspan="7">Band 41</td> <td colspan="6">Frequency range: 2496 - 2690 MHz</td> </tr> <tr> <td colspan="6">Channel Bandwidth</td> </tr> <tr> <td></td> <td>20 MHz</td> <td>15 MHz</td> <td>10 MHz</td> <td>5 MHz</td> <td>3 MHz</td> <td>1.4 MHz</td> </tr> <tr> <td>Low</td> <td colspan="5">39750 / 2506.0</td> <td></td> </tr> <tr> <td>Low-Mid</td> <td colspan="5">40185 / 2549.5</td> <td></td> </tr> <tr> <td>Mid</td> <td colspan="5">40620 / 2593.0</td> <td></td> </tr> <tr> <td>Mid-High</td> <td colspan="5">41055 / 2636.5</td> <td></td> </tr> <tr> <td>High</td> <td colspan="5">41490 / 2680.0</td> <td></td> </tr> <tr> <td rowspan="4">Band 48</td> <td colspan="6">Frequency range: 3550 - 3700 MHz</td> </tr> <tr> <td colspan="6">Channel Bandwidth</td> </tr> <tr> <td></td> <td>20 MHz</td> <td>15 MHz</td> <td>10 MHz</td> <td>5 MHz</td> <td>3 MHz</td> <td>1.4 MHz</td> </tr> <tr> <td>Low</td> <td>55340/ 3560</td> <td>55315/ 3557.5</td> <td>55290/ 3555</td> <td>55265/ 3552.5</td> <td></td> <td></td> </tr> <tr> <td>Mid</td> <td>55990/ 3625</td> <td>55990/ 3625</td> <td>55990/ 3625</td> <td>55990/ 3625</td> <td></td> <td></td> </tr> <tr> <td>High</td> <td>56640/ 3690</td> <td>56665/ 3692.5</td> <td>56690/ 3695</td> <td>56715/ 3697.5</td> <td></td> <td></td> </tr> <tr> <td rowspan="4">Band 66</td> <td colspan="6">Frequency range: 1710 - 1780 MHz</td> </tr> <tr> <td colspan="6">Channel Bandwidth</td> </tr> <tr> <td></td> <td>20 MHz</td> <td>15 MHz</td> <td>10 MHz</td> <td>5 MHz</td> <td>3 MHz</td> <td>1.4 MHz</td> </tr> <tr> <td>Low</td> <td>132072/ 1720</td> <td>132047/ 1717.5</td> <td>132022/ 1715</td> <td>131997/ 1712.5</td> <td>131987/ 1711.5</td> <td>131979/ 1710.7</td> </tr> <tr> <td>Mid</td> <td>132322/ 1745</td> <td>132322/ 1745</td> <td>132322/ 1745</td> <td>132322/ 1745</td> <td>132322/ 1745</td> <td>132322/ 1745</td> </tr> <tr> <td>High</td> <td>132572/ 1770</td> <td>132597/ 1772.5</td> <td>132622/ 1775</td> <td>132647/ 1777.5</td> <td>132657/ 1778.5</td> <td>132665/ 1779.3</td> </tr> <tr> <td rowspan="4">Band 71</td> <td colspan="6">Frequency range: 663 - 698 MHz</td> </tr> <tr> <td colspan="6">Channel Bandwidth</td> </tr> <tr> <td></td> <td>20 MHz</td> <td>15 MHz</td> <td>10 MHz</td> <td>5 MHz</td> <td>3 MHz</td> <td>1.4 MHz</td> </tr> <tr> <td>Low</td> <td>133222/ 673</td> <td>133197/ 670.5</td> <td>133172/ 668</td> <td>133147/ 665.5</td> <td></td> <td></td> </tr> <tr> <td>Mid</td> <td>133297/ 680.5</td> <td>133297/ 680.5</td> <td>133297/ 680.5</td> <td>133297/ 680.5</td> <td></td> <td></td> </tr> <tr> <td>High</td> <td>133372/ 688</td> <td>133397/ 690.5</td> <td>133422/ 693</td> <td>133447/ 695.5</td> <td></td> <td></td> </tr> <tr> <td>LTE transmitter and antenna implementation</td> <td>Refer to Appendix A.</td> </tr> <tr> <td>Maximum power reduction (MPR)</td> <td> <p><b>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (N<sub>RB</sub>)</th> <th rowspan="2">MPR (dB)</th> </tr> <tr> <th>1.4 MHz</th> <th>3.0 MHz</th> <th>5 MHz</th> <th>10 MHz</th> <th>15 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>&gt; 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A-MPR (additional MPR) was disabled during SAR testing</p> </td> </tr> <tr> <td>Power reduction</td> <td>Yes.</td> </tr> <tr> <td>Spectrum plots for RB configurations</td> <td>A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.</td> </tr> </table>	Band 30	Frequency range: 2305 - 2315 MHz						Channel Bandwidth							20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	Low				27685/ 2307.5			Mid			27710/ 2310	27710/ 2310			High				27735/ 2312.5			Band 38	Frequency range: 2570 - 2620 MHz						Channel Bandwidth							20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	Low	37850/ 2580	37825/ 2577.5	37800/ 2575	37775/ 2572.5			Mid	38000/ 2595	38000/ 2595	38000/ 2595	38000/ 2595			High	38150/ 2610	38175/ 2612.5	38200/ 2615	38225/ 2617.5			Band 41	Frequency range: 2496 - 2690 MHz						Channel Bandwidth							20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	Low	39750 / 2506.0						Low-Mid	40185 / 2549.5						Mid	40620 / 2593.0						Mid-High	41055 / 2636.5						High	41490 / 2680.0						Band 48	Frequency range: 3550 - 3700 MHz						Channel Bandwidth							20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	Low	55340/ 3560	55315/ 3557.5	55290/ 3555	55265/ 3552.5			Mid	55990/ 3625	55990/ 3625	55990/ 3625	55990/ 3625			High	56640/ 3690	56665/ 3692.5	56690/ 3695	56715/ 3697.5			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	Band 71	Frequency range: 663 - 698 MHz						Channel Bandwidth							20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz	Low	133222/ 673	133197/ 670.5	133172/ 668	133147/ 665.5			Mid	133297/ 680.5	133297/ 680.5	133297/ 680.5	133297/ 680.5			High	133372/ 688	133397/ 690.5	133422/ 693	133447/ 695.5			LTE transmitter and antenna implementation	Refer to Appendix A.	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A-MPR (additional MPR) was disabled during SAR testing</p>	Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						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	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.
	Band 30		Frequency range: 2305 - 2315 MHz																																																																																																																																																																																																																																																																																																																																								
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	Mid			27710/ 2310	27710/ 2310																																																																																																																																																																																																																																																																																																																																						
	High				27735/ 2312.5																																																																																																																																																																																																																																																																																																																																						
	Band 38	Frequency range: 2570 - 2620 MHz																																																																																																																																																																																																																																																																																																																																									
		Channel Bandwidth																																																																																																																																																																																																																																																																																																																																									
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz																																																																																																																																																																																																																																																																																																																																				
	Low	37850/ 2580	37825/ 2577.5	37800/ 2575	37775/ 2572.5																																																																																																																																																																																																																																																																																																																																						
	Mid	38000/ 2595	38000/ 2595	38000/ 2595	38000/ 2595																																																																																																																																																																																																																																																																																																																																						
	High	38150/ 2610	38175/ 2612.5	38200/ 2615	38225/ 2617.5																																																																																																																																																																																																																																																																																																																																						
	Band 41	Frequency range: 2496 - 2690 MHz																																																																																																																																																																																																																																																																																																																																									
		Channel Bandwidth																																																																																																																																																																																																																																																																																																																																									
			20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz																																																																																																																																																																																																																																																																																																																																			
		Low	39750 / 2506.0																																																																																																																																																																																																																																																																																																																																								
		Low-Mid	40185 / 2549.5																																																																																																																																																																																																																																																																																																																																								
		Mid	40620 / 2593.0																																																																																																																																																																																																																																																																																																																																								
		Mid-High	41055 / 2636.5																																																																																																																																																																																																																																																																																																																																								
	High	41490 / 2680.0																																																																																																																																																																																																																																																																																																																																									
	Band 48	Frequency range: 3550 - 3700 MHz																																																																																																																																																																																																																																																																																																																																									
		Channel Bandwidth																																																																																																																																																																																																																																																																																																																																									
			20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz																																																																																																																																																																																																																																																																																																																																			
		Low	55340/ 3560	55315/ 3557.5	55290/ 3555	55265/ 3552.5																																																																																																																																																																																																																																																																																																																																					
	Mid	55990/ 3625	55990/ 3625	55990/ 3625	55990/ 3625																																																																																																																																																																																																																																																																																																																																						
	High	56640/ 3690	56665/ 3692.5	56690/ 3695	56715/ 3697.5																																																																																																																																																																																																																																																																																																																																						
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																																																																																																																																																																																																																																																																																																																																					
Band 71	Frequency range: 663 - 698 MHz																																																																																																																																																																																																																																																																																																																																										
	Channel Bandwidth																																																																																																																																																																																																																																																																																																																																										
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz																																																																																																																																																																																																																																																																																																																																				
	Low	133222/ 673	133197/ 670.5	133172/ 668	133147/ 665.5																																																																																																																																																																																																																																																																																																																																						
Mid	133297/ 680.5	133297/ 680.5	133297/ 680.5	133297/ 680.5																																																																																																																																																																																																																																																																																																																																							
High	133372/ 688	133397/ 690.5	133422/ 693	133447/ 695.5																																																																																																																																																																																																																																																																																																																																							
LTE transmitter and antenna implementation	Refer to Appendix A.																																																																																																																																																																																																																																																																																																																																										
Maximum power reduction (MPR)	<p><b>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (N<sub>RB</sub>)</th> <th rowspan="2">MPR (dB)</th> </tr> <tr> <th>1.4 MHz</th> <th>3.0 MHz</th> <th>5 MHz</th> <th>10 MHz</th> <th>15 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 3</td> </tr> <tr> <td>256 QAM</td> <td></td> <td></td> <td></td> <td>≥ 1</td> <td></td> <td></td> <td>≤ 5</td> </tr> </tbody> </table> <p>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</p>	Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						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																																																																																																																																																																																																																																																																												
Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						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																																																																																																																																																																																																																																																																																																																																				
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64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																																																																																																																																																																																																																																																																																																				
256 QAM				≥ 1			≤ 5																																																																																																																																																																																																																																																																																																																																				
Power reduction	Yes.																																																																																																																																																																																																																																																																																																																																										
Spectrum plots for RB configurations	A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																																																																																																																																																																																																																																																																																																										

**Notes:**

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

## 6.7. 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	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
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  $\times (T_s) \times \#$  of S +  $\#$  of U

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

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

where

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

### Note(s):

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

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

Item	Description														
Frequency range, Channel Bandwidth, Numbers and Frequencies	Frequency range: 1850 - 1910 MHz														
	Channel Bandwidth														
	Band n2	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz
	Low							374000/1870	373500/1867.5	373000/1865	372500/1862.5	372000/1860	371500/1857.5	371000/1855	370500/1852.5
	Mid							376000/1880	376000/1880	376000/1880	376000/1880	376000/1880	376000/1880	376000/1880	376000/1880
	High							378000/1890	378500/1892.5	379000/1895	379500/1897.5	380000/1900	380500/1902.5	381000/1905	381500/1907.5
	Frequency range: 824 - 849 MHz														
	Channel Bandwidth														
	Band n5	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz
	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	
Frequency range: 2510 - 2560 MHz															
Channel Bandwidth															
Band n7	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low							50400/2520	503500/2517.5	50300/2515	502500/2512.5	502000/2510	501500/2507.5	501000/2505	500500/2502.5	
Mid							2535/507000	2535/507000	2535/507000	2535/507000	2535/507000	2535/507000	2535/507000	2535/507000	
High							510000/2550	510500/2552.5	511000/2555	511500/2557.5	512000/2560	512500/2562.5	513000/2565	513500/2567.5	
Frequency range: 699 - 716 MHz															
Channel Bandwidth															
Band n12	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low												141300/706.5	140800/704	140300/701.5	
Mid												141500/707.5	141500/707.5	141500/707.5	
High												141700/708.5	142200/711	142700/713.5	
Frequency range: 1850 - 1915 MHz															
Channel Bandwidth															
Band n25	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low							37400/1870	373500/1867.5	373000/1865	372500/1862.5	372000/1860	371500/1857.5	371000/1855	370500/1852.5	
Mid							376500/1882.5	376500/1882.5	376500/1882.5	376500/1882.5	376500/1882.5	376500/1882.5	376500/1882.5	376500/1882.5	
High							379000/1895	379500/1897.5	380000/1900	380500/1902.5	381000/1905	381500/1907.5	382000/1910	382500/1912.5	
Frequency range: 814 - 849 MHz															
Channel Bandwidth															
Band n26	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low											164800/824	164300/821.5	163800/819	163300/816.5	
Mid											166300/831.5	166300/831.5	166300/831.5	166300/831.5	
High											167800/839	168300/841.5	168800/844	169300/846.5	
Frequency range: 2305 - 2315 MHz															
Channel Bandwidth															
Band n30	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low														461500/2307.5	
Mid														462000/2310	462000/2310
High														462500/2312.5	
Frequency range: 2570 - 2620 MHz															
Channel Bandwidth															
Band n38	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low							518000/2590		517000/2585	516500/2582.5	516000/2580	515500/2577.5	515000/2575		
Mid							519000/2595		519000/2595	519000/2595	519000/2595	519000/2595	519000/2595		
High							520000/2600		521000/2605	521500/2607.5	522000/2610	522500/2612.5	523000/2615		



**NR (Sub 6GHz) SAR Test and Reporting Considerations (Continued)**

Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n41	Frequency range: 2496 - 2690 MHz													
		Channel Bandwidth													
		100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz
Low	509202/ 2546.01	508200/ 2541	507204/ 2536.02	506202/ 2531.01	505200/ 2526	504204/ 2512.02	503202/ 2516.01		552200/ 2511	501696/ 2508.48	501204/ 2506.02	500700/ 2503.5	500202/ 2501.01		
	Low-Mid						516468/ 2567.34		510402/ 2552.01	510150/ 2550.75	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	518598/ 2592.99		
Mid-High	528000/ 2640	528996/ 2644.98	529998/ 2649.99	531000/ 2655	529998/ 2649.99	523734/ 2618.67	523734/ 2618.67		526800/ 2634	527046/ 2635.23	527298/ 2636.49	527550/ 2637.75	527802/ 2639.01		
High							534000/ 2670		534996/ 2674.98	535500/ 2677.5	535998/ 2679.99	536496/ 2682.48	537000/ 2685		
Band n48	Frequency range: 3550 - 3700 MHz														
	Channel Bandwidth														
	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low						638000/ 3570		637668/ 3565.02		637334/ 3560.01	637168/ 3557.52	637000/ 3555			
Low-Mid								640334/ 3605.01		640222/ 3603.33	640166/ 3602.49	640110/ 3601.65			
Mid						641666/ 3624.99									
Mid-High								643000/ 3645		643112/ 3646.68	643166/ 3647.49	643222/ 3648.33			
High						645332/ 3679.98		645666/ 3684.99		646000/ 3690	646166/ 3692.49	646332/ 3694.98			
Band n66	Frequency range: 1710 - 1780 MHz														
	Channel Bandwidth														
	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low						346000/ 1730	345500/ 1727.5	345000/ 1725	344500/ 1722.5	344000/ 1720	343500/ 1717.5	343000/ 1715	342500/ 1712.5		
Mid						349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745		
High						352000/ 1760	352500/ 1762.5	353000/ 1765	353500/ 1767.5	354000/ 1770	354500/ 1772.5	355000/ 1775	355500/ 1777.5		
Band n70	Frequency range: 1695 - 1710 MHz														
	Channel Bandwidth														
	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low													340000/ 1700		
Mid												340500/ 1702.5	340500/ 1702.5		
High													341000/ 1705		
Band n71	Frequency range: 663 - 698 MHz														
	Channel Bandwidth														
	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low										134600/ 673	134100/ 670.5	133600/ 668	133147/ 665.5		
Mid										136100/ 680.5	136100/ 680.5	136100/ 680.5	136100/ 680.5		
High										137600/ 688	138100/ 690.5	138600/ 693	133447/ 695.5		
Band n77 -DoD-	Frequency range: 3450 - 3550 MHz														
	Channel Bandwidth														
	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low						631668/ 3475.02	631334/ 3470.01		631000/ 3465	630866/ 3462.99	630668/ 3460.02	630500/ 3457.5	630334/ 3455.01		
Mid	633334/ /3500.01	633334/ /3500.01	633334/ /3500.01	633334/ /3500.01	633334/ /3500.01				633334/ /3500.01	633334/ /3500.01	633334/ /3500.01	633334/ /3500.01	633334/ /3500.01		
High						635000/ 3525	635332/ 3529.98		635666/ 3534.99	635800/ 3537	636000/ 3540	636166/ 3542.49	636332/ 3544.98		
Band n77	Frequency range: 3700 - 3980 MHz														
	Channel Bandwidth														
	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
Low	650000/ /3750	649668/ /3745.02	649334/ /3740.01	649000/ 3735	648668/ /3730.02	648334/ /3725.01	648000/ /3720		647668/ 3715.02	647500/ 3712.5	647334/ /3710.01	647168/ 3707.52	647000/ 3705		
Low-Mid				653666/ 3804.99	653556/ /3803.34	652166/ /3782.49	651200/ /3768		651000/ 3765	650900/ 3763.5	650800/ /3762	650700/ 3760.5	650600/ 3759		
Mid-A		656000/ /3840	656000/ /3840				654400/ /3816		654334/ 3815.01	654300/ 3814.5	654266/ /3813.99	654234/ 3813.51	654200/ 3813		
Mid-B						656000/ /3840		657600/ /3864		657666/ 3864.99	657700/ 3814.5	657734/ /3866.01	657766/ 3866.49	657800/ 3867	
Mid-High	662000/ /3930	662332/ /3934.98	662666/ /3939.99	658334/ 3875.01	658444/ /3876.66	659834/ /3897.51	660800/ /3912		661000/ 3915	661100/ 3916.5	661200/ /3918	661300/ 3919.5	661400/ 3921		
High				663000/ 3945	663332/ /3949.98	663666/ /3954.99	664000/ /3960		664332/ 3964.98	664500/ 3967.5	664666/ /3969.99	664832/ 3972.48	665000/ 3975		

**NR (Sub 6GHz) SAR Test and Reporting Considerations (Continued)**

Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n78 -DoD-	Frequency range: 3450 - 3550 MHz													
		Channel Bandwidth													
		100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz
Low						631668/ 3475.02	631334/ 3470.01			631000/ 3465	630866/ 3462.99	630668/ 3460.02	630500/ 3457.5	630334/ 3455.01	
Mid	633334 /3500.01	633334 /3500.01	633334 /3500.01	633334 /3500.01	633334 /3500.01					633334 /3500.01	633334 /3500.01	633334 /3500.01	633334 /3500.01	633334 /3500.01	
High						635000/ 3525	635332/ 3529.98			635666/ 3534.99	635800/ 3537	636000/ 3540	636166/ 3542.49	636332/ 3544.98	
	Band n78	Frequency range: 3700 - 3800 MHz													
		Channel Bandwidth													
		100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	35 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz
Low						648334/ 3725.01	647800/ 3720			647666/ 3715	647500/ 3712.5	647334/ 3710.01	647166/ 3707.5	647000/ 3705	
Mid	650000/ 3750	650000/ 3750	650000/ 3750	650000/ 3750	650000/ 3750					650000/ 3750	650000/ 3750	650000/ 3750	650000/ 3750	650000/ 3750	
High						651666/ 3774.99	652000/ 3780			652332/ 3784.98	652500/ 3787.5	652666/ 3789.99	652832/ 3792.48	653000/ 3795	
SCS	NR FDD Bands : 15 kHz, NR TDD Bands : 30kHz														
Modulations Supported in UL	DFT-s-OFDM: $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM & CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM														
A-MPR (Additional MPR) disabled for SAR Testing?	Yes														
EN-DC Carrier Aggregation Possible Combinations															
LTE Anchor Bands for NR Band n2	LTE Band 5/12/13/14/30/48/66														
LTE Anchor Bands for NR Band n5	LTE Band 2/30/48/66														
LTE Anchor Bands for NR Band n7	N/A														
LTE Anchor Bands for NR Band n12	LTE Band 2/48/66														
LTE Anchor Bands for NR Band n25	LTE Band 12/66														
LTE Anchor Bands for NR Band n26	N/A														
LTE Anchor Bands for NR Band n30	LTE Band 2/5														
LTE Anchor Bands for NR Band n38	N/A														
LTE Anchor Bands for NR Band n41	LTE Band 2/66														
LTE Anchor Bands for NR Band n48	N/A														
LTE Anchor Bands for NR Band n66	LTE Band 2/5/12/13/14/30/48														
LTE Anchor Bands for NR Band n70	N/A														
LTE Anchor Bands for NR Band n71	LTE Band 2/48/66														
LTE Anchor Bands for NR Band n77	LTE Band 2/5/12/13/14/30/66/71														
LTE Anchor Bands for NR Band n78	N/A.														

**Notes:**

- SAR test for NR bands and LTE anchor Bands were performed separately due to limitations in SAR probe calibration factors. And, Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
- NR configurations of SAR test were determined according to Section 5.2 of KDB 941225 D05.

## 6.9. Dynamic Antenna tuner testing

This Device applies Qualcomm chipset solution's Dynamic Antenna tuning technology to some 3G /4G /5G sub6 bands. (WCDMA B2/4/5 / LTE B71/12/13/14/5/26/4/66/2/25 NR Band n71/n12/n5/n26/n66/n70/n2/n25) 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 8 tuner states and also so that at least 2 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.

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 H "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	Antenna	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-worn & Hotspot	All Antennas	10 mm	Rear	N/A	Yes		
				Front	N/A	Yes		
	Hotspot	Ant.A	10 mm	Top	> 25 mm	No	1	
				Left	< 25 mm	Yes		
				Bottom	< 25 mm	Yes		
				Right	< 25 mm	Yes		
			Ant.E	10 mm	Top	< 25 mm	Yes	
					Left	< 25 mm	Yes	
					Bottom	> 25 mm	No	1
					Right	> 25 mm	No	1
			Ant.B	10 mm	Top	> 25 mm	No	1
					Left	> 25 mm	No	1
					Bottom	< 25 mm	Yes	
					Right	< 25 mm	Yes	
		Ant.F	10 mm	Top	< 25 mm	Yes		
				Left	> 25 mm	No	1	
				Bottom	> 25 mm	No	1	
				Right	< 25 mm	Yes		
		Ant.D	10 mm	Top	> 25 mm	No	1	
				Left	< 25 mm	Yes		
				Bottom	< 25 mm	Yes		
				Right	> 25 mm	No	1	
		Ant.C	10 mm	Top	> 25 mm	No	1	
				Left	> 25 mm	No	1	
				Bottom	< 25 mm	Yes		
				Right	< 25 mm	Yes		
		Ant.I	10 mm	Top	> 25 mm	No	1	
				Left	> 25 mm	No	1	
Bottom				> 25 mm	No	1		
Right				< 25 mm	Yes			
Product Specific 10-g	All Main Antennas	0 mm	Rear	Refer to notes 2 & 3				
			Front					
			Top					
			Left					
			Bottom					
			Right					

**Notes:**

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

**WLAN/BT Bands**

Wireless technologies	RF Exposure Conditions	Antenaa	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WLAN/BT	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-worn	All Antennas	10 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
	Hotspot	Ant.H	10mm	Top	< 25 mm	Yes	
				Left	> 25 mm	No	1
				Bottom	> 25 mm	No	1
				Right	< 25 mm	Yes	
	Hotspot	Ant.J	10mm	Top	< 25 mm	Yes	
				Left	< 25 mm	Yes	
				Bottom	> 25 mm	No	1
				Right	> 25 mm	No	1
	Hotspot	Ant.E	10mm	Top	< 25 mm	Yes	
				Left	< 25 mm	Yes	
				Bottom	> 25 mm	No	1
				Right	< 25 mm	No	1
	Product Specific 10-g	All Main Antennas	0 mm	Rear	Refer to notes 2 & 4		
				Front			
Top							
Left							
Bottom							
Right							

**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	
				Top	< 25 mm	Yes	
				Left	> 25 mm	No	1
				Bottom	> 25 mm	No	1
				Right	< 25 mm	Yes	

**Notes:**

- SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
- For Phablet devices: When hotspot mode applies, Product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
- For Phablet devices: When hotspot mode applies and power reduction applies to hotspot mode, Product specific 10-g SAR is required for each test position that has and adjusted SAR to maximum power that is > 1.2 W/kg.
- For Phablet devices: When hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
- 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  $\pm 2^\circ\text{C}$  of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The 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	
	$\epsilon_r$	$\sigma$ (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	
	$\epsilon_r$	$\sigma$ (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 2 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-18-2023	Head 5250	e'	36.5000	Relative Permittivity (ε <sub>r</sub> ):	37.13	35.93	3.33	5
		e''	15.5500	Conductivity (σ):	4.54	4.70	-3.55	5
	Head 5260	e'	36.4800	Relative Permittivity (ε <sub>r</sub> ):	37.11	35.92	3.31	5
		e''	15.5600	Conductivity (σ):	4.55	4.71	-3.53	5
	Head 5600	e'	35.8900	Relative Permittivity (ε <sub>r</sub> ):	36.55	35.53	2.86	5
		e''	15.8000	Conductivity (σ):	4.93	5.06	-2.65	5
	Head 5800	e'	35.5500	Relative Permittivity (ε <sub>r</sub> ):	36.21	35.30	2.58	5
		e''	15.9500	Conductivity (σ):	5.16	5.27	-2.18	5
	Head 5925	e'	35.3600	Relative Permittivity (ε <sub>r</sub> ):	36.01	35.20	2.30	5
		e''	16.0300	Conductivity (σ):	5.30	5.40	-1.91	5
10-22-2023	Head 2600	e'	39.1300	Relative Permittivity (ε <sub>r</sub> ):	39.13	39.01	0.31	5
		e''	13.2100	Conductivity (σ):	1.91	1.96	-2.67	5
	Head 2495	e'	39.3500	Relative Permittivity (ε <sub>r</sub> ):	39.35	39.14	0.53	5
		e''	13.0500	Conductivity (σ):	1.81	1.85	-2.07	5
	Head 2700	e'	38.8900	Relative Permittivity (ε <sub>r</sub> ):	38.89	38.88	0.01	5
		e''	13.3700	Conductivity (σ):	2.01	2.07	-3.05	5
10-23-2023	Head 5250	e'	36.5000	Relative Permittivity (ε <sub>r</sub> ):	36.79	35.93	2.38	5
		e''	15.5500	Conductivity (σ):	4.75	4.70	0.98	5
	Head 5260	e'	36.4800	Relative Permittivity (ε <sub>r</sub> ):	36.77	35.92	2.36	5
		e''	15.5600	Conductivity (σ):	4.76	4.71	1.03	5
	Head 5600	e'	35.8900	Relative Permittivity (ε <sub>r</sub> ):	36.11	35.53	1.62	5
		e''	15.8000	Conductivity (σ):	5.18	5.06	2.41	5
	Head 5800	e'	35.5500	Relative Permittivity (ε <sub>r</sub> ):	35.74	35.30	1.25	5
		e''	15.9500	Conductivity (σ):	5.44	5.27	3.17	5
	Head 5925	e'	35.3600	Relative Permittivity (ε <sub>r</sub> ):	35.49	35.20	0.82	5
		e''	16.0300	Conductivity (σ):	5.59	5.40	3.57	5
10-25-2023	Head 2450	e'	37.9800	Relative Permittivity (ε <sub>r</sub> ):	37.98	39.20	-3.11	5
		e''	12.6800	Conductivity (σ):	1.73	1.80	-4.04	5
	Head 2400	e'	38.0600	Relative Permittivity (ε <sub>r</sub> ):	38.06	39.30	-3.15	5
		e''	12.6900	Conductivity (σ):	1.69	1.75	-3.32	5
	Head 2500	e'	37.9000	Relative Permittivity (ε <sub>r</sub> ):	37.90	39.14	-3.16	5
		e''	12.6900	Conductivity (σ):	1.76	1.85	-4.86	5
11-3-2023	Head 2450	e'	37.6600	Relative Permittivity (ε <sub>r</sub> ):	37.66	39.20	-3.93	5
		e''	13.0000	Conductivity (σ):	1.77	1.80	-1.61	5
	Head 2400	e'	37.7400	Relative Permittivity (ε <sub>r</sub> ):	37.74	39.30	-3.96	5
		e''	12.9900	Conductivity (σ):	1.73	1.75	-1.04	5
	Head 2500	e'	37.5800	Relative Permittivity (ε <sub>r</sub> ):	37.58	39.14	-3.98	5
		e''	13.0100	Conductivity (σ):	1.81	1.85	-2.46	5

**SAR 3 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-23-2023	Head 3500	e'	38.9600	Relative Permittivity (ε <sub>r</sub> ):	38.96	37.93	2.72	5
		e''	14.6200	Conductivity (σ):	2.85	2.91	-2.28	5
	Head 3600	e'	38.7300	Relative Permittivity (ε <sub>r</sub> ):	38.73	37.82	2.42	5
		e''	14.7400	Conductivity (σ):	2.95	3.01	-2.10	5
	Head 3700	e'	38.5100	Relative Permittivity (ε <sub>r</sub> ):	38.51	37.70	2.14	5
		e''	14.8600	Conductivity (σ):	3.06	3.12	-1.89	5
	Head 3800	e'	38.3100	Relative Permittivity (ε <sub>r</sub> ):	38.31	37.59	1.92	5
		e''	14.9800	Conductivity (σ):	3.17	3.22	-1.66	5
	Head 3900	e'	38.1100	Relative Permittivity (ε <sub>r</sub> ):	38.11	37.47	1.70	5
		e''	15.1100	Conductivity (σ):	3.28	3.32	-1.33	5
	Head 3980	e'	37.9400	Relative Permittivity (ε <sub>r</sub> ):	37.94	37.38	1.49	5
		e''	15.2100	Conductivity (σ):	3.37	3.40	-1.08	5
10-30-2023	Head 3500	e'	38.4200	Relative Permittivity (ε <sub>r</sub> ):	38.42	37.93	1.29	5
		e''	14.7600	Conductivity (σ):	2.87	2.91	-1.34	5
	Head 3600	e'	38.1700	Relative Permittivity (ε <sub>r</sub> ):	38.17	37.82	0.94	5
		e''	14.8900	Conductivity (σ):	2.98	3.01	-1.11	5
	Head 3700	e'	37.9300	Relative Permittivity (ε <sub>r</sub> ):	37.93	37.70	0.61	5
		e''	15.0300	Conductivity (σ):	3.09	3.12	-0.77	5
	Head 3800	e'	37.6900	Relative Permittivity (ε <sub>r</sub> ):	37.69	37.59	0.27	5
		e''	15.1700	Conductivity (σ):	3.21	3.22	-0.41	5
	Head 3900	e'	37.4600	Relative Permittivity (ε <sub>r</sub> ):	37.46	37.47	-0.04	5
		e''	15.3000	Conductivity (σ):	3.32	3.32	-0.09	5
	Head 3980	e'	37.3000	Relative Permittivity (ε <sub>r</sub> ):	37.30	37.38	-0.22	5
		e''	15.4400	Conductivity (σ):	3.42	3.40	0.42	5

**SAR 4 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9-1-2023	Head 1900	e'	39.0400	Relative Permittivity ( $\epsilon_r$ ):	39.04	40.00	-2.40	5
		e"	13.2000	Conductivity ( $\sigma$ ):	1.39	1.40	-0.39	5
	Head 1850	e'	39.1000	Relative Permittivity ( $\epsilon_r$ ):	39.10	40.00	-2.25	5
		e"	13.3500	Conductivity ( $\sigma$ ):	1.37	1.40	-1.91	5
	Head 1915	e'	39.0300	Relative Permittivity ( $\epsilon_r$ ):	39.03	40.00	-2.43	5
		e"	13.1800	Conductivity ( $\sigma$ ):	1.40	1.40	0.24	5
9-5-2023	Head 1750	e'	39.9800	Relative Permittivity ( $\epsilon_r$ ):	39.98	40.08	-0.26	5
		e"	13.7500	Conductivity ( $\sigma$ ):	1.34	1.37	-2.27	5
	Head 1695	e'	40.0600	Relative Permittivity ( $\epsilon_r$ ):	40.06	40.17	-0.27	5
		e"	13.8600	Conductivity ( $\sigma$ ):	1.31	1.34	-2.37	5
	Head 1780	e'	39.8900	Relative Permittivity ( $\epsilon_r$ ):	39.89	40.04	-0.37	5
		e"	13.6500	Conductivity ( $\sigma$ ):	1.35	1.39	-2.52	5
9-5-2023	Head 1900	e'	39.7500	Relative Permittivity ( $\epsilon_r$ ):	39.75	40.00	-0.63	5
		e"	13.2700	Conductivity ( $\sigma$ ):	1.40	1.40	0.14	5
	Head 1850	e'	39.8000	Relative Permittivity ( $\epsilon_r$ ):	39.80	40.00	-0.50	5
		e"	13.4300	Conductivity ( $\sigma$ ):	1.38	1.40	-1.32	5
	Head 1915	e'	39.7500	Relative Permittivity ( $\epsilon_r$ ):	39.75	40.00	-0.63	5
		e"	13.2500	Conductivity ( $\sigma$ ):	1.41	1.40	0.78	5
9-11-2023	Head 1750	e'	39.6400	Relative Permittivity ( $\epsilon_r$ ):	39.64	40.08	-1.11	5
		e"	13.6600	Conductivity ( $\sigma$ ):	1.33	1.37	-2.91	5
	Head 1695	e'	39.7700	Relative Permittivity ( $\epsilon_r$ ):	39.77	40.17	-0.99	5
		e"	13.8300	Conductivity ( $\sigma$ ):	1.30	1.34	-2.58	5
	Head 1780	e'	39.5600	Relative Permittivity ( $\epsilon_r$ ):	39.56	40.04	-1.20	5
		e"	13.5400	Conductivity ( $\sigma$ ):	1.34	1.39	-3.30	5
9-11-2023	Head 1900	e'	39.5500	Relative Permittivity ( $\epsilon_r$ ):	39.55	40.00	-1.13	5
		e"	13.2000	Conductivity ( $\sigma$ ):	1.39	1.40	-0.39	5
	Head 1850	e'	39.5500	Relative Permittivity ( $\epsilon_r$ ):	39.55	40.00	-1.13	5
		e"	13.2800	Conductivity ( $\sigma$ ):	1.37	1.40	-2.42	5
	Head 1915	e'	39.5400	Relative Permittivity ( $\epsilon_r$ ):	39.54	40.00	-1.15	5
		e"	13.1900	Conductivity ( $\sigma$ ):	1.40	1.40	0.32	5
9-14-2023	Head 2250	e'	38.7300	Relative Permittivity ( $\epsilon_r$ ):	38.73	39.56	-2.10	5
		e"	12.7200	Conductivity ( $\sigma$ ):	1.59	1.62	-1.75	5
	Head 2300	e'	38.6700	Relative Permittivity ( $\epsilon_r$ ):	38.67	39.47	-2.03	5
		e"	12.7200	Conductivity ( $\sigma$ ):	1.63	1.66	-2.22	5
	Head 2350	e'	38.6000	Relative Permittivity ( $\epsilon_r$ ):	38.60	39.38	-1.99	5
		e"	12.7600	Conductivity ( $\sigma$ ):	1.67	1.71	-2.36	5
9-18-2023	Head 2250	e'	39.4000	Relative Permittivity ( $\epsilon_r$ ):	39.40	39.56	-0.41	5
		e"	12.8000	Conductivity ( $\sigma$ ):	1.60	1.62	-1.14	5
	Head 2300	e'	39.3500	Relative Permittivity ( $\epsilon_r$ ):	39.35	39.47	-0.31	5
		e"	12.8400	Conductivity ( $\sigma$ ):	1.64	1.66	-1.30	5
	Head 2350	e'	39.2400	Relative Permittivity ( $\epsilon_r$ ):	39.24	39.38	-0.37	5
		e"	12.8400	Conductivity ( $\sigma$ ):	1.68	1.71	-1.75	5
9-20-2023	Head 1750	e'	40.5000	Relative Permittivity ( $\epsilon_r$ ):	40.50	40.08	1.04	5
		e"	13.6800	Conductivity ( $\sigma$ ):	1.33	1.37	-2.76	5
	Head 1695	e'	40.6600	Relative Permittivity ( $\epsilon_r$ ):	40.66	40.17	1.22	5
		e"	13.7600	Conductivity ( $\sigma$ ):	1.30	1.34	-3.07	5
	Head 1780	e'	40.4400	Relative Permittivity ( $\epsilon_r$ ):	40.44	40.04	1.00	5
		e"	13.6000	Conductivity ( $\sigma$ ):	1.35	1.39	-2.88	5
9-20-2023	Head 1900	e'	40.3100	Relative Permittivity ( $\epsilon_r$ ):	40.31	40.00	0.78	5
		e"	13.3700	Conductivity ( $\sigma$ ):	1.41	1.40	0.89	5
	Head 1850	e'	40.3400	Relative Permittivity ( $\epsilon_r$ ):	40.34	40.00	0.85	5
		e"	13.4300	Conductivity ( $\sigma$ ):	1.38	1.40	-1.32	5
	Head 1915	e'	40.2900	Relative Permittivity ( $\epsilon_r$ ):	40.29	40.00	0.72	5
		e"	13.3700	Conductivity ( $\sigma$ ):	1.42	1.40	1.69	5
9-25-2023	Head 2250	e'	38.9000	Relative Permittivity ( $\epsilon_r$ ):	38.90	39.56	-1.67	5
		e"	12.8900	Conductivity ( $\sigma$ ):	1.61	1.62	-0.44	5
	Head 2300	e'	38.8900	Relative Permittivity ( $\epsilon_r$ ):	38.89	39.47	-1.48	5
		e"	12.9000	Conductivity ( $\sigma$ ):	1.65	1.66	-0.84	5
	Head 2350	e'	38.7900	Relative Permittivity ( $\epsilon_r$ ):	38.79	39.38	-1.51	5
		e"	12.9300	Conductivity ( $\sigma$ ):	1.69	1.71	-1.06	5



**SAR 4 Room (Continued)**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-3-2023	Head 5200	e'	35.9100	Relative Permittivity ( $\epsilon_r$ ):	35.91	35.99	-0.22	5
		e"	15.6500	Conductivity ( $\sigma$ ):	4.52	4.65	-2.71	5
	Head 5250	e'	35.8100	Relative Permittivity ( $\epsilon_r$ ):	35.81	35.93	-0.34	5
		e"	15.7200	Conductivity ( $\sigma$ ):	4.59	4.70	-2.41	5
	Head 5600	e'	35.1900	Relative Permittivity ( $\epsilon_r$ ):	35.19	35.53	-0.97	5
		e"	16.0200	Conductivity ( $\sigma$ ):	4.99	5.06	-1.42	5
	Head 5750	e'	34.9800	Relative Permittivity ( $\epsilon_r$ ):	34.98	35.36	-1.08	5
		e"	16.1400	Conductivity ( $\sigma$ ):	5.16	5.21	-1.03	5
	Head 5800	e'	34.8300	Relative Permittivity ( $\epsilon_r$ ):	34.83	35.30	-1.33	5
		e"	16.1600	Conductivity ( $\sigma$ ):	5.21	5.27	-1.11	5
	Head 5925	e'	34.6200	Relative Permittivity ( $\epsilon_r$ ):	34.62	35.20	-1.65	5
		e"	16.2800	Conductivity ( $\sigma$ ):	5.36	5.40	-0.68	5
10-10-2023	Head 5200	e'	35.7200	Relative Permittivity ( $\epsilon_r$ ):	35.72	35.99	-0.75	5
		e"	15.9800	Conductivity ( $\sigma$ ):	4.62	4.65	-0.66	5
	Head 5250	e'	35.6200	Relative Permittivity ( $\epsilon_r$ ):	35.62	35.93	-0.87	5
		e"	16.0300	Conductivity ( $\sigma$ ):	4.68	4.70	-0.48	5
	Head 5600	e'	34.9600	Relative Permittivity ( $\epsilon_r$ ):	34.96	35.53	-1.61	5
		e"	16.3300	Conductivity ( $\sigma$ ):	5.08	5.06	0.49	5
	Head 5750	e'	34.6800	Relative Permittivity ( $\epsilon_r$ ):	34.68	35.36	-1.93	5
		e"	16.4700	Conductivity ( $\sigma$ ):	5.27	5.21	1.00	5
	Head 5800	e'	34.6000	Relative Permittivity ( $\epsilon_r$ ):	34.60	35.30	-1.98	5
		e"	16.5100	Conductivity ( $\sigma$ ):	5.32	5.27	1.03	5
	Head 5925	e'	34.3800	Relative Permittivity ( $\epsilon_r$ ):	34.38	35.20	-2.33	5
		e"	16.6100	Conductivity ( $\sigma$ ):	5.47	5.40	1.34	5
10-14-2023	Head 5200	e'	35.7200	Relative Permittivity ( $\epsilon_r$ ):	35.72	35.99	-0.75	5
		e"	16.0000	Conductivity ( $\sigma$ ):	4.63	4.65	-0.53	5
	Head 5250	e'	35.6100	Relative Permittivity ( $\epsilon_r$ ):	35.61	35.93	-0.90	5
		e"	16.0500	Conductivity ( $\sigma$ ):	4.69	4.70	-0.36	5
	Head 5600	e'	34.8600	Relative Permittivity ( $\epsilon_r$ ):	34.86	35.53	-1.90	5
		e"	16.3100	Conductivity ( $\sigma$ ):	5.08	5.06	0.36	5
	Head 5750	e'	34.5400	Relative Permittivity ( $\epsilon_r$ ):	34.54	35.36	-2.33	5
		e"	16.4100	Conductivity ( $\sigma$ ):	5.25	5.21	0.63	5
	Head 5800	e'	34.4500	Relative Permittivity ( $\epsilon_r$ ):	34.45	35.30	-2.41	5
		e"	16.4500	Conductivity ( $\sigma$ ):	5.31	5.27	0.67	5
	Head 5925	e'	34.2000	Relative Permittivity ( $\epsilon_r$ ):	34.20	35.20	-2.84	5
		e"	16.5200	Conductivity ( $\sigma$ ):	5.44	5.40	0.79	5
10-22-2023	Head 5200	e'	36.1000	Relative Permittivity ( $\epsilon_r$ ):	36.10	35.99	0.31	5
		e"	16.7200	Conductivity ( $\sigma$ ):	4.83	4.65	3.94	5
	Head 5250	e'	35.9900	Relative Permittivity ( $\epsilon_r$ ):	35.99	35.93	0.16	5
		e"	16.7300	Conductivity ( $\sigma$ ):	4.88	4.70	3.86	5
	Head 5600	e'	35.1130	Relative Permittivity ( $\epsilon_r$ ):	35.11	35.53	-1.18	5
		e"	16.8800	Conductivity ( $\sigma$ ):	5.26	5.06	3.87	5
	Head 5750	e'	34.7200	Relative Permittivity ( $\epsilon_r$ ):	34.72	35.36	-1.82	5
		e"	16.9200	Conductivity ( $\sigma$ ):	5.41	5.21	3.76	5
	Head 5800	e'	34.5400	Relative Permittivity ( $\epsilon_r$ ):	34.54	35.30	-2.15	5
		e"	16.9100	Conductivity ( $\sigma$ ):	5.45	5.27	3.48	5
	Head 5925	e'	34.1800	Relative Permittivity ( $\epsilon_r$ ):	34.18	35.20	-2.90	5
		e"	16.9000	Conductivity ( $\sigma$ ):	5.57	5.40	3.11	5
10-23-2023	Head 2600	e'	38.5100	Relative Permittivity ( $\epsilon_r$ ):	38.51	39.01	-1.28	5
		e"	13.3300	Conductivity ( $\sigma$ ):	1.93	1.96	-1.79	5
	Head 2495	e'	38.6600	Relative Permittivity ( $\epsilon_r$ ):	38.66	39.14	-1.23	5
		e"	13.3700	Conductivity ( $\sigma$ ):	1.85	1.85	0.33	5
	Head 2700	e'	38.3600	Relative Permittivity ( $\epsilon_r$ ):	38.36	38.88	-1.35	5
		e"	13.2500	Conductivity ( $\sigma$ ):	1.99	2.07	-3.92	5
10-25-2023	Head 2450	e'	38.7200	Relative Permittivity ( $\epsilon_r$ ):	38.72	39.20	-1.22	5
		e"	12.8800	Conductivity ( $\sigma$ ):	1.75	1.80	-2.52	5
	Head 2400	e'	38.8300	Relative Permittivity ( $\epsilon_r$ ):	38.83	39.30	-1.19	5
		e"	12.8200	Conductivity ( $\sigma$ ):	1.71	1.75	-2.33	5
	Head 2500	e'	38.6100	Relative Permittivity ( $\epsilon_r$ ):	38.61	39.14	-1.35	5
		e"	12.8800	Conductivity ( $\sigma$ ):	1.79	1.85	-3.43	5

**SAR 5 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-3-2023	Head 2450	e'	40.4000	Relative Permittivity (ε <sub>r</sub> ):	40.40	39.20	3.06	5
		e''	12.8800	Conductivity (σ):	1.75	1.80	-2.52	5
	Head 2400	e'	40.4700	Relative Permittivity (ε <sub>r</sub> ):	40.47	39.30	2.99	5
		e''	12.8400	Conductivity (σ):	1.71	1.75	-2.18	5
	Head 2500	e'	40.3100	Relative Permittivity (ε <sub>r</sub> ):	40.31	39.14	3.00	5
		e''	12.9600	Conductivity (σ):	1.80	1.85	-2.83	5
10-9-2023	Head 2450	e'	38.6700	Relative Permittivity (ε <sub>r</sub> ):	38.67	39.20	-1.35	5
		e''	13.2300	Conductivity (σ):	1.80	1.80	0.13	5
	Head 2400	e'	38.7100	Relative Permittivity (ε <sub>r</sub> ):	38.71	39.30	-1.49	5
		e''	13.3200	Conductivity (σ):	1.78	1.75	1.48	5
	Head 2500	e'	38.6300	Relative Permittivity (ε <sub>r</sub> ):	38.63	39.14	-1.30	5
		e''	13.1500	Conductivity (σ):	1.83	1.85	-1.41	5
10-10-2023	Head 2600	e'	39.5100	Relative Permittivity (ε <sub>r</sub> ):	39.51	39.01	1.28	5
		e''	13.2000	Conductivity (σ):	1.91	1.96	-2.75	5
	Head 2495	e'	39.8400	Relative Permittivity (ε <sub>r</sub> ):	39.84	39.14	1.78	5
		e''	13.0100	Conductivity (σ):	1.80	1.85	-2.37	5
	Head 2700	e'	39.2600	Relative Permittivity (ε <sub>r</sub> ):	39.26	38.88	0.97	5
		e''	13.2900	Conductivity (σ):	2.00	2.07	-3.63	5
10-14-2023	Head 2450	e'	38.9000	Relative Permittivity (ε <sub>r</sub> ):	38.90	39.20	-0.77	5
		e''	13.3700	Conductivity (σ):	1.82	1.80	1.19	5
	Head 2400	e'	39.0100	Relative Permittivity (ε <sub>r</sub> ):	39.01	39.30	-0.73	5
		e''	13.3400	Conductivity (σ):	1.78	1.75	1.63	5
	Head 2500	e'	38.8300	Relative Permittivity (ε <sub>r</sub> ):	38.83	39.14	-0.78	5
		e''	13.3900	Conductivity (σ):	1.86	1.85	0.39	5
10-14-2023	Head 2600	e'	38.7300	Relative Permittivity (ε <sub>r</sub> ):	38.73	39.01	-0.72	5
		e''	13.4700	Conductivity (σ):	1.95	1.96	-0.76	5
	Head 2495	e'	38.8300	Relative Permittivity (ε <sub>r</sub> ):	38.83	39.14	-0.80	5
		e''	13.3900	Conductivity (σ):	1.86	1.85	0.48	5
	Head 2700	e'	38.5900	Relative Permittivity (ε <sub>r</sub> ):	38.59	38.88	-0.76	5
		e''	13.6100	Conductivity (σ):	2.04	2.07	-1.31	5
10-18-2023	Head 2600	e'	39.9700	Relative Permittivity (ε <sub>r</sub> ):	39.97	39.01	2.46	5
		e''	13.2900	Conductivity (σ):	1.92	1.96	-2.08	5
	Head 2495	e'	40.1300	Relative Permittivity (ε <sub>r</sub> ):	40.13	39.14	2.52	5
		e''	13.4300	Conductivity (σ):	1.86	1.85	0.78	5
	Head 2700	e'	39.8700	Relative Permittivity (ε <sub>r</sub> ):	39.87	38.88	2.53	5
		e''	13.2100	Conductivity (σ):	1.98	2.07	-4.21	5
10-22-2023	Head 2450	e'	39.4900	Relative Permittivity (ε <sub>r</sub> ):	39.49	39.20	0.74	5
		e''	13.3500	Conductivity (σ):	1.82	1.80	1.04	5
	Head 2400	e'	39.5600	Relative Permittivity (ε <sub>r</sub> ):	39.56	39.30	0.67	5
		e''	13.4100	Conductivity (σ):	1.79	1.75	2.16	5
	Head 2500	e'	39.4800	Relative Permittivity (ε <sub>r</sub> ):	39.48	39.14	0.88	5
		e''	13.2700	Conductivity (σ):	1.84	1.85	-0.51	5
10-22-2023	Head 2600	e'	39.4500	Relative Permittivity (ε <sub>r</sub> ):	39.45	39.01	1.13	5
		e''	13.3000	Conductivity (σ):	1.92	1.96	-2.01	5
	Head 2495	e'	39.4800	Relative Permittivity (ε <sub>r</sub> ):	39.48	39.14	0.86	5
		e''	13.2800	Conductivity (σ):	1.84	1.85	-0.34	5
	Head 2700	e'	39.3100	Relative Permittivity (ε <sub>r</sub> ):	39.31	38.88	1.09	5
		e''	13.3100	Conductivity (σ):	2.00	2.07	-3.48	5
10-26-2023	Head 2250	e'	40.3700	Relative Permittivity (ε <sub>r</sub> ):	40.37	39.56	2.05	5
		e''	12.5800	Conductivity (σ):	1.57	1.62	-2.84	5
	Head 2300	e'	40.3000	Relative Permittivity (ε <sub>r</sub> ):	40.30	39.47	2.10	5
		e''	12.5900	Conductivity (σ):	1.61	1.66	-3.22	5
	Head 2350	e'	40.2300	Relative Permittivity (ε <sub>r</sub> ):	40.23	39.38	2.15	5
		e''	12.5900	Conductivity (σ):	1.65	1.71	-3.67	5
10-26-2023	Head 2600	e'	38.8800	Relative Permittivity (ε <sub>r</sub> ):	38.88	39.01	-0.34	5
		e''	13.3100	Conductivity (σ):	1.92	1.96	-1.93	5
	Head 2495	e'	38.9700	Relative Permittivity (ε <sub>r</sub> ):	38.97	39.14	-0.44	5
		e''	13.4600	Conductivity (σ):	1.87	1.85	1.01	5
	Head 2700	e'	38.7500	Relative Permittivity (ε <sub>r</sub> ):	38.75	38.88	-0.35	5
		e''	13.1800	Conductivity (σ):	1.98	2.07	-4.42	5
10-30-2023	Head 3500	e'	37.1600	Relative Permittivity (ε <sub>r</sub> ):	37.16	37.93	-2.03	5
		e''	15.3700	Conductivity (σ):	2.99	2.91	2.73	5
	Head 3600	e'	36.9500	Relative Permittivity (ε <sub>r</sub> ):	36.95	37.82	-2.29	5
		e''	15.4600	Conductivity (σ):	3.09	3.01	2.68	5
	Head 3700	e'	36.7700	Relative Permittivity (ε <sub>r</sub> ):	36.77	37.70	-2.47	5
		e''	15.5400	Conductivity (σ):	3.20	3.12	2.59	5
	Head 3800	e'	36.5900	Relative Permittivity (ε <sub>r</sub> ):	36.59	37.59	-2.65	5
		e''	15.6200	Conductivity (σ):	3.30	3.22	2.54	5
	Head 3900	e'	36.4000	Relative Permittivity (ε <sub>r</sub> ):	36.40	37.47	-2.86	5
		e''	15.7200	Conductivity (σ):	3.41	3.32	2.65	5
	Head 3950	e'	36.3100	Relative Permittivity (ε <sub>r</sub> ):	36.31	37.42	-2.96	5
		e''	15.7700	Conductivity (σ):	3.46	3.37	2.72	5

**SAR 6 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9-1-2023	Head 2600	e'	39.6500	Relative Permittivity ( $\epsilon_r$ ):	39.65	39.01	1.64	5
		e''	13.1400	Conductivity ( $\sigma$ ):	1.90	1.96	-3.19	5
	Head 2495	e'	39.8000	Relative Permittivity ( $\epsilon_r$ ):	39.80	39.14	1.68	5
		e''	13.1600	Conductivity ( $\sigma$ ):	1.83	1.85	-1.24	5
	Head 2700	e'	39.4900	Relative Permittivity ( $\epsilon_r$ ):	39.49	38.88	1.56	5
		e''	13.1600	Conductivity ( $\sigma$ ):	1.98	2.07	-4.57	5
9-5-2023	Head 2600	e'	39.5900	Relative Permittivity ( $\epsilon_r$ ):	39.59	39.01	1.48	5
		e''	13.3800	Conductivity ( $\sigma$ ):	1.93	1.96	-1.42	5
	Head 2495	e'	39.6900	Relative Permittivity ( $\epsilon_r$ ):	39.69	39.14	1.40	5
		e''	13.2900	Conductivity ( $\sigma$ ):	1.84	1.85	-0.27	5
	Head 2700	e'	39.4300	Relative Permittivity ( $\epsilon_r$ ):	39.43	38.88	1.40	5
		e''	13.4800	Conductivity ( $\sigma$ ):	2.02	2.07	-2.25	5
9-11-2023	Head 2600	e'	39.9300	Relative Permittivity ( $\epsilon_r$ ):	39.93	39.01	2.36	5
		e''	13.5400	Conductivity ( $\sigma$ ):	1.96	1.96	-0.24	5
	Head 2495	e'	40.1800	Relative Permittivity ( $\epsilon_r$ ):	40.18	39.14	2.65	5
		e''	13.4600	Conductivity ( $\sigma$ ):	1.87	1.85	1.01	5
	Head 2700	e'	39.7700	Relative Permittivity ( $\epsilon_r$ ):	39.77	38.88	2.28	5
		e''	13.6100	Conductivity ( $\sigma$ ):	2.04	2.07	-1.31	5
9-15-2023	Head 2600	e'	40.5000	Relative Permittivity ( $\epsilon_r$ ):	40.50	39.01	3.82	5
		e''	13.8800	Conductivity ( $\sigma$ ):	2.01	1.96	2.27	5
	Head 2495	e'	40.1800	Relative Permittivity ( $\epsilon_r$ ):	40.18	39.14	2.65	5
		e''	13.8100	Conductivity ( $\sigma$ ):	1.92	1.85	3.64	5
	Head 2700	e'	39.8200	Relative Permittivity ( $\epsilon_r$ ):	39.82	38.88	2.41	5
		e''	13.9400	Conductivity ( $\sigma$ ):	2.09	2.07	1.09	5
9-19-2023	Head 2600	e'	40.1000	Relative Permittivity ( $\epsilon_r$ ):	40.10	39.01	2.79	5
		e''	13.1600	Conductivity ( $\sigma$ ):	1.90	1.96	-3.04	5
	Head 2495	e'	40.1700	Relative Permittivity ( $\epsilon_r$ ):	40.17	39.14	2.62	5
		e''	13.1200	Conductivity ( $\sigma$ ):	1.82	1.85	-1.54	5
	Head 2700	e'	39.9300	Relative Permittivity ( $\epsilon_r$ ):	39.93	38.88	2.69	5
		e''	13.2400	Conductivity ( $\sigma$ ):	1.99	2.07	-3.99	5
9-25-2023	Head 2600	e'	38.6600	Relative Permittivity ( $\epsilon_r$ ):	38.66	39.01	-0.90	5
		e''	13.6400	Conductivity ( $\sigma$ ):	1.97	1.96	0.50	5
	Head 2495	e'	38.8800	Relative Permittivity ( $\epsilon_r$ ):	38.88	39.14	-0.67	5
		e''	13.6300	Conductivity ( $\sigma$ ):	1.89	1.85	2.28	5
	Head 2700	e'	38.5200	Relative Permittivity ( $\epsilon_r$ ):	38.52	38.88	-0.94	5
		e''	13.6900	Conductivity ( $\sigma$ ):	2.06	2.07	-0.73	5

**SAR 7 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9-1-2023	Head 750	e'	41.4200	Relative Permittivity (ε <sub>r</sub> ):	41.42	41.96	-1.29	5
		e"	21.3600	Conductivity (σ):	0.89	0.89	-0.26	5
	Head 660	e'	41.6200	Relative Permittivity (ε <sub>r</sub> ):	41.62	42.42	-1.89	5
		e"	23.4700	Conductivity (σ):	0.86	0.89	-2.80	5
	Head 800	e'	41.2500	Relative Permittivity (ε <sub>r</sub> ):	41.25	41.71	-1.09	5
		e"	20.4100	Conductivity (σ):	0.91	0.90	1.22	5
9-1-2023	Head 835	e'	41.1700	Relative Permittivity (ε <sub>r</sub> ):	41.17	41.50	-0.80	5
		e"	19.8700	Conductivity (σ):	0.92	0.90	2.50	5
	Head 810	e'	41.2200	Relative Permittivity (ε <sub>r</sub> ):	41.22	41.65	-1.04	5
		e"	20.2600	Conductivity (σ):	0.91	0.90	1.65	5
	Head 850	e'	41.1500	Relative Permittivity (ε <sub>r</sub> ):	41.15	41.50	-0.84	5
		e"	19.6300	Conductivity (σ):	0.93	0.92	1.40	5
9-5-2023	Head 750	e'	41.7700	Relative Permittivity (ε <sub>r</sub> ):	41.77	41.96	-0.46	5
		e"	21.3900	Conductivity (σ):	0.89	0.89	-0.12	5
	Head 660	e'	42.0900	Relative Permittivity (ε <sub>r</sub> ):	42.09	42.42	-0.79	5
		e"	23.4300	Conductivity (σ):	0.86	0.89	-2.97	5
	Head 800	e'	41.6000	Relative Permittivity (ε <sub>r</sub> ):	41.60	41.71	-0.25	5
		e"	20.4500	Conductivity (σ):	0.91	0.90	1.42	5
9-5-2023	Head 835	e'	41.4900	Relative Permittivity (ε <sub>r</sub> ):	41.49	41.50	-0.02	5
		e"	19.8600	Conductivity (σ):	0.92	0.90	2.45	5
	Head 810	e'	41.5700	Relative Permittivity (ε <sub>r</sub> ):	41.57	41.65	-0.20	5
		e"	20.2900	Conductivity (σ):	0.91	0.90	1.80	5
	Head 850	e'	41.4500	Relative Permittivity (ε <sub>r</sub> ):	41.45	41.50	-0.12	5
		e"	19.6100	Conductivity (σ):	0.93	0.92	1.29	5
9-11-2023	Head 750	e'	41.2800	Relative Permittivity (ε <sub>r</sub> ):	41.28	41.96	-1.62	5
		e"	21.8500	Conductivity (σ):	0.91	0.89	2.03	5
	Head 660	e'	41.5500	Relative Permittivity (ε <sub>r</sub> ):	41.55	42.42	-2.06	5
		e"	23.9500	Conductivity (σ):	0.88	0.89	-0.82	5
	Head 800	e'	41.1200	Relative Permittivity (ε <sub>r</sub> ):	41.12	41.71	-1.40	5
		e"	20.9100	Conductivity (σ):	0.93	0.90	3.70	5
9-11-2023	Head 835	e'	41.0000	Relative Permittivity (ε <sub>r</sub> ):	41.00	41.50	-1.20	5
		e"	20.3200	Conductivity (σ):	0.94	0.90	4.83	5
	Head 810	e'	41.0800	Relative Permittivity (ε <sub>r</sub> ):	41.08	41.65	-1.38	5
		e"	20.7300	Conductivity (σ):	0.93	0.90	4.01	5
	Head 850	e'	40.9500	Relative Permittivity (ε <sub>r</sub> ):	40.95	41.50	-1.33	5
		e"	20.0800	Conductivity (σ):	0.95	0.92	3.72	5
9-15-2023	Head 750	e'	41.9100	Relative Permittivity (ε <sub>r</sub> ):	41.91	41.96	-0.12	5
		e"	21.5000	Conductivity (σ):	0.90	0.89	0.39	5
	Head 660	e'	42.2600	Relative Permittivity (ε <sub>r</sub> ):	42.26	42.42	-0.38	5
		e"	23.6300	Conductivity (σ):	0.87	0.89	-2.14	5
	Head 800	e'	41.7800	Relative Permittivity (ε <sub>r</sub> ):	41.78	41.71	0.18	5
		e"	20.5100	Conductivity (σ):	0.91	0.90	1.72	5
9-21-2023	Head 750	e'	41.6000	Relative Permittivity (ε <sub>r</sub> ):	41.60	41.96	-0.86	5
		e"	21.2800	Conductivity (σ):	0.89	0.89	-0.63	5
	Head 660	e'	41.9000	Relative Permittivity (ε <sub>r</sub> ):	41.90	42.42	-1.23	5
		e"	23.3800	Conductivity (σ):	0.86	0.89	-3.18	5
	Head 800	e'	41.4700	Relative Permittivity (ε <sub>r</sub> ):	41.47	41.71	-0.56	5
		e"	20.3300	Conductivity (σ):	0.90	0.90	0.83	5
9-21-2023	Head 835	e'	41.3700	Relative Permittivity (ε <sub>r</sub> ):	41.37	41.50	-0.31	5
		e"	19.7400	Conductivity (σ):	0.92	0.90	1.83	5
	Head 810	e'	41.4400	Relative Permittivity (ε <sub>r</sub> ):	41.44	41.65	-0.51	5
		e"	20.1600	Conductivity (σ):	0.91	0.90	1.15	5
	Head 850	e'	41.3300	Relative Permittivity (ε <sub>r</sub> ):	41.33	41.50	-0.41	5
		e"	19.5000	Conductivity (σ):	0.92	0.92	0.72	5
9-25-2023	Head 750	e'	42.0600	Relative Permittivity (ε <sub>r</sub> ):	42.06	41.96	0.23	5
		e"	21.2200	Conductivity (σ):	0.88	0.89	-0.91	5
	Head 660	e'	42.3400	Relative Permittivity (ε <sub>r</sub> ):	42.34	42.42	-0.20	5
		e"	23.3300	Conductivity (σ):	0.86	0.89	-3.38	5
	Head 800	e'	41.9600	Relative Permittivity (ε <sub>r</sub> ):	41.96	41.71	0.61	5
		e"	20.3100	Conductivity (σ):	0.90	0.90	0.73	5
9-25-2023	Head 835	e'	41.8500	Relative Permittivity (ε <sub>r</sub> ):	41.85	41.50	0.84	5
		e"	19.7100	Conductivity (σ):	0.92	0.90	1.68	5
	Head 810	e'	41.9300	Relative Permittivity (ε <sub>r</sub> ):	41.93	41.65	0.66	5
		e"	20.1300	Conductivity (σ):	0.91	0.90	1.00	5
	Head 850	e'	41.7900	Relative Permittivity (ε <sub>r</sub> ):	41.79	41.50	0.70	5
		e"	19.4800	Conductivity (σ):	0.92	0.92	0.62	5
10-2-2023	Head 750	e'	41.3200	Relative Permittivity (ε <sub>r</sub> ):	41.32	41.96	-1.53	5
		e"	21.8400	Conductivity (σ):	0.91	0.89	1.98	5
	Head 660	e'	41.5400	Relative Permittivity (ε <sub>r</sub> ):	41.54	42.42	-2.08	5
		e"	23.9800	Conductivity (σ):	0.88	0.89	-0.69	5
	Head 800	e'	41.1900	Relative Permittivity (ε <sub>r</sub> ):	41.19	41.71	-1.24	5
		e"	20.8700	Conductivity (σ):	0.93	0.90	3.50	5

SAR 7 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-2-2023	Head 835	e'	41.1300	Relative Permittivity (ε <sub>r</sub> ):	41.13	41.50	-0.89	5
		e''	20.3100	Conductivity (σ):	0.94	0.90	4.77	5
	Head 810	e'	41.1700	Relative Permittivity (ε <sub>r</sub> ):	41.17	41.65	-1.16	5
		e''	20.6800	Conductivity (σ):	0.93	0.90	3.75	5
	Head 850	e'	41.1000	Relative Permittivity (ε <sub>r</sub> ):	41.10	41.50	-0.96	5
		e''	19.9600	Conductivity (σ):	0.94	0.92	3.10	5
10-2-2023	Head 2600	e'	37.7600	Relative Permittivity (ε <sub>r</sub> ):	37.76	39.01	-3.21	5
		e''	13.3100	Conductivity (σ):	1.92	1.96	-1.93	5
	Head 2495	e'	37.8600	Relative Permittivity (ε <sub>r</sub> ):	37.86	39.14	-3.28	5
		e''	13.2400	Conductivity (σ):	1.84	1.85	-0.64	5
	Head 2700	e'	37.5800	Relative Permittivity (ε <sub>r</sub> ):	37.58	38.88	-3.36	5
		e''	13.4200	Conductivity (σ):	2.01	2.07	-2.68	5
10-2-2023	Head 2600	e'	37.7600	Relative Permittivity (ε <sub>r</sub> ):	37.76	39.01	-3.21	5
		e''	13.3100	Conductivity (σ):	1.92	1.96	-1.93	5
	Head 2495	e'	37.8600	Relative Permittivity (ε <sub>r</sub> ):	37.86	39.14	-3.28	5
		e''	13.2400	Conductivity (σ):	1.84	1.85	-0.64	5
	Head 2700	e'	37.5800	Relative Permittivity (ε <sub>r</sub> ):	37.58	38.88	-3.36	5
		e''	13.4200	Conductivity (σ):	2.01	2.07	-2.68	5
10-4-2023	Head 3500	e'	38.6200	Relative Permittivity (ε <sub>r</sub> ):	38.62	37.93	1.82	5
		e''	14.7800	Conductivity (σ):	2.88	2.91	-1.21	5
	Head 3600	e'	38.4500	Relative Permittivity (ε <sub>r</sub> ):	38.45	37.82	1.68	5
		e''	14.8600	Conductivity (σ):	2.97	3.01	-1.31	5
	Head 3700	e'	38.2700	Relative Permittivity (ε <sub>r</sub> ):	38.27	37.70	1.51	5
		e''	14.9500	Conductivity (σ):	3.08	3.12	-1.30	5
	Head 3800	e'	38.0900	Relative Permittivity (ε <sub>r</sub> ):	38.09	37.59	1.34	5
		e''	15.0500	Conductivity (σ):	3.18	3.22	-1.20	5
	Head 3900	e'	37.9200	Relative Permittivity (ε <sub>r</sub> ):	37.92	37.47	1.19	5
		e''	15.1500	Conductivity (σ):	3.29	3.32	-1.07	5
	Head 3980	e'	37.7700	Relative Permittivity (ε <sub>r</sub> ):	37.77	37.38	1.04	5
		e''	15.2200	Conductivity (σ):	3.37	3.40	-1.01	5
10-9-2023	Head 3500	e'	37.4500	Relative Permittivity (ε <sub>r</sub> ):	37.45	37.93	-1.26	5
		e''	14.9900	Conductivity (σ):	2.92	2.91	0.19	5
	Head 3600	e'	37.2800	Relative Permittivity (ε <sub>r</sub> ):	37.28	37.82	-1.42	5
		e''	15.0500	Conductivity (σ):	3.01	3.01	-0.04	5
	Head 3700	e'	37.1100	Relative Permittivity (ε <sub>r</sub> ):	37.11	37.70	-1.57	5
		e''	15.1300	Conductivity (σ):	3.11	3.12	-0.11	5
	Head 3800	e'	36.9400	Relative Permittivity (ε <sub>r</sub> ):	36.94	37.59	-1.72	5
		e''	15.2200	Conductivity (σ):	3.22	3.22	-0.08	5
	Head 3900	e'	36.7600	Relative Permittivity (ε <sub>r</sub> ):	36.76	37.47	-1.90	5
		e''	15.3100	Conductivity (σ):	3.32	3.32	-0.03	5
	Head 3980	e'	36.6100	Relative Permittivity (ε <sub>r</sub> ):	36.61	37.38	-2.07	5
		e''	15.3900	Conductivity (σ):	3.41	3.40	0.09	5
10-13-2023	Head 3500	e'	38.0200	Relative Permittivity (ε <sub>r</sub> ):	38.02	37.93	0.24	5
		e''	14.5900	Conductivity (σ):	2.84	2.91	-2.48	5
	Head 3600	e'	37.8300	Relative Permittivity (ε <sub>r</sub> ):	37.83	37.82	0.04	5
		e''	14.6700	Conductivity (σ):	2.94	3.01	-2.57	5
	Head 3700	e'	37.6300	Relative Permittivity (ε <sub>r</sub> ):	37.63	37.70	-0.19	5
		e''	14.7400	Conductivity (σ):	3.03	3.12	-2.69	5
	Head 3800	e'	37.4500	Relative Permittivity (ε <sub>r</sub> ):	37.45	37.59	-0.37	5
		e''	14.8100	Conductivity (σ):	3.13	3.22	-2.77	5
	Head 3900	e'	37.2700	Relative Permittivity (ε <sub>r</sub> ):	37.27	37.47	-0.54	5
		e''	14.8900	Conductivity (σ):	3.23	3.32	-2.77	5
	Head 3980	e'	37.1300	Relative Permittivity (ε <sub>r</sub> ):	37.13	37.38	-0.67	5
		e''	14.9500	Conductivity (σ):	3.31	3.40	-2.77	5
10-17-2023	Head 13	e'	55.93	Relative Permittivity (ε <sub>r</sub> ):	55.93	55.00	1.69	5
		e''	1025.00	Conductivity (σ):	0.74	0.75	-1.21	5
	Head 12	e'	55.85	Relative Permittivity (ε <sub>r</sub> ):	55.85	55.00	1.55	5
		e''	1112.00	Conductivity (σ):	0.74	0.75	-1.07	5
	Head 14	e'	56.03	Relative Permittivity (ε <sub>r</sub> ):	56.03	55.00	1.87	5
		e''	950.70	Conductivity (σ):	0.74	0.75	-1.32	5
10-17-2023	Head 750	e'	40.9200	Relative Permittivity (ε <sub>r</sub> ):	40.92	41.96	-2.48	5
		e''	21.1200	Conductivity (σ):	0.88	0.89	-1.38	5
	Head 660	e'	41.2300	Relative Permittivity (ε <sub>r</sub> ):	41.23	42.42	-2.81	5
		e''	23.1800	Conductivity (σ):	0.85	0.89	-4.01	5
	Head 800	e'	40.7700	Relative Permittivity (ε <sub>r</sub> ):	40.77	41.71	-2.24	5
		e''	20.1800	Conductivity (σ):	0.90	0.90	0.08	5
10-30-2023	Head 1750	e'	41.3000	Relative Permittivity (ε <sub>r</sub> ):	41.30	40.08	3.03	5
		e''	13.7000	Conductivity (σ):	1.33	1.37	-2.62	5
	Head 1710	e'	41.2700	Relative Permittivity (ε <sub>r</sub> ):	41.27	40.15	2.80	5
		e''	13.7200	Conductivity (σ):	1.30	1.35	-3.11	5
	Head 1780	e'	41.0700	Relative Permittivity (ε <sub>r</sub> ):	41.07	40.04	2.58	5
		e''	13.6000	Conductivity (σ):	1.35	1.39	-2.88	5
10-30-2023	Head 1900	e'	39.4900	Relative Permittivity (ε <sub>r</sub> ):	39.49	40.00	-1.28	5
		e''	13.0000	Conductivity (σ):	1.37	1.40	-1.90	5
	Head 1850	e'	39.9700	Relative Permittivity (ε <sub>r</sub> ):	39.97	40.00	-0.08	5
		e''	13.1800	Conductivity (σ):	1.36	1.40	-3.16	5
	Head 1915	e'	39.4700	Relative Permittivity (ε <sub>r</sub> ):	39.47	40.00	-1.33	5
		e''	12.9900	Conductivity (σ):	1.38	1.40	-1.20	5

**SAR 8 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9-4-2023	Head 835	e'	42.2200	Relative Permittivity ( $\epsilon_r$ ):	42.22	41.50	1.73	5
		e"	19.7000	Conductivity ( $\sigma$ ):	0.91	0.90	1.63	5
	Head 820	e'	42.2700	Relative Permittivity ( $\epsilon_r$ ):	42.27	41.60	1.60	5
		e"	19.9400	Conductivity ( $\sigma$ ):	0.91	0.90	1.19	5
	Head 850	e'	42.1700	Relative Permittivity ( $\epsilon_r$ ):	42.17	41.50	1.61	5
		e"	19.4700	Conductivity ( $\sigma$ ):	0.92	0.92	0.57	5
9-8-2023	Head 750	e'	43.4300	Relative Permittivity ( $\epsilon_r$ ):	43.43	41.96	3.50	5
		e"	21.7600	Conductivity ( $\sigma$ ):	0.91	0.89	1.61	5
	Head 680	e'	43.6500	Relative Permittivity ( $\epsilon_r$ ):	43.65	42.32	3.14	5
		e"	23.4100	Conductivity ( $\sigma$ ):	0.89	0.89	-0.29	5
	Head 790	e'	43.2800	Relative Permittivity ( $\epsilon_r$ ):	43.28	41.76	3.65	5
		e"	20.9300	Conductivity ( $\sigma$ ):	0.92	0.90	2.59	5
9-8-2023	Head 835	e'	43.1500	Relative Permittivity ( $\epsilon_r$ ):	43.15	41.50	3.98	5
		e"	20.1500	Conductivity ( $\sigma$ ):	0.94	0.90	3.95	5
	Head 820	e'	43.1900	Relative Permittivity ( $\epsilon_r$ ):	43.19	41.60	3.82	5
		e"	20.4000	Conductivity ( $\sigma$ ):	0.93	0.90	3.52	5
	Head 850	e'	43.1200	Relative Permittivity ( $\epsilon_r$ ):	43.12	41.50	3.90	5
		e"	19.9100	Conductivity ( $\sigma$ ):	0.94	0.92	2.84	5
9-12-2023	Head 1750	e'	39.4900	Relative Permittivity ( $\epsilon_r$ ):	39.49	40.08	-1.48	5
		e"	13.9500	Conductivity ( $\sigma$ ):	1.36	1.37	-0.84	5
	Head 1695	e'	39.5100	Relative Permittivity ( $\epsilon_r$ ):	39.51	40.17	-1.64	5
		e"	14.0800	Conductivity ( $\sigma$ ):	1.33	1.34	-0.82	5
	Head 1780	e'	39.4700	Relative Permittivity ( $\epsilon_r$ ):	39.47	40.04	-1.42	5
		e"	13.9000	Conductivity ( $\sigma$ ):	1.38	1.39	-0.73	5
9-12-2023	Head 1900	e'	39.3000	Relative Permittivity ( $\epsilon_r$ ):	39.30	40.00	-1.75	5
		e"	13.7200	Conductivity ( $\sigma$ ):	1.45	1.40	3.53	5
	Head 1850	e'	39.3700	Relative Permittivity ( $\epsilon_r$ ):	39.37	40.00	-1.58	5
		e"	13.8100	Conductivity ( $\sigma$ ):	1.42	1.40	1.47	5
	Head 1910	e'	38.2900	Relative Permittivity ( $\epsilon_r$ ):	38.29	40.00	-4.28	5
		e"	13.7100	Conductivity ( $\sigma$ ):	1.46	1.40	4.00	5
9-20-2023	Head 1750	e'	40.7400	Relative Permittivity ( $\epsilon_r$ ):	40.74	40.08	1.64	5
		e"	14.3400	Conductivity ( $\sigma$ ):	1.40	1.37	1.93	5
	Head 1695	e'	40.3000	Relative Permittivity ( $\epsilon_r$ ):	40.30	40.17	0.33	5
		e"	14.3100	Conductivity ( $\sigma$ ):	1.35	1.34	0.80	5
	Head 1780	e'	40.7200	Relative Permittivity ( $\epsilon_r$ ):	40.72	40.04	1.70	5
		e"	14.2600	Conductivity ( $\sigma$ ):	1.41	1.39	1.84	5
9-24-2023	Head 1750	e'	40.0000	Relative Permittivity ( $\epsilon_r$ ):	40.00	40.08	-0.21	5
		e"	14.2200	Conductivity ( $\sigma$ ):	1.38	1.37	1.07	5
	Head 1695	e'	40.4700	Relative Permittivity ( $\epsilon_r$ ):	40.47	40.17	0.75	5
		e"	14.4600	Conductivity ( $\sigma$ ):	1.36	1.34	1.86	5
	Head 1780	e'	39.8600	Relative Permittivity ( $\epsilon_r$ ):	39.86	40.04	-0.45	5
		e"	14.1000	Conductivity ( $\sigma$ ):	1.40	1.39	0.69	5
10-2-2023	Head 1750	e'	38.8700	Relative Permittivity ( $\epsilon_r$ ):	38.87	40.08	-3.03	5
		e"	13.6600	Conductivity ( $\sigma$ ):	1.33	1.37	-2.91	5
	Head 1695	e'	38.9600	Relative Permittivity ( $\epsilon_r$ ):	38.96	40.17	-3.01	5
		e"	13.8200	Conductivity ( $\sigma$ ):	1.30	1.34	-2.65	5
	Head 1780	e'	38.8600	Relative Permittivity ( $\epsilon_r$ ):	38.86	40.04	-2.94	5
		e"	13.5800	Conductivity ( $\sigma$ ):	1.34	1.39	-3.02	5
10-2-2023	Head 1900	e'	38.7900	Relative Permittivity ( $\epsilon_r$ ):	38.79	40.00	-3.03	5
		e"	13.4900	Conductivity ( $\sigma$ ):	1.43	1.40	1.80	5
	Head 1850	e'	38.8400	Relative Permittivity ( $\epsilon_r$ ):	38.84	40.00	-2.90	5
		e"	13.5000	Conductivity ( $\sigma$ ):	1.39	1.40	-0.81	5
	Head 1910	e'	38.7700	Relative Permittivity ( $\epsilon_r$ ):	38.77	40.00	-3.07	5
		e"	13.4900	Conductivity ( $\sigma$ ):	1.43	1.40	2.33	5
10-4-2023	Head 3500	e'	38.9500	Relative Permittivity ( $\epsilon_r$ ):	38.95	37.93	2.69	5
		e"	14.6600	Conductivity ( $\sigma$ ):	2.85	2.91	-2.01	5
	Head 3560	e'	38.8500	Relative Permittivity ( $\epsilon_r$ ):	38.85	37.86	2.61	5
		e"	14.7100	Conductivity ( $\sigma$ ):	2.91	2.97	-2.06	5
	Head 3600	e'	38.7800	Relative Permittivity ( $\epsilon_r$ ):	38.78	37.82	2.55	5
		e"	14.7200	Conductivity ( $\sigma$ ):	2.95	3.01	-2.24	5
	Head 3690	e'	38.6200	Relative Permittivity ( $\epsilon_r$ ):	38.62	37.71	2.41	5
		e"	14.7800	Conductivity ( $\sigma$ ):	3.03	3.11	-2.37	5
	Head 3700	e'	38.6100	Relative Permittivity ( $\epsilon_r$ ):	38.61	37.70	2.41	5
		e"	14.7800	Conductivity ( $\sigma$ ):	3.04	3.12	-2.42	5

**SAR 8 Room (Continued)**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
10-9-2023	Head 3500	e'	38.7200	Relative Permittivity (ε <sub>r</sub> ):	38.72	37.93	2.08	5
		e"	15.2800	Conductivity (σ):	2.97	2.91	2.13	5
	Head 3600	e'	38.5600	Relative Permittivity (ε <sub>r</sub> ):	38.56	37.82	1.97	5
		e"	15.3600	Conductivity (σ):	3.07	3.01	2.01	5
	Head 3700	e'	38.4300	Relative Permittivity (ε <sub>r</sub> ):	38.43	37.70	1.93	5
		e"	15.4600	Conductivity (σ):	3.18	3.12	2.07	5
	Head 3800	e'	38.3000	Relative Permittivity (ε <sub>r</sub> ):	38.30	37.59	1.90	5
		e"	15.5900	Conductivity (σ):	3.29	3.22	2.35	5
	Head 3900	e'	38.1700	Relative Permittivity (ε <sub>r</sub> ):	38.17	37.47	1.86	5
		e"	15.7200	Conductivity (σ):	3.41	3.32	2.65	5
	Head 3980	e'	38.0500	Relative Permittivity (ε <sub>r</sub> ):	38.05	37.38	1.79	5
		e"	15.8200	Conductivity (σ):	3.50	3.40	2.89	5
10-12-2023	Head 3500	e'	38.1500	Relative Permittivity (ε <sub>r</sub> ):	38.15	37.93	0.58	5
		e"	14.8900	Conductivity (σ):	2.90	2.91	-0.47	5
	Head 3600	e'	37.9900	Relative Permittivity (ε <sub>r</sub> ):	37.99	37.82	0.46	5
		e"	14.9300	Conductivity (σ):	2.99	3.01	-0.84	5
	Head 3700	e'	37.8300	Relative Permittivity (ε <sub>r</sub> ):	37.83	37.70	0.34	5
		e"	14.9800	Conductivity (σ):	3.08	3.12	-1.10	5
	Head 3800	e'	37.6700	Relative Permittivity (ε <sub>r</sub> ):	37.67	37.59	0.22	5
		e"	15.0400	Conductivity (σ):	3.18	3.22	-1.26	5
	Head 3900	e'	37.5000	Relative Permittivity (ε <sub>r</sub> ):	37.50	37.47	0.07	5
		e"	15.1100	Conductivity (σ):	3.28	3.32	-1.33	5
	Head 3980	e'	37.3600	Relative Permittivity (ε <sub>r</sub> ):	37.36	37.38	-0.06	5
		e"	15.1600	Conductivity (σ):	3.35	3.40	-1.40	5
10-16-2023	Head 3500	e'	39.0400	Relative Permittivity (ε <sub>r</sub> ):	39.04	37.93	2.93	5
		e"	14.7900	Conductivity (σ):	2.88	2.91	-1.14	5
	Head 3600	e'	39.4400	Relative Permittivity (ε <sub>r</sub> ):	39.44	37.82	4.30	5
		e"	15.0500	Conductivity (σ):	3.01	3.01	-0.04	5
	Head 3700	e'	39.3400	Relative Permittivity (ε <sub>r</sub> ):	39.34	37.70	4.35	5
		e"	15.1400	Conductivity (σ):	3.11	3.12	-0.05	5
	Head 3800	e'	39.1100	Relative Permittivity (ε <sub>r</sub> ):	39.11	37.59	4.05	5
		e"	15.2600	Conductivity (σ):	3.22	3.22	0.18	5
	Head 3900	e'	38.9000	Relative Permittivity (ε <sub>r</sub> ):	38.90	37.47	3.81	5
		e"	15.3800	Conductivity (σ):	3.34	3.32	0.43	5
	Head 3980	e'	38.7200	Relative Permittivity (ε <sub>r</sub> ):	38.72	37.38	3.58	5
		e"	15.4600	Conductivity (σ):	3.42	3.40	0.55	5
10-19-2023	Head 1750	e'	39.5577	Relative Permittivity (ε <sub>r</sub> ):	39.56	40.08	-1.31	5
		e"	13.6173	Conductivity (σ):	1.33	1.37	-3.21	5
	Head 1695	e'	39.6426	Relative Permittivity (ε <sub>r</sub> ):	39.64	40.17	-1.31	5
		e"	13.6270	Conductivity (σ):	1.28	1.34	-4.01	5
	Head 1780	e'	39.4581	Relative Permittivity (ε <sub>r</sub> ):	39.46	40.04	-1.45	5
		e"	13.5649	Conductivity (σ):	1.34	1.39	-3.13	5
10-30-2023	Head 1750	e'	39.5577	Relative Permittivity (ε <sub>r</sub> ):	40.02	40.08	-0.16	5
		e"	13.6173	Conductivity (σ):	1.36	1.37	-1.02	5
	Head 1695	e'	39.6426	Relative Permittivity (ε <sub>r</sub> ):	40.17	40.17	0.00	5
		e"	13.6270	Conductivity (σ):	1.33	1.34	-0.52	5
	Head 1780	e'	39.4581	Relative Permittivity (ε <sub>r</sub> ):	39.97	40.04	-0.17	5
		e"	13.5649	Conductivity (σ):	1.37	1.39	-1.29	5

**SAR 9 Room**

Date	Freq. (MHz)		Liquid Parameters	Measured	Target	Delta (%)	Limit ±(%)	
9-12-2023	Head 1750	e'	40.7000	Relative Permittivity ( $\epsilon_r$ ):	40.70	40.08	1.54	5
		e''	13.7800	Conductivity ( $\sigma$ ):	1.34	1.37	-2.05	5
	Head 1695	e'	40.7700	Relative Permittivity ( $\epsilon_r$ ):	40.77	40.17	1.50	5
		e''	13.9600	Conductivity ( $\sigma$ ):	1.32	1.34	-1.66	5
	Head 1780	e'	40.6500	Relative Permittivity ( $\epsilon_r$ ):	40.65	40.04	1.53	5
		e''	13.6800	Conductivity ( $\sigma$ ):	1.35	1.39	-2.30	5
9-13-2023	Head 1750	e'	40.5800	Relative Permittivity ( $\epsilon_r$ ):	40.58	40.08	1.24	5
		e''	13.6300	Conductivity ( $\sigma$ ):	1.33	1.37	-3.12	5
	Head 1695	e'	40.7200	Relative Permittivity ( $\epsilon_r$ ):	40.72	40.17	1.37	5
		e''	13.7600	Conductivity ( $\sigma$ ):	1.30	1.34	-3.07	5
	Head 1780	e'	40.5200	Relative Permittivity ( $\epsilon_r$ ):	40.52	40.04	1.20	5
		e''	13.5200	Conductivity ( $\sigma$ ):	1.34	1.39	-3.45	5
9-21-2023	Head 750	e'	41.6300	Relative Permittivity ( $\epsilon_r$ ):	41.63	41.96	-0.79	5
		e''	21.2100	Conductivity ( $\sigma$ ):	0.88	0.89	-0.96	5
	Head 700	e'	41.7800	Relative Permittivity ( $\epsilon_r$ ):	41.78	42.22	-1.04	5
		e''	22.3000	Conductivity ( $\sigma$ ):	0.87	0.89	-2.39	5
	Head 790	e'	41.5000	Relative Permittivity ( $\epsilon_r$ ):	41.50	41.76	-0.61	5
		e''	20.4400	Conductivity ( $\sigma$ ):	0.90	0.90	0.19	5
9-21-2023	Head 835	e'	41.3200	Relative Permittivity ( $\epsilon_r$ ):	41.32	41.50	-0.43	5
		e''	19.6600	Conductivity ( $\sigma$ ):	0.91	0.90	1.42	5
	Head 810	e'	41.4200	Relative Permittivity ( $\epsilon_r$ ):	41.42	41.65	-0.56	5
		e''	20.0900	Conductivity ( $\sigma$ ):	0.90	0.90	0.79	5
	Head 850	e'	41.2700	Relative Permittivity ( $\epsilon_r$ ):	41.27	41.50	-0.55	5
		e''	19.4300	Conductivity ( $\sigma$ ):	0.92	0.92	0.36	5
9-24-2023	Head 750	e'	41.2300	Relative Permittivity ( $\epsilon_r$ ):	41.23	41.96	-1.74	5
		e''	21.1300	Conductivity ( $\sigma$ ):	0.88	0.89	-1.33	5
	Head 680	e'	41.4500	Relative Permittivity ( $\epsilon_r$ ):	41.45	42.32	-2.06	5
		e''	22.5500	Conductivity ( $\sigma$ ):	0.85	0.89	-3.95	5
	Head 790	e'	41.0500	Relative Permittivity ( $\epsilon_r$ ):	41.05	41.76	-1.69	5
		e''	20.3700	Conductivity ( $\sigma$ ):	0.89	0.90	-0.15	5
9-24-2023	Head 835	e'	40.9400	Relative Permittivity ( $\epsilon_r$ ):	40.94	41.50	-1.35	5
		e''	19.6900	Conductivity ( $\sigma$ ):	0.91	0.90	1.58	5
	Head 810	e'	40.9600	Relative Permittivity ( $\epsilon_r$ ):	40.96	41.65	-1.67	5
		e''	20.0400	Conductivity ( $\sigma$ ):	0.90	0.90	0.54	5
	Head 850	e'	40.9300	Relative Permittivity ( $\epsilon_r$ ):	40.93	41.50	-1.37	5
		e''	19.4800	Conductivity ( $\sigma$ ):	0.92	0.92	0.62	5
9-26-2023	Head 2600	e'	39.6700	Relative Permittivity ( $\epsilon_r$ ):	39.67	39.01	1.69	5
		e''	13.1100	Conductivity ( $\sigma$ ):	1.90	1.96	-3.41	5
	Head 2500	e'	39.7600	Relative Permittivity ( $\epsilon_r$ ):	39.76	39.14	1.59	5
		e''	13.1100	Conductivity ( $\sigma$ ):	1.82	1.85	-1.71	5
	Head 2700	e'	39.5300	Relative Permittivity ( $\epsilon_r$ ):	39.53	38.88	1.66	5
		e''	13.1500	Conductivity ( $\sigma$ ):	1.97	2.07	-4.64	5
10-3-2023	Head 2600	e'	37.8400	Relative Permittivity ( $\epsilon_r$ ):	37.84	39.01	-3.00	5
		e''	13.1300	Conductivity ( $\sigma$ ):	1.90	1.96	-3.26	5
	Head 2500	e'	37.9500	Relative Permittivity ( $\epsilon_r$ ):	37.95	39.14	-3.03	5
		e''	13.0700	Conductivity ( $\sigma$ ):	1.82	1.85	-2.01	5
	Head 2700	e'	37.6800	Relative Permittivity ( $\epsilon_r$ ):	37.68	38.88	-3.10	5
		e''	13.2000	Conductivity ( $\sigma$ ):	1.98	2.07	-4.28	5
11-3-2023	Head 2450	e'	39.2000	Relative Permittivity ( $\epsilon_r$ ):	39.20	39.20	0.00	5
		e''	13.3800	Conductivity ( $\sigma$ ):	1.82	1.80	1.26	5
	Head 2400	e'	39.2400	Relative Permittivity ( $\epsilon_r$ ):	39.24	39.30	-0.14	5
		e''	13.3600	Conductivity ( $\sigma$ ):	1.78	1.75	1.78	5
	Head 2480	e'	39.1700	Relative Permittivity ( $\epsilon_r$ ):	39.17	39.16	0.02	5
		e''	13.4100	Conductivity ( $\sigma$ ):	1.85	1.83	0.91	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:  $2.0 \pm 0.2$  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  $\geq 15.0$  cm for SAR measurements  $\leq 3$  GHz and  $\geq 10.0$  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:  $2.0 \pm 0.2$  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  $\geq 15.0$  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	Freq. (MHz)	Target SAR Values (mW/g)	
					1g/10g	Head
D750V3	1205	4-18-2023	4-18-2024	750	1g	8.55
					10g	5.59
D750V2	1122	2-24-2022	2-24-2024	750	1g	8.58
					10g	5.65
D835V2	4d174	9-21-2022	9-21-2024	835	1g	9.63
					10g	6.29
D835V2	4d194	3-24-2022	3-24-2024	835	1g	9.77
					10g	6.39
D1750V2	1125	11-30-2022	11-30-2023	1750	1g	37.40
					10g	19.70
D1750V2	1180	9-21-2022	9-21-2024	1750	1g	35.60
					10g	18.90
D1900V2	5d190	11-16-2022	11-16-2023	1900	1g	39.70
					10g	20.70
D1900V2	5d199	3-25-2022	3-25-2024	1900	1g	39.40
					10g	20.50
D2300V2	1115	4-25-2023	4-25-2024	2300	1g	48.50
					10g	23.50
D2300V2	1090	11-15-2022	11-15-2023	2300	1g	48.50
					10g	23.60
D2450V2	939	7-19-2023	7-19-2024	2450	1g	52.30
					10g	24.70
D2450V2	960	3-24-2022	3-24-2024	2450	1g	51.90
					10g	24.00
D2600V2	1097	9-26-2023	9-26-2024	2600	1g	57.30
					10g	25.70
D2600V2	1178	4-25-2023	4-25-2024	2600	1g	57.40
					10g	25.70
D3500V2	1121	4-20-2023	4-20-2024	3500	1g	66.60
					10g	25.10
D3500V2	1075	5-19-2023	5-19-2024	3500	1g	65.50
					10g	24.70
D3700V2	1036	5-19-2023	5-19-2024	3700	1g	67.80
					10g	24.50
D3900V2	1069	4-21-2023	4-21-2024	3900	1g	69.40
					10g	24.00
D5GHzV2	1209	2-28-2023	2-28-2024	5250	1g	80.40
					10g	22.90
				5600	1g	83.10
					10g	23.60
				5750	1g	78.90
					10g	22.20
				5800	1g	81.20
					10g	22.90
D5GHzV2	1325	4-21-2023	4-21-2024	5250	1g	79.60
					10g	22.70
				5600	1g	83.90
					10g	23.80
				5750	1g	80.40
					10g	22.70
				5800	1g	80.50
					10g	22.50

**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 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				
10-18-2023	D5GHzV2(5600)	1209	Head	1g	8.52	85.2	83.10	2.53	
				10g	2.49	24.9	23.60	5.51	
10-18-2023	D5GHzV2(5800)	1209	Head	1g	8.33	83.3	81.20	2.59	
				10g	2.43	24.3	22.90	6.11	
10-22-2023	D2600V2	1097	Head	1g	5.56	55.6	57.30	-2.97	
				10g	2.56	25.6	25.70	-0.39	
10-23-2023	D5GHzV2(5250)	1209	Head	1g	8.29	82.9	80.40	3.11	
				10g	2.43	24.3	22.90	6.11	
10-23-2023	D5GHzV2(5600)	1209	Head	1g	8.34	83.4	83.10	0.36	
				10g	2.46	24.6	23.60	4.24	
10-25-2023	D2450V2	960	Head	1g	5.39	53.9	51.90	3.85	1
				10g	2.59	25.9	24.00	7.92	
11-3-2023	D2450V2	960	Head	1g	4.90	49.0	51.90	-5.59	
				10g	2.36	23.6	24.00	-1.67	

**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				
10-23-2023	D3500V2	1075	Head	1g	6.66	66.6	65.50	1.68	2
				10g	2.67	26.7	24.70	8.10	
10-23-2023	D3700V2	1036	Head	1g	6.95	69.5	67.80	2.51	3
				10g	2.67	26.7	24.50	8.98	
10-23-2023	D3900V2	1069	Head	1g	7.07	70.7	69.40	1.87	
				10g	2.60	26.0	24.00	8.33	
10-30-2023	D3500V2	1121	Head	1g	6.42	64.2	66.60	-3.60	
				10g	2.59	25.9	25.10	3.19	
10-30-2023	D3700V2	1036	Head	1g	6.74	67.4	67.80	-0.59	
				10g	2.59	25.9	24.50	5.71	
10-30-2023	D3900V2	1069	Head	1g	6.94	69.4	69.40	0.00	
				10g	2.56	25.6	24.00	6.67	

**SAR 4 Room**

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
9-1-2023	D1900V2	5d190	Head	1g	3.95	39.5	39.70	-0.50	
				10g	2.12	21.2	20.70	2.42	
9-5-2023	D1750V2	1125	Head	1g	3.81	38.1	37.40	1.87	
				10g	2.09	20.9	19.70	6.09	
9-5-2023	D1900V2	5d190	Head	1g	3.96	39.6	39.70	-0.25	
				10g	2.12	21.2	20.70	2.42	
9-11-2023	D1750V2	1125	Head	1g	3.87	38.7	37.40	3.48	
				10g	2.13	21.3	19.70	8.12	
9-11-2023	D1900V2	5d190	Head	1g	3.95	39.5	39.70	-0.50	
				10g	2.11	21.1	20.70	1.93	
9-14-2023	D2300V2	1115	Head	1g	5.02	50.2	48.50	3.51	
				10g	2.54	25.4	23.50	8.09	
9-18-2023	D2300V2	1115	Head	1g	4.66	46.6	48.50	-3.92	4
				10g	2.41	24.1	23.50	2.55	
9-20-2023	D1750V2	1125	Head	1g	3.58	35.8	37.40	-4.28	
				10g	2.02	20.2	19.70	2.54	
9-20-2023	D1900V2	5d190	Head	1g	4.01	40.1	39.70	1.01	
				10g	2.18	21.8	20.70	5.31	
9-25-2023	D2300V2	1090	Head	4.53	4.68	46.8	48.50	-3.51	5
				2.21	2.40	24.0	23.50	2.13	
10-3-2023	D5GHzV2	1209	Head	1g	7.76	77.6	80.40	-3.48	
				10g	2.32	23.2	22.90	1.31	
10-3-2023	D5GHzV2	1209	Head	1g	8.13	81.3	83.10	-2.17	
				10g	2.40	24.0	23.60	1.69	
10-3-2023	D5GHzV2 (5800)	1209	Head	1g	7.47	74.7	78.90	-5.32	
				10g	2.20	22.0	22.90	-3.93	
10-10-2023	D5GHzV2	1209	Head	1g	7.63	76.3	80.40	-5.10	
				10g	2.34	23.4	22.90	2.18	
10-10-2023	D5GHzV2	1209	Head	1g	8.26	82.6	83.10	-0.60	
				10g	2.50	25.0	23.60	5.93	
10-10-2023	D5GHzV2 (5800)	1209	Head	1g	7.48	74.8	78.90	-5.20	
				10g	2.27	22.7	22.90	-0.87	
10-14-2023	D5GHzV2	1209	Head	1g	7.60	76.0	80.40	-5.47	6
				10g	2.36	23.6	22.90	3.06	
10-14-2023	D5GHzV2	1209	Head	1g	8.08	80.8	83.10	-2.77	
				10g	2.42	24.2	23.60	2.54	
10-14-2023	D5GHzV2 (5800)	1209	Head	1g	7.59	75.9	78.90	-3.80	
				10g	2.26	22.6	22.90	-1.31	
10-22-2023	D5GHzV2 (5800)	1209	Head	1g	7.88	78.8	78.90	-0.13	
				10g	2.44	24.4	22.90	6.55	
10-23-2023	D2600V2	1178	Head	1g	5.18	51.8	57.40	-9.76	7
				10g	2.59	25.9	25.70	0.78	
10-25-2023	D2450V2	960	Head	1g	5.17	51.7	51.90	-0.39	
				10g	2.60	26.0	24.00	8.33	

**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				
10-3-2023	D2450V2	960	Head	1g	4.98	49.8	51.90	-4.05	8
				10g	2.39	23.9	24.00	-0.42	
10-9-2023	D2450V2	960	Head	1g	5.15	51.5	51.90	-0.77	
				10g	2.52	25.2	24.00	5.00	
10-10-2023	D2600V2	1178	Head	1g	5.71	57.1	57.40	-0.52	
				10g	2.71	27.1	25.70	5.45	
10-14-2023	D2450V2	960	Head	1g	5.11	51.1	51.90	-1.54	
				10g	2.36	23.6	24.00	-1.67	
10-14-2023	D2600V2	1097	Head	1g	5.89	58.9	57.30	2.79	
				10g	2.64	26.4	25.70	2.72	
10-18-2023	D2450V2	960	Head	1g	5.27	52.7	51.90	1.54	
				10g	2.60	26.0	24.00	8.33	
10-22-2023	D2450V2	960	Head	1g	5.27	52.7	51.90	1.54	
				10g	2.60	26.0	24.00	8.33	
10-22-2023	D2600V2	1097	Head	1g	5.68	56.8	57.30	-0.87	
				10g	2.71	27.1	25.70	5.45	
10-26-2023	D2300V2	1090	Head	1g	4.88	48.8	48.50	0.62	
				10g	2.49	24.9	23.60	5.51	
10-26-2023	D2600V2	1097	Head	1g	5.52	55.2	57.30	-3.66	9
				10g	2.66	26.6	25.70	3.50	
10-30-2023	D3500V2	1075	Head	1g	6.49	64.9	65.50	-0.92	
				10g	2.60	26.0	24.70	5.26	
10-30-2023	D3700V2	1036	Head	1g	6.30	63.0	67.80	-7.08	10
				10g	2.40	24.0	24.50	-2.04	
10-30-2023	D3900V2	1069	Head	1g	7.04	70.4	69.40	1.44	
				10g	2.60	26.0	24.00	8.33	

**SAR 6 Room**

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
9-1-2023	D2600V2	1178	Head	1g	5.60	56.0	57.40	-2.44	
				10g	2.52	25.2	25.70	-1.95	
9-5-2023	D2600V2	1178	Head	1g	5.47	54.7	57.40	-4.70	
				10g	2.47	24.7	25.70	-3.89	
9-11-2023	D2600V2	1178	Head	1g	5.47	54.7	57.40	-4.70	
				10g	2.46	24.6	25.70	-4.28	
9-15-2023	D2600V2	1178	Head	1g	5.66	56.6	57.40	-1.39	
				10g	2.55	25.5	25.70	-0.78	
9-19-2023	D2600V2	1178	Head	1g	5.60	56.0	57.40	-2.44	
				10g	2.53	25.3	25.70	-1.56	
9-25-2023	D2600V2	1178	Head	1g	5.22	52.2	57.40	-9.06	11
				10g	2.35	23.5	25.70	-8.56	

**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				
9-1-2023	D750V2	1122	Head	1g	0.87	8.7	8.58	1.75	
				10g	0.57	5.7	5.65	1.06	
9-1-2023	D835V2	4d174	Head	1g	1.02	10.2	9.63	5.92	
				10g	0.66	6.6	6.29	5.56	
9-5-2023	D750V2	1122	Head	1g	0.87	8.7	8.58	1.86	12
				10g	0.58	5.8	5.65	2.48	
9-5-2023	D835V2	4d174	Head	1g	1.04	10.4	9.63	8.00	13
				10g	0.68	6.8	6.29	8.59	
9-11-2023	D750V2	1205	Head	1g	0.89	8.9	8.55	4.21	
				10g	0.59	5.9	5.59	4.83	
9-11-2023	D835V2	4d174	Head	1g	1.04	10.4	9.63	8.00	
				10g	0.68	6.8	6.29	7.31	
9-15-2023	D750V2	1205	Head	1g	0.91	9.1	8.55	6.20	14
				10g	0.60	6.0	5.59	6.80	
9-15-2023	D835V2	4d174	Head	1g	0.97	9.7	9.63	0.31	
				10g	0.59	5.9	6.29	-5.72	
9-21-2023	D750V2	1205	Head	1g	0.88	8.8	8.55	2.69	
				10g	0.58	5.8	5.59	4.11	
9-21-2023	D835V2	4d174	Head	1g	1.04	10.4	9.63	8.00	
				10g	0.69	6.9	6.29	9.06	
9-25-2023	D750V2	1205	Head	1g	0.88	8.8	8.55	2.81	
				10g	0.58	5.8	5.59	4.47	
9-25-2023	D835V2	4d174	Head	1g	1.01	10.1	9.63	4.88	
				10g	0.67	6.7	6.29	5.88	
10-2-2023	D750V2	1205	Head	1g	0.85	8.5	8.55	-0.58	
				10g	0.56	5.6	5.59	-0.54	
10-2-2023	D835V2	4d174	Head	1g	0.99	9.9	9.63	3.12	
				10g	0.64	6.4	6.29	2.38	
10-2-2023	D2600V2	1178	Head	1g	5.31	53.1	57.40	-7.49	
				10g	2.40	24.0	25.70	-6.61	
10-4-2023	D3500V2	1121	Head	6.58	6.48	64.8	66.60	-2.70	
				2.53	2.51	25.1	25.10	0.00	
10-4-2023	D3700V2	1036	Head	6.61	6.81	68.1	67.80	0.44	
				2.47	2.57	25.7	24.50	4.90	
10-4-2023	D3900V2	1069	Head	6.81	6.96	69.6	69.40	0.29	
				2.41	2.51	25.1	24.00	4.58	
10-9-2023	D3500V2	1121	Head	6.05	6.15	61.5	66.60	-7.66	15
				2.32	2.38	23.8	25.10	-5.18	
10-9-2023	D3700V2	1036	Head	6.69	6.90	69.0	67.80	1.77	
				2.48	2.58	25.8	24.50	5.31	
10-9-2023	D3900V2	1069	Head	6.76	6.93	69.3	69.40	-0.14	
				2.38	2.49	24.9	24.00	3.75	
10-13-2023	D3500V2	1121	Head	6.36	6.48	64.8	66.60	-2.70	
				2.44	2.50	25.0	25.10	-0.40	
10-13-2023	D3700V2	1036	Head	6.45	6.71	67.1	67.80	-1.03	
				2.42	2.51	25.1	24.50	2.45	
10-13-2023	D3900V2	1069	Head	6.61	6.78	67.8	69.40	-2.31	
				2.33	2.43	24.3	24.00	1.25	
10-17-2023	CLA-13	1015	Head	0.05	0.05	0.5	0.55	-5.11	16
				0.04	0.03	0.3	0.34	-5.88	
10-17-2023	D750V2	1205	Head	0.82	0.83	8.3	8.55	-3.16	
				0.55	0.55	5.5	5.59	-2.33	
10-30-2023	D1750V2	1125	Head	1g	3.62	36.2	37.40	-3.21	
				10g	1.92	19.2	19.70	-2.54	
10-30-2023	D1900V2	5d190	Head	1g	3.79	37.9	39.70	-4.53	17
				10g	1.95	19.5	20.70	-5.80	

**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				
9-4-2023	D835V2	4d174	Head	1g	0.90	9.0	9.63	-6.23	
				10g	0.59	5.9	6.29	-6.04	
9-8-2023	D835V2	4d174	Head	1g	0.97	9.7	9.63	0.73	
				10g	0.63	6.3	6.29	0.48	
9-8-2023	D750V3	1205	Head	1g	0.85	8.5	8.55	-0.82	
				10g	0.56	5.6	5.59	0.00	
9-12-2023	D1750V2	1125	Head	1g	3.76	37.6	37.40	0.53	
				10g	2.01	20.1	19.70	2.03	
9-12-2023	D1900V2	5d190	Head	1g	3.91	39.1	39.70	-1.51	18
				10g	2.04	20.4	20.70	-1.45	
9-20-2023	D1750V2	1180	Head	1g	3.53	35.3	35.60	-0.84	19
				10g	1.89	18.9	18.90	0.00	
9-24-2023	D1750V2	1125	Head	1g	3.73	37.3	37.40	-0.27	
				10g	1.98	19.8	19.70	0.51	
10-2-2023	D1750V2	1125	Head	1g	3.75	37.5	37.40	0.27	
				10g	2.01	20.1	19.70	2.03	
10-2-2023	D1900V2	5d190	Head	1g	3.96	39.6	39.70	-0.25	
				10g	2.10	21.0	20.70	1.45	
10-4-2023	D3500V2	1075	Head	1g	6.62	66.2	65.50	1.07	
				10g	2.58	25.8	24.70	4.45	
10-4-2023	D3700V2	1036	Head	1g	6.81	68.1	67.80	0.44	
				10g	2.58	25.8	24.50	5.31	
10-4-2023	D3900V2	1069	Head	1g	6.84	68.4	69.40	-1.44	
				10g	2.48	24.8	24.00	3.33	
10-9-2023	D3500V2	1121	Head	1g	6.29	62.9	66.60	-5.56	
				10g	2.43	24.3	25.10	-3.19	
10-9-2023	D3700V2	1036	Head	1g	6.30	63.0	67.80	-7.08	20
				10g	2.36	23.6	24.50	-3.67	
10-9-2023	D3900V2	1069	Head	1g	6.50	65.0	69.40	-6.34	21
				10g	2.33	23.3	24.00	-2.92	
10-12-2023	D3500V2	1121	Head	1g	6.41	64.1	66.60	-3.75	
				10g	2.56	25.6	25.10	1.99	
10-12-2023	D3700V2	1036	Head	1g	6.73	67.3	67.80	-0.74	
				10g	2.60	26.0	24.50	6.12	
10-12-2023	D3900V2	1069	Head	1g	6.73	67.3	69.40	-3.03	
				10g	2.50	25.0	24.00	4.17	
10-16-2023	D3500V2	1121	Head	1g	6.59	65.9	66.60	-1.05	
				10g	2.57	25.7	25.10	2.39	
10-16-2023	D3700V2	1036	Head	1g	6.43	64.3	67.80	-5.16	
				10g	2.44	24.4	24.50	-0.41	
10-16-2023	D3900V2	1069	Head	1g	6.70	67.0	69.40	-3.46	
				10g	2.43	24.3	24.00	1.25	
10-19-2023	D1750V2	1125	Head	1g	3.59	35.9	37.40	-4.01	
				10g	1.96	19.6	19.70	-0.51	
10-30-2023	D1750V2	1125	Head	1g	3.62	36.2	37.40	-3.21	
				10g	2.00	20.0	19.70	1.52	

**SAR 9 Room**

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
9-12-2023	D1750V2	1125	Head	1g	3.42	34.2	37.40	-8.56	22
				10g	1.82	18.2	19.70	-7.61	
9-13-2023	D1750V2	1125	Head	1g	3.54	35.4	37.40	-5.35	
				10g	1.90	19.0	19.70	-3.55	
9-21-2023	D750V3	1205	Head	1g	0.83	8.3	8.55	-3.04	
				10g	0.55	5.5	5.59	-1.97	
9-21-2023	D835V2	4d174	Head	1g	0.92	9.2	9.63	-4.26	
				10g	0.60	6.0	6.29	-3.97	
9-24-2023	D750V3	1205	Head	1g	0.81	8.1	8.55	-5.03	
				10g	0.54	5.4	5.59	-3.94	
9-24-2023	D835V2	4d174	Head	1g	0.91	9.1	9.63	-5.61	
				10g	0.60	6.0	6.29	-5.09	
9-26-2023	D2600V2	1178	Head	1g	5.64	56.4	57.40	-1.74	
				10g	2.59	25.9	25.70	0.78	
10-3-2023	D2600V2	1178	Head	1g	5.83	58.3	57.40	1.57	
				10g	2.69	26.9	25.70	4.67	
11-3-2023	D2450V2	939	Head	1g	5.29	52.9	52.30	1.15	
				10g	2.54	25.4	24.70	2.83	

## 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 Ant.A Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)			
					DSI = 0, 1			
					Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	128	824.2	31.61	22.58	33.0	24.0
			190	836.6	31.98	22.95		
			251	848.8	32.01	22.98		
GPRS (GMSK)	CS1	1	128	824.2	31.58	22.55	33.0	24.0
			190	836.6	31.90	22.87		
			251	848.8	31.92	22.89		
		2	128	824.2	31.10	25.08	32.5	26.5
			190	836.6	31.14	25.12		
			251	848.8	31.14	25.12		
		3	128	824.2	29.12	24.86	30.5	26.2
			190	836.6	29.11	24.85		
			251	848.8	29.14	24.88		
		4	128	824.2	27.08	24.07	28.5	25.5
			190	836.6	27.19	24.18		
			251	848.8	27.07	24.06		
EGPRS (8PSK)	MCS5	1	128	824.2	26.22	17.19	28.0	19.0
			190	836.6	26.90	17.87		
			251	848.8	26.96	17.93		
		2	128	824.2	24.83	18.81	26.0	20.0
			190	836.6	25.53	19.51		
			251	848.8	25.57	19.55		
		3	128	824.2	23.94	19.68	25.5	21.2
			190	836.6	24.64	20.38		
			251	848.8	24.59	20.33		
		4	128	824.2	23.51	20.50	25.5	22.5
			190	836.6	24.22	21.21		
			251	848.8	24.26	21.25		

#### Notes:

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

- GMSK (GPRS) mode with 2 time slots for DSI=0,1, based on the Tune-up Procedure. Refer to §6.3.
- SAR is not required for EGPRS (8PSK) mode because the maximum output power and tune-up limit is  $\leq 1/4$ dB higher than GMSK GPRS or the adjusted SAR of the highest reported SAR of GMSK GPRS is  $\leq 1.2$ W/kg.

**GSM850 Ant.E Measured Results**

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)							
					DSI = 0				DSI = 1			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	128	824.2	31.84	22.81	33.0	24.0	30.52	21.49	32.0	23.0
			190	836.6	32.03	23.00			30.53	21.50		
			251	848.8	32.03	23.00			30.60	21.57		
GPRS (GMSK)	CS1	1	128	824.2	31.82	22.79	33.0	24.0	30.50	21.47	32.0	23.0
			190	836.6	32.27	23.24			30.65	21.62		
			251	848.8	32.36	23.33			30.59	21.56		
		2	128	824.2	31.24	25.22	32.5	26.5	27.20	21.18	29.0	23.0
			190	836.6	31.38	25.36			27.54	21.52		
			251	848.8	31.31	25.29			27.31	21.29		
		3	128	824.2	29.55	25.29	30.5	26.2	25.66	21.40	27.2	22.9
			190	836.6	29.24	24.98			26.16	21.90		
			251	848.8	29.27	25.01			26.15	21.89		
		4	128	824.2	27.21	24.20	28.5	25.5	24.35	21.34	26.0	23.0
			190	836.6	27.56	24.55			24.48	21.47		
			251	848.8	27.59	24.58			24.48	21.47		
EGPRS (8PSK)	MCS5	1	128	824.2	26.45	17.42	28.0	19.0	26.24	17.21	28.0	19.0
			190	836.6	26.76	17.73			26.48	17.45		
			251	848.8	26.63	17.60			26.35	17.32		
		2	128	824.2	24.99	18.97	26.0	20.0	24.57	18.55	26.0	20.0
			190	836.6	25.10	19.08			24.65	18.63		
			251	848.8	25.08	19.06			24.62	18.60		
		3	128	824.2	23.96	19.70	25.5	21.2	23.71	19.45	25.5	21.2
			190	836.6	24.23	19.97			23.81	19.55		
			251	848.8	24.17	19.91			23.73	19.47		
		4	128	824.2	24.51	21.50	25.5	22.5	24.23	21.22	25.5	22.5
			190	836.6	24.52	21.51			24.21	21.20		
			251	848.8	24.51	21.50			24.19	21.18		

**Notes:**

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

- GMSK (GPRS) mode with 2 time slots for DSI=0, based on the Tune-up Procedure. Refer to §6.3.
- GMSK (GPRS) mode with 4 time slots for DSI=1, 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 = 1				DSI = 0			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
					Burst Pw r	Frame Pw r	Burst Pw r	Frame Pw r	Burst Pw r	Frame Pw r	Burst Pw r	Frame Pw r
GSM (Voice)	CS1	1	512	1850.2	28.78	19.75	30.0	21.0	27.96	18.93	29.0	20.0
			661	1880.0	29.10	20.07			27.92	18.89		
			810	1909.8	29.06	20.03			27.97	18.94		
0	CS1	1	512	1850.2	28.77	19.74	30.0	21.0	27.96	18.93	29.0	20.0
			661	1880.0	29.05	20.02			27.85	18.82		
			810	1909.8	29.00	19.97			27.91	18.88		
		2	512	1850.2	27.63	21.61	29.0	23.0	25.55	19.53	26.0	20.0
			661	1880.0	27.57	21.55			25.36	19.34		
			810	1909.8	27.65	21.63			25.63	19.61		
		3	512	1850.2	26.38	22.12	27.5	23.2	22.84	18.58	24.2	19.9
			661	1880.0	25.75	21.49			23.07	18.81		
			810	1909.8	26.35	22.09			23.17	18.91		
		4	512	1850.2	24.28	21.27	25.5	22.5	21.55	18.54	23.0	20.0
			661	1880.0	24.39	21.38			21.69	18.68		
			810	1909.8	24.46	21.45			21.82	18.81		
EGPRS (8PSK)	MCS5	1	512	1850.2	25.05	16.02	27.0	18.0	25.22	16.19	27.0	18.0
			661	1880.0	25.48	16.45			25.51	16.48		
			810	1909.8	25.31	16.28			25.41	16.38		
		2	512	1850.2	23.98	17.96	25.0	19.0	23.96	17.94	25.0	19.0
			661	1880.0	24.43	18.41			24.43	18.41		
			810	1909.8	24.37	18.35			24.37	18.35		
		3	512	1850.2	23.19	18.93	24.5	20.2	22.93	18.67	24.5	20.2
			661	1880.0	23.69	19.43			23.11	18.85		
			810	1909.8	23.66	19.40			23.03	18.77		
		4	512	1850.2	22.93	19.92	24.5	21.5	23.03	20.02	24.5	21.5
			661	1880.0	23.44	20.43			23.62	20.61		
			810	1909.8	23.42	20.41			23.66	20.65		

**Notes:**

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

- GMSK (GPRS) mode with 4 time slots for DSI=0, based on the Tune-up Procedure. Refer to §6.3.
- GMSK (GPRS) mode with 3 time slots for DSI=1, 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
	$\beta_c/\beta_d$	8/15

### HSDPA Setup Procedures used to establish the test signals

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

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

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

The following 5 Sub-tests were completed according to Release 6 procedures in table C,11.1.3 of 3GPP TS 34.121-1 v13. A summary of these settings are illustrated below:

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

**DC-HSDPA Setup Procedures used to establish the test signals**

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

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

Table E.5.0: Levels for HSDPA connection setup

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

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

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

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

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Proces ses	6
Information Bit Payload ( $N_{INF}$ )	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

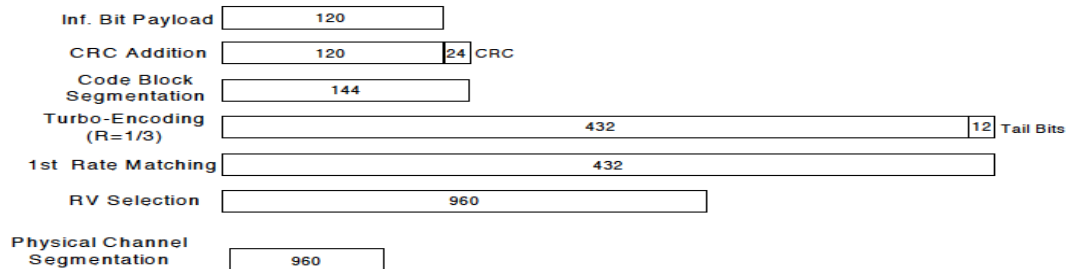


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 12			
	Power Control Algorithm	Algorithm2			
	$\beta_c$	2/15	11/15	15/15	15/15
	$\beta_d$	15/15	15/15	8/15	4/15
	$\beta_d$ (SF)	64			
	$\beta_c/\beta_d$	2/15	11/15	15/8	15/4
	$\beta_{hs}$	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			
	$A_{hs} = \beta_{hs}/\beta_c$	30/15			

**HSPA+**

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

**W-CDMA Band II Measured Results**

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
				DSI = 1			DSI = 0		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	22.78	N/A	24.0	19.34	N/A	20.0
		9400	1880.0	22.79			19.34		
		9538	1907.6	22.76			19.33		
HSDPA	Subtest 1	9262	1852.4	21.84	0	23.0	18.31	0	19.0
		9400	1880.0	21.83			18.33		
		9538	1907.6	21.75			18.32		
	Subtest 2	9262	1852.4	21.80	0	23.0	18.36	0	19.0
		9400	1880.0	21.79			18.32		
		9538	1907.6	21.75			18.31		
	Subtest 3	9262	1852.4	21.32	0.5	22.5	17.81	0.5	18.5
		9400	1880.0	21.28			17.82		
		9538	1907.6	21.24			17.77		
	Subtest 4	9262	1852.4	21.29	0.5	22.5	17.85	0.5	18.5
		9400	1880.0	21.30			17.86		
		9538	1907.6	21.26			17.79		
HSUPA	Subtest 1	9262	1852.4	21.79	0	23.0	18.34	0	19.0
		9400	1880.0	21.79			18.29		
		9538	1907.6	21.74			18.28		
	Subtest 2	9262	1852.4	19.77	2	21.0	16.33	2	17.0
		9400	1880.0	19.79			16.23		
		9538	1907.6	19.69			16.29		
	Subtest 3	9262	1852.4	20.76	1	22.0	17.36	1	18.0
		9400	1880.0	20.84			17.32		
		9538	1907.6	20.76			17.35		
	Subtest 4	9262	1852.4	19.76	2	21.0	16.21	2	17.0
		9400	1880.0	19.78			16.21		
		9538	1907.6	19.73			16.16		
	Subtest 5	9262	1852.4	21.84	0	23.0	18.22	0	19.0
		9400	1880.0	21.84			18.31		
		9538	1907.6	21.76			18.29		
DC-HSDPA	Subtest 1	9262	1852.4	21.79	0	23.0	18.28	0	19.0
		9400	1880.0	21.83			18.23		
		9538	1907.6	21.77			18.19		
	Subtest 2	9262	1852.4	21.81	0	23.0	18.26	0	19.0
		9400	1880.0	21.86			18.20		
		9538	1907.6	21.84			18.29		
	Subtest 3	9262	1852.4	21.35	0.5	22.5	17.77	0.5	18.5
		9400	1880.0	21.36			17.78		
		9538	1907.6	21.32			17.64		
	Subtest 4	9262	1852.4	21.30	0.5	22.5	17.71	0.5	18.5
		9400	1880.0	21.47			17.87		
		9538	1907.6	21.44			17.80		

**W-CDMA Band IV Measured Results**

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
				DSI = 1			DSI = 0		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	22.86	N/A	24.0	19.33	N/A	20.0
		1413	1732.6	22.77			19.24		
		1513	1752.6	22.75			19.27		
HSDPA	Subtest 1	1312	1712.4	21.78	0	23.0	18.32	0	19.0
		1413	1732.6	21.77			18.27		
		1513	1752.6	21.76			18.25		
	Subtest 2	1312	1712.4	21.82	0	23.0	18.27	0	19.0
		1413	1732.6	21.78			18.28		
		1513	1752.6	21.76			18.25		
	Subtest 3	1312	1712.4	21.28	0.5	22.5	17.82	0.5	18.5
		1413	1732.6	21.26			17.76		
		1513	1752.6	21.22			17.78		
	Subtest 4	1312	1712.4	21.26	0.5	22.5	17.82	0.5	18.5
		1413	1732.6	21.24			17.73		
		1513	1752.6	21.26			17.74		
HSUPA	Subtest 1	1312	1712.4	21.71	0	23.0	18.25	0	19.0
		1413	1732.6	21.76			18.31		
		1513	1752.6	21.71			18.16		
	Subtest 2	1312	1712.4	19.87	2	21.0	16.28	2	17.0
		1413	1732.6	19.73			16.32		
		1513	1752.6	19.79			16.24		
	Subtest 3	1312	1712.4	20.84	1	22.0	17.31	1	18.0
		1413	1732.6	20.76			17.31		
		1513	1752.6	20.76			17.24		
	Subtest 4	1312	1712.4	19.97	2	21.0	16.30	2	17.0
		1413	1732.6	19.89			16.40		
		1513	1752.6	19.86			16.32		
Subtest 5	1312	1712.4	21.84	0	23.0	18.43	0	19.0	
	1413	1732.6	21.89			18.31			
	1513	1752.6	21.88			18.33			
DC-HSDPA	Subtest 1	1312	1712.4	21.98	0	23.0	18.37	0	19.0
		1413	1732.6	21.91			18.39		
		1513	1752.6	21.91			18.34		
	Subtest 2	1312	1712.4	21.94	0	23.0	18.44	0	19.0
		1413	1732.6	21.91			18.39		
		1513	1752.6	21.87			18.34		
	Subtest 3	1312	1712.4	21.45	0.5	22.5	17.93	0.5	18.5
		1413	1732.6	21.46			17.94		
		1513	1752.6	21.78			17.84		
	Subtest 4	1312	1712.4	21.37	0.5	22.5	17.86	0.5	18.5
		1413	1732.6	21.43			17.81		
		1513	1752.6	21.41			17.82		

**W-CDMA Band V Ant.A Measured Results**

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)		
				DSI = 0, 1		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	23.81	N/A	25.0
		4183	836.6	23.79		
		4233	846.6	23.77		
HSDPA	Subtest 1	4132	826.4	22.36	0	24.0
		4183	836.6	22.69		
		4233	846.6	22.84		
	Subtest 2	4132	826.4	22.73	0	24.0
		4183	836.6	22.79		
		4233	846.6	22.75		
	Subtest 3	4132	826.4	22.14	0.5	23.5
		4183	836.6	22.25		
		4233	846.6	22.23		
	Subtest 4	4132	826.4	22.30	0.5	23.5
		4183	836.6	22.31		
		4233	846.6	22.23		
HSUPA	Subtest 1	4132	826.4	22.92	0	24.0
		4183	836.6	22.80		
		4233	846.6	22.89		
	Subtest 2	4132	826.4	20.88	2	22.0
		4183	836.6	20.96		
		4233	846.6	20.89		
	Subtest 3	4132	826.4	21.84	1	23.0
		4183	836.6	21.87		
		4233	846.6	21.95		
	Subtest 4	4132	826.4	20.90	2	22.0
		4183	836.6	20.86		
		4233	846.6	20.89		
	Subtest 5	4132	826.4	22.99	0	24.0
		4183	836.6	22.96		
		4233	846.6	22.92		
DC-HSDPA	Subtest 1	4132	826.4	22.85	0	24.0
		4183	836.6	22.64		
		4233	846.6	22.51		
	Subtest 2	4132	826.4	22.96	0	24.0
		4183	836.6	22.97		
		4233	846.6	22.95		
	Subtest 3	4132	826.4	22.48	0.5	23.5
		4183	836.6	22.46		
		4233	846.6	22.41		
	Subtest 4	4132	826.4	22.47	0.5	23.5
		4183	836.6	22.42		
		4233	846.6	22.46		

**W-CDMA Band V Ant.E Measured Results**

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
				DSI = 0			DSI = 1		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.01	N/A	25.0	22.51	N/A	23.0
		4183	836.6	23.98			22.44		
		4233	846.6	24.02			22.48		
HSDPA	Subtest 1	4132	826.4	22.97	0	24.0	21.32	0	22.0
		4183	836.6	22.94			21.32		
		4233	846.6	23.04			21.37		
	Subtest 2	4132	826.4	22.95	0	24.0	21.31	0	22.0
		4183	836.6	22.92			21.24		
		4233	846.6	23.00			21.37		
	Subtest 3	4132	826.4	22.47	0.5	23.5	20.84	0.5	21.5
		4183	836.6	22.34			20.83		
		4233	846.6	22.51			20.87		
	Subtest 4	4132	826.4	22.46	0.5	23.5	20.82	0.5	21.5
		4183	836.6	22.41			20.77		
		4233	846.6	22.54			20.75		
HSUPA	Subtest 1	4132	826.4	22.96	0	24.0	21.27	0	22.0
		4183	836.6	22.98			21.36		
		4233	846.6	23.02			21.43		
	Subtest 2	4132	826.4	20.95	2	22.0	19.34	2	20.0
		4183	836.6	20.97			19.32		
		4233	846.6	20.99			19.38		
	Subtest 3	4132	826.4	21.95	1	23.0	20.36	1	21.0
		4183	836.6	21.94			20.38		
		4233	846.6	22.00			20.45		
	Subtest 4	4132	826.4	20.99	2	22.0	19.37	2	20.0
		4183	836.6	20.97			19.41		
		4233	846.6	21.02			19.42		
	Subtest 5	4132	826.4	22.54	0	24.0	21.34	0	22.0
		4183	836.6	22.52			21.31		
		4233	846.6	22.57			21.43		
DC-HSDPA	Subtest 1	4132	826.4	22.99	0	24.0	21.35	0	22.0
		4183	836.6	22.96			21.38		
		4233	846.6	22.96			21.41		
	Subtest 2	4132	826.4	22.94	0	24.0	21.36	0	22.0
		4183	836.6	22.95			21.40		
		4233	846.6	23.02			21.42		
	Subtest 3	4132	826.4	22.49	0.5	23.5	20.85	0.5	21.5
		4183	836.6	22.45			20.89		
		4233	846.6	22.52			20.86		
	Subtest 4	4132	826.4	22.46	0.5	23.5	20.85	0.5	21.5
		4183	836.6	22.44			20.86		
		4233	846.6	22.53			20.89		



### 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	$\leq 1$
16 QAM	$\leq 5$	$\leq 4$	$\leq 8$	$\leq 12$	$\leq 16$	$\leq 18$	$\leq 1$
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	$\leq 2$
64 QAM	$\leq 5$	$\leq 4$	$\leq 8$	$\leq 12$	$\leq 16$	$\leq 18$	$\leq 2$
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	$\leq 3$
256 QAM	$\geq 1$						$\leq 5$

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  $\leq$  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)
  - LTE Band 38 (2570 – 2620 MHz) is covered by LTE Band 41 (2496 – 2690 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  $\leq 0.5$  dB higher than the QPSK or when the reported SAR for QPSK configuration is  $\leq 1.45$  W/kg.

**LTE Band 5 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
				DSI = 0, 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit
20525	836.5 MHz							
10 MHz	QPSK	1	0	24.15	0.0	25.0		
		1	25	24.10	0.0	25.0		
		1	49	24.00	0.0	25.0		
		25	0	23.14	1.0	24.0		
		25	12	23.13	1.0	24.0		
		25	25	23.03	1.0	24.0		
	16QAM	50	0	23.09	1.0	24.0		
		1	0	23.38	1.0	24.0		
		1	25	23.40	1.0	24.0		
		1	49	23.29	1.0	24.0		
		25	0	22.11	2.0	23.0		
		25	12	22.14	2.0	23.0		
	64QAM	25	25	22.10	2.0	23.0		
		50	0	22.12	2.0	23.0		
		1	0	22.34	2.0	23.0		
		1	25	22.35	2.0	23.0		
		1	49	22.26	2.0	23.0		
		25	0	21.10	3.0	22.0		
	256QAM	25	12	21.15	3.0	22.0		
		25	25	21.10	3.0	22.0		
50		0	21.15	3.0	22.0			
1		0	19.20	5.0	20.0			
1		25	19.28	5.0	20.0			
1		49	19.16	5.0	20.0			
5 MHz	QPSK	25	0	19.08	5.0	20.0		
		25	12	19.15	5.0	20.0		
		25	25	19.12	5.0	20.0		
		50	0	19.15	5.0	20.0		
		1	0	24.08	24.05	24.06	0.0	25.0
		1	12	24.02	24.01	24.04	0.0	25.0
	16QAM	1	24	24.07	24.01	24.08	0.0	25.0
		12	0	23.14	23.08	23.07	1.0	24.0
		12	7	23.15	23.09	23.16	1.0	24.0
		12	13	23.12	23.15	23.13	1.0	24.0
		25	0	23.13	23.11	23.13	1.0	24.0
		1	0	23.31	23.42	23.34	1.0	24.0
	64QAM	1	12	23.31	23.41	23.42	1.0	24.0
		1	24	23.28	23.38	23.39	1.0	24.0
		12	0	22.18	22.14	22.11	2.0	23.0
		12	7	22.16	22.11	22.20	2.0	23.0
		12	13	22.13	22.16	22.16	2.0	23.0
		25	0	22.12	22.14	22.13	2.0	23.0
	256QAM	1	0	22.25	22.22	22.24	2.0	23.0
		1	12	22.19	22.16	22.27	2.0	23.0
1		24	22.16	22.16	22.23	2.0	23.0	
12		0	21.19	21.12	21.10	3.0	22.0	
12		7	21.18	21.06	21.20	3.0	22.0	
12		13	21.16	21.12	21.17	3.0	22.0	
256QAM	25	0	21.15	21.15	21.15	3.0	22.0	
	1	0	19.24	19.28	19.14	5.0	20.0	
	1	12	19.28	19.32	19.23	5.0	20.0	
	1	24	19.25	19.24	19.20	5.0	20.0	
	12	0	19.15	19.09	19.06	5.0	20.0	
	12	7	19.15	19.09	19.14	5.0	20.0	
256QAM	12	13	19.15	19.12	19.12	5.0	20.0	
	25	0	19.12	19.12	19.13	5.0	20.0	

**LTE Band 5 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20415	20525	20635		
				825.5 MHz	836.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.11	23.96	24.05	0.0	25.0
		1	8	24.10	24.07	24.07	0.0	25.0
		1	14	24.05	23.99	23.99	0.0	25.0
		8	0	23.15	23.03	22.97	1.0	24.0
		8	4	23.13	23.02	23.03	1.0	24.0
		8	7	23.13	23.09	23.09	1.0	24.0
	16QAM	15	0	23.13	23.11	23.02	1.0	24.0
		1	0	23.28	23.33	23.34	1.0	24.0
		1	8	23.32	23.36	23.38	1.0	24.0
		1	14	23.30	23.28	23.39	1.0	24.0
		8	0	22.24	22.04	22.11	2.0	23.0
		8	4	22.27	22.06	22.11	2.0	23.0
	64QAM	8	7	22.26	22.12	22.20	2.0	23.0
		15	0	22.16	22.10	22.06	2.0	23.0
		1	0	22.26	22.23	22.34	2.0	23.0
		1	8	22.35	22.23	22.45	2.0	23.0
		1	14	22.20	22.20	22.37	2.0	23.0
		8	0	21.13	21.10	21.13	3.0	22.0
	256QAM	8	4	21.18	21.07	21.09	3.0	22.0
		8	7	21.11	21.17	21.21	3.0	22.0
		15	0	21.16	21.12	21.07	3.0	22.0
1		0	19.12	19.09	19.18	5.0	20.0	
1		8	19.22	19.23	19.28	5.0	20.0	
1		14	19.17	19.14	19.28	5.0	20.0	
1.4 MHz	QPSK	8	0	19.17	19.05	19.05	5.0	20.0
		8	4	19.20	19.07	19.06	5.0	20.0
		8	7	19.17	19.10	19.12	5.0	20.0
		15	0	19.12	19.09	19.07	5.0	20.0
		1	0	24.02	24.01	24.00	0.0	25.0
		1	3	24.00	23.98	24.00	0.0	25.0
	16QAM	1	5	24.00	23.97	24.01	0.0	25.0
		3	0	23.97	23.96	23.92	0.0	25.0
		3	1	23.96	23.96	23.99	0.0	25.0
		3	3	23.97	23.97	23.98	0.0	25.0
		6	0	23.05	23.03	23.04	1.0	24.0
		1	0	23.22	23.36	23.28	1.0	24.0
	64QAM	1	3	23.25	23.37	23.30	1.0	24.0
		1	5	23.25	23.39	23.29	1.0	24.0
		3	0	23.14	23.11	23.16	1.0	24.0
		3	1	23.17	23.13	23.19	1.0	24.0
		3	3	23.13	23.16	23.17	1.0	24.0
		6	0	22.12	22.05	22.15	2.0	23.0
	256QAM	1	0	22.24	22.23	22.34	2.0	23.0
		1	3	22.25	22.27	22.33	2.0	23.0
		1	5	22.21	22.23	22.32	2.0	23.0
3		0	22.19	22.04	22.14	2.0	23.0	
3		1	22.19	22.10	22.18	2.0	23.0	
3		3	22.18	22.10	22.11	2.0	23.0	
256QAM	6	0	21.08	21.05	21.14	3.0	22.0	
	1	0	19.21	19.08	19.20	5.0	20.0	
	1	3	19.19	19.13	19.21	5.0	20.0	
	1	5	19.19	19.15	19.21	5.0	20.0	
	3	0	19.07	19.06	19.08	5.0	20.0	
	3	1	19.08	19.16	19.08	5.0	20.0	
256QAM	3	3	19.11	19.15	19.13	5.0	20.0	
	6	0	19.31	19.11	19.07	5.0	20.0	

**LTE Band 5 Ant E Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20525	836.5 MHz	20625			20525	836.5 MHz	20625		
10 MHz	QPSK	1	0	24.35			0.0	25.0	22.06			0.0	23.0
		1	25	24.29			0.0	25.0	22.03			0.0	23.0
		1	49	24.25			0.0	25.0	21.96			0.0	23.0
		25	0	23.26			1.0	24.0	21.99			0.0	23.0
		25	12	23.35			1.0	24.0	22.08			0.0	23.0
		25	25	23.36			1.0	24.0	22.10			0.0	23.0
	16QAM	50	0	23.32			1.0	24.0	22.08			0.0	23.0
		1	0	23.47			1.0	24.0	22.33			0.0	23.0
		1	25	23.54			1.0	24.0	22.41			0.0	23.0
		1	49	23.52			1.0	24.0	22.31			0.0	23.0
		25	0	22.28			2.0	23.0	22.02			0.0	23.0
		25	12	22.37			2.0	23.0	22.07			0.0	23.0
	64QAM	25	25	22.32			2.0	23.0	22.04			0.0	23.0
		50	0	22.31			2.0	23.0	22.10			0.0	23.0
		1	0	22.50			2.0	23.0	22.27			0.0	23.0
		1	25	22.52			2.0	23.0	22.28			0.0	23.0
		1	49	22.41			2.0	23.0	22.16			0.0	23.0
		25	0	21.25			3.0	22.0	21.26			1.0	22.0
	256QAM	25	12	21.35			3.0	22.0	21.33			1.0	22.0
		25	25	21.27			3.0	22.0	21.31			1.0	22.0
		50	0	21.30			3.0	22.0	21.31			1.0	22.0
		1	0	19.26			5.0	20.0	19.22			3.0	20.0
		1	25	19.38			5.0	20.0	19.42			3.0	20.0
		1	49	19.23			5.0	20.0	19.25			3.0	20.0
	5 MHz	QPSK	25	0	19.20			5.0	20.0	19.21			3.0
25			12	19.31			5.0	20.0	19.29			3.0	20.0
25			25	19.31			5.0	20.0	19.31			3.0	20.0
50			0	19.26			5.0	20.0	19.31			3.0	20.0
20425			20525	20625	MPR	Tune-up Limit	20425	20525	20625	MPR	Tune-up Limit		
826.5 MHz			836.5 MHz	846.5 MHz			826.5 MHz	836.5 MHz	846.5 MHz				
16QAM		1	0	24.36	24.27	24.18	0.0	25.0	22.02	22.05	21.99	0.0	23.0
		1	12	24.31	24.27	24.17	0.0	25.0	21.99	21.97	21.98	0.0	23.0
		1	24	24.31	24.11	24.20	0.0	25.0	22.05	21.97	22.00	0.0	23.0
		12	0	23.43	23.24	23.24	1.0	24.0	22.08	22.03	22.04	0.0	23.0
		12	7	23.43	23.21	23.31	1.0	24.0	22.06	22.04	22.05	0.0	23.0
		12	13	23.38	23.27	23.28	1.0	24.0	22.03	22.06	22.09	0.0	23.0
	25	0	23.36	23.25	23.28	1.0	24.0	22.07	22.00	22.02	0.0	23.0	
	64QAM	1	0	23.58	23.31	23.32	1.0	24.0	22.39	22.27	22.47	0.0	23.0
		1	12	23.57	23.34	23.40	1.0	24.0	22.38	22.33	22.41	0.0	23.0
		1	24	23.60	23.31	23.35	1.0	24.0	22.36	22.28	22.48	0.0	23.0
		12	0	22.36	22.21	22.26	2.0	23.0	22.13	22.12	22.03	0.0	23.0
		12	7	22.38	22.23	22.36	2.0	23.0	22.14	22.08	22.03	0.0	23.0
12		13	22.31	22.27	22.32	2.0	23.0	22.11	22.13	22.10	0.0	23.0	
256QAM	25	0	22.36	22.32	22.29	2.0	23.0	22.11	22.01	22.08	0.0	23.0	
	1	0	22.37	22.34	22.47	2.0	23.0	22.14	22.25	22.25	0.0	23.0	
	1	12	22.32	22.34	22.52	2.0	23.0	22.13	22.25	22.24	0.0	23.0	
	1	24	22.38	22.25	22.42	2.0	23.0	22.10	22.21	22.30	0.0	23.0	
	12	0	21.23	21.23	21.35	3.0	22.0	21.31	21.27	21.29	1.0	22.0	
	12	7	21.32	21.23	21.33	3.0	22.0	21.33	21.28	21.31	1.0	22.0	
QPSK	12	13	21.28	21.27	21.31	3.0	22.0	21.26	21.32	21.34	1.0	22.0	
	25	0	21.27	21.27	21.30	3.0	22.0	21.28	21.27	21.24	1.0	22.0	
	1	0	19.35	19.24	19.32	5.0	20.0	19.25	19.34	19.46	3.0	20.0	
	1	12	19.40	19.33	19.37	5.0	20.0	19.29	19.42	19.50	3.0	20.0	
	1	24	19.40	19.30	19.29	5.0	20.0	19.37	19.34	19.51	3.0	20.0	
	12	0	19.23	19.21	19.30	5.0	20.0	19.29	19.23	19.27	3.0	20.0	
16QAM	12	7	19.29	19.20	19.32	5.0	20.0	19.32	19.23	19.27	3.0	20.0	
	12	13	19.25	19.25	19.29	5.0	20.0	19.28	19.29	19.32	3.0	20.0	
	25	0	19.24	19.28	19.27	5.0	20.0	19.25	19.22	19.23	3.0	20.0	

**LTE Band 5 Ant E Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				20415	20525	20635			20415	20525	20635		
				825.5 MHz	836.5 MHz	847.5 MHz			825.5 MHz	836.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.29	24.20	24.14	0.0	25.0	21.99	21.96	22.07	0.0	23.0
		1	8	24.25	24.24	24.23	0.0	25.0	22.01	21.93	22.07	0.0	23.0
		1	14	24.23	24.19	24.19	0.0	25.0	22.02	21.98	22.00	0.0	23.0
		8	0	23.30	23.20	23.16	1.0	24.0	22.05	21.99	22.02	0.0	23.0
		8	4	23.30	23.19	23.19	1.0	24.0	22.05	21.99	22.02	0.0	23.0
		8	7	23.29	23.28	23.28	1.0	24.0	22.06	22.03	22.11	0.0	23.0
	16QAM	15	0	23.28	23.26	23.18	1.0	24.0	22.04	21.96	22.00	0.0	23.0
		1	0	23.43	23.42	23.39	1.0	24.0	22.35	22.18	22.32	0.0	23.0
		1	8	23.46	23.44	23.38	1.0	24.0	22.31	22.22	22.33	0.0	23.0
		1	14	23.42	23.35	23.35	1.0	24.0	22.31	22.17	22.31	0.0	23.0
		8	0	22.36	22.18	22.27	2.0	23.0	22.16	22.06	22.06	0.0	23.0
		8	4	22.38	22.20	22.27	2.0	23.0	22.14	22.06	22.08	0.0	23.0
	64QAM	8	7	22.37	22.25	22.33	2.0	23.0	22.14	22.09	22.14	0.0	23.0
		15	0	22.30	22.25	22.23	2.0	23.0	22.07	22.01	22.10	0.0	23.0
		1	0	22.26	22.42	22.47	2.0	23.0	22.11	22.15	22.16	0.0	23.0
		1	8	22.27	22.50	22.46	2.0	23.0	22.20	22.19	22.20	0.0	23.0
		1	14	22.35	22.39	22.44	2.0	23.0	22.12	22.15	22.13	0.0	23.0
		8	0	21.23	21.19	21.31	3.0	22.0	21.28	21.23	21.26	1.0	22.0
	256QAM	8	4	21.23	21.22	21.36	3.0	22.0	21.38	21.25	21.26	1.0	22.0
		8	7	21.34	21.28	21.30	3.0	22.0	21.31	21.33	21.31	1.0	22.0
		15	0	21.16	21.26	21.27	3.0	22.0	21.29	21.22	21.27	1.0	22.0
1		0	19.32	19.33	19.45	5.0	20.0	19.36	19.39	19.34	3.0	20.0	
1		8	19.39	19.39	19.39	5.0	20.0	19.37	19.48	19.39	3.0	20.0	
1		14	19.37	19.29	19.31	5.0	20.0	19.35	19.40	19.39	3.0	20.0	
1.4 MHz	QPSK	8	0	19.18	19.22	19.31	5.0	20.0	19.30	19.21	19.26	3.0	20.0
		8	4	19.19	19.21	19.32	5.0	20.0	19.29	19.24	19.28	3.0	20.0
		8	7	19.26	19.26	19.31	5.0	20.0	19.27	19.30	19.35	3.0	20.0
		15	0	19.14	19.25	19.26	5.0	20.0	19.24	19.21	19.22	3.0	20.0
		1	0	24.22	24.19	24.24	0.0	25.0	21.95	21.95	22.01	0.0	23.0
		1	3	24.16	24.19	24.20	0.0	25.0	21.88	21.98	21.96	0.0	23.0
	16QAM	1	5	24.19	24.18	24.21	0.0	25.0	21.94	21.96	22.00	0.0	23.0
		3	0	24.18	24.14	24.16	0.0	25.0	21.90	21.91	21.96	0.0	23.0
		3	1	24.16	24.17	24.17	0.0	25.0	21.88	21.89	21.91	0.0	23.0
		3	3	24.11	24.16	24.17	0.0	25.0	21.89	21.97	21.93	0.0	23.0
		6	0	23.21	23.21	23.21	1.0	24.0	21.95	21.88	22.03	0.0	23.0
		1	0	23.30	23.41	23.33	1.0	24.0	22.16	22.39	22.30	0.0	23.0
		1	3	23.37	23.38	23.30	1.0	24.0	22.16	22.38	22.30	0.0	23.0
		1	5	23.35	23.38	23.29	1.0	24.0	22.15	22.39	22.30	0.0	23.0
		3	0	23.27	23.28	23.33	1.0	24.0	22.13	22.12	22.15	0.0	23.0
3		3	23.29	23.24	23.33	1.0	24.0	22.11	22.14	22.12	0.0	23.0	
64QAM	6	0	22.23	22.26	22.15	2.0	23.0	22.06	21.97	22.12	0.0	23.0	
	1	0	22.45	22.42	22.43	2.0	23.0	22.26	22.13	22.22	0.0	23.0	
	1	3	22.46	22.50	22.46	2.0	23.0	22.29	22.22	22.25	0.0	23.0	
	1	5	22.40	22.43	22.44	2.0	23.0	22.26	22.13	22.20	0.0	23.0	
	3	0	22.31	22.13	22.31	2.0	23.0	22.08	22.03	22.19	0.0	23.0	
	3	1	22.32	22.18	22.29	2.0	23.0	22.10	22.04	22.17	0.0	23.0	
256QAM	3	3	22.32	22.16	22.31	2.0	23.0	22.09	22.10	22.22	0.0	23.0	
	6	0	21.26	21.26	21.21	3.0	22.0	21.26	21.12	21.24	1.0	22.0	
	1	0	19.34	19.26	19.51	5.0	20.0	19.37	19.34	19.44	3.0	20.0	
	1	3	19.37	19.41	19.48	5.0	20.0	19.36	19.39	19.44	3.0	20.0	
	1	5	19.32	19.35	19.36	5.0	20.0	19.31	19.35	19.44	3.0	20.0	
	3	0	19.21	19.21	19.31	5.0	20.0	19.30	19.21	19.29	3.0	20.0	
1.4 MHz	256QAM	3	1	19.20	19.26	19.30	5.0	20.0	19.30	19.21	19.33	3.0	20.0
		3	3	19.20	19.28	19.29	5.0	20.0	19.28	19.26	19.33	3.0	20.0
		6	0	19.24	19.28	19.18	5.0	20.0	19.19	19.16	19.30	3.0	20.0

**LTE Band 7 Ant B Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 1					DSI = 0				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20850	21100	21350			20850	21100	21350		
	2510 MHz	2535 MHz	2560 MHz		2510 MHz	2535 MHz	2560 MHz						
20 MHz	QPSK	1	0	23.15	23.23	23.25	0.0	24.0	22.23	22.22	22.22	0.0	23.0
		1	49	23.26	23.28	23.23	0.0	24.0	22.23	22.21	22.19	0.0	23.0
		1	99	23.16	<b>23.29</b>	23.20	0.0	24.0	22.17	<b>22.24</b>	22.20	0.0	23.0
		50	0	22.27	22.27	22.22	1.0	23.0	22.30	22.26	22.22	0.0	23.0
		50	24	22.35	22.27	22.31	1.0	23.0	22.35	22.28	22.29	0.0	23.0
		50	50	22.31	<b>22.38</b>	22.28	1.0	23.0	22.32	<b>22.36</b>	22.27	0.0	23.0
	100	0	22.33	22.24	22.30	1.0	23.0	22.31	22.25	22.27	0.0	23.0	
	16QAM	1	0	22.68	22.51	22.52	1.0	23.0	22.70	22.60	22.50	0.0	23.0
		1	49	22.61	22.58	22.51	1.0	23.0	22.71	22.59	22.48	0.0	23.0
		1	99	22.62	22.55	22.44	1.0	23.0	22.64	22.54	22.46	0.0	23.0
		50	0	21.36	21.30	21.21	2.0	22.0	21.34	21.29	21.23	1.0	22.0
		50	24	21.39	21.31	21.32	2.0	22.0	21.40	21.29	21.31	1.0	22.0
		50	50	21.36	21.34	21.30	2.0	22.0	21.35	21.34	21.29	1.0	22.0
	64QAM	100	0	21.38	21.27	21.30	2.0	22.0	21.36	21.26	21.29	1.0	22.0
		1	0	20.98	21.37	21.28	2.0	22.0	21.07	21.35	21.42	1.0	22.0
		1	49	21.36	21.41	21.38	2.0	22.0	21.48	21.42	21.41	1.0	22.0
		1	99	21.43	21.49	21.20	2.0	22.0	21.44	21.43	21.27	1.0	22.0
		50	0	20.28	20.24	20.16	3.0	21.0	20.28	20.25	20.18	2.0	21.0
		50	24	20.34	20.25	20.24	3.0	21.0	20.37	20.27	20.27	2.0	21.0
	256QAM	50	50	20.27	20.29	20.23	3.0	21.0	20.30	20.29	20.24	2.0	21.0
100		0	20.32	20.22	20.28	3.0	21.0	20.33	20.25	20.26	2.0	21.0	
1		0	18.41	18.26	18.31	5.0	19.0	18.46	18.26	18.33	4.0	19.0	
1		49	18.48	18.37	18.41	5.0	19.0	18.48	18.36	18.39	4.0	19.0	
1		99	18.36	18.36	18.40	5.0	19.0	18.45	18.28	18.34	4.0	19.0	
50		0	18.21	18.23	18.16	5.0	19.0	18.26	18.22	18.15	4.0	19.0	
15 MHz	QPSK	50	24	20.34	20.25	20.24	3.0	21.0	20.37	20.27	20.27	2.0	21.0
		50	50	20.27	20.29	20.23	3.0	21.0	20.30	20.29	20.24	2.0	21.0
		100	0	20.32	20.22	20.28	3.0	21.0	20.33	20.25	20.26	2.0	21.0
		1	0	18.41	18.26	18.31	5.0	19.0	18.46	18.26	18.33	4.0	19.0
		1	49	18.48	18.37	18.41	5.0	19.0	18.48	18.36	18.39	4.0	19.0
		1	99	18.36	18.36	18.40	5.0	19.0	18.45	18.28	18.34	4.0	19.0
	16QAM	50	0	18.21	18.23	18.16	5.0	19.0	18.26	18.22	18.15	4.0	19.0
		50	24	18.28	18.27	18.27	5.0	19.0	18.31	18.24	18.24	4.0	19.0
		50	50	18.27	18.30	18.23	5.0	19.0	18.29	18.31	18.23	4.0	19.0
		100	0	18.31	18.20	18.23	5.0	19.0	18.30	18.23	18.25	4.0	19.0
		1	0	23.31	23.25	23.20	0.0	24.0	22.31	22.33	22.15	0.0	23.0
		1	37	23.35	23.29	23.24	0.0	24.0	22.36	22.28	22.22	0.0	23.0
	64QAM	1	74	23.30	23.32	23.22	0.0	24.0	22.28	22.30	22.24	0.0	23.0
		36	0	22.30	22.36	22.23	1.0	23.0	22.32	22.30	22.25	0.0	23.0
		36	20	22.39	22.30	22.32	1.0	23.0	22.38	22.29	22.35	0.0	23.0
		36	39	22.34	22.34	22.32	1.0	23.0	22.41	22.37	22.33	0.0	23.0
		75	0	22.33	22.24	22.28	1.0	23.0	22.36	22.28	22.31	0.0	23.0
		1	0	22.61	22.55	22.53	1.0	23.0	22.63	22.61	22.58	0.0	23.0
	256QAM	1	37	22.69	22.61	22.59	1.0	23.0	22.70	22.64	22.57	0.0	23.0
		1	74	22.60	22.54	22.57	1.0	23.0	22.64	22.59	22.56	0.0	23.0
36		0	21.32	21.30	21.26	2.0	22.0	21.37	21.35	21.28	1.0	22.0	
36		20	21.42	21.32	21.36	2.0	22.0	21.44	21.36	21.37	1.0	22.0	
36		39	21.39	21.38	21.33	2.0	22.0	21.40	21.43	21.36	1.0	22.0	
75		0	21.41	21.27	21.34	2.0	22.0	21.38	21.32	21.35	1.0	22.0	
QPSK	1	0	21.43	21.39	21.43	2.0	22.0	21.48	21.44	21.31	1.0	22.0	
	1	37	21.55	21.47	21.49	2.0	22.0	21.58	21.55	21.42	1.0	22.0	
	1	74	21.43	21.38	21.48	2.0	22.0	21.54	21.48	21.26	1.0	22.0	
	36	0	20.34	20.32	20.23	3.0	21.0	20.35	20.30	20.26	2.0	21.0	
	36	20	20.39	20.34	20.33	3.0	21.0	20.41	20.32	20.36	2.0	21.0	
	36	39	20.37	20.37	20.31	3.0	21.0	20.41	20.41	20.34	2.0	21.0	
16QAM	75	0	20.38	20.30	20.34	3.0	21.0	20.42	20.32	20.36	2.0	21.0	
	1	0	18.44	18.51	18.39	5.0	19.0	18.55	18.30	18.40	4.0	19.0	
	1	37	18.43	18.52	18.47	5.0	19.0	18.58	18.35	18.50	4.0	19.0	
	1	74	18.40	18.50	18.45	5.0	19.0	18.48	18.36	18.51	4.0	19.0	
	36	0	18.33	18.34	18.25	5.0	19.0	18.32	18.31	18.26	4.0	19.0	
	36	20	18.41	18.34	18.35	5.0	19.0	18.42	18.35	18.37	4.0	19.0	
256QAM	36	39	18.40	18.44	18.38	5.0	19.0	18.43	18.46	18.36	4.0	19.0	
	75	0	18.40	18.33	18.34	5.0	19.0	18.41	18.35	18.36	4.0	19.0	

**LTE Band 7 Ant B Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20800	21100	21400			20800	21100	21400		
				2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz		
10 MHz	QPSK	1	0	23.40	23.32	23.25	0.0	24.0	22.42	22.29	22.29	0.0	23.0
		1	25	23.42	23.38	23.30	0.0	24.0	22.44	22.28	22.29	0.0	23.0
		1	49	23.35	23.33	23.26	0.0	24.0	22.39	22.28	22.30	0.0	23.0
		25	0	22.29	22.31	22.24	1.0	23.0	22.35	22.32	22.28	0.0	23.0
		25	12	22.37	22.30	22.32	1.0	23.0	22.46	22.35	22.39	0.0	23.0
		25	25	22.39	22.38	22.33	1.0	23.0	22.41	22.37	22.37	0.0	23.0
	16QAM	50	0	22.35	22.30	22.33	1.0	23.0	22.40	22.31	22.36	0.0	23.0
		1	0	22.70	22.54	22.59	1.0	23.0	22.60	22.70	22.61	0.0	23.0
		1	25	22.67	22.54	22.62	1.0	23.0	22.61	22.68	22.68	0.0	23.0
		1	49	22.58	22.54	22.56	1.0	23.0	22.55	22.69	22.62	0.0	23.0
		25	0	21.31	21.35	21.34	2.0	22.0	21.42	21.34	21.32	1.0	22.0
		25	12	21.43	21.39	21.37	2.0	22.0	21.51	21.37	21.46	1.0	22.0
	64QAM	25	25	21.37	21.41	21.34	2.0	22.0	21.46	21.42	21.43	1.0	22.0
		50	0	21.40	21.32	21.36	2.0	22.0	21.43	21.33	21.39	1.0	22.0
		1	0	21.54	19.51	19.61	2.0	22.0	21.21	21.55	21.52	1.0	22.0
		1	25	21.67	19.53	20.21	2.0	22.0	21.56	21.63	21.61	1.0	22.0
		1	49	21.59	19.98	19.60	2.0	22.0	21.52	21.63	21.52	1.0	22.0
		25	0	20.38	20.36	20.26	3.0	21.0	20.37	20.39	20.31	2.0	21.0
	256QAM	25	12	20.45	20.36	20.41	3.0	21.0	20.45	20.39	20.40	2.0	21.0
		25	25	20.45	20.42	20.36	3.0	21.0	20.42	20.43	20.40	2.0	21.0
		50	0	20.44	20.32	20.38	3.0	21.0	20.44	20.32	20.37	2.0	21.0
		1	0	18.58	18.42	18.44	5.0	19.0	18.45	18.38	18.39	4.0	19.0
		1	25	18.69	18.55	18.54	5.0	19.0	18.65	18.57	18.52	4.0	19.0
		1	49	18.51	18.51	18.40	5.0	19.0	18.53	18.46	18.44	4.0	19.0
5 MHz	QPSK	25	0	18.42	18.36	18.33	5.0	19.0	18.41	18.35	18.35	4.0	19.0
		25	12	18.46	18.37	18.39	5.0	19.0	18.46	18.37	18.39	4.0	19.0
		25	25	18.44	18.42	18.36	5.0	19.0	18.41	18.43	18.37	4.0	19.0
		50	0	18.45	18.34	18.38	5.0	19.0	18.44	18.35	18.36	4.0	19.0
		1	0	23.32	23.37	23.31	0.0	24.0	22.33	22.32	22.33	0.0	23.0
		1	12	23.40	23.35	23.36	0.0	24.0	22.37	22.34	22.38	0.0	23.0
	16QAM	1	24	23.37	23.38	23.37	0.0	24.0	22.36	22.38	22.36	0.0	23.0
		12	0	22.39	22.26	22.25	1.0	23.0	22.33	22.27	22.27	0.0	23.0
		12	7	22.43	22.41	22.42	1.0	23.0	22.43	22.43	22.41	0.0	23.0
		12	13	22.41	22.39	22.38	1.0	23.0	22.39	22.42	22.41	0.0	23.0
		25	0	22.38	22.35	22.31	1.0	23.0	22.34	22.39	22.35	0.0	23.0
		1	0	22.68	22.64	22.58	1.0	23.0	22.62	22.74	22.70	0.0	23.0
	64QAM	1	12	22.82	22.73	22.59	1.0	23.0	22.73	22.78	22.80	0.0	23.0
		1	24	22.78	22.77	22.65	1.0	23.0	22.66	22.77	22.78	0.0	23.0
		12	0	21.43	21.19	21.30	2.0	22.0	21.52	21.41	21.33	1.0	22.0
		12	7	21.49	21.33	21.43	2.0	22.0	21.57	21.59	21.47	1.0	22.0
		12	13	21.47	21.30	21.42	2.0	22.0	21.52	21.55	21.44	1.0	22.0
		25	0	21.41	21.44	21.39	2.0	22.0	21.41	21.43	21.40	1.0	22.0
	256QAM	1	0	21.07	21.35	19.87	2.0	22.0	21.45	21.39	21.46	1.0	22.0
		1	12	21.34	21.67	19.55	2.0	22.0	21.60	21.44	21.63	1.0	22.0
		1	24	21.43	21.52	19.50	2.0	22.0	21.54	21.44	21.59	1.0	22.0
		12	0	20.48	20.31	20.29	3.0	21.0	20.44	20.33	20.30	2.0	21.0
		12	7	20.52	20.49	20.50	3.0	21.0	20.49	20.52	20.44	2.0	21.0
		12	13	20.49	20.46	20.46	3.0	21.0	20.45	20.45	20.42	2.0	21.0
256QAM	25	0	20.43	20.43	20.42	3.0	21.0	20.43	20.40	20.40	2.0	21.0	
	1	0	18.41	18.52	18.37	5.0	19.0	18.49	18.42	18.43	4.0	19.0	
	1	12	18.58	18.74	18.53	5.0	19.0	18.69	18.61	18.68	4.0	19.0	
	1	24	18.48	18.55	18.45	5.0	19.0	18.60	18.48	18.56	4.0	19.0	
	12	0	18.42	18.33	18.32	5.0	19.0	18.42	18.32	18.33	4.0	19.0	
	12	7	18.48	18.49	18.46	5.0	19.0	18.50	18.47	18.47	4.0	19.0	
256QAM	12	13	18.46	18.44	18.42	5.0	19.0	18.45	18.44	18.42	4.0	19.0	
	25	0	18.43	18.42	18.41	5.0	19.0	18.41	18.43	18.39	4.0	19.0	

**LTE Band 7 Ant F Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20850 2510 MHz	21100 2535 MHz	21350 2560 MHz			20850 2510 MHz	21100 2535 MHz	21375 2562.5 MHz		
20 MHz	QPSK	1	0	19.82	19.72	19.72	0.0	20.5	17.21	17.20	17.15	0.0	18.5
		1	49	19.80	19.77	19.71	0.0	20.5	17.23	17.20	17.12	0.0	18.5
		1	99	19.81	<b>19.85</b>	19.71	0.0	20.5	17.15	<b>17.24</b>	17.15	0.0	18.5
		50	0	19.91	<b>19.92</b>	19.80	0.0	20.5	17.31	<b>17.38</b>	17.24	0.0	18.5
		50	24	19.88	19.83	19.80	0.0	20.5	17.37	17.25	17.25	0.0	18.5
		50	50	19.85	19.81	19.77	0.0	20.5	17.28	17.28	17.26	0.0	18.5
	100	0	19.98	19.77	19.78	0.0	20.5	17.32	17.24	17.20	0.0	18.5	
	16QAM	1	0	20.23	20.04	19.94	0.0	20.5	17.64	17.51	17.45	0.0	18.5
		1	49	20.37	20.05	19.96	0.0	20.5	17.66	17.59	17.44	0.0	18.5
		1	99	20.29	20.09	19.96	0.0	20.5	17.64	17.56	17.43	0.0	18.5
		50	0	20.02	19.77	19.81	0.0	20.5	17.34	17.33	17.30	0.0	18.5
		50	24	20.05	19.80	19.81	0.0	20.5	17.39	17.31	17.27	0.0	18.5
		50	50	20.00	19.87	19.80	0.0	20.5	17.32	17.34	17.26	0.0	18.5
	64QAM	1	0	19.88	19.85	19.93	0.0	20.5	17.41	17.42	17.41	0.0	18.5
		1	49	19.96	19.89	19.86	0.0	20.5	17.43	17.54	17.32	0.0	18.5
		1	99	19.76	19.98	19.90	0.0	20.5	17.42	17.52	17.38	0.0	18.5
		50	0	19.75	19.78	19.77	0.0	20.5	17.31	17.29	17.25	0.0	18.5
		50	24	19.81	19.77	19.77	0.0	20.5	17.35	17.27	17.25	0.0	18.5
		50	50	19.76	19.85	19.77	0.0	20.5	17.32	17.37	17.25	0.0	18.5
	256QAM	100	0	19.80	19.76	19.78	0.0	20.5	17.33	17.25	17.25	0.0	18.5
		1	0	18.16	18.03	18.13	2.0	18.5	17.50	17.18	17.43	0.0	18.5
		1	49	18.26	18.13	18.16	2.0	18.5	17.60	17.33	17.36	0.0	18.5
		1	99	18.07	18.15	18.12	2.0	18.5	17.46	17.31	17.41	0.0	18.5
		50	0	17.91	17.97	18.00	2.0	18.5	17.26	17.26	17.26	0.0	18.5
50		24	18.02	17.99	17.98	2.0	18.5	17.37	17.27	17.27	0.0	18.5	
15 MHz	QPSK	50	50	17.99	18.07	17.99	2.0	18.5	17.30	17.37	17.27	0.0	18.5
		100	0	17.99	17.97	17.98	2.0	18.5	17.34	17.27	17.27	0.0	18.5
		1	0	19.65	19.77	19.72	0.0	20.5	17.27	17.22	17.27	0.0	18.5
		1	37	19.69	19.80	19.70	0.0	20.5	17.21	17.24	17.15	0.0	18.5
		1	74	19.65	19.80	19.66	0.0	20.5	17.20	17.23	17.23	0.0	18.5
		36	0	19.67	19.77	19.76	0.0	20.5	17.20	17.25	17.23	0.0	18.5
	16QAM	36	20	19.80	19.76	19.77	0.0	20.5	17.28	17.25	17.22	0.0	18.5
		36	39	19.75	19.84	19.76	0.0	20.5	17.26	17.31	17.22	0.0	18.5
		75	0	19.73	19.74	19.74	0.0	20.5	17.23	17.24	17.19	0.0	18.5
		1	0	19.97	20.08	19.91	0.0	20.5	17.47	17.57	17.48	0.0	18.5
		1	37	20.07	20.07	19.98	0.0	20.5	17.35	17.53	17.50	0.0	18.5
		1	74	19.97	20.09	19.99	0.0	20.5	17.33	17.45	17.44	0.0	18.5
	64QAM	36	0	19.74	19.78	19.74	0.0	20.5	17.27	17.31	17.27	0.0	18.5
		36	20	19.82	19.78	19.77	0.0	20.5	17.35	17.32	17.28	0.0	18.5
		36	39	19.81	19.85	19.77	0.0	20.5	17.35	17.36	17.29	0.0	18.5
		75	0	19.79	19.76	19.75	0.0	20.5	17.32	17.26	17.25	0.0	18.5
		1	0	19.78	19.92	19.81	0.0	20.5	17.39	17.37	17.35	0.0	18.5
		1	37	19.93	20.02	19.83	0.0	20.5	17.47	17.50	17.40	0.0	18.5
	256QAM	1	74	19.80	19.96	19.84	0.0	20.5	17.30	17.44	17.35	0.0	18.5
		36	0	19.74	19.76	19.73	0.0	20.5	17.27	17.30	17.25	0.0	18.5
		36	20	19.86	19.78	19.76	0.0	20.5	17.35	17.32	17.27	0.0	18.5
		36	39	19.82	19.84	19.76	0.0	20.5	17.34	17.34	17.27	0.0	18.5
		75	0	19.83	19.77	19.75	0.0	20.5	17.33	17.27	17.26	0.0	18.5
		1	0	18.11	18.16	18.09	2.0	18.5	17.33	17.31	17.42	0.0	18.5
QPSK	1	37	18.21	18.19	18.10	2.0	18.5	17.42	17.37	17.40	0.0	18.5	
	1	74	18.09	18.22	18.10	2.0	18.5	17.39	17.39	17.38	0.0	18.5	
	36	0	17.94	17.95	17.98	2.0	18.5	17.21	17.26	17.25	0.0	18.5	
	36	20	18.06	17.99	17.95	2.0	18.5	17.34	17.30	17.25	0.0	18.5	
	36	39	18.05	18.08	18.00	2.0	18.5	17.35	17.38	17.27	0.0	18.5	
	75	0	18.04	18.00	17.97	2.0	18.5	17.32	17.29	17.26	0.0	18.5	



**LTE Band 7 Ant F Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				20800	21100	21400			20800	21100	21400			
				2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz			
10 MHz	QPSK	1	0	19.86	19.78	19.79	0.0	20.5	17.32	17.27	17.21	0.0	18.5	
		1	25	19.85	19.79	19.81	0.0	20.5	17.28	17.31	17.29	0.0	18.5	
		1	49	19.81	19.72	19.72	0.0	20.5	17.27	17.30	17.25	0.0	18.5	
		25	0	19.75	19.81	19.77	0.0	20.5	17.28	17.30	17.24	0.0	18.5	
		25	12	19.85	19.84	19.82	0.0	20.5	17.31	17.33	17.29	0.0	18.5	
		25	25	19.85	19.87	19.80	0.0	20.5	17.34	17.38	17.27	0.0	18.5	
	16QAM	50	0	19.84	19.81	19.80	0.0	20.5	17.33	17.30	17.27	0.0	18.5	
		1	0	20.05	20.12	20.05	0.0	20.5	17.56	17.57	17.48	0.0	18.5	
		1	25	20.12	20.12	20.10	0.0	20.5	17.48	17.63	17.49	0.0	18.5	
		1	49	20.09	20.06	20.07	0.0	20.5	17.35	17.61	17.52	0.0	18.5	
		25	0	19.78	19.84	19.85	0.0	20.5	17.35	17.43	17.36	0.0	18.5	
		25	12	19.93	19.87	19.89	0.0	20.5	17.43	17.43	17.41	0.0	18.5	
	64QAM	25	25	19.89	19.90	19.86	0.0	20.5	17.41	17.46	17.35	0.0	18.5	
		50	0	19.85	19.79	19.81	0.0	20.5	17.37	17.35	17.34	0.0	18.5	
		1	0	19.92	19.98	19.94	0.0	20.5	17.42	17.54	17.40	0.0	18.5	
		1	25	20.05	20.17	19.95	0.0	20.5	17.48	17.65	17.40	0.0	18.5	
		1	49	20.06	20.17	19.88	0.0	20.5	17.55	17.54	17.34	0.0	18.5	
		25	0	19.77	19.78	19.81	0.0	20.5	17.34	17.34	17.31	0.0	18.5	
	256QAM	25	12	19.87	19.79	19.81	0.0	20.5	17.39	17.36	17.36	0.0	18.5	
		25	25	19.87	19.85	19.77	0.0	20.5	17.41	17.39	17.31	0.0	18.5	
		50	0	19.85	19.81	19.81	0.0	20.5	17.37	17.31	17.30	0.0	18.5	
		1	0	18.08	18.14	18.18	2.0	18.5	17.27	17.43	17.38	0.0	18.5	
		1	25	18.17	18.24	18.19	2.0	18.5	17.46	17.49	17.51	0.0	18.5	
		1	49	18.11	18.25	18.08	2.0	18.5	17.41	17.51	17.35	0.0	18.5	
	5 MHz	QPSK	25	0	17.99	18.01	18.01	2.0	18.5	17.27	17.33	17.33	0.0	18.5
			25	12	18.08	17.99	18.04	2.0	18.5	17.39	17.31	17.31	0.0	18.5
			25	25	18.04	18.06	17.98	2.0	18.5	17.37	17.34	17.32	0.0	18.5
			50	0	18.04	17.99	18.01	2.0	18.5	17.34	17.28	17.28	0.0	18.5
1			0	19.80	19.84	19.80	0.0	20.5	17.33	17.37	17.23	0.0	18.5	
1			12	19.85	19.85	19.76	0.0	20.5	17.34	17.38	17.24	0.0	18.5	
16QAM		1	24	19.75	19.83	19.80	0.0	20.5	17.30	17.39	17.20	0.0	18.5	
		12	0	19.81	19.79	19.76	0.0	20.5	17.34	17.27	17.29	0.0	18.5	
		12	7	19.86	19.87	19.85	0.0	20.5	17.39	17.34	17.36	0.0	18.5	
		12	13	19.80	19.90	19.81	0.0	20.5	17.36	17.40	17.30	0.0	18.5	
		25	0	19.79	19.77	19.78	0.0	20.5	17.32	17.26	17.29	0.0	18.5	
		1	0	20.05	20.20	20.11	0.0	20.5	17.61	17.50	17.58	0.0	18.5	
64QAM		1	12	20.01	20.27	20.13	0.0	20.5	17.65	17.58	17.65	0.0	18.5	
		1	24	20.07	20.20	20.13	0.0	20.5	17.58	17.56	17.60	0.0	18.5	
		12	0	19.71	19.79	19.77	0.0	20.5	17.33	17.37	17.43	0.0	18.5	
		12	7	19.78	19.84	19.81	0.0	20.5	17.37	17.42	17.48	0.0	18.5	
		12	13	19.75	19.89	19.78	0.0	20.5	17.32	17.49	17.47	0.0	18.5	
		25	0	19.79	19.78	19.78	0.0	20.5	17.35	17.33	17.29	0.0	18.5	
256QAM		1	0	19.86	19.87	20.01	0.0	20.5	17.39	17.46	17.39	0.0	18.5	
		1	12	20.01	20.07	20.08	0.0	20.5	17.49	17.54	17.39	0.0	18.5	
		1	24	19.97	19.91	20.06	0.0	20.5	17.42	17.48	17.31	0.0	18.5	
		12	0	19.76	19.76	19.80	0.0	20.5	17.27	17.28	17.28	0.0	18.5	
		12	7	19.84	19.81	19.85	0.0	20.5	17.37	17.38	17.34	0.0	18.5	
		12	13	19.80	19.88	19.83	0.0	20.5	17.31	17.39	17.33	0.0	18.5	
256QAM		25	0	19.78	19.79	19.78	0.0	20.5	17.28	17.33	17.28	0.0	18.5	
		1	0	18.08	18.11	18.07	2.0	18.5	17.23	17.42	17.32	0.0	18.5	
		1	12	18.26	18.19	18.16	2.0	18.5	17.38	17.66	17.43	0.0	18.5	
		1	24	18.16	18.17	18.04	2.0	18.5	17.28	17.57	17.34	0.0	18.5	
	12	0	17.99	17.99	18.00	2.0	18.5	17.31	17.26	17.27	0.0	18.5		
	12	7	18.05	18.04	18.07	2.0	18.5	17.33	17.36	17.36	0.0	18.5		
256QAM	12	13	18.01	18.08	18.01	2.0	18.5	17.27	17.40	17.31	0.0	18.5		
	25	0	17.96	17.97	18.01	2.0	18.5	17.32	17.30	17.28	0.0	18.5		

**LTE Band 12 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
				DSI = 0, 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit
23095	707.5 MHz							
10 MHz	QPSK	1	0	24.23			0.0	25.2
		1	25	<b>24.29</b>			0.0	25.2
		1	49	24.15			0.0	25.2
		25	0	23.17			1.0	24.2
		25	12	23.17			1.0	24.2
		25	25	<b>23.26</b>			1.0	24.2
	16QAM	50	0	23.16			1.0	24.2
		1	0	23.47			1.0	24.2
		1	25	23.49			1.0	24.2
		1	49	23.46			1.0	24.2
		25	0	22.21			2.0	23.2
		25	12	22.19			2.0	23.2
	64QAM	25	25	22.26			2.0	23.2
		50	0	22.17			2.0	23.2
		1	0	22.49			2.0	23.2
		1	25	22.45			2.0	23.2
		1	49	22.36			2.0	23.2
		25	0	21.20			3.0	22.2
	256QAM	25	12	21.17			3.0	22.2
		25	25	21.26			3.0	22.2
50		0	20.57			3.0	22.2	
1		0	19.28			5.0	20.2	
1		25	19.39			5.0	20.2	
1		49	19.25			5.0	20.2	
5 MHz	QPSK	25	0	19.17			5.0	20.2
		25	12	19.18			5.0	20.2
		25	25	19.21			5.0	20.2
		50	0	19.16			5.0	20.2
		1	0	24.23	24.20	24.26	0.0	25.2
	16QAM	1	12	24.23	24.20	24.22	0.0	25.2
		1	24	24.15	24.14	24.15	0.0	25.2
		12	0	23.14	23.18	23.16	1.0	24.2
		12	7	23.29	23.19	23.22	1.0	24.2
		12	13	23.22	23.20	23.15	1.0	24.2
25		0	23.20	23.12	23.18	1.0	24.2	
64QAM		1	0	23.57	23.48	23.59	1.0	24.2
		1	12	23.63	23.54	23.61	1.0	24.2
		1	24	23.55	23.48	23.58	1.0	24.2
		12	0	22.20	22.16	22.25	2.0	23.2
	12	7	22.31	22.20	22.34	2.0	23.2	
256QAM	12	13	22.29	22.21	22.29	2.0	23.2	
	25	0	22.27	22.17	22.25	2.0	23.2	
	1	0	22.37	22.43	22.31	2.0	23.2	
	1	12	22.46	22.48	22.38	2.0	23.2	
	1	24	22.34	22.37	22.29	2.0	23.2	
256QAM	12	0	21.22	21.20	21.19	3.0	22.2	
	12	7	21.33	21.31	21.26	3.0	22.2	
	12	13	21.24	21.26	21.23	3.0	22.2	
	25	0	21.27	21.19	21.24	3.0	22.2	
	1	0	19.34	19.23	19.34	5.0	20.2	
	1	12	19.45	19.38	19.46	5.0	20.2	
	1	24	19.32	19.29	19.35	5.0	20.2	
12	0	19.19	19.20	19.17	5.0	20.2		
12	7	19.34	19.22	19.27	5.0	20.2		
12	13	19.24	19.25	19.21	5.0	20.2		
25	0	19.25	19.13	19.23	5.0	20.2		

**LTE Band 12 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				23025	23095	23165			
				700.5 MHz	707.5 MHz	714.5 MHz			
3 MHz	QPSK	1	0	24.18	24.18	24.13	0.0	25.2	
		1	8	24.29	24.26	24.26	0.0	25.2	
		1	14	24.14	24.18	24.10	0.0	25.2	
		8	0	23.24	23.15	23.15	1.0	24.2	
		8	4	23.26	23.15	23.23	1.0	24.2	
		8	7	23.24	23.24	23.23	1.0	24.2	
	16QAM	15	0	23.22	23.14	23.13	1.0	24.2	
		1	0	23.53	23.33	23.44	1.0	24.2	
		1	8	23.62	23.51	23.52	1.0	24.2	
		1	14	23.49	23.34	23.45	1.0	24.2	
		8	0	22.28	22.22	22.22	2.0	23.2	
		8	4	22.33	22.25	22.28	2.0	23.2	
	64QAM	8	7	22.32	22.32	22.28	2.0	23.2	
		15	0	22.26	22.15	22.13	2.0	23.2	
		1	0	22.35	22.31	22.31	2.0	23.2	
		1	8	22.45	22.45	22.48	2.0	23.2	
		1	14	22.34	22.31	22.27	2.0	23.2	
		8	0	21.26	20.92	21.22	3.0	22.2	
	256QAM	8	4	21.27	21.26	21.30	3.0	22.2	
		8	7	21.27	21.27	19.96	3.0	22.2	
		15	0	21.23	21.17	21.19	3.0	22.2	
1		0	19.26	19.26	19.25	5.0	20.2		
1		8	19.40	19.44	19.38	5.0	20.2		
1		14	19.28	19.28	19.26	5.0	20.2		
1.4 MHz	QPSK	8	0	19.27	19.20	19.19	5.0	20.2	
		8	4	19.29	19.23	19.27	5.0	20.2	
		8	7	19.26	19.28	19.26	5.0	20.2	
		15	0	19.23	19.17	19.15	5.0	20.2	
		16QAM	1	0	24.10	24.11	24.07	0.0	25.2
			1	3	24.15	24.16	24.12	0.0	25.2
	1		5	24.03	24.13	24.07	0.0	25.2	
	3		0	24.13	24.08	24.08	0.0	25.2	
	3		1	24.02	24.10	24.11	0.0	25.2	
	6		0	23.13	23.03	23.15	1.0	24.2	
	64QAM	1	0	23.52	23.39	23.36	1.0	24.2	
		1	3	23.50	23.38	23.40	1.0	24.2	
		1	5	23.48	23.39	23.33	1.0	24.2	
		3	0	23.26	23.27	23.27	1.0	24.2	
		3	1	23.29	23.27	23.27	1.0	24.2	
		3	3	23.26	23.28	23.23	1.0	24.2	
	256QAM	6	0	22.17	22.20	22.16	2.0	23.2	
		1	0	22.23	22.38	22.38	2.0	23.2	
		1	3	22.32	22.51	22.45	2.0	23.2	
		1	5	22.22	22.41	22.36	2.0	23.2	
		3	0	22.28	22.25	22.25	2.0	23.2	
3		1	22.30	22.24	22.31	2.0	23.2		
256QAM	3	3	22.30	22.28	22.29	2.0	23.2		
	6	0	21.22	21.19	21.21	3.0	22.2		
	1	0	19.27	19.24	17.87	5.0	20.2		
	1	3	19.32	19.41	18.02	5.0	20.2		
	1	5	19.25	19.31	18.12	5.0	20.2		
	3	0	19.19	19.18	19.32	5.0	20.2		
256QAM	3	1	19.20	19.23	19.31	5.0	20.2		
	3	3	19.22	19.27	19.30	5.0	20.2		
	6	0	19.27	19.16	19.17	5.0	20.2		

**LTE Band 12 Ant E Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)										
				DSI = 0				DSI = 1						
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				23035	23095	23155			23035	23095	23155			
10 MHz	QPSK	1	0	24.14	24.14	24.20	0.0	25.2	21.89	21.89	21.94	0.0	22.5	
		1	25	24.20	24.20	24.20	0.0	25.2	21.98	21.98	21.99	0.0	22.5	
		1	49	24.07	24.07	24.12	0.0	25.2	21.85	21.85	21.92	0.0	22.5	
		25	0	23.12	23.12	23.12	1.0	24.2	21.92	21.92	21.99	0.0	22.5	
		25	12	23.20	23.20	23.20	1.0	24.2	21.99	21.99	21.99	0.0	22.5	
		25	25	23.15	23.15	23.15	1.0	24.2	21.94	21.94	21.94	0.0	22.5	
	16QAM	50	0	23.11	23.11	23.11	1.0	24.2	21.88	21.88	21.88	0.0	22.5	
		1	0	23.34	23.34	23.34	1.0	24.2	22.19	22.19	22.27	0.0	22.5	
		1	25	23.36	23.36	23.36	1.0	24.2	22.27	22.27	22.27	0.0	22.5	
		1	49	23.31	23.31	23.31	1.0	24.2	22.15	22.15	22.15	0.0	22.5	
		25	0	22.16	22.16	22.16	2.0	23.2	21.93	21.93	21.93	0.0	22.5	
		25	12	22.13	22.13	22.13	2.0	23.2	21.92	21.92	21.92	0.0	22.5	
	64QAM	25	25	22.17	22.17	22.17	2.0	23.2	21.98	21.98	21.98	0.0	22.5	
		50	0	22.12	22.12	22.12	2.0	23.2	21.91	21.91	21.91	0.0	22.5	
		1	0	22.34	22.34	22.34	2.0	23.2	22.11	22.11	22.11	0.0	22.5	
		1	25	22.39	22.39	22.39	2.0	23.2	22.15	22.15	22.15	0.0	22.5	
		1	49	22.29	22.29	22.29	2.0	23.2	22.06	22.06	22.06	0.0	22.5	
		25	0	21.13	21.13	21.13	3.0	22.2	21.15	21.15	21.15	0.5	22.0	
	256QAM	25	12	21.13	21.13	21.13	3.0	22.2	21.14	21.14	21.14	0.5	22.0	
		25	25	21.19	21.19	21.19	3.0	22.2	21.17	21.17	21.17	0.5	22.0	
50		0	21.09	21.09	21.09	3.0	22.2	21.11	21.11	21.11	0.5	22.0		
1		0	19.19	19.19	19.19	5.0	20.2	19.07	19.07	19.07	2.5	20.0		
1		25	19.31	19.31	19.31	5.0	20.2	19.24	19.24	19.24	2.5	20.0		
1		49	19.22	19.22	19.22	5.0	20.2	19.13	19.13	19.13	2.5	20.0		
256QAM	25	0	19.11	19.11	19.11	5.0	20.2	19.10	19.10	19.10	2.5	20.0		
	25	12	19.14	19.14	19.14	5.0	20.2	19.13	19.13	19.13	2.5	20.0		
	25	25	19.16	19.16	19.16	5.0	20.2	19.17	19.17	19.17	2.5	20.0		
	50	0	19.10	19.10	19.10	5.0	20.2	19.10	19.10	19.10	2.5	20.0		
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
	23035	23095	23155	701.5 MHz	707.5 MHz	713.5 MHz	23035			23095	23155			
5 MHz	QPSK	1	0	24.24	24.17	24.20	0.0	25.2	21.41	21.41	21.44	0.0	22.5	
		1	12	24.20	24.17	24.13	0.0	25.2	21.42	21.42	21.41	0.0	22.5	
		1	24	24.15	24.12	24.12	0.0	25.2	21.33	21.34	21.39	0.0	22.5	
		12	0	23.18	23.12	23.12	1.0	24.2	21.43	21.38	21.36	0.0	22.5	
		12	7	23.27	23.18	23.17	1.0	24.2	21.54	21.39	21.39	0.0	22.5	
		12	13	23.19	23.15	23.18	1.0	24.2	21.47	21.45	21.40	0.0	22.5	
	16QAM	25	0	23.20	23.08	23.06	1.0	24.2	21.45	21.33	21.33	0.0	22.5	
		1	0	23.52	23.44	23.56	1.0	24.2	21.81	21.74	21.66	0.0	22.5	
		1	12	23.62	23.38	23.59	1.0	24.2	21.88	21.79	21.67	0.0	22.5	
		1	24	23.53	23.31	23.54	1.0	24.2	21.77	21.66	21.68	0.0	22.5	
		12	0	22.15	22.27	22.18	2.0	23.2	21.40	21.51	21.43	0.0	22.5	
		12	7	22.26	22.31	22.20	2.0	23.2	21.52	21.53	21.45	0.0	22.5	
	64QAM	12	13	22.19	22.31	22.21	2.0	23.2	21.47	21.53	21.49	0.0	22.5	
		25	0	22.25	22.12	22.12	2.0	23.2	21.52	21.40	21.38	0.0	22.5	
		1	0	22.32	22.27	22.35	2.0	23.2	21.57	21.62	21.61	0.0	22.5	
		1	12	22.34	22.36	22.36	2.0	23.2	21.61	21.62	21.69	0.0	22.5	
		1	24	22.20	22.22	22.36	2.0	23.2	21.48	21.56	21.62	0.0	22.5	
		12	0	21.19	21.16	21.16	3.0	22.2	21.19	21.15	21.13	0.5	22.0	
	256QAM	12	7	21.30	21.17	21.17	3.0	22.2	21.27	21.21	21.17	0.5	22.0	
		12	13	21.22	21.19	21.19	3.0	22.2	21.24	21.20	21.18	0.5	22.0	
25		0	21.23	21.11	21.12	3.0	22.2	21.22	21.11	21.09	0.5	22.0		
1		0	19.34	19.16	19.22	5.0	20.2	19.25	19.27	19.20	2.5	20.0		
1		12	19.51	19.27	19.32	5.0	20.2	19.39	19.45	19.42	2.5	20.0		
1		24	19.37	19.12	19.20	5.0	20.2	19.20	19.25	19.18	2.5	20.0		
256QAM	12	0	19.16	19.11	19.13	5.0	20.2	19.13	19.11	19.06	2.5	20.0		
	12	7	19.28	19.11	19.15	5.0	20.2	19.24	19.11	19.12	2.5	20.0		
	12	13	19.21	19.12	19.16	5.0	20.2	19.20	19.12	19.13	2.5	20.0		
	25	0	19.21	19.04	19.09	5.0	20.2	19.20	19.09	19.07	2.5	20.0		

**LTE Band 12 Ant E Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165			23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz			700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	24.19	24.02	24.06	0.0	25.2	21.29	21.35	21.29	0.0	22.5
		1	8	24.21	24.14	24.16	0.0	25.2	21.51	21.44	21.43	0.0	22.5
		1	14	24.10	24.02	24.05	0.0	25.2	21.33	21.29	21.31	0.0	22.5
		8	0	23.25	23.09	23.09	1.0	24.2	21.50	21.36	21.35	0.0	22.5
		8	4	23.28	23.13	23.16	1.0	24.2	21.53	21.38	21.44	0.0	22.5
		8	7	23.25	23.16	23.17	1.0	24.2	21.49	21.48	21.44	0.0	22.5
	16QAM	15	0	23.22	23.06	23.09	1.0	24.2	21.47	21.33	21.34	0.0	22.5
		1	0	23.38	23.42	23.40	1.0	24.2	21.69	21.69	21.39	0.0	22.5
		1	8	23.41	23.51	23.51	1.0	24.2	21.81	21.76	21.68	0.0	22.5
		1	14	23.41	23.34	23.38	1.0	24.2	21.65	21.66	21.48	0.0	22.5
		8	0	22.26	22.18	22.20	2.0	23.2	21.55	21.47	21.41	0.0	22.5
		8	4	22.28	22.21	22.25	2.0	23.2	21.57	21.49	21.51	0.0	22.5
	64QAM	8	7	22.27	22.27	22.24	2.0	23.2	21.55	21.59	21.49	0.0	22.5
		15	0	22.26	22.13	22.12	2.0	23.2	21.53	21.40	21.37	0.0	22.5
		1	0	22.28	22.37	22.22	2.0	23.2	21.55	21.64	21.46	0.0	22.5
		1	8	22.47	22.49	22.34	2.0	23.2	21.68	21.78	21.65	0.0	22.5
		1	14	22.31	22.33	22.23	2.0	23.2	21.57	21.60	21.44	0.0	22.5
		8	0	21.31	21.16	21.11	3.0	22.2	21.25	21.14	21.15	0.5	22.0
	256QAM	8	4	21.33	21.14	21.32	3.0	22.2	21.26	21.15	21.28	0.5	22.0
		8	7	21.31	21.20	21.22	3.0	22.2	21.29	21.22	21.26	0.5	22.0
		15	0	21.28	21.11	21.10	3.0	22.2	21.26	21.12	21.12	0.5	22.0
1		0	19.27	19.15	19.15	5.0	20.2	19.26	19.16	19.21	2.5	20.0	
1		8	19.43	19.33	19.35	5.0	20.2	19.48	19.32	19.42	2.5	20.0	
1		14	19.26	19.17	19.19	5.0	20.2	19.32	19.17	19.26	2.5	20.0	
1.4 MHz	QPSK	8	0	19.25	19.17	19.13	5.0	20.2	19.22	19.13	19.11	2.5	20.0
		8	4	19.28	19.16	19.23	5.0	20.2	19.25	19.15	19.21	2.5	20.0
		8	7	19.26	19.23	19.18	5.0	20.2	19.27	19.23	19.18	2.5	20.0
		15	0	19.23	19.10	19.07	5.0	20.2	19.24	19.12	19.07	2.5	20.0
		1	0	24.05	24.02	24.03	0.0	25.2	21.35	21.28	21.29	0.0	22.5
		1	3	24.07	24.06	24.10	0.0	25.2	21.34	21.36	21.30	0.0	22.5
	16QAM	1	5	24.02	24.03	24.03	0.0	25.2	21.32	21.28	21.27	0.0	22.5
		3	0	24.08	24.01	24.07	0.0	25.2	21.34	21.27	21.31	0.0	22.5
		3	1	24.05	24.08	24.02	0.0	25.2	21.34	21.30	21.32	0.0	22.5
		3	3	24.05	24.10	24.03	0.0	25.2	21.37	21.31	21.27	0.0	22.5
		6	0	23.11	23.08	23.06	1.0	24.2	21.41	21.36	21.34	0.0	22.5
		1	0	23.29	23.43	23.32	1.0	24.2	21.66	21.54	21.72	0.0	22.5
	64QAM	1	3	23.35	23.47	23.35	1.0	24.2	21.65	21.56	21.68	0.0	22.5
		1	5	23.29	23.40	23.31	1.0	24.2	21.62	21.52	21.69	0.0	22.5
		3	0	23.22	23.18	23.23	1.0	24.2	21.53	21.44	21.49	0.0	22.5
		3	1	23.22	23.19	23.23	1.0	24.2	21.52	21.48	21.46	0.0	22.5
		3	3	23.22	23.24	23.19	1.0	24.2	21.54	21.48	21.46	0.0	22.5
		6	0	22.22	22.14	22.19	2.0	23.2	21.52	21.46	21.39	0.0	22.5
	256QAM	1	0	22.32	22.27	22.27	2.0	23.2	21.65	21.38	21.58	0.0	22.5
		1	3	22.40	22.37	22.40	2.0	23.2	21.68	21.51	21.64	0.0	22.5
		1	5	22.21	22.29	22.31	2.0	23.2	21.64	21.39	21.54	0.0	22.5
3		0	22.34	22.17	22.16	2.0	23.2	21.46	21.50	21.44	0.5	22.0	
3		1	22.34	22.19	22.22	2.0	23.2	21.47	21.54	21.44	0.5	22.0	
3		3	22.35	22.20	22.17	2.0	23.2	21.45	21.51	21.42	0.5	22.0	
256QAM	6	0	21.21	21.10	21.15	3.0	22.2	21.16	21.13	21.09	0.5	22.0	
	1	0	19.28	19.11	19.31	5.0	20.2	19.24	19.18	19.22	2.5	20.0	
	1	3	19.33	19.22	19.36	5.0	20.2	19.32	19.26	19.30	2.5	20.0	
	1	5	19.23	19.17	19.28	5.0	20.2	19.21	19.17	19.24	2.5	20.0	
	3	0	19.16	19.07	19.22	5.0	20.2	19.30	19.05	19.21	2.5	20.0	
	3	1	19.22	19.17	19.21	5.0	20.2	19.28	19.12	19.20	2.5	20.0	
256QAM	3	3	19.22	19.17	19.21	5.0	20.2	19.29	19.12	19.21	2.5	20.0	
	6	0	19.11	19.10	19.22	5.0	20.2	19.13	19.19	19.21	2.5	20.0	

**LTE Band 13 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				DSI = 0, 1			
				Measured Pwr (dBm)		MPR	Tune-up Limit
				23230	782 MHz		
10 MHz	QPSK	1	0	23.89	0.0	25.0	
		1	25	<b>24.07</b>	0.0	25.0	
		1	49	23.98	0.0	25.0	
		25	0	22.89	1.0	24.0	
		25	12	<b>23.06</b>	1.0	24.0	
		25	25	22.75	1.0	24.0	
	16QAM	50	0	23.08	1.0	24.0	
		1	0	22.54	1.0	24.0	
		1	25	23.38	1.0	24.0	
		1	49	23.24	1.0	24.0	
		25	0	22.08	2.0	23.0	
		25	12	22.16	2.0	23.0	
	64QAM	25	25	22.09	2.0	23.0	
		50	0	22.11	2.0	23.0	
		1	0	21.91	2.0	23.0	
		1	25	22.22	2.0	23.0	
		1	49	22.08	2.0	23.0	
		25	0	20.98	3.0	22.0	
	256QAM	25	12	21.02	3.0	22.0	
		25	25	21.00	3.0	22.0	
		50	0	21.03	3.0	22.0	
		1	0	18.94	5.0	20.0	
		1	25	19.15	5.0	20.0	
		1	49	19.00	5.0	20.0	
5 MHz	QPSK	25	0	18.92	5.0	20.0	
		25	12	19.04	5.0	20.0	
		25	25	19.00	5.0	20.0	
		50	0	19.05	5.0	20.0	
		1	0	23.95	0.0	25.0	
		1	12	24.21	0.0	25.0	
	16QAM	1	24	23.59	0.0	25.0	
		12	0	22.75	1.0	24.0	
		12	7	22.78	1.0	24.0	
		12	13	22.82	1.0	24.0	
		25	0	23.12	1.0	24.0	
		1	0	23.10	1.0	24.0	
	64QAM	1	12	23.50	1.0	24.0	
		1	24	22.86	1.0	24.0	
		12	0	21.70	2.0	23.0	
		12	7	21.72	2.0	23.0	
		12	13	21.84	2.0	23.0	
		25	0	22.20	2.0	23.0	
	256QAM	1	0	21.85	2.0	23.0	
		1	12	22.18	2.0	23.0	
		1	24	21.69	2.0	23.0	
		12	0	20.65	3.0	22.0	
		12	7	20.73	3.0	22.0	
		12	13	21.16	3.0	22.0	
QPSK	25	0	21.17	3.0	22.0		
	1	0	19.17	5.0	20.0		
	1	12	19.43	5.0	20.0		
	1	24	18.78	5.0	20.0		
	12	0	19.14	5.0	20.0		
	12	7	19.23	5.0	20.0		
16QAM	12	13	18.83	5.0	20.0		
	25	0	18.27	5.0	20.0		

**LTE Band 13 Ant E Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				DSI = 0, 1			
				Measured Pwr (dBm)		MPR	Tune-up Limit
23230	782 MHz						
10 MHz	QPSK	1	0	24.07	0.0	25.0	
		1	25	<b>24.27</b>	0.0	25.0	
		1	49	24.22	0.0	25.0	
		25	0	23.15	1.0	24.0	
		25	12	<b>23.22</b>	1.0	24.0	
		25	25	23.19	1.0	24.0	
	16QAM	50	0	23.27	1.0	24.0	
		1	0	23.40	1.0	24.0	
		1	25	23.46	1.0	24.0	
		1	49	23.46	1.0	24.0	
		25	0	22.26	2.0	23.0	
		25	12	22.25	2.0	23.0	
	64QAM	25	25	22.20	2.0	23.0	
		50	0	22.29	2.0	23.0	
		1	0	21.93	2.0	23.0	
		1	25	22.40	2.0	23.0	
		1	49	22.28	2.0	23.0	
		25	0	21.21	3.0	22.0	
	256QAM	25	12	21.25	3.0	22.0	
		25	25	21.20	3.0	22.0	
50		0	21.32	3.0	22.0		
1		0	19.39	5.0	20.0		
1		25	19.45	5.0	20.0		
1		49	19.33	5.0	20.0		
5 MHz	QPSK	25	0	19.25	5.0	20.0	
		25	12	19.26	5.0	20.0	
		25	25	19.26	5.0	20.0	
		50	0	19.29	5.0	20.0	
		1	0	24.08	0.0	25.0	
		1	12	24.19	0.0	25.0	
	16QAM	1	24	24.06	0.0	25.0	
		12	0	23.14	1.0	24.0	
		12	7	23.20	1.0	24.0	
		12	13	23.18	1.0	24.0	
		25	0	23.15	1.0	24.0	
		1	0	23.52	1.0	24.0	
	64QAM	1	12	23.65	1.0	24.0	
		1	24	23.57	1.0	24.0	
		12	0	22.21	2.0	23.0	
		12	7	22.25	2.0	23.0	
		12	13	22.18	2.0	23.0	
		25	0	22.25	2.0	23.0	
	256QAM	1	0	22.21	2.0	23.0	
		1	12	22.37	2.0	23.0	
1		24	22.29	2.0	23.0		
12		0	21.16	3.0	22.0		
12		7	21.23	3.0	22.0		
12		13	21.16	3.0	22.0		
QPSK	25	0	21.19	3.0	22.0		
	1	0	19.31	5.0	20.0		
	1	12	19.49	5.0	20.0		
	1	24	19.29	5.0	20.0		
	12	0	19.13	5.0	20.0		
	12	7	19.21	5.0	20.0		
	12	13	19.17	5.0	20.0		
	25	0	19.15	5.0	20.0		

**LTE Band 14 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				DSI = 0, 1			
				Measured Pwr (dBm)		MPR	Tune-up Limit
				23330	793 MHz		
10 MHz	QPSK	1	0	24.04	0.0	25.0	
		1	25	23.93	0.0	25.0	
		1	49	<b>24.08</b>	0.0	25.0	
		25	0	22.98	1.0	24.0	
		25	12	<b>23.03</b>	1.0	24.0	
		25	25	23.00	1.0	24.0	
	16QAM	50	0	23.02	1.0	24.0	
		1	0	23.38	1.0	24.0	
		1	25	23.35	1.0	24.0	
		1	49	23.27	1.0	24.0	
		25	0	22.03	2.0	23.0	
		25	12	22.05	2.0	23.0	
	64QAM	25	25	22.03	2.0	23.0	
		50	0	22.03	2.0	23.0	
		1	0	22.21	2.0	23.0	
		1	25	22.15	2.0	23.0	
		1	49	21.83	2.0	23.0	
		25	0	21.03	3.0	22.0	
	256QAM	25	12	21.05	3.0	22.0	
		25	25	20.97	3.0	22.0	
		50	0	21.04	3.0	22.0	
		1	0	19.18	5.0	20.0	
		1	25	19.18	5.0	20.0	
		1	49	18.78	5.0	20.0	
5 MHz	QPSK	25	0	19.01	5.0	20.0	
		25	12	19.07	5.0	20.0	
		25	25	19.03	5.0	20.0	
		50	0	19.03	5.0	20.0	
		1	0	24.10	0.0	25.0	
		1	12	24.06	0.0	25.0	
	16QAM	1	24	23.07	0.0	25.0	
		12	0	22.31	1.0	24.0	
		12	7	23.02	1.0	24.0	
		12	13	23.03	1.0	24.0	
		25	0	23.06	1.0	24.0	
		1	0	23.36	1.0	24.0	
64QAM	1	12	23.34	1.0	24.0		
	1	24	22.90	1.0	24.0		
	12	0	21.46	2.0	23.0		
	12	7	21.90	2.0	23.0		
	12	13	22.05	2.0	23.0		
	25	0	22.06	2.0	23.0		
256QAM	1	0	22.47	2.0	23.0		
	1	12	22.48	2.0	23.0		
	1	24	22.38	2.0	23.0		
	12	0	20.68	3.0	22.0		
	12	7	21.11	3.0	22.0		
	12	13	21.06	3.0	22.0		
5 MHz	256QAM	25	0	21.06	3.0	22.0	
		1	0	19.21	5.0	20.0	
		1	12	19.24	5.0	20.0	
		1	24	18.53	5.0	20.0	
		12	0	19.09	5.0	20.0	
		12	7	19.11	5.0	20.0	
5 MHz	256QAM	12	13	19.03	5.0	20.0	
		25	0	19.07	5.0	20.0	



**LTE Band 14 Ant E Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				DSI = 0, 1			
				Measured Pwr (dBm)		MPR	Tune-up Limit
23330	793 MHz						
10 MHz	QPSK	1	0	24.16	0.0	25.0	
		1	25	<b>24.20</b>	0.0	25.0	
		1	49	24.02	0.0	25.0	
		25	0	23.17	1.0	24.0	
		25	12	23.21	1.0	24.0	
		25	25	<b>23.31</b>	1.0	24.0	
	16QAM	50	0	23.21	1.0	24.0	
		1	0	23.45	1.0	24.0	
		1	25	23.52	1.0	24.0	
		1	49	23.29	1.0	24.0	
		25	0	22.26	2.0	23.0	
		25	12	22.28	2.0	23.0	
	64QAM	25	25	22.36	2.0	23.0	
		50	0	22.22	2.0	23.0	
		1	0	22.38	2.0	23.0	
		1	25	22.41	2.0	23.0	
		1	49	21.41	2.0	23.0	
		25	0	21.22	3.0	22.0	
	256QAM	25	12	21.24	3.0	22.0	
		25	25	21.28	3.0	22.0	
50		0	21.25	3.0	22.0		
1		0	19.19	5.0	20.0		
1		25	19.40	5.0	20.0		
1		49	18.75	5.0	20.0		
5 MHz	QPSK	25	0	19.17	5.0	20.0	
		25	12	19.24	5.0	20.0	
		25	25	19.31	5.0	20.0	
		50	0	19.23	5.0	20.0	
		1	0	24.21	0.0	25.0	
		1	12	24.06	0.0	25.0	
	16QAM	1	24	22.83	0.0	25.0	
		12	0	22.88	1.0	24.0	
		12	7	22.53	1.0	24.0	
		12	13	22.79	1.0	24.0	
		25	0	23.14	1.0	24.0	
		1	0	23.45	1.0	24.0	
	64QAM	1	12	23.52	1.0	24.0	
		1	24	22.54	1.0	24.0	
		12	0	21.75	2.0	23.0	
		12	7	21.54	2.0	23.0	
		12	13	21.91	2.0	23.0	
		25	0	22.14	2.0	23.0	
	256QAM	1	0	22.25	2.0	23.0	
		1	12	22.31	2.0	23.0	
1		24	21.66	2.0	23.0		
12		0	21.20	3.0	22.0		
12		7	21.03	3.0	22.0		
12		13	21.20	3.0	22.0		
QPSK	25	0	21.14	3.0	22.0		
	1	0	19.24	5.0	20.0		
	1	12	19.39	5.0	20.0		
	1	24	18.35	5.0	20.0		
	12	0	19.14	5.0	20.0		
	12	7	19.18	5.0	20.0		
	12	13	19.21	5.0	20.0		
	25	0	19.11	5.0	20.0		

**LTE Band 25 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 1					DSI = 0				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26140 1860 MHz	26365 1882.5 MHz	26590 1905 MHz			26140 1860 MHz	26365 1882.5 MHz	26590 1905 MHz		
20 MHz	QPSK	1	0	23.74	23.75	<b>23.76</b>	0.0	24.7	18.97	18.94	<b>18.98</b>	0.0	20.0
		1	49	23.75	23.71	23.60	0.0	24.7	18.95	18.92	18.93	0.0	20.0
		1	99	23.73	23.71	23.72	0.0	24.7	18.90	18.96	18.95	0.0	20.0
		50	0	22.75	22.75	22.70	1.0	23.7	18.94	18.94	18.98	0.0	20.0
		50	24	22.74	22.76	<b>22.79</b>	1.0	23.7	19.02	18.99	<b>19.03</b>	0.0	20.0
		50	50	22.72	22.73	22.77	1.0	23.7	18.95	18.97	18.98	0.0	20.0
	16QAM	100	0	22.70	22.70	22.77	1.0	23.7	18.97	18.97	19.01	0.0	20.0
		1	0	23.07	22.98	23.18	1.0	23.7	19.21	19.39	19.29	0.0	20.0
		1	49	23.11	22.99	22.96	1.0	23.7	19.19	19.35	19.34	0.0	20.0
		1	99	23.07	22.98	23.17	1.0	23.7	19.15	19.38	19.33	0.0	20.0
		50	0	21.81	21.77	21.73	2.0	22.7	18.96	18.99	18.99	0.0	20.0
		50	24	21.76	21.76	21.79	2.0	22.7	19.02	19.03	19.07	0.0	20.0
	64QAM	50	50	21.72	21.74	21.81	2.0	22.7	18.98	18.99	19.01	0.0	20.0
		100	0	21.70	21.76	21.81	2.0	22.7	18.95	19.01	19.02	0.0	20.0
		1	0	22.00	22.04	20.44	2.0	22.7	19.14	19.21	19.19	0.0	20.0
		1	49	21.97	22.01	20.41	2.0	22.7	19.15	19.19	19.19	0.0	20.0
		1	99	21.95	22.00	20.43	2.0	22.7	19.14	19.17	19.21	0.0	20.0
		50	0	20.78	20.78	20.80	3.0	21.7	18.93	18.95	18.97	0.0	20.0
	256QAM	50	24	20.86	20.87	20.87	3.0	21.7	19.00	19.03	19.04	0.0	20.0
		50	50	20.81	20.82	20.80	3.0	21.7	19.00	18.99	18.98	0.0	20.0
100		0	20.82	20.84	20.89	3.0	21.7	19.01	19.01	19.05	0.0	20.0	
1		0	18.84	18.92	19.04	5.0	19.7	18.72	18.65	18.82	0.5	19.5	
1		49	18.85	19.12	19.08	5.0	19.7	18.87	18.69	18.81	0.5	19.5	
1		99	18.74	19.03	18.98	5.0	19.7	18.65	18.62	18.79	0.5	19.5	
15 MHz	QPSK	50	0	18.75	18.79	18.81	5.0	19.7	18.58	18.56	18.59	0.5	19.5
		50	24	18.83	18.83	18.87	5.0	19.7	18.65	18.61	18.67	0.5	19.5
		50	50	18.78	18.78	18.79	5.0	19.7	18.57	18.56	18.60	0.5	19.5
		100	0	18.80	18.83	18.87	5.0	19.7	18.61	18.63	18.66	0.5	19.5
		1	0	23.75	23.80	23.54	0.0	24.7	18.86	18.95	18.92	0.0	20.0
		1	37	23.74	23.71	23.62	0.0	24.7	18.89	18.94	18.88	0.0	20.0
	16QAM	1	74	23.70	23.66	23.68	0.0	24.7	18.83	18.91	18.85	0.0	20.0
		36	0	22.74	22.77	22.64	1.0	23.7	18.94	18.90	18.89	0.0	20.0
		36	20	22.78	22.73	22.64	1.0	23.7	18.95	18.90	18.86	0.0	20.0
		36	39	22.68	22.70	22.68	1.0	23.7	18.90	18.95	18.92	0.0	20.0
		75	0	22.65	22.66	22.67	1.0	23.7	18.91	18.92	18.82	0.0	20.0
		1	0	23.03	23.00	22.60	1.0	23.7	19.31	19.25	19.13	0.0	20.0
	64QAM	1	37	23.09	23.03	22.94	1.0	23.7	19.26	19.28	19.17	0.0	20.0
		1	74	22.96	23.00	23.02	1.0	23.7	19.22	19.19	19.15	0.0	20.0
		36	0	21.80	21.78	21.64	2.0	22.7	19.00	18.94	18.92	0.0	20.0
		36	20	21.81	21.77	21.64	2.0	22.7	18.98	18.93	18.94	0.0	20.0
		36	39	21.70	21.72	21.71	2.0	22.7	18.95	18.93	18.96	0.0	20.0
		75	0	21.67	21.74	21.71	2.0	22.7	18.96	18.95	18.88	0.0	20.0
	256QAM	1	0	21.98	21.98	20.56	2.0	22.7	19.13	19.17	19.12	0.0	20.0
		1	37	22.03	22.00	20.57	2.0	22.7	19.12	19.21	19.10	0.0	20.0
1		74	21.90	21.95	20.66	2.0	22.7	19.01	19.12	19.05	0.0	20.0	
36		0	20.86	20.78	20.86	3.0	21.7	19.03	18.92	18.91	0.0	20.0	
36		20	20.85	20.79	20.75	3.0	21.7	19.01	18.92	18.91	0.0	20.0	
36		39	20.78	20.83	20.81	3.0	21.7	19.00	18.95	18.94	0.0	20.0	
256QAM	75	0	20.82	20.84	20.76	3.0	21.7	19.00	18.99	18.88	0.0	20.0	
	1	0	18.92	18.84	18.88	5.0	19.7	18.68	18.67	18.53	0.5	19.5	
	1	37	18.95	18.92	18.93	5.0	19.7	18.82	18.76	18.62	0.5	19.5	
	1	74	18.89	18.80	18.89	5.0	19.7	18.75	18.67	18.55	0.5	19.5	
	36	0	18.83	18.78	18.76	5.0	19.7	18.63	18.57	18.52	0.5	19.5	
	36	20	18.82	18.77	18.74	5.0	19.7	18.66	18.54	18.51	0.5	19.5	
256QAM	36	39	18.80	18.80	18.79	5.0	19.7	18.57	18.54	18.52	0.5	19.5	
	75	0	18.79	18.84	18.73	5.0	19.7	18.64	18.58	18.49	0.5	19.5	

**LTE Band 25 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				26090	26365	26640			26090	26365	26640				
				1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz				
10 MHz	QPSK	1	0	23.76	23.72	23.80	0.0	24.7	19.01	18.91	18.90	0.0	20.0		
		1	25	23.84	23.68	23.76	0.0	24.7	18.96	18.94	18.93	0.0	20.0		
		1	49	23.71	23.53	23.73	0.0	24.7	18.92	18.85	18.88	0.0	20.0		
		25	0	22.81	22.69	22.60	1.0	23.7	19.01	18.92	18.87	0.0	20.0		
		25	12	22.83	22.73	22.67	1.0	23.7	19.02	19.01	18.90	0.0	20.0		
		25	25	22.81	22.71	22.82	1.0	23.7	18.97	18.97	18.96	0.0	20.0		
	16QAM	50	0	22.76	22.71	22.66	1.0	23.7	18.97	18.96	18.89	0.0	20.0		
		1	0	22.97	23.11	23.16	1.0	23.7	19.14	19.20	19.27	0.0	20.0		
		1	25	22.95	23.01	23.07	1.0	23.7	19.20	19.25	19.27	0.0	20.0		
		1	49	22.89	22.84	23.03	1.0	23.7	19.05	19.19	19.20	0.0	20.0		
		25	0	21.81	21.74	21.61	2.0	22.7	19.07	18.97	18.88	0.0	20.0		
		25	12	21.86	21.77	21.66	2.0	22.7	19.07	19.08	18.91	0.0	20.0		
	64QAM	25	25	21.80	21.76	21.79	2.0	22.7	19.04	19.05	18.98	0.0	20.0		
		50	0	21.80	21.71	21.69	2.0	22.7	19.02	18.99	18.92	0.0	20.0		
		1	0	22.02	22.06	20.23	2.0	22.7	19.31	19.23	19.08	0.0	20.0		
		1	25	22.02	22.14	20.40	2.0	22.7	19.29	19.26	19.14	0.0	20.0		
		1	49	21.96	21.97	20.27	2.0	22.7	19.14	19.14	19.17	0.0	20.0		
		25	0	20.89	20.77	20.77	3.0	21.7	19.03	18.99	18.94	0.0	20.0		
	256QAM	25	12	20.92	20.83	20.77	3.0	21.7	19.10	19.05	18.99	0.0	20.0		
		25	25	20.86	20.95	20.83	3.0	21.7	19.06	19.04	19.03	0.0	20.0		
		50	0	20.84	20.84	20.75	3.0	21.7	19.07	19.03	18.95	0.0	20.0		
		1	0	19.01	18.87	18.90	5.0	19.7	18.80	18.71	18.68	0.5	19.5		
		1	25	19.00	19.03	18.97	5.0	19.7	18.83	18.86	18.66	0.5	19.5		
		1	49	18.89	18.93	18.89	5.0	19.7	18.67	18.70	18.69	0.5	19.5		
	10 MHz	QPSK	25	0	18.85	18.79	18.76	5.0	19.7	18.66	18.58	18.51	0.5	19.5	
			25	12	18.89	18.81	18.79	5.0	19.7	18.69	18.67	18.54	0.5	19.5	
			25	25	18.84	18.82	18.82	5.0	19.7	18.65	18.61	18.63	0.5	19.5	
			50	0	18.87	18.86	18.74	5.0	19.7	18.66	18.62	18.52	0.5	19.5	
			16QAM	1	0	23.74	23.67	23.73	0.0	24.7	18.95	18.86	18.95	0.0	20.0
				1	12	23.76	23.79	23.88	0.0	24.7	19.01	18.93	19.00	0.0	20.0
1	24	23.77		23.74	23.72	0.0	24.7	18.99	18.94	19.03	0.0	20.0			
12	0	22.78		22.68	22.69	1.0	23.7	18.99	18.85	18.87	0.0	20.0			
12	7	22.82		22.76	22.85	1.0	23.7	19.06	18.99	19.01	0.0	20.0			
12	13	22.80		22.76	22.86	1.0	23.7	19.01	18.97	19.00	0.0	20.0			
64QAM	25	0	22.78	22.72	22.72	1.0	23.7	19.00	18.96	18.98	0.0	20.0			
	1	0	23.11	22.88	23.14	1.0	23.7	19.32	19.27	19.34	0.0	20.0			
	1	12	23.18	23.00	23.29	1.0	23.7	19.24	19.32	19.37	0.0	20.0			
	1	24	23.17	23.00	23.22	1.0	23.7	19.24	19.36	19.31	0.0	20.0			
	12	0	21.91	21.77	21.73	2.0	22.7	19.17	18.92	18.99	0.0	20.0			
	12	7	21.95	21.87	21.88	2.0	22.7	19.22	19.06	19.12	0.0	20.0			
256QAM	12	13	21.94	21.86	21.95	2.0	22.7	19.20	19.03	19.11	0.0	20.0			
	25	0	21.85	21.71	21.74	2.0	22.7	19.01	19.04	19.04	0.0	20.0			
	1	0	21.89	21.92	22.02	2.0	22.7	19.22	19.06	19.25	0.0	20.0			
	1	12	21.95	22.08	22.15	2.0	22.7	19.25	19.10	19.30	0.0	20.0			
	1	24	21.85	21.99	22.08	2.0	22.7	19.19	19.04	19.26	0.0	20.0			
	12	0	20.90	20.75	20.80	3.0	21.7	19.05	18.96	18.87	0.0	20.0			
5 MHz	QPSK	12	7	20.94	20.89	20.95	3.0	21.7	19.11	19.10	19.03	0.0	20.0		
		12	13	20.93	20.85	20.92	3.0	21.7	19.07	19.07	19.09	0.0	20.0		
		25	0	20.91	20.86	20.85	3.0	21.7	19.06	19.03	19.04	0.0	20.0		
		1	0	19.03	18.79	18.84	5.0	19.7	18.89	18.61	18.71	0.5	19.5		
		1	12	19.07	18.99	19.01	5.0	19.7	18.97	18.79	18.87	0.5	19.5		
		1	24	19.01	18.87	18.94	5.0	19.7	18.91	18.69	18.83	0.5	19.5		
16QAM	12	0	18.89	18.72	18.75	5.0	19.7	18.68	18.54	18.56	0.5	19.5			
	12	7	18.91	18.88	18.92	5.0	19.7	18.74	18.68	18.75	0.5	19.5			
	12	13	18.91	18.86	18.90	5.0	19.7	18.67	18.64	18.69	0.5	19.5			
	25	0	18.85	18.84	18.86	5.0	19.7	18.68	18.64	18.67	0.5	19.5			
	64QAM	1	0	23.74	23.67	23.73	0.0	24.7	18.95	18.86	18.95	0.0	20.0		
		1	12	23.76	23.79	23.88	0.0	24.7	19.01	18.93	19.00	0.0	20.0		
1		24	23.77	23.74	23.72	0.0	24.7	18.99	18.94	19.03	0.0	20.0			
12		0	22.78	22.68	22.69	1.0	23.7	18.99	18.85	18.87	0.0	20.0			
12		7	22.82	22.76	22.85	1.0	23.7	19.06	18.99	19.01	0.0	20.0			
12		13	22.80	22.76	22.86	1.0	23.7	19.01	18.97	19.00	0.0	20.0			
256QAM	25	0	22.78	22.72	22.72	1.0	23.7	19.00	18.96	18.98	0.0	20.0			
	1	0	23.11	22.88	23.14	1.0	23.7	19.32	19.27	19.34	0.0	20.0			
	1	12	23.18	23.00	23.29	1.0	23.7	19.24	19.32	19.37	0.0	20.0			
	1	24	23.17	23.00	23.22	1.0	23.7	19.24	19.36	19.31	0.0	20.0			
	12	0	21.91	21.77	21.73	2.0	22.7	19.17	18.92	18.99	0.0	20.0			
	12	7	21.95	21.87	21.88	2.0	22.7	19.22	19.06	19.12	0.0	20.0			
10 MHz	QPSK	12	13	21.94	21.86	21.95	2.0	22.7	19.20	19.03	19.11	0.0	20.0		
		25	0	21.85	21.71	21.74	2.0	22.7	19.01	19.04	19.04	0.0	20.0		
		1	0	21.89	21.92	22.02	2.0	22.7	19.22	19.06	19.25	0.0	20.0		
		1	12	21.95	22.08	22.15	2.0	22.7	19.25	19.10	19.30	0.0	20.0		
		1	24	21.85	21.99	22.08	2.0	22.7	19.19	19.04	19.26	0.0	20.0		
		12	0	20.90	20.75	20.80	3.0	21.7	19.05	18.96	18.87	0.0	20.0		
16QAM	12	7	20.94	20.89	20.95	3.0	21.7	19.11	19.10	19.03	0.0	20.0			
	12	13	20.93	20.85	20.92	3.0	21.7	19.07	19.07	19.09	0.0	20.0			
	25	0	20.91	20.86	20.85	3.0	21.7	19.06	19.03	19.04	0.0	20.0			
	1	0	19.03	18.79	18.84	5.0	19.7	18.89	18.61	18.71	0.5	19.5			
	1	12	19.07	18.99	19.01	5.0	19.7	18.97	18.79	18.87	0.5	19.5			
	1	24	19.01	18.87	18.94	5.0	19.7	18.91	18.69	18.83	0.5	19.5			
64QAM	12	0	18.89	18.72	18.75	5.0	19.7	18.68	18.54	18.56	0.5	19.5			
	12	7	18.91	18.88	18.92	5.0	19.7	18.74	18.68	18.75	0.5	19.5			
	12	13	18.91	18.86	18.90	5.0	19.7	18.67	18.64	18.69	0.5	19.5			
	25	0	18.85	18.84	18.86	5.0	19.7	18.68	18.64	18.67	0.5	19.5			
	256QAM	1	0	19.03	18.79	18.84	5.0	19.7	18.89	18.61	18.71	0.5	19.5		
		1	12	19.07	18.99	19.01	5.0	19.7	18.97	18.79	18.87	0.5	19.5		
1		24	19.01	18.87	18.94	5.0	19.7	18.91	18.69	18.83	0.5	19.5			
12		0	18.89	18.72	18.75	5.0	19.7	18.68	18.54	18.56	0.5	19.5			
12		7	18.91	18.88	18.92	5.0	19.7	18.74	18.68	18.75	0.5	19.5			
12		13	18.91	18.86	18.90	5.0	19.7	18.67	18.64	18.69	0.5	19.5			

**LTE Band 25 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26055	26365	26675			26055	26365	26675		
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	23.70	23.52	23.76	0.0	24.7	18.95	18.86	18.83	0.0	20.0
		1	8	23.80	23.72	23.89	0.0	24.7	19.07	19.02	18.98	0.0	20.0
		1	14	23.72	23.66	23.59	0.0	24.7	19.01	18.83	18.87	0.0	20.0
		8	0	22.75	22.65	22.77	1.0	23.7	19.01	18.86	18.90	0.0	20.0
		8	4	22.80	22.67	22.84	1.0	23.7	19.04	19.00	19.02	0.0	20.0
		8	7	22.80	22.72	22.85	1.0	23.7	19.06	19.00	19.01	0.0	20.0
	15	0	22.79	22.64	22.82	1.0	23.7	19.02	18.96	18.96	0.0	20.0	
	16QAM	1	0	22.93	22.84	23.09	1.0	23.7	19.23	19.04	19.16	0.0	20.0
		1	8	23.06	23.03	23.24	1.0	23.7	19.34	19.22	19.36	0.0	20.0
		1	14	22.97	22.93	23.01	1.0	23.7	19.27	19.13	19.22	0.0	20.0
		8	0	21.84	21.66	21.85	2.0	22.7	19.10	18.95	18.98	0.0	20.0
		8	4	21.87	21.76	21.95	2.0	22.7	19.08	19.04	19.11	0.0	20.0
		8	7	21.90	21.73	21.94	2.0	22.7	19.16	19.05	19.11	0.0	20.0
	15	0	21.79	21.68	21.85	2.0	22.7	19.10	18.99	18.99	0.0	20.0	
	64QAM	1	0	21.93	21.96	21.86	2.0	22.7	19.25	19.02	19.02	0.0	20.0
		1	8	22.16	22.19	22.11	2.0	22.7	19.29	19.15	19.26	0.0	20.0
		1	14	22.04	22.08	21.93	2.0	22.7	19.26	19.12	19.20	0.0	20.0
		8	0	20.94	20.84	20.83	3.0	21.7	19.12	18.90	18.90	0.0	20.0
		8	4	20.96	20.94	20.93	3.0	21.7	19.09	19.06	19.07	0.0	20.0
		8	7	20.98	20.96	20.95	3.0	21.7	19.12	19.08	19.10	0.0	20.0
	15	0	20.90	20.87	20.92	3.0	21.7	19.06	19.06	19.07	0.0	20.0	
	256QAM	1	0	18.99	18.79	18.88	5.0	19.7	18.67	18.65	18.59	0.5	19.5
		1	8	19.05	19.02	19.07	5.0	19.7	18.76	18.86	18.89	0.5	19.5
		1	14	18.97	18.85	18.95	5.0	19.7	18.66	18.74	18.73	0.5	19.5
8		0	18.89	18.81	18.79	5.0	19.7	18.65	18.61	18.56	0.5	19.5	
8		4	18.93	18.89	18.90	5.0	19.7	18.70	18.76	18.68	0.5	19.5	
8		7	18.94	18.91	18.90	5.0	19.7	18.69	18.73	18.71	0.5	19.5	
15	0	18.90	18.90	18.86	5.0	19.7	18.67	18.69	18.63	0.5	19.5		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26047	26365	26683			26047	26365	26683		
				1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz		
1.4 MHz	QPSK	1	0	23.69	23.58	23.77	0.0	24.7	18.96	18.90	18.93	0.0	20.0
		1	3	23.66	23.57	23.73	0.0	24.7	18.93	18.88	18.86	0.0	20.0
		1	5	23.66	23.62	23.54	0.0	24.7	18.95	18.88	18.90	0.0	20.0
		3	0	23.69	23.58	23.65	0.0	24.7	18.92	18.92	18.88	0.0	20.0
		3	1	23.67	23.58	23.63	0.0	24.7	18.92	18.89	18.86	0.0	20.0
		3	3	23.68	23.57	23.57	0.0	24.7	18.90	18.89	18.88	0.0	20.0
	6	0	22.72	22.58	22.72	1.0	23.7	18.99	18.93	18.94	0.0	20.0	
	16QAM	1	0	22.96	22.91	22.96	1.0	23.7	19.19	19.26	19.22	0.0	20.0
		1	3	22.92	22.96	22.93	1.0	23.7	19.13	19.26	19.17	0.0	20.0
		1	5	22.92	22.98	22.77	1.0	23.7	19.17	19.29	19.13	0.0	20.0
		3	0	22.86	22.68	22.95	1.0	23.7	19.06	19.02	19.11	0.0	20.0
		3	1	22.88	22.74	22.92	1.0	23.7	19.10	19.04	19.17	0.0	20.0
		3	3	22.83	22.72	22.91	1.0	23.7	19.06	19.01	19.12	0.0	20.0
	6	0	21.82	21.60	21.93	2.0	22.7	19.12	18.98	19.09	0.0	20.0	
	64QAM	1	0	21.95	22.02	21.88	2.0	22.7	19.27	19.07	18.69	0.0	20.0
		1	3	21.90	22.05	21.79	2.0	22.7	19.31	19.05	18.68	0.0	20.0
		1	5	21.76	22.01	21.77	2.0	22.7	19.25	19.03	18.59	0.0	20.0
		3	0	21.91	21.92	21.92	2.0	22.7	19.13	19.07	19.04	0.0	20.0
		3	1	21.90	21.92	21.90	2.0	22.7	19.11	19.07	19.07	0.0	20.0
		3	3	21.89	21.93	21.93	2.0	22.7	19.10	19.10	19.05	0.0	20.0
	6	0	20.83	20.83	20.89	3.0	21.7	19.05	19.05	19.10	0.0	20.0	
	256QAM	1	0	18.97	19.07	18.99	5.0	19.7	18.77	18.66	18.77	0.5	19.5
		1	3	18.95	19.11	19.01	5.0	19.7	18.80	18.68	18.81	0.5	19.5
		1	5	18.97	19.10	18.97	5.0	19.7	18.80	18.65	18.77	0.5	19.5
3		0	18.93	18.92	18.91	5.0	19.7	18.76	18.63	18.76	0.5	19.5	
3		1	18.94	18.94	18.90	5.0	19.7	18.74	18.61	18.64	0.5	19.5	
3		3	18.91	18.92	18.93	5.0	19.7	18.72	18.59	18.65	0.5	19.5	
6	0	18.00	18.79	18.99	5.0	19.7	18.70	18.58	18.71	0.5	19.5		

**LTE Band 25 Ant F Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26140 1860 MHz	26365 1882.5 MHz	26590 1905 MHz			26140 1860 MHz	26365 1882.5 MHz	26590 1905 MHz		
20 MHz	QPSK	1	0	20.67	20.65	20.60	0.0	22.0	18.35	18.43	18.29	0.0	20.0
		1	49	20.67	20.53	20.61	0.0	22.0	18.42	18.40	18.36	0.0	20.0
		1	99	20.65	20.54	<b>20.79</b>	0.0	22.0	18.38	18.30	<b>18.59</b>	0.0	20.0
		50	0	20.78	20.71	20.66	0.0	22.0	18.36	18.47	18.38	0.0	20.0
		0	24	20.64	20.71	20.77	0.0	22.0	18.49	18.48	18.43	0.0	20.0
		50	50	20.64	20.66	<b>20.79</b>	0.0	22.0	18.48	18.51	<b>18.52</b>	0.0	20.0
	100	0	20.60	20.69	20.74	0.0	22.0	18.42	18.41	18.38	0.0	20.0	
	16QAM	1	0	21.02	21.00	20.82	0.0	22.0	18.47	18.50	18.44	0.0	20.0
		1	49	21.06	20.88	20.99	0.0	22.0	18.58	18.51	18.57	0.0	20.0
		1	99	21.05	21.00	21.09	0.0	22.0	18.48	18.41	18.68	0.0	20.0
		50	0	20.71	20.71	20.66	0.0	22.0	18.37	18.48	18.42	0.0	20.0
		50	24	20.67	20.71	20.77	0.0	22.0	18.48	18.50	18.45	0.0	20.0
		50	50	20.65	20.66	20.76	0.0	22.0	18.47	18.51	18.51	0.0	20.0
	100	0	20.63	20.65	20.74	0.0	22.0	18.42	18.43	18.41	0.0	20.0	
	64QAM	1	0	20.89	20.85	20.77	0.0	22.0	18.58	18.73	18.66	0.0	20.0
		1	49	20.90	20.74	20.86	0.0	22.0	18.69	18.66	18.68	0.0	20.0
		1	99	20.87	20.83	21.02	0.0	22.0	18.52	18.64	18.80	0.0	20.0
		50	0	20.46	20.42	20.36	0.5	21.5	18.38	18.47	18.43	0.0	20.0
		50	24	20.39	20.42	20.47	0.5	21.5	18.48	18.50	18.44	0.0	20.0
		50	50	20.38	20.36	20.46	0.5	21.5	18.49	18.52	18.55	0.0	20.0
	100	0	20.38	20.38	20.47	0.5	21.5	18.45	18.44	18.43	0.0	20.0	
	256QAM	1	0	18.60	18.47	18.41	2.5	19.5	18.53	18.59	18.27	0.0	20.0
		1	49	18.61	18.36	18.58	2.5	19.5	18.58	18.52	18.43	0.0	20.0
		1	99	18.47	18.36	18.65	2.5	19.5	18.44	18.54	18.55	0.0	20.0
50		0	18.43	18.41	18.37	2.5	19.5	18.24	18.39	18.35	0.0	20.0	
50		24	18.37	18.41	18.47	2.5	19.5	18.39	18.41	18.36	0.0	20.0	
50		50	18.35	18.33	18.41	2.5	19.5	18.35	18.39	18.39	0.0	20.0	
100	0	18.35	18.38	18.45	2.5	19.5	18.32	18.36	18.33	0.0	20.0		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115 1857.5 MHz	26365 1882.5 MHz	26615 1907.5 MHz			26115 1857.5 MHz	26365 1882.5 MHz	26615 1907.5 MHz		
15 MHz	QPSK	1	0	20.81	20.81	20.85	0.0	22.0	18.37	18.52	18.54	0.0	20.0
		1	37	20.81	20.66	20.83	0.0	22.0	18.45	18.46	18.56	0.0	20.0
		1	74	20.77	20.66	20.86	0.0	22.0	18.36	18.48	18.54	0.0	20.0
		36	0	20.86	20.82	20.70	0.0	22.0	18.42	18.51	18.40	0.0	20.0
		36	20	20.90	20.80	20.73	0.0	22.0	18.51	18.51	18.44	0.0	20.0
		36	39	20.77	20.77	20.78	0.0	22.0	18.48	18.56	18.50	0.0	20.0
	75	0	20.76	20.75	20.76	0.0	22.0	18.45	18.46	18.38	0.0	20.0	
	16QAM	1	0	21.15	21.08	21.08	0.0	22.0	18.55	18.61	18.65	0.0	20.0
		1	37	21.17	21.02	21.11	0.0	22.0	18.59	18.62	18.65	0.0	20.0
		1	74	21.04	20.95	21.17	0.0	22.0	18.52	18.60	18.71	0.0	20.0
		36	0	20.90	20.91	20.73	0.0	22.0	18.43	18.53	18.41	0.0	20.0
		36	20	20.89	20.82	20.76	0.0	22.0	18.54	18.52	18.45	0.0	20.0
		36	39	20.78	20.80	20.79	0.0	22.0	18.52	18.57	18.49	0.0	20.0
	75	0	20.79	20.78	20.80	0.0	22.0	18.50	18.48	18.43	0.0	20.0	
	64QAM	1	0	21.05	20.88	21.04	0.0	22.0	18.58	18.74	18.79	0.0	20.0
		1	37	21.06	20.82	21.03	0.0	22.0	18.67	18.76	18.67	0.0	20.0
		1	74	21.05	20.81	21.03	0.0	22.0	18.62	18.70	18.64	0.0	20.0
		36	0	20.59	20.54	20.45	0.5	21.5	18.45	18.51	18.44	0.0	20.0
		36	20	20.61	20.51	20.48	0.5	21.5	18.58	18.54	18.46	0.0	20.0
		36	39	20.50	20.49	20.51	0.5	21.5	18.51	18.57	18.53	0.0	20.0
	75	0	20.52	20.52	20.54	0.5	21.5	18.51	18.51	18.43	0.0	20.0	
	256QAM	1	0	18.71	18.61	18.70	2.5	19.5	18.45	18.45	18.58	0.0	20.0
		1	37	18.74	18.59	18.78	2.5	19.5	18.63	18.55	18.71	0.0	20.0
		1	74	18.61	18.54	18.70	2.5	19.5	18.56	18.45	18.71	0.0	20.0
36		0	18.61	18.53	18.46	2.5	19.5	18.36	18.45	18.37	0.0	20.0	
36		20	18.59	18.52	18.45	2.5	19.5	18.45	18.44	18.39	0.0	20.0	
36		39	18.49	18.47	18.49	2.5	19.5	18.41	18.49	18.42	0.0	20.0	
75	0	18.51	18.50	18.52	2.5	19.5	18.41	18.41	18.35	0.0	20.0		

**LTE Band 25 Ant F Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				26090	26365	26640			26090	26365	26640		
				1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	QPSK	1	0	20.81	20.78	20.77	0.0	22.0	18.41	18.49	18.34	0.0	20.0
		1	25	20.80	20.66	20.59	0.0	22.0	18.45	18.53	18.40	0.0	20.0
		1	49	20.78	20.75	20.98	0.0	22.0	18.45	18.60	18.54	0.0	20.0
		25	0	20.85	20.84	20.74	0.0	22.0	18.48	18.54	18.54	0.0	20.0
		25	12	20.89	20.80	20.71	0.0	22.0	18.49	18.54	18.53	0.0	20.0
		25	25	20.87	20.79	20.79	0.0	22.0	18.51	18.60	18.49	0.0	20.0
	16QAM	1	0	21.05	21.16	21.18	0.0	22.0	18.62	18.71	18.54	0.0	20.0
		1	25	21.00	20.99	20.99	0.0	22.0	18.62	18.68	18.59	0.0	20.0
		1	49	21.00	21.05	21.32	0.0	22.0	18.48	18.80	18.75	0.0	20.0
		25	0	20.91	20.84	20.75	0.0	22.0	18.53	18.58	18.60	0.0	20.0
		25	12	20.94	20.80	20.73	0.0	22.0	18.53	18.58	18.60	0.0	20.0
		25	25	20.92	20.82	20.85	0.0	22.0	18.54	18.65	18.59	0.0	20.0
	64QAM	1	0	20.84	20.81	20.77	0.0	22.0	18.53	18.57	18.58	0.0	20.0
		1	25	21.02	20.80	20.88	0.0	22.0	18.60	18.82	18.55	0.0	20.0
		1	49	21.10	20.90	21.13	0.0	22.0	18.53	18.84	18.73	0.0	20.0
		25	0	20.60	20.57	20.50	0.5	21.5	18.53	18.54	18.57	0.0	20.0
		25	12	20.64	20.53	20.48	0.5	21.5	18.56	18.56	18.54	0.0	20.0
		25	25	20.62	20.53	20.60	0.5	21.5	18.55	18.63	18.52	0.0	20.0
	256QAM	50	0	20.64	20.56	20.50	0.5	21.5	18.54	18.56	18.53	0.0	20.0
		1	0	18.77	18.66	18.54	2.5	19.5	18.49	18.55	18.60	0.0	20.0
		1	25	18.81	18.68	18.62	2.5	19.5	18.45	18.65	18.58	0.0	20.0
		1	49	18.73	18.68	18.67	2.5	19.5	18.50	18.66	18.69	0.0	20.0
		25	0	18.60	18.57	18.51	2.5	19.5	18.43	18.48	18.43	0.0	20.0
		25	12	18.63	18.53	18.50	2.5	19.5	18.45	18.43	18.46	0.0	20.0
	5 MHz	QPSK	25	25	18.59	18.49	18.52	2.5	19.5	18.44	18.49	18.42	0.0
50			0	18.58	18.52	18.47	2.5	19.5	18.43	18.40	18.43	0.0	20.0
1			0	20.83	20.79	20.71	0.0	22.0	18.47	18.53	18.39	0.0	20.0
1			12	20.91	20.73	20.81	0.0	22.0	18.55	18.53	18.48	0.0	20.0
1			24	20.80	20.72	20.95	0.0	22.0	18.42	18.57	18.65	0.0	20.0
12			0	20.86	20.77	20.69	0.0	22.0	18.49	18.46	18.41	0.0	20.0
16QAM		12	7	20.92	20.79	20.81	0.0	22.0	18.57	18.55	18.58	0.0	20.0
		12	13	20.86	20.77	20.98	0.0	22.0	18.52	18.51	18.63	0.0	20.0
		25	0	20.84	20.73	20.76	0.0	22.0	18.51	18.44	18.46	0.0	20.0
		1	0	21.20	21.02	21.07	0.0	22.0	18.55	18.72	18.57	0.0	20.0
		1	12	21.23	21.04	21.23	0.0	22.0	18.64	18.65	18.68	0.0	20.0
		1	24	21.16	21.01	21.38	0.0	22.0	18.55	18.66	18.79	0.0	20.0
64QAM		12	0	20.91	20.65	20.71	0.0	22.0	18.55	18.47	18.41	0.0	20.0
		12	7	20.96	20.69	20.87	0.0	22.0	18.60	18.59	18.60	0.0	20.0
		12	13	20.93	20.66	21.00	0.0	22.0	18.56	18.52	18.67	0.0	20.0
		25	0	20.86	20.73	20.82	0.0	22.0	18.53	18.50	18.52	0.0	20.0
		1	0	21.04	21.04	20.95	0.0	22.0	18.65	18.67	18.53	0.0	20.0
		1	12	21.09	21.00	21.10	0.0	22.0	18.66	18.71	18.70	0.0	20.0
256QAM		12	24	20.92	21.05	21.25	0.0	22.0	18.52	18.70	18.88	0.0	20.0
		12	0	20.66	20.53	20.43	0.5	21.5	18.58	18.53	18.40	0.0	20.0
		12	7	20.69	20.56	20.59	0.5	21.5	18.65	18.64	18.63	0.0	20.0
		12	13	20.68	20.52	20.72	0.5	21.5	18.59	18.60	18.66	0.0	20.0
		25	0	20.63	20.51	20.51	0.5	21.5	18.56	18.52	18.49	0.0	20.0
		1	0	18.71	18.59	18.59	2.5	19.5	18.50	18.64	18.44	0.0	20.0
256QAM		1	12	18.84	18.58	18.86	2.5	19.5	18.58	18.72	18.68	0.0	20.0
	1	24	18.63	18.56	18.92	2.5	19.5	18.43	18.76	18.78	0.0	20.0	
	12	0	18.63	18.51	18.35	2.5	19.5	18.45	18.40	18.30	0.0	20.0	
	12	7	18.67	18.53	18.50	2.5	19.5	18.49	18.54	18.51	0.0	20.0	
	12	13	18.65	18.47	18.62	2.5	19.5	18.46	18.49	18.55	0.0	20.0	
	25	0	18.63	18.48	18.47	2.5	19.5	18.45	18.42	18.40	0.0	20.0	

**LTE Band 25 Ant F Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				26055	26365	26675			26055	26365	26675		
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	20.8	20.6	20.7	0.0	22.0	18.4	18.4	18.4	0.0	20.0
		1	8	20.9	20.7	20.9	0.0	22.0	18.5	18.5	18.5	0.0	20.0
		1	14	20.8	20.5	20.9	0.0	22.0	18.4	18.3	18.6	0.0	20.0
		8	0	20.8	20.7	20.8	0.0	22.0	18.5	18.4	18.5	0.0	20.0
		8	4	20.9	20.7	20.9	0.0	22.0	18.5	18.6	18.6	0.0	20.0
		8	7	20.9	20.7	20.9	0.0	22.0	18.6	18.6	18.6	0.0	20.0
	16QAM	15	0	20.9	20.7	20.8	0.0	22.0	18.5	18.4	18.6	0.0	20.0
		1	0	21.0	20.9	21.0	0.0	22.0	18.5	18.5	18.5	0.0	20.0
		1	8	21.1	21.0	21.3	0.0	22.0	18.7	18.7	18.8	0.0	20.0
		1	14	21.0	20.9	21.3	0.0	22.0	18.6	18.5	18.8	0.0	20.0
		8	0	20.9	20.8	20.8	0.0	22.0	18.5	18.5	18.6	0.0	20.0
		8	4	21.0	20.8	20.9	0.0	22.0	18.6	18.6	18.7	0.0	20.0
	64QAM	8	7	21.0	20.8	21.0	0.0	22.0	18.6	18.6	18.7	0.0	20.0
		15	0	20.9	20.7	20.9	0.0	22.0	18.6	18.5	18.6	0.0	20.0
		1	0	21.0	20.9	20.8	0.0	22.0	18.7	18.6	18.5	0.0	20.0
		1	8	21.1	21.0	21.1	0.0	22.0	18.8	18.7	18.8	0.0	20.0
		1	14	21.1	20.9	21.1	0.0	22.0	18.6	18.6	18.7	0.0	20.0
		8	0	20.7	20.5	20.6	0.5	21.5	18.6	18.5	18.6	0.0	20.0
	256QAM	8	4	20.7	20.5	20.7	0.5	21.5	18.7	18.6	18.7	0.0	20.0
		8	7	20.7	20.5	20.7	0.5	21.5	18.7	18.6	18.7	0.0	20.0
		15	0	20.7	20.5	20.6	0.5	21.5	18.6	18.5	18.7	0.0	20.0
1		0	18.7	18.5	18.5	2.5	19.5	18.4	18.6	18.5	0.0	20.0	
1		8	18.8	18.6	18.8	2.5	19.5	18.7	18.6	18.7	0.0	20.0	
1		14	18.8	18.5	18.9	2.5	19.5	18.4	18.5	18.7	0.0	20.0	
1.4 MHz	QPSK	8	0	18.7	18.5	18.5	2.5	19.5	18.5	18.4	18.5	0.0	20.0
		8	4	18.7	18.5	18.6	2.5	19.5	18.5	18.6	18.6	0.0	20.0
		8	7	18.7	18.5	18.6	2.5	19.5	18.5	18.6	18.7	0.0	20.0
		15	0	18.6	18.4	18.5	2.5	19.5	18.5	18.4	18.6	0.0	20.0
		1	0	20.8	20.6	20.8	0.0	22.0	18.5	18.4	18.6	0.0	20.0
		1	3	20.8	20.6	20.9	0.0	22.0	18.5	18.4	18.6	0.0	20.0
	16QAM	1	5	20.8	20.6	20.9	0.0	22.0	18.5	18.5	18.6	0.0	20.0
		3	0	20.8	20.6	20.8	0.0	22.0	18.5	18.4	18.5	0.0	20.0
		3	1	20.8	20.6	20.9	0.0	22.0	18.5	18.4	18.5	0.0	20.0
		3	3	20.8	20.6	20.9	0.0	22.0	18.4	18.4	18.5	0.0	20.0
		6	0	20.8	20.7	20.9	0.0	22.0	18.5	18.5	18.7	0.0	20.0
		1	0	21.1	20.9	21.3	0.0	22.0	18.6	18.6	18.7	0.0	20.0
	64QAM	1	3	21.1	20.8	21.3	0.0	22.0	18.7	18.6	18.8	0.0	20.0
		1	5	21.1	20.8	21.3	0.0	22.0	18.7	18.7	18.7	0.0	20.0
		3	0	20.9	20.7	21.0	0.0	22.0	18.5	18.6	18.6	0.0	20.0
3		1	20.9	20.7	21.0	0.0	22.0	18.5	18.5	18.7	0.0	20.0	
3		3	21.0	20.7	21.0	0.0	22.0	18.5	18.6	18.7	0.0	20.0	
6		0	21.0	20.7	21.0	0.0	22.0	18.5	18.6	18.7	0.0	20.0	
256QAM	1	0	21.1	20.9	21.1	0.0	22.0	18.7	18.6	18.9	0.0	20.0	
	1	3	21.0	20.9	21.2	0.0	22.0	18.7	18.6	18.9	0.0	20.0	
	3	0	21.0	20.9	21.2	0.0	22.0	18.6	18.6	18.9	0.0	20.0	
	3	0	21.0	20.8	21.0	0.5	21.5	18.6	18.6	18.7	0.0	20.0	
	3	1	21.0	20.7	21.0	0.5	21.5	18.6	18.6	18.7	0.0	20.0	
	3	3	21.0	20.7	21.1	0.5	21.5	18.5	18.6	18.7	0.0	20.0	
256QAM	6	0	20.6	20.4	20.7	0.5	21.5	18.6	18.6	18.7	0.0	20.0	
	1	0	18.7	18.6	18.7	2.5	19.5	18.5	18.5	18.7	0.0	20.0	
	1	3	18.7	18.6	18.7	2.5	19.5	18.5	18.6	18.7	0.0	20.0	
	1	5	18.7	18.5	18.7	2.5	19.5	18.5	18.6	18.7	0.0	20.0	
	3	0	18.7	18.5	18.7	2.5	19.5	18.5	18.4	18.7	0.0	20.0	
	3	1	18.7	18.5	18.7	2.5	19.5	18.4	18.4	18.7	0.0	20.0	
256QAM	3	3	18.6	18.5	18.7	2.5	19.5	18.4	18.4	18.7	0.0	20.0	
	6	0	18.7	18.4	18.7	2.5	19.5	18.4	18.4	18.5	0.0	20.0	

**LTE Band 26 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
				DSI = 0, 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit
26865	831.5 MHz							
15 MHz	QPSK	1	0	24.02			0.0	25.0
		1	37	23.92			0.0	25.0
		1	74	23.86			0.0	25.0
		36	0	22.98			1.0	24.0
		36	20	23.00			1.0	24.0
		36	39	22.90			1.0	24.0
		75	0	22.90			1.0	24.0
	16QAM	1	0	23.24			1.0	24.0
		1	37	23.20			1.0	24.0
		1	74	23.10			1.0	24.0
		36	0	21.96			2.0	23.0
		36	20	22.00			2.0	23.0
		36	39	21.90			2.0	23.0
		75	0	21.93			2.0	23.0
	64QAM	1	0	22.20			2.0	23.0
		1	37	22.17			2.0	23.0
		1	74	22.05			2.0	23.0
		36	0	21.01			3.0	22.0
		36	20	21.05			3.0	22.0
		36	39	20.97			3.0	22.0
		75	0	21.02			3.0	22.0
256QAM	1	0	19.18			5.0	20.0	
	1	37	19.16			5.0	20.0	
	1	74	19.04			5.0	20.0	
	36	0	19.01			5.0	20.0	
	36	20	19.05			5.0	20.0	
	36	39	18.93			5.0	20.0	
	75	0	19.02			5.0	20.0	
10 MHz	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
26740	26865	26990						
819 MHz	831.5 MHz	844 MHz						
10 MHz	QPSK	1	0	24.04	24.06	24.10	0.0	25.0
		1	25	24.11	24.03	24.03	0.0	25.0
		1	49	24.11	24.02	24.05	0.0	25.0
		25	0	23.05	23.07	23.06	1.0	24.0
		25	12	23.15	23.14	23.06	1.0	24.0
		25	25	23.17	23.09	23.11	1.0	24.0
		50	0	23.12	23.11	23.04	1.0	24.0
	16QAM	1	0	23.30	23.35	23.41	1.0	24.0
		1	25	23.29	23.32	23.36	1.0	24.0
		1	49	23.29	23.33	23.42	1.0	24.0
		25	0	22.13	22.12	22.04	2.0	23.0
		25	12	22.21	22.17	22.09	2.0	23.0
		25	25	22.19	22.12	22.12	2.0	23.0
		50	0	22.14	22.13	22.05	2.0	23.0
	64QAM	1	0	22.22	22.34	22.23	2.0	23.0
		1	25	22.36	22.36	22.28	2.0	23.0
		1	49	22.28	22.26	22.21	2.0	23.0
		25	0	21.09	21.09	21.06	3.0	22.0
		25	12	21.18	21.14	21.10	3.0	22.0
		25	25	21.15	21.12	21.08	3.0	22.0
		50	0	21.16	21.13	21.01	3.0	22.0
256QAM	1	0	19.26	19.24	19.24	5.0	20.0	
	1	25	19.36	19.29	19.20	5.0	20.0	
	1	49	19.32	19.15	19.22	5.0	20.0	
	25	0	19.05	19.06	19.06	5.0	20.0	
	25	12	19.14	19.12	19.06	5.0	20.0	
	25	25	19.15	19.10	19.10	5.0	20.0	
	50	0	19.13	19.12	19.02	5.0	20.0	



**LTE Band 26 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26715	26865	27015		
				816.5 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	24.00	24.06	23.93	0.0	25.0
		1	12	24.10	24.05	24.01	0.0	25.0
		1	24	24.04	23.99	23.99	0.0	25.0
		12	0	23.12	23.04	23.03	1.0	24.0
		12	7	23.13	23.11	23.12	1.0	24.0
		12	13	23.12	23.06	23.11	1.0	24.0
	16QAM	25	0	23.10	23.06	23.09	1.0	24.0
		1	0	23.46	23.39	23.38	1.0	24.0
		1	12	23.47	23.28	23.40	1.0	24.0
		1	24	23.40	23.28	23.42	1.0	24.0
		12	0	22.12	22.05	22.10	2.0	23.0
		12	7	22.15	22.13	22.20	2.0	23.0
	64QAM	12	13	22.13	22.07	22.35	2.0	23.0
		25	0	22.12	22.09	22.32	2.0	23.0
		1	0	22.25	22.16	22.31	2.0	23.0
		1	12	22.27	22.18	22.42	2.0	23.0
		1	24	22.22	22.11	22.38	2.0	23.0
		12	0	21.20	21.08	21.06	3.0	22.0
	256QAM	12	7	21.22	21.20	21.16	3.0	22.0
		12	13	21.17	21.13	21.11	3.0	22.0
25		0	21.13	21.13	21.11	3.0	22.0	
1		0	19.18	19.22	19.14	5.0	20.0	
1		12	19.30	19.34	19.22	5.0	20.0	
1		24	19.21	19.24	19.13	5.0	20.0	
3 MHz	QPSK	12	0	19.13	19.06	19.04	5.0	20.0
		12	7	19.18	19.14	19.14	5.0	20.0
		12	13	19.14	19.11	19.10	5.0	20.0
		25	0	19.11	19.11	19.09	5.0	20.0
		1	0	24.03	23.95	24.02	0.0	25.0
		1	8	24.14	24.01	24.08	0.0	25.0
	16QAM	1	14	24.00	23.95	24.08	0.0	25.0
		8	0	23.08	23.01	22.99	1.0	24.0
		8	4	23.07	23.09	23.01	1.0	24.0
		8	7	23.07	23.07	23.08	1.0	24.0
		15	0	23.03	23.06	22.99	1.0	24.0
		1	0	23.22	23.28	23.30	1.0	24.0
	64QAM	1	8	23.23	23.34	23.39	1.0	24.0
		1	14	23.23	23.24	23.33	1.0	24.0
		8	0	22.14	22.11	22.07	2.0	23.0
		8	4	22.14	22.18	22.10	2.0	23.0
		8	7	22.13	22.16	22.16	2.0	23.0
		15	0	22.17	22.07	22.05	2.0	23.0
	256QAM	1	0	22.24	22.32	22.27	2.0	23.0
		1	8	22.31	22.41	22.45	2.0	23.0
1		14	22.18	22.29	22.33	2.0	23.0	
8		0	21.15	21.05	21.06	3.0	22.0	
8		4	21.15	21.16	21.06	3.0	22.0	
8		7	21.11	21.14	21.17	3.0	22.0	
1.4 MHz	QPSK	15	0	21.12	21.08	21.08	3.0	22.0
		1	0	19.15	19.12	19.10	5.0	20.0
		1	8	19.21	19.22	19.25	5.0	20.0
		1	14	19.13	19.16	19.23	5.0	20.0
		8	0	19.11	19.05	19.01	5.0	20.0
		8	4	19.15	19.12	19.07	5.0	20.0
	16QAM	8	7	19.16	19.13	19.10	5.0	20.0
		15	0	19.10	19.10	19.05	5.0	20.0
		1	0	24.0	24.0	24.0	0.0	25.0
		1	3	24.0	24.0	24.1	0.0	25.0
		1	5	24.0	24.0	24.0	0.0	25.0
		3	0	24.0	23.9	24.0	0.0	25.0
	64QAM	3	1	24.0	24.0	24.0	0.0	25.0
		3	3	24.0	24.0	24.0	0.0	25.0
		6	0	22.5	22.5	22.6	1.0	24.0
		1	0	23.2	23.4	23.3	1.0	24.0
		1	3	23.3	23.4	23.3	1.0	24.0
		1	5	23.2	23.3	23.3	1.0	24.0
	256QAM	3	0	23.0	23.2	23.2	1.0	24.0
		3	1	23.0	23.2	23.2	1.0	24.0
3		3	22.9	23.2	23.2	1.0	24.0	
6		0	22.1	22.1	22.1	2.0	23.0	
1		0	22.0	22.2	22.4	2.0	23.0	
1		3	22.1	22.3	22.3	2.0	23.0	
QPSK	1	5	22.1	22.2	22.4	2.0	23.0	
	3	0	22.1	22.1	22.2	2.0	23.0	
	3	1	22.2	22.1	22.2	2.0	23.0	
	3	3	22.2	22.1	22.2	2.0	23.0	
	6	0	21.1	21.1	21.1	3.0	22.0	
	1	0	18.8	19.4	19.2	5.0	20.0	
16QAM	1	3	19.0	19.3	19.3	5.0	20.0	
	1	5	19.1	19.2	19.2	5.0	20.0	
	3	0	18.8	19.2	19.2	5.0	20.0	
	3	1	18.9	19.2	19.2	5.0	20.0	
	3	3	19.0	19.1	19.2	5.0	20.0	
	6	0	18.9	19.2	19.1	5.0	20.0	

**LTE Band 26 Ant E Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)										
				DSI = 0					DSI = 1					
				Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit	
				26740	26865	26990			26740	26865	26990			
				819 MHz	831.5 MHz	844 MHz								
15 MHz	QPSK	1	0	24.29			0.0	25.0	22.02			0.0	23.0	
		1	37	24.25			0.0	25.0	21.95			0.0	23.0	
		1	74	24.22			0.0	25.0	21.92			0.0	23.0	
		36	0	23.30			1.0	24.0	22.04			0.0	23.0	
		36	20	23.28			1.0	24.0	22.02			0.0	23.0	
		36	39	23.21			1.0	24.0	21.95			0.0	23.0	
	16QAM	75	0	23.24			1.0	24.0	21.97			0.0	23.0	
		1	0	23.55			1.0	24.0	22.24			0.0	23.0	
		1	37	23.58			1.0	24.0	22.30			0.0	23.0	
		1	74	23.53			1.0	24.0	22.24			0.0	23.0	
		36	0	22.25			2.0	23.0	22.02			0.0	23.0	
		36	20	22.31			2.0	23.0	22.05			0.0	23.0	
	64QAM	36	39	22.24			2.0	23.0	22.00			0.0	23.0	
		75	0	22.28			2.0	23.0	22.03			0.0	23.0	
		1	0	22.48			2.0	23.0	22.21			0.0	23.0	
		1	37	22.52			2.0	23.0	22.27			0.0	23.0	
		1	74	22.43			2.0	23.0	22.19			0.0	23.0	
		36	0	21.25			3.0	22.0	21.23			1.0	22.0	
	256QAM	36	20	21.28			3.0	22.0	21.27			1.0	22.0	
		36	39	21.22			3.0	22.0	21.19			1.0	22.0	
		75	0	21.28			3.0	22.0	21.24			1.0	22.0	
		1	0	19.46			5.0	20.0	19.40			3.0	20.0	
		1	37	19.40			5.0	20.0	19.40			3.0	20.0	
		1	74	19.40			5.0	20.0	19.34			3.0	20.0	
	10 MHz	QPSK	36	0	19.24			5.0	20.0	19.22			3.0	20.0
			36	20	19.27			5.0	20.0	19.26			3.0	20.0
			36	39	19.19			5.0	20.0	19.18			3.0	20.0
			75	0	19.25			5.0	20.0	19.23			3.0	20.0
26740			26865	26990	MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit			
819 MHz			831.5 MHz	844 MHz			26740	26865	26990					
10 MHz		QPSK	1	0	24.18	24.25	24.33	0.0	25.0	21.95	21.95	21.98	0.0	23.0
			1	25	24.25	24.25	24.33	0.0	25.0	21.90	21.95	22.00	0.0	23.0
			1	49	24.28	24.22	24.23	0.0	25.0	21.93	21.88	21.98	0.0	23.0
			25	0	23.19	23.24	23.28	1.0	24.0	21.92	21.96	21.93	0.0	23.0
			25	12	23.31	23.33	23.35	1.0	24.0	22.01	22.02	22.04	0.0	23.0
			25	25	23.32	23.29	23.32	1.0	24.0	21.98	21.98	22.01	0.0	23.0
		16QAM	50	0	23.31	23.29	23.33	1.0	24.0	21.97	22.01	22.05	0.0	23.0
			1	0	23.40	23.55	23.65	1.0	24.0	22.11	22.37	22.35	0.0	23.0
			1	25	23.38	23.58	23.67	1.0	24.0	22.11	22.29	22.37	0.0	23.0
			1	49	23.46	23.47	23.56	1.0	24.0	22.18	22.23	22.26	0.0	23.0
			25	0	22.22	22.32	22.30	2.0	23.0	21.56	21.99	22.01	0.0	23.0
			25	12	22.32	22.37	22.40	2.0	23.0	21.78	22.07	22.08	0.0	23.0
		64QAM	25	25	22.30	22.34	22.38	2.0	23.0	22.03	22.03	22.04	0.0	23.0
			50	0	22.28	22.29	22.36	2.0	23.0	21.82	22.01	22.09	0.0	23.0
			1	0	22.42	22.53	22.53	2.0	23.0	22.20	22.14	22.26	0.0	23.0
			1	25	22.47	22.42	22.51	2.0	23.0	22.23	22.17	22.27	0.0	23.0
			1	49	22.50	22.34	22.46	2.0	23.0	22.24	22.02	22.20	0.0	23.0
			25	0	21.21	21.25	21.28	3.0	22.0	21.17	21.21	21.27	1.0	22.0
		256QAM	25	12	21.30	21.35	21.36	3.0	22.0	21.31	21.31	21.44	1.0	22.0
			25	25	21.31	21.29	21.32	3.0	22.0	21.16	21.27	21.30	1.0	22.0
			50	0	21.29	21.31	21.37	3.0	22.0	21.28	21.27	21.33	1.0	22.0
			1	0	19.22	19.38	19.47	5.0	20.0	19.25	19.41	19.43	3.0	20.0
	1		25	19.31	19.45	19.46	5.0	20.0	19.38	19.43	19.47	3.0	20.0	
	1		49	19.35	19.28	19.40	5.0	20.0	19.29	19.32	19.37	3.0	20.0	
	256QAM	25	0	19.16	19.23	19.27	5.0	20.0	19.18	19.18	19.21	3.0	20.0	
		25	12	19.27	19.30	19.36	5.0	20.0	19.27	19.28	19.31	3.0	20.0	
		25	25	19.28	19.28	19.32	5.0	20.0	19.27	19.26	19.28	3.0	20.0	
		50	0	19.24	19.25	19.31	5.0	20.0	19.23	19.24	19.31	3.0	20.0	

**LTE Band 26 Ant E Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MFR	Tune-up Limit	Measured Pwr (dBm)			MFR	Tune-up Limit
				26715	26865	27015			26715	26865	27015		
				816.5 MHz	831.5 MHz	846.5 MHz			816.5 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	24.16	24.24	24.29	0.0	25.0	21.86	21.95	22.03	0.0	23.0
		1	12	24.18	24.23	24.32	0.0	25.0	21.89	21.90	21.97	0.0	23.0
		1	24	24.14	24.22	24.30	0.0	25.0	21.86	21.87	21.91	0.0	23.0
		12	0	23.26	23.24	23.26	1.0	24.0	21.97	21.91	21.97	0.0	23.0
		12	7	23.29	23.32	23.26	1.0	24.0	21.98	22.02	22.00	0.0	23.0
		12	13	23.24	23.27	23.32	1.0	24.0	21.97	21.96	22.04	0.0	23.0
	16QAM	25	0	23.28	23.25	23.25	1.0	24.0	21.96	21.96	21.96	0.0	23.0
		1	0	23.52	23.59	23.58	1.0	24.0	22.27	22.28	22.22	0.0	23.0
		1	12	23.55	23.59	23.59	1.0	24.0	22.31	22.35	22.29	0.0	23.0
		1	24	23.62	23.48	23.51	1.0	24.0	22.28	22.22	22.21	0.0	23.0
		12	0	22.31	22.24	22.43	2.0	23.0	22.03	21.97	22.00	0.0	23.0
		12	7	22.31	22.37	22.44	2.0	23.0	21.66	22.04	22.01	0.0	23.0
	64QAM	12	13	22.26	22.30	22.47	2.0	23.0	21.84	22.02	22.05	0.0	23.0
		25	0	22.31	22.33	22.30	2.0	23.0	21.74	22.00	21.98	0.0	23.0
		1	0	22.39	22.41	22.47	2.0	23.0	22.10	22.08	22.19	0.0	23.0
		1	12	22.45	22.45	22.55	2.0	23.0	22.10	22.11	22.26	0.0	23.0
		1	24	22.40	22.42	22.50	2.0	23.0	22.07	22.02	22.12	0.0	23.0
		12	0	21.28	21.25	21.27	3.0	22.0	21.24	21.21	21.29	1.0	22.0
	256QAM	12	7	21.26	21.35	21.30	3.0	22.0	21.23	21.45	21.32	1.0	22.0
		12	13	21.27	21.34	21.33	3.0	22.0	20.68	21.25	21.33	1.0	22.0
		25	0	21.25	21.31	21.24	3.0	22.0	20.82	21.29	21.24	1.0	22.0
		1	0	19.30	19.30	19.44	5.0	20.0	19.15	19.29	19.43	3.0	20.0
		1	12	19.47	19.39	19.52	5.0	20.0	19.42	19.37	19.47	3.0	20.0
		1	24	19.34	19.25	19.42	5.0	20.0	19.35	19.27	19.43	3.0	20.0
	3 MHz	QPSK	12	0	19.21	19.23	19.26	5.0	20.0	19.21	19.21	19.24	3.0
12			7	19.28	19.32	19.28	5.0	20.0	19.22	19.26	19.28	3.0	20.0
12			13	19.21	19.27	19.35	5.0	20.0	19.20	19.23	19.31	3.0	20.0
25			0	19.20	19.26	19.24	5.0	20.0	19.24	19.26	19.25	3.0	20.0
1			0	24.18	24.16	24.25	0.0	25.0	21.92	21.88	21.97	0.0	23.0
1			8	24.18	24.26	24.29	0.0	25.0	21.95	21.95	22.02	0.0	23.0
16QAM		1	14	24.18	24.17	24.25	0.0	25.0	21.89	21.90	22.02	0.0	23.0
		8	0	23.22	23.20	23.25	1.0	24.0	21.94	21.91	21.98	0.0	23.0
		8	4	23.24	23.27	23.25	1.0	24.0	21.95	21.99	22.00	0.0	23.0
		8	7	23.24	23.27	23.32	1.0	24.0	21.92	21.95	22.06	0.0	23.0
		15	0	23.24	23.28	23.28	1.0	24.0	21.95	21.99	21.98	0.0	23.0
		1	0	23.38	23.56	23.60	1.0	24.0	22.13	22.22	22.36	0.0	23.0
64QAM		1	8	23.39	23.55	23.63	1.0	24.0	22.13	22.36	22.35	0.0	23.0
		1	14	23.34	23.53	23.61	1.0	24.0	22.08	22.21	22.35	0.0	23.0
		8	0	22.33	22.25	22.38	2.0	23.0	22.01	22.00	22.07	0.0	23.0
	8	4	22.33	22.34	22.39	2.0	23.0	21.86	22.08	22.05	0.0	23.0	
	8	7	22.35	22.34	22.45	2.0	23.0	21.62	22.03	22.15	0.0	23.0	
	15	0	22.27	22.30	22.31	2.0	23.0	21.68	22.03	22.02	0.0	23.0	
256QAM	1	0	22.43	22.40	22.42	2.0	23.0	22.13	22.03	22.19	0.0	23.0	
	1	8	22.47	22.48	22.56	2.0	23.0	22.13	22.11	22.28	0.0	23.0	
	1	14	22.35	22.38	22.45	2.0	23.0	22.06	22.00	22.22	0.0	23.0	
	8	0	21.32	21.25	21.28	3.0	22.0	21.25	21.21	21.24	1.0	22.0	
	8	4	21.32	21.34	21.31	3.0	22.0	21.23	21.31	21.30	1.0	22.0	
	8	7	21.31	21.33	21.37	3.0	22.0	21.23	21.28	21.35	1.0	22.0	
1.4 MHz	QPSK	15	0	21.26	21.29	21.23	3.0	22.0	21.16	21.25	21.20	1.0	22.0
		1	0	19.40	19.33	19.29	5.0	20.0	19.17	19.29	19.39	3.0	20.0
		1	8	19.41	19.42	19.42	5.0	20.0	19.29	19.38	19.48	3.0	20.0
		1	14	19.36	19.37	19.35	5.0	20.0	19.23	19.29	19.37	3.0	20.0
		8	0	19.24	19.22	19.25	5.0	20.0	19.18	19.17	19.24	3.0	20.0
		8	4	19.25	19.30	19.28	5.0	20.0	19.22	19.29	19.25	3.0	20.0
	16QAM	8	7	19.25	19.31	19.33	5.0	20.0	19.20	19.27	19.31	3.0	20.0
		15	0	19.20	19.29	19.28	5.0	20.0	19.15	19.20	19.21	3.0	20.0
		1	0	24.2	24.3	24.3	0.0	25.0	21.8	21.9	22.0	0.0	23.0
		1	3	24.2	24.3	24.3	0.0	25.0	21.9	21.9	22.0	0.0	23.0
		3	0	24.2	24.2	24.3	0.0	25.0	21.9	21.9	22.0	0.0	23.0
		3	1	24.2	24.2	24.3	0.0	25.0	21.9	22.0	22.0	0.0	23.0
	64QAM	3	3	24.2	24.3	24.3	0.0	25.0	21.8	21.9	22.0	0.0	23.0
		6	0	22.7	22.7	22.8	1.0	24.0	21.9	21.9	22.0	0.0	23.0
		1	0	23.4	23.6	23.6	1.0	24.0	22.1	22.3	22.3	0.0	23.0
1		3	23.4	23.7	23.6	1.0	24.0	22.1	22.4	22.3	0.0	23.0	
1		5	23.4	23.6	23.4	1.0	24.0	22.1	22.3	22.3	0.0	23.0	
3		0	23.3	23.4	23.5	1.0	24.0	22.0	22.1	22.1	0.0	23.0	
256QAM	3	1	23.3	23.4	23.5	1.0	24.0	22.0	22.1	22.2	0.0	23.0	
	3	3	23.3	23.4	23.5	1.0	24.0	22.0	22.1	22.1	0.0	23.0	
	6	0	22.2	22.3	22.4	2.0	23.0	21.7	22.0	21.4	0.0	23.0	
	1	0	22.4	22.3	22.4	2.0	23.0	20.9	22.1	21.7	0.0	23.0	
	1	3	22.4	22.3	22.6	2.0	23.0	21.1	22.1	21.7	0.0	23.0	
	1	5	22.4	22.3	22.5	2.0	23.0	21.3	22.0	21.4	0.0	23.0	
16QAM	3	0	22.2	22.3	22.4	2.0	23.0	21.7	22.1	21.7	0.0	23.0	
	3	1	22.2	22.3	22.4	2.0	23.0	22.0	22.0	21.6	0.0	23.0	
	3	3	22.2	22.3	22.4	2.0	23.0	21.9	22.0	21.6	0.0	23.0	
	6	0	21.2	21.3	21.3	3.0	22.0	20.8	21.2	21.0	1.0	22.0	
	1	0	19.4	19.4	19.4	5.0	20.0	18.5	19.3	19.1	3.0	20.0	
	1	3	19.5	19.4	19.4	5.0	20.0	18.8	19.4	19.1	3.0	20.0	
256QAM	1	5	19.4	19.3	19.4	5.0	20.0	19.0	19.3	18.9	3.0	20.0	
	3	0	19.3	19.3	19.4	5.0	20.0	18.6	19.2	19.0	3.0	20.0	
	3	1	19.3	19.3	19.4	5.0	20.0	18.7	19.2	19.0	3.0	20.0	
	3	3	19.3	19.3	19.4	5.0	20.0	18.8	19.2	19.3	3.0	20.0	
	6	0	19.2	19.2	19.2	5.0	20.0	18.8	19.2	19.3	3.0	20.0	

**LTE Band 30 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
				DSI = 1				DSI = 0				
				Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	
				27710	2310 MHz			27710	2310 MHz			
10 MHz	QPSK	1	0	22.76		0.0	23.5	20.10		0.0	21.0	
		1	25	<b>22.77</b>		0.0	23.5	<b>20.11</b>		0.0	21.0	
		1	49	22.66		0.0	23.5	20.00		0.0	21.0	
		25	0	21.71		1.0	22.5	20.08		0.0	21.0	
		25	12	<b>21.73</b>		1.0	22.5	<b>20.09</b>		0.0	21.0	
		25	25	21.69		1.0	22.5	20.05		0.0	21.0	
	16QAM	50	0	21.68		1.0	22.5	20.07		0.0	21.0	
		1	0	21.92		1.0	22.5	20.31		0.0	21.0	
		1	25	21.96		1.0	22.5	20.36		0.0	21.0	
		1	49	21.82		1.0	22.5	20.32		0.0	21.0	
		25	0	20.69		2.0	21.5	20.15		0.0	21.0	
		25	12	20.69		2.0	21.5	20.11		0.0	21.0	
	64QAM	25	25	20.68		2.0	21.5	20.13		0.0	21.0	
		50	0	20.70		2.0	21.5	20.09		0.0	21.0	
		1	0	20.90		2.0	21.5	20.29		0.0	21.0	
		1	25	20.88		2.0	21.5	20.30		0.0	21.0	
		1	49	20.86		2.0	21.5	20.25		0.0	21.0	
		25	0	19.71		3.0	20.5	19.76		0.5	20.5	
	256QAM	25	12	19.72		3.0	20.5	19.76		0.5	20.5	
		25	25	19.69		3.0	20.5	19.71		0.5	20.5	
		50	0	19.72		3.0	20.5	19.72		0.5	20.5	
		1	0	17.86		5.0	18.5	17.86		2.5	18.5	
		1	25	17.94		5.0	18.5	17.97		2.5	18.5	
		1	49	17.76		5.0	18.5	17.72		2.5	18.5	
	5 MHz	QPSK	25	0	17.71		5.0	18.5	17.73		2.5	18.5
			25	12	17.73		5.0	18.5	17.74		2.5	18.5
			25	25	17.70		5.0	18.5	17.68		2.5	18.5
			50	0	17.70		5.0	18.5	17.69		2.5	18.5
1			0	22.74		0.0	23.5	20.15		0.0	21.0	
1			12	22.84		0.0	23.5	20.14		0.0	21.0	
16QAM		1	24	22.77		0.0	23.5	20.11		0.0	21.0	
		12	0	21.75		1.0	22.5	20.10		0.0	21.0	
		12	7	21.76		1.0	22.5	20.17		0.0	21.0	
		12	13	21.72		1.0	22.5	20.06		0.0	21.0	
		25	0	21.70		1.0	22.5	20.09		0.0	21.0	
		1	0	22.16		1.0	22.5	20.52		0.0	21.0	
64QAM		1	12	22.19		1.0	22.5	20.55		0.0	21.0	
		1	24	22.05		1.0	22.5	20.48		0.0	21.0	
		12	0	20.67		2.0	21.5	20.08		0.0	21.0	
		12	7	20.67		2.0	21.5	20.11		0.0	21.0	
		12	13	20.59		2.0	21.5	20.04		0.0	21.0	
		25	0	20.71		2.0	21.5	20.09		0.0	21.0	
256QAM		1	0	20.98		2.0	21.5	20.33		0.0	21.0	
		1	12	21.07		2.0	21.5	20.37		0.0	21.0	
		1	24	20.93		2.0	21.5	20.24		0.0	21.0	
		12	0	19.77		3.0	20.5	19.71		0.5	20.5	
		12	7	19.79		3.0	20.5	19.75		0.5	20.5	
		12	13	19.74		3.0	20.5	19.70		0.5	20.5	
QPSK		25	0	19.75		3.0	20.5	19.73		0.5	20.5	
		1	0	17.87		5.0	18.5	17.88		2.5	18.5	
		1	12	18.06		5.0	18.5	18.04		2.5	18.5	
		1	24	17.85		5.0	18.5	17.81		2.5	18.5	
	12	0	17.74		5.0	18.5	17.70		2.5	18.5		
	12	7	17.75		5.0	18.5	17.77		2.5	18.5		
16QAM	12	13	17.69		5.0	18.5	17.69		2.5	18.5		
	25	0	17.71		5.0	18.5	17.69		2.5	18.5		

**LTE Band 30 Ant F Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)							
				DSI = 0			DSI = 1				
				Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
27710	2310 MHz	27710	2310 MHz								
10 MHz	QPSK	1	0	19.78		0.0	21.0	17.61		0.0	18.5
		1	25	19.81		0.0	21.0	17.74		0.0	18.5
		1	49	19.75		0.0	21.0	17.60		0.0	18.5
		25	0	19.89		0.0	21.0	17.72		0.0	18.5
		25	12	19.90		0.0	21.0	17.76		0.0	18.5
		25	25	19.86		0.0	21.0	17.72		0.0	18.5
	16QAM	50	0	19.87		0.0	21.0	17.74		0.0	18.5
		1	0	20.08		0.0	21.0	17.94		0.0	18.5
		1	25	20.16		0.0	21.0	18.03		0.0	18.5
		1	49	20.09		0.0	21.0	18.01		0.0	18.5
		25	0	19.95		0.0	21.0	17.76		0.0	18.5
		25	12	19.96		0.0	21.0	17.84		0.0	18.5
	64QAM	25	25	19.94		0.0	21.0	17.75		0.0	18.5
		50	0	19.89		0.0	21.0	17.76		0.0	18.5
		1	0	19.98		0.0	21.0	17.89		0.0	18.5
		1	25	20.07		0.0	21.0	17.88		0.0	18.5
		1	49	19.97		0.0	21.0	17.82		0.0	18.5
		25	0	19.10		1.0	20.0	17.76		0.0	18.5
	256QAM	25	12	19.15		1.0	20.0	17.80		0.0	18.5
		25	25	19.14		1.0	20.0	17.78		0.0	18.5
50		0	19.12		1.0	20.0	17.75		0.0	18.5	
1		0	17.22		3.0	18.0	17.10		1.0	17.5	
1		25	17.25		3.0	18.0	17.21		1.0	17.5	
1		49	17.05		3.0	18.0	16.97		1.0	17.5	
5 MHz	QPSK	25	0	17.13		3.0	18.0	16.99		1.0	17.5
		25	12	17.14		3.0	18.0	17.02		1.0	17.5
		25	25	17.12		3.0	18.0	17.00		1.0	17.5
	16QAM	50	0	17.08		3.0	18.0	16.98		1.0	17.5
		1	0	19.90		0.0	21.0	17.43		0.0	18.5
		1	12	19.92		0.0	21.0	17.51		0.0	18.5
	64QAM	1	24	19.85		0.0	21.0	17.46		0.0	18.5
		12	0	19.96		0.0	21.0	17.46		0.0	18.5
		12	7	19.94		0.0	21.0	17.52		0.0	18.5
		12	13	19.86		0.0	21.0	17.49		0.0	18.5
25		0	19.86		0.0	21.0	17.46		0.0	18.5	
1		0	20.21		0.0	21.0	17.89		0.0	18.5	
256QAM	1	12	20.37		0.0	21.0	17.85		0.0	18.5	
	1	24	20.30		0.0	21.0	17.85		0.0	18.5	
	12	0	20.00		0.0	21.0	17.60		0.0	18.5	
	12	7	20.03		0.0	21.0	17.63		0.0	18.5	
	12	13	19.99		0.0	21.0	17.56		0.0	18.5	
	25	0	19.96		0.0	21.0	17.49		0.0	18.5	
5 MHz	QPSK	1	0	20.11		0.0	21.0	17.63		0.0	18.5
		1	12	20.14		0.0	21.0	17.69		0.0	18.5
		1	24	20.03		0.0	21.0	17.63		0.0	18.5
	16QAM	12	0	19.13		1.0	20.0	17.57		0.0	18.5
		12	7	19.18		1.0	20.0	17.63		0.0	18.5
		12	13	19.11		1.0	20.0	17.55		0.0	18.5
		25	0	19.13		1.0	20.0	17.56		0.0	18.5
	64QAM	1	0	17.25		3.0	18.0	17.35		1.0	17.5
		1	12	17.29		3.0	18.0	17.41		1.0	17.5
		1	24	17.10		3.0	18.0	17.22		1.0	17.5
256QAM	12	0	17.15		3.0	18.0	17.26		1.0	17.5	
	12	7	17.21		3.0	18.0	17.31		1.0	17.5	
	12	13	17.14		3.0	18.0	17.23		1.0	17.5	
	25	0	17.16		3.0	18.0	17.23		1.0	17.5	

**LTE Band 41-PC3 Ant B Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)													
				DSI = 1						DSI = 0							
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz								
20 MHz	QPSK	1	0	23.06	23.06	<b>23.11</b>	22.93	22.85	0.0	23.4	23.73	23.71	<b>23.74</b>	23.60	23.44	0.0	24.0
		1	49	23.09	23.00	23.03	22.96	22.92	0.0	23.4	23.72	23.70	23.58	23.72	23.58	0.0	24.0
		1	99	23.10	22.92	23.02	22.90	22.84	0.0	23.4	23.70	23.61	23.58	23.63	23.60	0.0	24.0
		50	0	23.05	22.98	<b>23.13</b>	22.92	22.89	0.0	23.4	23.52	23.50	<b>23.62</b>	23.48	23.39	0.0	24.0
		50	24	23.11	23.01	23.08	22.99	23.06	0.0	23.4	23.43	23.49	23.48	23.50	23.51	0.0	24.0
		50	50	23.11	23.04	23.03	23.06	22.99	0.0	23.4	23.58	23.52	23.45	23.55	23.49	0.0	24.0
	16QAM	100	0	23.08	22.96	23.14	22.96	22.91	0.0	23.4	23.58	23.43	23.42	23.45	23.41	0.0	24.0
		1	0	23.11	23.19	23.04	23.03	23.18	0.0	23.4	23.65	23.75	23.38	23.48	23.69	0.0	24.0
		1	49	23.12	23.22	23.16	23.13	23.13	0.0	23.4	23.70	23.73	23.54	23.60	23.63	0.0	24.0
		1	99	23.10	23.22	23.08	23.05	23.07	0.0	23.4	23.70	23.67	23.43	23.48	23.62	0.0	24.0
		50	0	22.43	22.42	22.45	22.38	22.28	0.5	22.9	22.52	22.48	22.37	22.45	22.39	1.0	23.0
		50	24	22.53	22.41	22.57	22.39	22.38	0.5	22.9	22.61	22.50	22.47	22.50	22.50	1.0	23.0
	64QAM	50	50	22.50	22.42	22.54	22.43	22.38	0.5	22.9	22.60	22.54	22.44	22.56	22.48	1.0	23.0
		100	0	22.48	22.36	22.55	22.34	22.31	0.5	22.9	22.58	22.45	22.44	22.43	22.38	1.0	23.0
		1	0	22.59	22.41	22.49	21.53	22.26	0.5	22.9	22.53	22.61	22.25	22.44	22.48	1.0	23.0
		1	49	22.55	22.42	22.66	22.21	22.38	0.5	22.9	22.48	22.54	22.41	22.60	22.57	1.0	23.0
		1	99	22.42	22.37	22.54	22.36	22.31	0.5	22.9	22.46	22.54	22.31	22.38	22.34	1.0	23.0
		50	0	21.41	21.40	21.43	21.38	21.32	1.5	21.9	21.47	21.45	21.30	21.42	21.35	2.0	22.0
	256QAM	50	24	21.51	21.39	21.54	21.40	21.42	1.5	21.9	21.55	21.46	21.44	21.47	21.46	2.0	22.0
		50	50	21.48	21.42	21.55	21.46	21.38	1.5	21.9	21.54	21.49	21.39	21.51	21.44	2.0	22.0
		100	0	21.45	21.31	21.54	21.38	21.29	1.5	21.9	21.52	21.44	21.40	21.44	21.38	2.0	22.0
		1	0	19.22	19.42	19.43	19.24	19.21	3.5	19.9	19.50	19.37	19.19	19.44	19.31	4.0	20.0
		1	49	19.36	19.51	19.51	19.37	19.39	3.5	19.9	19.75	19.64	19.35	19.62	19.47	4.0	20.0
		1	99	19.33	19.31	19.41	19.34	19.32	3.5	19.9	19.51	19.45	19.31	19.46	19.42	4.0	20.0
15 MHz	QPSK	50	0	19.36	19.32	19.41	19.36	19.26	3.5	19.9	19.43	19.40	19.28	19.41	19.34	4.0	20.0
		50	24	19.47	19.34	19.52	19.40	19.39	3.5	19.9	19.52	19.43	19.39	19.43	19.45	4.0	20.0
		50	50	19.47	19.36	19.50	19.44	19.37	3.5	19.9	19.49	19.44	19.36	19.47	19.43	4.0	20.0
		100	0	19.44	19.30	19.49	19.36	19.30	3.5	19.9	19.50	19.37	19.37	19.43	19.34	4.0	20.0
		1	0	23.05	22.95	22.85	22.92	22.82	0.0	23.4	23.72	23.63	23.54	23.60	23.54	0.0	24.0
		1	37	23.05	23.06	22.94	23.01	22.91	0.0	23.4	23.70	23.72	23.61	23.69	23.56	0.0	24.0
	16QAM	1	74	23.04	22.97	22.93	22.91	22.84	0.0	23.4	23.69	23.66	23.57	23.61	23.60	0.0	24.0
		36	0	23.00	23.01	22.85	22.95	22.87	0.0	23.4	23.51	23.46	23.36	23.47	23.36	0.0	24.0
		36	20	23.09	22.97	22.94	22.97	22.89	0.0	23.4	23.59	23.50	23.45	23.48	23.39	0.0	24.0
		36	39	23.09	23.02	22.90	23.02	22.96	0.0	23.4	23.59	23.51	23.43	23.53	23.46	0.0	24.0
		75	0	23.06	22.91	22.88	22.99	22.85	0.0	23.4	23.56	23.42	23.41	23.44	23.34	0.0	24.0
		1	0	23.06	22.87	22.83	23.01	22.87	0.0	23.4	23.59	23.37	23.43	23.38	23.30	0.0	24.0
	64QAM	1	37	23.19	22.97	22.95	23.02	22.93	0.0	23.4	23.67	23.43	23.47	23.66	23.41	0.0	24.0
		1	74	23.12	22.81	22.96	23.02	22.86	0.0	23.4	23.57	23.37	23.40	23.58	23.38	0.0	24.0
		36	0	22.44	22.37	22.25	22.36	22.28	0.5	22.9	22.52	22.45	22.36	22.46	22.36	1.0	23.0
		36	20	22.50	22.38	22.35	22.40	22.28	0.5	22.9	22.60	22.50	22.46	22.50	22.40	1.0	23.0
		36	39	22.48	22.41	22.33	22.45	22.37	0.5	22.9	22.59	22.52	22.44	22.55	22.47	1.0	23.0
		75	0	22.46	22.36	22.32	22.35	22.26	0.5	22.9	22.57	22.46	22.43	22.45	22.36	1.0	23.0
	256QAM	1	0	22.44	22.41	22.30	21.67	22.36	0.5	22.9	22.48	22.33	22.38	22.46	21.25	1.0	23.0
		1	37	22.51	22.52	22.39	22.21	22.44	0.5	22.9	22.49	22.43	22.46	22.53	20.51	1.0	23.0
		1	74	22.35	22.36	22.37	22.16	22.32	0.5	22.9	22.55	22.31	22.36	22.48	21.45	1.0	23.0
		36	0	21.45	21.37	21.28	21.39	21.28	1.5	21.9	21.49	21.40	21.32	21.43	21.38	2.0	22.0
		36	20	21.53	21.37	21.36	21.44	21.31	1.5	21.9	21.57	21.43	21.41	21.46	21.37	2.0	22.0
		36	39	21.48	21.44	21.34	21.46	21.37	1.5	21.9	21.54	21.47	21.40	21.51	21.44	2.0	22.0
256QAM	75	0	21.47	21.36	21.35	21.39	21.30	1.5	21.9	21.54	21.41	21.40	21.49	21.35	2.0	22.0	
	1	0	19.31	19.22	19.20	19.34	19.23	3.5	19.9	19.26	19.37	19.16	19.46	19.25	4.0	20.0	
	1	37	19.43	19.48	19.37	19.51	19.36	3.5	19.9	19.58	19.46	19.44	19.60	19.42	4.0	20.0	
	1	74	19.46	19.37	19.18	19.50	19.38	3.5	19.9	19.61	19.26	19.30	19.44	19.37	4.0	20.0	
	36	0	19.37	19.35	19.24	19.37	19.28	3.5	19.9	19.41	19.41	19.31	19.41	19.34	4.0	20.0	
	36	20	19.45	19.38	19.35	19.39	19.31	3.5	19.9	19.54	19.42	19.45	19.44	19.35	4.0	20.0	
36	39	19.46	19.41	19.34	19.42	19.36	3.5	19.9	19.52	19.32	19.41	19.48	19.43	4.0	20.0		
75	0	19.46	19.32	19.32	19.34	19.30	3.5	19.9	19.50	18.74	19.43	19.42	19.35	4.0	20.0		

**LTE Band 41-PC3 Ant B Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	22.94	22.90	22.89	22.90	22.80	0.0	23.4	23.68	23.64	23.64	23.60	23.55	0.0	24.0
		1	25	22.99	22.95	22.94	22.95	22.90	0.0	23.4	23.73	23.67	23.70	23.68	23.58	0.0	24.0
		1	49	23.02	22.90	22.84	22.91	22.79	0.0	23.4	23.69	23.65	23.59	23.60	23.54	0.0	24.0
		25	0	23.01	22.97	22.92	22.92	22.84	0.0	23.4	23.48	23.48	23.46	23.44	23.35	0.0	24.0
		25	12	23.08	22.98	22.97	22.97	22.87	0.0	23.4	23.57	23.47	23.47	23.50	23.40	0.0	24.0
	16QAM	25	25	23.05	23.04	22.94	23.04	22.97	0.0	23.4	23.62	23.53	23.46	23.54	23.46	0.0	24.0
		50	0	23.03	22.95	22.93	22.99	22.94	0.0	23.4	23.55	23.45	23.55	23.46	23.44	0.0	24.0
		1	0	23.12	22.88	22.96	23.15	22.83	0.0	23.4	23.64	23.36	23.40	23.46	23.27	0.0	24.0
		1	25	23.16	22.94	22.94	23.15	22.89	0.0	23.4	23.59	23.45	23.47	23.64	23.35	0.0	24.0
		1	49	23.11	22.82	22.86	23.14	22.77	0.0	23.4	23.64	23.35	23.40	23.57	23.21	0.0	24.0
	64QAM	25	0	22.36	22.32	22.33	22.31	22.25	0.5	22.9	22.46	22.42	22.46	22.48	22.40	1.0	23.0
		25	12	22.48	22.35	22.36	22.41	22.28	0.5	22.9	22.59	22.47	22.50	22.50	22.40	1.0	23.0
		25	25	22.45	22.42	22.36	22.43	22.37	0.5	22.9	22.54	22.53	22.55	22.61	22.51	1.0	23.0
		50	0	22.43	22.34	22.33	22.35	22.36	0.5	22.9	22.54	22.46	22.44	22.48	22.46	1.0	23.0
		1	0	22.52	22.22	22.27	22.46	22.27	0.5	22.9	22.55	22.44	22.37	22.40	22.33	1.0	23.0
	256QAM	1	25	22.48	22.46	22.36	22.52	22.37	0.5	22.9	22.49	22.59	22.46	22.47	22.38	1.0	23.0
		1	49	22.35	22.37	22.26	22.36	22.29	0.5	22.9	22.49	22.50	22.39	22.46	22.45	1.0	23.0
		25	0	21.42	21.38	21.39	21.39	21.28	1.5	21.9	21.47	21.42	21.40	21.37	21.29	2.0	22.0
		25	12	21.47	21.38	21.39	21.41	21.28	1.5	21.9	21.53	21.42	21.44	21.47	21.32	2.0	22.0
		25	25	21.47	21.45	21.38	21.48	21.36	1.5	21.9	21.60	21.56	21.41	21.52	21.41	2.0	22.0
	16QAM	50	0	21.46	21.39	21.35	21.39	21.38	1.5	21.9	21.54	21.39	21.40	21.43	21.37	2.0	22.0
		1	0	19.49	19.35	19.11	19.33	19.20	3.5	19.9	19.38	19.26	19.12	19.30	19.23	4.0	20.0
		1	25	19.42	19.40	19.23	19.46	19.42	3.5	19.9	19.57	19.38	19.32	19.43	19.35	4.0	20.0
		1	49	19.31	19.26	19.20	19.42	19.22	3.5	19.9	19.27	19.39	19.21	19.31	19.30	4.0	20.0
		25	0	19.36	19.32	19.31	19.35	19.25	3.5	19.9	19.40	19.40	19.36	19.42	19.30	4.0	20.0
64QAM	25	12	19.44	19.34	19.33	19.39	19.29	3.5	19.9	19.49	19.41	19.40	19.46	19.31	4.0	20.0	
	25	25	19.45	19.40	19.35	19.48	19.38	3.5	19.9	19.52	19.48	19.37	19.53	19.41	4.0	20.0	
	50	0	19.45	19.32	19.33	19.39	19.35	3.5	19.9	19.47	19.36	19.38	19.43	19.37	4.0	20.0	

**LTE Band 41-PC2 Ant B Measured Results**

DSI	Modulation	BW (MHz)	Channel	Freq. (MHz)	RB/Offset	Output Power (dBm)	
						Tune-up Limit	Meas. Power
DSI = 1	QPSK	20	40620	2593.0	1/0	25.00	24.74
DSI = 0	QPSK	20	40620	2593.0	50/0	25.60	25.06

**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.

**LTE Band 41-PC3 Ant F Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)															
				DSI = 0						DSI = 1									
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit		
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490				
2506 MHz		2549.5 MHz		2593 MHz		2636.5 MHz		2680 MHz		2506 MHz		2549.5 MHz		2593 MHz		2636.5 MHz		2680 MHz	
20 MHz	QPSK	1	0	21.70	21.72	21.59	21.63	21.60	0.0	22.5	19.01	18.94	18.84	19.15	19.06	0.0	20.0		
		1	49	21.71	21.71	21.68	21.72	21.70	0.0	22.5	18.96	18.89	19.00	19.08	19.10	0.0	20.0		
		1	99	21.67	21.64	21.54	21.65	21.54	0.0	22.5	18.91	18.84	18.87	19.04	19.02	0.0	20.0		
		50	0	21.66	21.69	21.62	21.68	21.63	0.0	22.5	18.93	18.89	18.96	19.07	19.09	0.0	20.0		
		50	24	21.74	21.77	21.77	21.80	21.65	0.0	22.5	19.04	18.98	19.04	19.17	19.10	0.0	20.0		
		50	50	21.62	21.70	21.68	21.76	21.68	0.0	22.5	19.00	18.92	19.01	19.18	19.14	0.0	20.0		
	16QAM	100	0	21.72	21.72	21.66	21.73	21.62	0.0	22.5	19.01	18.92	18.99	19.14	19.07	0.0	20.0		
		1	0	21.86	21.94	21.73	21.76	21.77	0.0	22.5	19.20	18.98	18.98	19.26	19.18	0.0	20.0		
		1	49	21.83	21.91	21.78	21.84	21.91	0.0	22.5	19.21	19.03	19.13	19.37	19.21	0.0	20.0		
		1	99	21.74	21.81	21.65	21.78	21.77	0.0	22.5	19.12	18.94	19.00	19.28	19.09	0.0	20.0		
		50	0	21.69	21.71	21.65	21.68	21.67	0.0	22.5	18.98	18.92	18.95	19.10	19.12	0.0	20.0		
		50	24	21.78	21.78	21.75	21.81	21.67	0.0	22.5	19.06	19.00	19.09	19.19	19.14	0.0	20.0		
	64QAM	50	50	21.76	21.71	21.71	21.80	21.73	0.0	22.5	19.03	18.97	19.03	19.18	19.17	0.0	20.0		
		100	0	21.76	21.73	21.70	21.78	21.66	0.0	22.5	19.05	18.95	19.03	19.16	19.08	0.0	20.0		
		1	0	21.89	21.77	21.67	21.73	21.82	0.0	22.5	18.99	18.91	18.80	19.06	19.04	0.0	20.0		
		1	49	21.87	21.85	21.71	21.94	21.83	0.0	22.5	19.06	18.88	18.94	19.16	19.17	0.0	20.0		
		1	99	21.82	21.75	21.71	21.84	21.70	0.0	22.5	18.99	18.82	18.87	19.19	18.97	0.0	20.0		
		50	0	21.22	21.22	21.16	21.26	21.22	0.5	22.0	18.95	18.90	18.95	19.08	19.11	0.0	20.0		
	256QAM	50	24	21.32	21.31	21.27	21.37	21.24	0.5	22.0	19.03	18.99	19.05	19.19	19.13	0.0	20.0		
		50	50	21.28	21.26	21.24	21.36	21.25	0.5	22.0	19.04	18.95	19.03	19.16	19.16	0.0	20.0		
		100	0	21.29	21.26	21.23	21.34	21.19	0.5	22.0	18.99	18.95	19.04	19.18	19.10	0.0	20.0		
		1	0	19.29	19.02	19.07	19.24	19.10	2.5	20.0	18.94	18.90	18.97	19.00	19.03	0.0	20.0		
		1	49	19.34	19.19	19.16	19.41	19.20	2.5	20.0	19.08	19.07	19.10	19.25	19.22	0.0	20.0		
		1	99	19.27	19.06	19.13	19.34	19.08	2.5	20.0	18.85	18.92	19.07	19.11	19.07	0.0	20.0		
15 MHz	QPSK	50	0	19.19	19.18	19.12	19.22	19.18	2.5	20.0	18.97	18.89	18.94	19.11	19.11	0.0	20.0		
		50	24	19.27	19.27	19.23	19.33	19.17	2.5	20.0	19.06	18.99	19.04	19.23	19.14	0.0	20.0		
		50	50	19.22	19.23	19.19	19.31	19.21	2.5	20.0	19.01	18.94	19.03	19.17	19.17	0.0	20.0		
		100	0	19.24	19.22	19.19	19.31	19.14	2.5	20.0	19.01	18.96	19.03	19.18	19.11	0.0	20.0		
		1	0	21.72	21.64	21.65	21.67	21.58	0.0	22.5	19.05	18.88	18.94	19.04	19.00	0.0	20.0		
		1	37	21.70	21.68	21.69	21.73	21.65	0.0	22.5	18.95	18.97	18.98	19.08	19.07	0.0	20.0		
	16QAM	1	74	21.65	21.64	21.67	21.72	21.59	0.0	22.5	18.96	18.92	18.98	19.09	19.04	0.0	20.0		
		36	0	21.64	21.61	21.61	21.66	21.63	0.0	22.5	18.93	18.90	18.93	19.02	19.03	0.0	20.0		
		36	20	21.73	21.63	21.70	21.75	21.63	0.0	22.5	19.03	18.90	19.05	19.13	19.06	0.0	20.0		
		36	39	21.72	21.69	21.67	21.72	21.67	0.0	22.5	19.01	18.94	19.01	19.10	19.08	0.0	20.0		
		75	0	21.68	21.64	21.65	21.71	21.58	0.0	22.5	18.98	18.92	18.96	19.08	18.99	0.0	20.0		
		1	0	21.75	21.56	21.68	21.66	21.52	0.0	22.5	19.10	18.85	18.96	18.94	19.02	0.0	20.0		
	64QAM	1	37	21.74	21.70	21.76	21.77	21.59	0.0	22.5	19.07	18.96	19.03	19.04	19.05	0.0	20.0		
		1	74	21.76	21.55	21.68	21.78	21.50	0.0	22.5	18.99	18.84	18.97	19.06	18.96	0.0	20.0		
		36	0	21.66	21.64	21.65	21.69	21.67	0.0	22.5	18.96	18.94	18.94	19.08	19.08	0.0	20.0		
		36	20	21.76	21.66	21.74	21.78	21.67	0.0	22.5	19.05	18.96	19.03	19.19	19.09	0.0	20.0		
		36	39	21.77	21.73	21.69	21.78	21.72	0.0	22.5	19.05	19.00	19.03	19.15	19.14	0.0	20.0		
		75	0	21.80	21.69	21.69	21.76	21.63	0.0	22.5	19.03	19.00	19.03	19.11	19.04	0.0	20.0		
	256QAM	1	0	21.79	21.60	21.69	21.74	21.70	0.0	22.5	19.06	18.96	18.96	19.04	18.93	0.0	20.0		
		1	37	21.79	21.69	21.80	21.88	21.85	0.0	22.5	19.03	18.98	19.02	19.15	19.05	0.0	20.0		
		1	74	21.62	21.67	21.73	21.77	21.71	0.0	22.5	19.03	19.02	18.94	19.10	18.96	0.0	20.0		
		36	0	21.20	21.18	21.19	21.24	21.17	0.5	22.0	18.94	18.92	18.92	19.07	19.04	0.0	20.0		
		36	20	21.31	21.19	21.26	21.35	21.21	0.5	22.0	19.02	18.93	19.02	19.16	19.07	0.0	20.0		
		36	39	21.38	21.24	21.26	21.33	21.24	0.5	22.0	19.01	18.97	18.98	19.14	19.12	0.0	20.0		
256QAM	75	0	21.27	21.25	21.24	21.33	21.17	0.5	22.0	19.01	18.95	18.99	19.14	19.01	0.0	20.0			
	1	0	19.21	19.17	19.00	19.17	19.12	2.5	20.0	19.06	18.87	18.99	19.06	18.97	0.0	20.0			
	1	37	19.33	19.39	19.19	19.40	19.27	2.5	20.0	19.16	19.00	18.95	19.21	19.14	0.0	20.0			
	1	74	19.24	19.17	19.10	19.30	19.12	2.5	20.0	19.20	18.96	18.98	19.15	19.09	0.0	20.0			
	36	0	19.14	19.14	19.14	19.22	19.15	2.5	20.0	18.93	18.90	18.96	19.09	19.05	0.0	20.0			
	36	20	19.25	19.16	19.24	19.31	19.17	2.5	20.0	19.05	18.93	19.04	19.19	19.07	0.0	20.0			
36	39	19.24	19.23	19.22	19.30	19.22	2.5	20.0	19.02	19.00	19.02	19.17	19.12	0.0	20.0				
75	0	19.24	19.22	19.20	19.29	19.17	2.5	20.0	19.01	18.99	19.00	19.15	19.06	0.0	20.0				



**LTE Band 41-PC3 Ant F Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit	
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490			
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			
10 MHz	QPSK	1	0	21.58	21.54	21.64	21.62	21.57	0.0	22.5	18.93	18.88	19.04	19.05	19.09	0.0	20.0	
		1	25	21.73	21.62	21.63	21.69	21.64	0.0	22.5	18.98	18.92	19.06	19.12	19.11	0.0	20.0	
		1	49	21.62	21.63	21.65	21.65	21.56	0.0	22.5	19.00	18.86	19.02	19.02	19.01	0.0	20.0	
		25	0	21.79	21.64	21.59	21.66	21.58	0.0	22.5	19.01	18.93	18.95	19.07	19.08	0.0	20.0	
		25	12	21.74	21.72	21.69	21.76	21.59	0.0	22.5	19.04	18.97	19.04	19.16	19.09	0.0	20.0	
		25	25	21.73	21.70	21.70	21.78	21.67	0.0	22.5	19.03	19.00	19.03	19.14	19.18	0.0	20.0	
	16QAM	50	0	21.79	21.69	21.68	21.74	21.57	0.0	22.5	19.01	18.98	19.00	19.13	19.03	0.0	20.0	
		1	0	21.81	21.58	21.71	21.75	21.52	0.0	22.5	19.10	18.91	18.98	19.20	18.97	0.0	20.0	
		1	25	21.82	21.66	21.68	21.75	21.65	0.0	22.5	19.09	19.00	19.03	19.17	19.11	0.0	20.0	
		1	49	21.78	21.55	21.67	21.84	21.52	0.0	22.5	19.07	18.89	19.02	19.18	18.97	0.0	20.0	
		25	0	21.76	21.69	21.65	21.73	21.63	0.0	22.5	19.10	18.97	18.97	19.10	19.07	0.0	20.0	
		25	12	21.78	21.77	21.74	21.82	21.64	0.0	22.5	19.05	19.06	19.03	19.19	19.08	0.0	20.0	
		25	25	21.78	21.77	21.72	21.80	21.72	0.0	22.5	19.04	19.07	19.02	19.22	19.15	0.0	20.0	
		50	0	21.75	21.72	21.69	21.76	21.63	0.0	22.5	19.04	19.08	19.02	19.18	19.06	0.0	20.0	
		64QAM	1	0	21.72	21.61	21.68	21.79	21.74	0.0	22.5	19.01	18.80	18.98	18.99	19.11	0.0	20.0
			1	25	21.78	21.85	21.71	21.74	21.77	0.0	22.5	18.89	19.03	19.07	19.23	19.13	0.0	20.0
	1		49	21.71	21.63	21.68	21.78	21.57	0.0	22.5	18.94	18.84	19.05	19.12	19.02	0.0	20.0	
	25		0	21.30	21.19	21.20	21.28	21.18	0.5	22.0	18.99	18.93	18.93	19.11	19.04	0.0	20.0	
	25		12	21.30	21.33	21.28	21.38	21.21	0.5	22.0	19.01	19.03	19.04	19.20	19.07	0.0	20.0	
	25		25	21.31	21.28	21.30	21.36	21.27	0.5	22.0	18.99	19.00	19.03	19.20	19.15	0.0	20.0	
	256QAM	50	0	21.30	21.28	21.27	21.33	21.19	0.5	22.0	18.99	19.02	19.02	19.17	19.06	0.0	20.0	
		1	0	19.10	19.05	19.03	19.25	19.05	2.5	20.0	18.80	18.84	18.81	19.03	19.00	0.0	20.0	
		1	25	19.19	19.17	19.15	19.34	19.21	2.5	20.0	19.05	19.06	18.91	19.07	19.09	0.0	20.0	
		1	49	19.17	19.23	19.10	19.14	19.10	2.5	20.0	18.85	18.97	18.80	19.08	19.03	0.0	20.0	
		25	0	19.22	19.18	19.15	19.24	19.16	2.5	20.0	19.00	18.96	18.95	19.10	19.02	0.0	20.0	
		25	12	19.24	19.28	19.25	19.33	19.15	2.5	20.0	19.02	19.04	19.08	19.22	19.06	0.0	20.0	
		25	25	19.27	19.30	19.23	19.31	19.20	2.5	20.0	19.05	19.05	19.02	19.16	19.12	0.0	20.0	
		50	0	19.23	19.28	19.23	19.30	19.17	2.5	20.0	19.01	19.02	19.04	19.17	19.03	0.0	20.0	
	5 MHz	QPSK	1	0	21.61	21.66	21.60	21.71	21.61	0.0	22.5	18.92	18.92	18.98	19.07	19.08	0.0	20.0
			1	12	21.72	21.73	21.61	21.75	21.67	0.0	22.5	19.04	19.00	18.99	19.13	19.10	0.0	20.0
1			24	21.69	21.64	21.59	21.69	21.62	0.0	22.5	18.99	18.90	18.94	19.10	19.09	0.0	20.0	
12			0	21.75	21.65	21.71	21.75	21.59	0.0	22.5	19.01	18.93	19.02	19.12	19.10	0.0	20.0	
12			7	21.68	21.74	21.72	21.78	21.60	0.0	22.5	19.04	18.99	19.04	19.16	19.10	0.0	20.0	
12			13	21.67	21.69	21.68	21.72	21.67	0.0	22.5	19.00	18.98	19.00	19.10	19.16	0.0	20.0	
16QAM		25	0	21.68	21.81	21.66	21.76	21.56	0.0	22.5	18.97	19.02	18.98	19.14	19.06	0.0	20.0	
		1	0	21.87	21.78	21.69	21.94	21.64	0.0	22.5	18.94	19.09	18.96	19.27	19.29	0.0	20.0	
		1	12	21.90	21.77	21.66	21.95	21.70	0.0	22.5	19.02	19.21	19.10	19.22	19.31	0.0	20.0	
		1	24	21.93	21.75	21.70	21.88	21.64	0.0	22.5	18.99	19.05	18.92	19.08	19.21	0.0	20.0	
		12	0	21.77	21.79	21.67	21.75	21.67	0.0	22.5	19.10	19.04	19.08	19.24	19.04	0.0	20.0	
		12	7	21.89	21.82	21.72	21.74	21.69	0.0	22.5	19.10	19.14	19.12	19.20	19.05	0.0	20.0	
		12	13	21.80	21.83	21.67	21.72	21.75	0.0	22.5	19.13	19.10	19.05	19.19	19.08	0.0	20.0	
		25	0	21.74	21.77	21.69	21.76	21.60	0.0	22.5	19.06	19.04	19.02	19.17	19.07	0.0	20.0	
64QAM		1	0	21.78	21.73	21.70	21.86	21.73	0.0	22.5	19.03	19.07	19.01	19.14	19.19	0.0	20.0	
		1	12	21.90	21.82	21.82	21.97	21.82	0.0	22.5	19.07	19.12	19.03	19.16	19.23	0.0	20.0	
		1	24	21.81	21.72	21.68	21.90	21.72	0.0	22.5	19.04	19.10	18.96	19.06	19.10	0.0	20.0	
		12	0	21.26	21.19	21.27	21.37	21.18	0.5	22.0	19.01	18.93	19.02	19.18	19.07	0.0	20.0	
		12	7	21.30	21.30	21.25	21.38	21.18	0.5	22.0	19.04	19.01	19.01	19.19	19.09	0.0	20.0	
		12	13	21.30	21.26	21.23	21.35	21.23	0.5	22.0	18.98	19.00	19.00	19.17	19.15	0.0	20.0	
256QAM		25	0	21.29	21.27	21.25	21.34	21.18	0.5	22.0	19.03	19.05	19.02	19.19	19.07	0.0	20.0	
		1	0	19.20	19.10	19.14	19.29	19.15	2.5	20.0	19.02	18.93	18.93	19.14	19.03	0.0	20.0	
		1	12	19.29	19.22	19.23	19.38	19.29	2.5	20.0	19.15	19.01	19.09	19.14	19.15	0.0	20.0	
		1	24	19.15	19.14	19.12	19.26	19.07	2.5	20.0	19.01	18.78	18.89	19.10	19.09	0.0	20.0	
		12	0	19.23	19.17	19.25	19.33	19.13	2.5	20.0	18.93	18.94	19.02	19.19	19.07	0.0	20.0	
		12	7	19.26	19.27	19.22	19.35	19.14	2.5	20.0	18.97	19.04	19.02	19.22	19.07	0.0	20.0	
		12	13	19.21	19.25	19.20	19.30	19.20	2.5	20.0	18.96	19.04	19.00	19.19	19.12	0.0	20.0	
		25	0	19.22	19.24	19.21	19.30	19.14	2.5	20.0	18.99	19.01	19.02	19.19	19.05	0.0	20.0	

**LTE Band 41-PC2 Ant F Measured Results**

DSI	Modulation	BW (MHz)	Channel	Freq. (MHz)	RB/Offset	Output Power (dBm)	
						Tune-up Limit	Meas. Power
DSI = 1	QPSK	20	41490	2680.0	1/0	21.60	20.74
DSI = 0	QPSK	20	41490	2680.0	1/0	24.10	23.31

**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.

**LTE Band 48 Ant F Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
				DSI = 0						DSI = 1					
				Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
				55340	55773	56207	56640			55340	55773	56207	56640		
3560 MHz	3603.3 MHz	3646.7 MHz	3690 MHz	3560 MHz	3603.3 MHz	3646.7 MHz	3690 MHz								
20 MHz	QPSK	1	0	22.71	22.67	22.66	22.55	0.0	23.0	18.28	18.23	18.20	18.06	0.0	19.0
		1	49	22.62	22.61	22.59	22.32	0.0	23.0	18.24	18.27	18.24	18.15	0.0	19.0
		1	99	22.70	22.69	22.57	22.44	0.0	23.0	18.22	18.26	18.24	18.16	0.0	19.0
		50	0	21.66	21.68	21.56	21.31	1.0	22.0	18.28	18.28	18.25	18.16	0.0	19.0
		50	24	21.75	21.76	21.56	21.29	1.0	22.0	18.34	18.37	18.23	18.23	0.0	19.0
		50	50	21.78	21.76	21.59	21.37	1.0	22.0	18.38	18.34	18.28	18.16	0.0	19.0
	16QAM	100	0	21.74	21.72	21.55	21.26	1.0	22.0	18.37	18.34	18.20	18.18	0.0	19.0
		1	0	21.81	21.78	21.67	21.38	1.0	22.0	18.36	18.40	18.42	18.38	0.0	19.0
		1	49	21.72	21.86	21.81	21.60	1.0	22.0	18.38	18.42	18.44	18.34	0.0	19.0
		1	99	21.76	21.79	21.76	21.28	1.0	22.0	18.32	18.36	18.38	18.18	0.0	19.0
		50	0	20.46	20.66	20.61	20.31	2.0	21.0	18.31	18.30	18.25	18.14	0.0	19.0
		50	24	20.59	20.76	20.58	20.40	2.0	21.0	18.37	18.43	18.25	18.24	0.0	19.0
	64QAM	50	50	20.57	20.71	20.65	20.34	2.0	21.0	18.37	18.36	18.30	18.17	0.0	19.0
		100	0	20.56	20.75	20.55	20.28	2.0	21.0	18.35	18.38	18.23	18.22	0.0	19.0
		1	0	20.80	20.73	20.51	20.57	2.0	21.0	18.27	18.25	18.28	18.27	0.0	19.0
		1	49	20.73	20.84	20.52	20.56	2.0	21.0	18.28	18.34	18.26	18.23	0.0	19.0
		1	99	20.55	20.68	20.46	20.73	2.0	21.0	18.28	18.28	18.24	18.12	0.0	19.0
		50	0	19.66	19.65	19.42	19.45	3.0	20.0	18.25	18.35	18.34	18.22	0.0	19.0
	256QAM	50	24	19.61	19.75	19.43	19.46	3.0	20.0	18.34	18.43	18.32	18.29	0.0	19.0
		50	50	19.65	19.68	19.46	19.44	3.0	20.0	18.33	18.39	18.37	18.23	0.0	19.0
100		0	19.67	19.78	19.37	19.42	3.0	20.0	18.31	18.41	18.31	18.26	0.0	19.0	
1		0	17.59	17.67	17.18	17.49	5.0	18.0	17.71	17.80	17.65	17.78	0.5	18.5	
1		49	17.58	17.62	17.38	17.60	5.0	18.0	17.80	17.84	17.77	17.84	0.5	18.5	
1		99	17.67	17.65	17.23	17.57	5.0	18.0	17.71	17.76	17.61	17.64	0.5	18.5	
15 MHz	QPSK	50	0	17.58	17.66	17.37	17.47	5.0	18.0	17.78	17.84	17.81	17.73	0.5	18.5
		50	24	17.71	17.75	17.40	17.43	5.0	18.0	17.92	17.93	17.81	17.79	0.5	18.5
		50	50	17.58	17.71	17.52	17.49	5.0	18.0	17.84	17.89	17.85	17.75	0.5	18.5
		100	0	17.62	17.78	17.39	17.52	5.0	18.0	17.84	17.89	17.81	17.76	0.5	18.5
		55315	55765	56215	56665	MPR	Tune-up Limit	55315	55765	56215	56665	MPR	Tune-up Limit		
		3557.5 MHz	3602.5 MHz	3647.5 MHz	3692.5 MHz			3557.5 MHz	3602.5 MHz	3647.5 MHz	3692.5 MHz				
	QPSK	1	0	22.52	22.47	22.51	22.38	0.0	23.0	18.30	18.24	18.21	18.14	0.0	19.0
		1	37	22.46	22.52	22.64	22.37	0.0	23.0	18.34	18.25	18.24	18.18	0.0	19.0
		1	74	22.46	22.56	22.63	22.30	0.0	23.0	18.27	18.21	18.16	18.09	0.0	19.0
		36	0	21.46	21.48	21.59	21.28	1.0	22.0	18.31	18.26	18.17	18.14	0.0	19.0
		36	20	21.54	21.57	21.74	21.29	1.0	22.0	18.39	18.32	18.26	18.10	0.0	19.0
		36	39	21.53	21.65	21.67	21.37	1.0	22.0	18.39	18.31	18.25	18.16	0.0	19.0
	16QAM	75	0	21.49	21.52	21.65	21.33	1.0	22.0	18.38	18.31	18.23	18.10	0.0	19.0
		1	0	21.41	21.50	21.50	21.30	1.0	22.0	18.25	18.23	18.19	18.14	0.0	19.0
		1	37	21.45	21.57	21.55	21.31	1.0	22.0	18.22	18.30	18.19	18.16	0.0	19.0
		1	74	21.34	21.53	21.52	21.24	1.0	22.0	18.18	18.24	18.14	18.10	0.0	19.0
		36	0	20.45	20.53	20.64	20.34	2.0	21.0	18.33	18.27	18.22	18.15	0.0	19.0
		36	20	20.56	20.58	20.71	20.29	2.0	21.0	18.40	18.37	18.27	18.15	0.0	19.0
	64QAM	36	39	20.55	20.66	20.70	20.33	2.0	21.0	18.42	18.35	18.27	18.21	0.0	19.0
		75	0	20.54	20.54	20.68	20.43	2.0	21.0	18.42	18.37	18.28	18.14	0.0	19.0
1		0	20.89	20.40	20.56	20.75	2.0	21.0	18.26	18.28	18.15	18.20	0.0	19.0	
1		37	20.80	20.47	20.50	20.74	2.0	21.0	18.32	18.29	18.21	18.15	0.0	19.0	
1		74	20.80	20.54	20.66	20.72	2.0	21.0	18.31	18.26	18.12	18.11	0.0	19.0	
36		0	19.56	19.55	19.63	19.41	3.0	20.0	18.34	18.29	18.21	18.22	0.0	19.0	
256QAM	36	20	19.70	19.53	19.66	19.42	3.0	20.0	18.40	18.35	18.29	18.19	0.0	19.0	
	36	39	19.58	19.61	19.69	19.45	3.0	20.0	18.39	18.36	18.29	18.25	0.0	19.0	
	75	0	19.68	19.56	19.71	19.37	3.0	20.0	18.39	18.32	18.31	18.21	0.0	19.0	
	1	0	17.72	17.49	17.53	17.41	5.0	18.0	17.78	17.77	17.65	17.66	0.5	18.5	
	1	37	17.67	17.53	17.72	17.46	5.0	18.0	17.82	17.79	17.72	17.75	0.5	18.5	
	1	74	17.71	17.44	17.73	17.44	5.0	18.0	17.80	17.82	17.66	17.75	0.5	18.5	
QPSK	36	0	17.51	17.54	17.62	17.43	5.0	18.0	17.88	17.79	17.72	17.71	0.5	18.5	
	36	20	17.61	17.52	17.74	17.44	5.0	18.0	17.97	17.88	17.81	17.70	0.5	18.5	
	36	39	17.64	17.58	17.76	17.46	5.0	18.0	17.94	17.85	17.80	17.78	0.5	18.5	
	75	0	17.63	17.53	17.73	17.44	5.0	18.0	17.94	17.88	17.81	17.71	0.5	18.5	

**LTE Band 48 Ant F Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
				55290	55757	56223	56690			55290	55757	56223	56690		
				3555 MHz	3601.7 MHz	3648.3 MHz	3695 MHz			3555 MHz	3601.7 MHz	3648.3 MHz	3695 MHz		
10 MHz	QPSK	1	0	22.46	22.62	22.57	22.21	0.0	23.0	18.36	18.27	18.28	18.12	0.0	19.0
		1	25	22.52	22.67	22.59	22.45	0.0	23.0	18.44	18.36	18.31	18.19	0.0	19.0
		1	49	22.59	22.68	22.54	22.35	0.0	23.0	18.40	18.30	18.19	18.11	0.0	19.0
		25	0	21.62	21.64	21.55	21.32	1.0	22.0	18.41	18.28	18.25	18.12	0.0	19.0
		25	12	21.58	21.80	21.69	21.38	1.0	22.0	18.46	18.38	18.23	18.21	0.0	19.0
		25	25	21.54	21.77	21.62	21.34	1.0	22.0	18.42	18.36	18.28	18.16	0.0	19.0
	16QAM	50	0	21.58	21.72	21.59	21.39	1.0	22.0	18.40	18.33	18.23	18.18	0.0	19.0
		1	0	21.56	21.57	21.79	21.65	1.0	22.0	18.27	18.33	18.32	18.14	0.0	19.0
		1	25	21.50	21.62	21.64	21.42	1.0	22.0	18.34	18.41	18.35	18.14	0.0	19.0
		1	49	21.60	21.50	21.67	21.51	1.0	22.0	18.28	18.38	18.31	18.16	0.0	19.0
		25	0	20.57	20.61	20.58	20.36	2.0	21.0	18.33	18.33	18.24	18.07	0.0	19.0
		25	12	20.60	20.71	20.64	20.46	2.0	21.0	18.41	18.42	18.23	18.13	0.0	19.0
	64QAM	25	25	20.59	20.75	20.57	20.42	2.0	21.0	18.41	18.37	18.28	18.12	0.0	19.0
		50	0	20.61	20.72	20.61	20.42	2.0	21.0	18.42	18.38	18.25	18.13	0.0	19.0
		1	0	20.90	20.48	20.66	20.52	2.0	21.0	18.35	18.30	18.24	18.18	0.0	19.0
		1	25	20.91	20.75	20.74	20.73	2.0	21.0	18.43	18.35	18.34	18.22	0.0	19.0
		1	49	20.79	20.65	20.60	20.56	2.0	21.0	18.46	18.35	18.23	18.15	0.0	19.0
		25	0	19.74	19.70	19.56	19.41	3.0	20.0	18.39	18.32	18.27	18.23	0.0	19.0
	256QAM	25	12	19.76	19.67	19.66	19.51	3.0	20.0	18.46	18.42	18.27	18.32	0.0	19.0
		25	25	19.72	19.68	19.66	19.44	3.0	20.0	18.43	18.39	18.30	18.27	0.0	19.0
		50	0	19.61	19.71	19.65	19.47	3.0	20.0	18.44	18.40	18.24	18.29	0.0	19.0
		1	0	17.62	17.54	17.58	17.42	5.0	18.0	17.69	17.76	17.70	17.69	0.5	18.5
		1	25	17.64	17.69	17.69	17.60	5.0	18.0	17.89	17.82	17.77	17.78	0.5	18.5
		1	49	17.57	17.52	17.55	17.54	5.0	18.0	17.78	17.67	17.64	17.70	0.5	18.5
	5 MHz	QPSK	25	0	17.69	17.61	17.57	17.52	5.0	18.0	17.89	17.83	17.78	17.75	0.5
25			12	17.62	17.78	17.73	17.51	5.0	18.0	18.01	17.92	17.81	17.75	0.5	18.5
25			25	17.60	17.70	17.62	17.51	5.0	18.0	17.98	17.90	17.82	17.80	0.5	18.5
50			0	17.59	17.73	17.64	17.48	5.0	18.0	17.99	17.91	17.78	17.79	0.5	18.5
1			0	22.55	22.57	22.49	22.31	0.0	23.0	18.37	18.21	18.22	18.09	0.0	19.0
1			12	22.65	22.74	22.65	22.42	0.0	23.0	18.42	18.33	18.32	18.20	0.0	19.0
16QAM		1	24	22.50	22.60	22.49	22.25	0.0	23.0	18.29	18.24	18.19	18.05	0.0	19.0
		12	0	21.51	21.60	21.53	21.28	1.0	22.0	18.40	18.26	18.20	18.10	0.0	19.0
		12	7	21.54	21.80	21.57	21.40	1.0	22.0	18.48	18.38	18.33	18.19	0.0	19.0
		12	13	21.55	21.71	21.50	21.35	1.0	22.0	18.39	18.32	18.26	18.15	0.0	19.0
	25	0	21.50	21.67	21.47	21.38	1.0	22.0	18.41	18.30	18.25	18.11	0.0	19.0	
	1	0	21.68	21.87	21.52	21.32	1.0	22.0	18.40	18.29	18.22	18.26	0.0	19.0	
	1	12	21.57	21.78	21.68	21.54	1.0	22.0	18.44	18.36	18.40	18.39	0.0	19.0	
	1	24	21.49	21.59	21.73	21.40	1.0	22.0	18.32	18.29	18.20	18.26	0.0	19.0	
	12	0	20.58	20.58	20.47	20.27	2.0	21.0	18.43	18.27	18.24	18.19	0.0	19.0	
	12	7	20.60	20.74	20.46	20.31	2.0	21.0	18.52	18.40	18.37	18.29	0.0	19.0	
64QAM	12	13	20.55	20.59	20.45	20.32	2.0	21.0	18.42	18.34	18.32	18.26	0.0	19.0	
	25	0	20.54	20.66	20.48	20.42	2.0	21.0	18.44	18.31	18.28	18.21	0.0	19.0	
	1	0	20.54	20.80	20.49	20.86	2.0	21.0	18.40	18.34	18.32	18.24	0.0	19.0	
	1	12	20.79	20.75	20.69	20.89	2.0	21.0	18.53	18.35	18.42	18.38	0.0	19.0	
	1	24	20.66	20.69	20.51	20.68	2.0	21.0	18.41	18.27	18.27	18.21	0.0	19.0	
	12	0	19.52	19.60	19.42	19.65	3.0	20.0	18.44	18.33	18.23	18.21	0.0	19.0	
256QAM	12	7	19.50	19.63	19.47	19.72	3.0	20.0	18.44	18.41	18.30	18.32	0.0	19.0	
	12	13	19.44	19.55	19.44	19.73	3.0	20.0	18.40	18.38	18.28	18.27	0.0	19.0	
	25	0	19.46	19.68	19.56	19.70	3.0	20.0	18.42	18.39	18.31	18.28	0.0	19.0	
	1	0	17.73	17.44	17.57	17.92	5.0	18.0	17.92	17.64	17.71	17.67	0.5	18.5	
	1	12	17.78	17.70	17.68	17.88	5.0	18.0	17.97	17.82	17.85	17.83	0.5	18.5	
	1	24	17.61	17.47	17.47	17.73	5.0	18.0	17.91	17.69	17.70	17.70	0.5	18.5	
	12	0	17.51	17.59	17.54	17.62	5.0	18.0	17.93	17.81	17.71	17.70	0.5	18.5	
	12	7	17.55	17.74	17.59	17.67	5.0	18.0	17.99	17.91	17.87	17.82	0.5	18.5	
12	13	17.45	17.73	17.60	17.61	5.0	18.0	17.92	17.87	17.79	17.77	0.5	18.5		
25	0	17.47	17.69	17.45	17.65	5.0	18.0	17.94	17.88	17.81	17.77	0.5	18.5		

**LTE Band 66 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 1					DSI = 0				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572			132072	132322	132572		
1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz								
20 MHz	QPSK	1	0	23.99	<b>24.11</b>	23.93	0.0	24.7	18.84	<b>18.85</b>	18.69	0.0	20.0
		1	49	24.10	24.08	23.85	0.0	24.7	18.84	18.84	18.72	0.0	20.0
		1	99	23.91	23.87	23.81	0.0	24.7	18.69	18.63	18.66	0.0	20.0
		50	0	23.02	<b>23.09</b>	23.01	1.0	23.7	18.85	<b>18.93</b>	18.77	0.0	20.0
		50	24	23.07	23.03	22.99	1.0	23.7	18.92	18.81	18.80	0.0	20.0
		50	50	23.07	22.94	22.87	1.0	23.7	18.84	18.82	18.73	0.0	20.0
	16QAM	100	0	23.06	23.02	22.95	1.0	23.7	18.85	18.80	18.78	0.0	20.0
		1	0	23.32	23.34	23.34	1.0	23.7	19.28	19.25	19.03	0.0	20.0
		1	49	23.45	23.35	23.29	1.0	23.7	19.31	19.21	19.04	0.0	20.0
		1	99	23.41	23.18	23.19	1.0	23.7	19.11	19.05	18.83	0.0	20.0
		50	0	22.02	22.06	22.00	2.0	22.7	18.88	18.88	18.77	0.0	20.0
		50	24	22.12	22.03	21.97	2.0	22.7	18.93	18.83	18.81	0.0	20.0
	64QAM	50	50	22.08	21.97	21.84	2.0	22.7	18.87	18.83	18.76	0.0	20.0
		100	0	22.07	22.01	21.96	2.0	22.7	18.88	18.81	18.79	0.0	20.0
		1	0	22.33	22.30	22.23	2.0	22.7	18.95	19.10	19.02	0.0	20.0
		1	49	22.29	22.30	22.25	2.0	22.7	18.97	19.05	19.02	0.0	20.0
		1	99	22.22	22.09	22.15	2.0	22.7	18.95	18.94	18.88	0.0	20.0
		50	0	20.99	21.04	21.00	3.0	21.7	18.86	18.87	18.81	0.0	20.0
	256QAM	50	24	21.06	21.08	20.98	3.0	21.7	18.94	18.86	18.88	0.0	20.0
		50	50	21.03	20.94	20.85	3.0	21.7	18.89	18.85	18.80	0.0	20.0
100		0	21.07	21.03	20.93	3.0	21.7	18.91	18.81	18.86	0.0	20.0	
1		0	19.13	19.16	19.06	5.0	19.7	18.63	18.83	18.57	0.5	19.5	
1		49	19.30	19.35	19.07	5.0	19.7	18.65	18.95	18.67	0.5	19.5	
1		99	19.12	19.02	18.79	5.0	19.7	18.55	18.79	18.51	0.5	19.5	
15 MHz	QPSK	50	0	18.93	19.01	18.95	5.0	19.7	18.48	18.68	18.41	0.5	19.5
		50	24	19.03	19.01	18.95	5.0	19.7	18.54	18.66	18.48	0.5	19.5
		50	50	18.99	18.90	18.81	5.0	19.7	18.48	18.69	18.41	0.5	19.5
		100	0	19.00	18.96	18.93	5.0	19.7	18.50	18.65	18.47	0.5	19.5
		1	0	24.09	23.97	23.92	0.0	24.7	18.89	18.90	18.75	0.0	20.0
		1	37	24.11	24.05	23.92	0.0	24.7	18.82	18.78	18.70	0.0	20.0
	16QAM	1	74	23.99	23.93	23.83	0.0	24.7	18.74	18.65	18.63	0.0	20.0
		36	0	22.98	23.01	23.00	1.0	23.7	18.78	18.79	18.73	0.0	20.0
		36	20	23.06	22.99	22.98	1.0	23.7	18.83	18.76	18.69	0.0	20.0
		36	39	23.07	22.94	22.94	1.0	23.7	18.80	18.77	18.71	0.0	20.0
		75	0	23.00	22.93	22.95	1.0	23.7	18.78	18.69	18.72	0.0	20.0
		1	0	23.32	23.28	23.20	1.0	23.7	19.15	19.07	19.06	0.0	20.0
	64QAM	1	37	23.36	23.27	23.26	1.0	23.7	19.09	19.03	19.11	0.0	20.0
		1	74	23.33	23.19	23.16	1.0	23.7	18.96	18.89	19.02	0.0	20.0
		36	0	22.01	22.01	22.00	2.0	22.7	18.84	18.82	18.85	0.0	20.0
		36	20	22.11	21.98	22.01	2.0	22.7	18.89	18.80	18.73	0.0	20.0
		36	39	22.09	21.97	21.95	2.0	22.7	18.84	18.83	18.78	0.0	20.0
		75	0	22.04	21.97	21.97	2.0	22.7	18.81	18.77	18.78	0.0	20.0
	256QAM	1	0	22.33	22.38	22.23	2.0	22.7	19.08	19.09	19.01	0.0	20.0
		1	37	22.23	22.33	22.16	2.0	22.7	19.05	19.01	18.99	0.0	20.0
1		74	22.10	22.15	22.04	2.0	22.7	18.91	18.88	18.85	0.0	20.0	
36		0	20.95	21.02	20.99	3.0	21.7	18.81	18.83	18.78	0.0	20.0	
36		20	21.03	20.97	20.97	3.0	21.7	18.88	18.81	18.76	0.0	20.0	
36		39	21.02	20.97	20.92	3.0	21.7	18.83	18.85	18.81	0.0	20.0	
256QAM	75	0	21.02	20.98	20.96	3.0	21.7	18.86	18.77	18.85	0.0	20.0	
	1	0	19.13	19.04	19.21	5.0	19.7	18.44	18.66	18.50	0.5	19.5	
	1	37	19.23	19.13	19.07	5.0	19.7	18.46	18.65	18.62	0.5	19.5	
	1	74	19.14	18.93	18.92	5.0	19.7	18.38	18.49	18.48	0.5	19.5	
	36	0	18.91	18.98	18.95	5.0	19.7	18.41	18.43	18.43	0.5	19.5	
	36	20	19.02	18.97	18.93	5.0	19.7	18.47	18.43	18.38	0.5	19.5	
256QAM	36	39	18.98	18.90	18.89	5.0	19.7	18.44	18.45	18.41	0.5	19.5	
	75	0	18.98	18.94	18.93	5.0	19.7	18.46	18.40	18.44	0.5	19.5	

**LTE Band 66 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				132022	132322	132622			132022	132322	132622			
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz			
10 MHz	QPSK	1	0	23.99	24.01	23.97	0.0	24.7	18.81	18.84	18.70	0.0	20.0	
		1	25	24.10	24.05	23.97	0.0	24.7	18.83	18.84	18.70	0.0	20.0	
		1	49	23.99	24.07	23.83	0.0	24.7	18.71	18.70	18.66	0.0	20.0	
		25	0	22.98	23.03	22.98	1.0	23.7	18.77	18.78	18.68	0.0	20.0	
		25	12	23.04	23.03	22.96	1.0	23.7	18.87	18.78	18.69	0.0	20.0	
		25	25	23.03	23.00	22.94	1.0	23.7	18.84	18.83	18.73	0.0	20.0	
			50	0	23.05	22.99	22.94	1.0	23.7	18.81	18.77	18.69	0.0	20.0
		16QAM	1	0	23.11	23.38	23.30	1.0	23.7	19.15	19.08	19.04	0.0	20.0
			1	25	23.26	23.36	23.32	1.0	23.7	19.16	19.03	19.02	0.0	20.0
			1	49	23.16	23.29	23.05	1.0	23.7	19.09	18.94	18.87	0.0	20.0
			25	0	22.02	22.05	22.05	2.0	22.7	18.79	18.86	18.79	0.0	20.0
			25	12	22.13	22.07	22.00	2.0	22.7	18.89	18.86	18.78	0.0	20.0
			25	25	22.12	22.03	21.96	2.0	22.7	18.84	18.88	18.80	0.0	20.0
			50	0	22.06	22.01	21.98	2.0	22.7	18.84	18.79	18.72	0.0	20.0
		64QAM	1	0	22.15	22.33	22.09	2.0	22.7	19.16	18.92	17.93	0.0	20.0
			1	25	22.30	22.34	22.24	2.0	22.7	19.12	18.92	19.00	0.0	20.0
			1	49	22.19	22.12	22.17	2.0	22.7	19.03	18.84	18.99	0.0	20.0
			25	0	20.96	21.03	21.17	3.0	21.7	18.81	18.83	18.80	0.0	20.0
			25	12	21.03	21.05	21.22	3.0	21.7	18.92	18.84	18.79	0.0	20.0
			25	25	21.03	20.99	21.14	3.0	21.7	18.86	18.90	18.84	0.0	20.0
			50	0	21.04	21.02	21.01	3.0	21.7	18.90	18.80	18.68	0.0	20.0
		256QAM	1	0	19.08	19.00	19.07	5.0	19.7	18.52	18.50	17.87	0.5	19.5
			1	25	19.07	19.21	19.23	5.0	19.7	18.60	18.59	18.56	0.5	19.5
			1	49	19.02	19.06	19.09	5.0	19.7	18.50	18.44	18.51	0.5	19.5
			25	0	18.91	18.97	18.99	5.0	19.7	18.43	18.44	18.43	0.5	19.5
			25	12	19.00	18.97	19.02	5.0	19.7	18.50	18.42	18.42	0.5	19.5
			25	25	19.01	18.95	19.00	5.0	19.7	18.43	18.46	18.43	0.5	19.5
		50	0	18.99	18.96	18.98	5.0	19.7	18.46	18.41	18.39	0.5	19.5	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				131997	132322	132647			131997	132322	132647			
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz			
5 MHz	QPSK	1	0	23.95	24.03	24.00	0.0	24.7	18.84	18.87	18.72	0.0	20.0	
		1	12	23.95	24.09	23.99	0.0	24.7	18.79	18.80	18.82	0.0	20.0	
		1	24	23.97	24.05	23.87	0.0	24.7	18.73	18.80	18.71	0.0	20.0	
		12	0	23.05	23.01	22.95	1.0	23.7	18.79	18.78	18.67	0.0	20.0	
		12	7	23.11	23.07	22.98	1.0	23.7	18.90	18.83	18.71	0.0	20.0	
		12	13	23.05	23.08	22.97	1.0	23.7	18.85	18.82	18.75	0.0	20.0	
			25	0	23.03	22.98	22.92	1.0	23.7	18.83	18.74	18.68	0.0	20.0
		16QAM	1	0	23.37	23.41	23.29	1.0	23.7	19.17	19.16	18.93	0.0	20.0
			1	12	23.41	23.46	23.24	1.0	23.7	19.25	19.20	19.03	0.0	20.0
			1	24	23.36	23.41	23.06	1.0	23.7	19.19	19.11	19.00	0.0	20.0
			12	0	22.03	22.06	22.01	2.0	22.7	18.86	18.84	18.74	0.0	20.0
			12	7	22.03	22.09	22.03	2.0	22.7	18.95	18.86	18.80	0.0	20.0
			12	13	22.02	22.13	22.01	2.0	22.7	18.88	18.88	18.83	0.0	20.0
			25	0	22.05	22.02	21.97	2.0	22.7	18.86	18.76	18.68	0.0	20.0
		64QAM	1	0	22.09	22.25	22.30	2.0	22.7	18.96	18.64	18.97	0.0	20.0
			1	12	22.24	22.33	22.28	2.0	22.7	19.06	19.05	19.02	0.0	20.0
			1	24	22.17	22.16	22.21	2.0	22.7	19.00	18.91	18.95	0.0	20.0
			12	0	21.17	21.08	20.99	3.0	21.7	18.83	18.84	18.80	0.0	20.0
			12	7	21.22	21.16	20.95	3.0	21.7	18.95	18.91	18.81	0.0	20.0
			12	13	21.14	21.20	20.89	3.0	21.7	18.92	18.92	18.84	0.0	20.0
			25	0	21.01	21.02	20.94	3.0	21.7	18.88	18.83	18.77	0.0	20.0
		256QAM	1	0	19.07	19.04	19.15	5.0	19.7	18.62	18.63	18.63	0.5	19.5
			1	12	19.23	19.25	19.20	5.0	19.7	18.49	18.81	18.62	0.5	19.5
			1	24	19.09	19.16	19.15	5.0	19.7	18.54	18.69	18.46	0.5	19.5
			12	0	18.99	18.96	18.95	5.0	19.7	18.49	18.49	18.45	0.5	19.5
			12	7	19.02	19.04	18.97	5.0	19.7	18.61	18.61	18.47	0.5	19.5
			12	13	19.00	19.06	18.89	5.0	19.7	18.56	18.49	18.49	0.5	19.5
		25	0	18.98	18.96	18.90	5.0	19.7	18.52	18.45	18.42	0.5	19.5	

**LTE Band 66 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				131987	132322	132657			131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	23.94	23.91	23.90	0.0	24.7	18.73	18.70	18.68	0.0	20.0
		1	8	24.08	24.09	23.99	0.0	24.7	18.86	18.84	18.77	0.0	20.0
		1	14	23.91	23.92	23.82	0.0	24.7	18.71	18.67	18.62	0.0	20.0
		8	0	23.02	23.01	23.01	1.0	23.7	18.85	18.74	18.69	0.0	20.0
		8	4	23.09	23.11	22.96	1.0	23.7	18.90	18.78	18.70	0.0	20.0
		8	7	23.08	23.10	22.97	1.0	23.7	18.86	18.84	18.69	0.0	20.0
	16QAM	15	0	23.05	22.98	22.93	1.0	23.7	18.85	18.72	18.69	0.0	20.0
		1	0	23.23	23.24	23.25	1.0	23.7	19.01	19.03	19.01	0.0	20.0
		1	8	23.30	23.36	23.31	1.0	23.7	19.07	19.16	19.14	0.0	20.0
		1	14	23.17	23.26	23.14	1.0	23.7	18.93	18.99	19.02	0.0	20.0
		8	0	22.12	22.10	21.98	2.0	22.7	18.91	18.83	18.76	0.0	20.0
		8	4	22.12	22.20	22.06	2.0	22.7	18.94	18.87	18.75	0.0	20.0
	64QAM	8	7	22.10	22.22	22.02	2.0	22.7	18.95	18.93	18.76	0.0	20.0
		15	0	22.08	22.01	21.96	2.0	22.7	18.87	18.79	18.70	0.0	20.0
		1	0	22.10	22.16	21.94	2.0	22.7	19.06	18.95	18.94	0.0	20.0
		1	8	22.24	22.32	22.06	2.0	22.7	19.17	19.15	19.02	0.0	20.0
		1	14	22.13	22.24	21.89	2.0	22.7	18.99	18.95	18.94	0.0	20.0
		8	0	21.02	21.07	20.91	3.0	21.7	18.96	18.85	18.77	0.0	20.0
	256QAM	8	4	21.05	21.16	20.97	3.0	21.7	18.98	18.84	18.84	0.0	20.0
		8	7	21.03	21.18	20.97	3.0	21.7	19.00	18.93	18.87	0.0	20.0
		15	0	21.01	20.99	20.91	3.0	21.7	18.92	18.80	18.75	0.0	20.0
1		0	19.07	18.96	18.91	5.0	19.7	18.50	18.47	18.47	0.5	19.5	
1		8	19.17	19.16	18.95	5.0	19.7	18.63	18.66	18.63	0.5	19.5	
1		14	19.00	19.00	18.92	5.0	19.7	18.44	18.51	18.51	0.5	19.5	
1.4 MHz	QPSK	8	0	18.96	18.97	18.89	5.0	19.7	18.54	18.41	18.45	0.5	19.5
		8	4	19.00	19.10	18.87	5.0	19.7	18.53	18.44	18.48	0.5	19.5
		8	7	19.03	19.13	18.87	5.0	19.7	18.56	18.53	18.47	0.5	19.5
		15	0	18.99	18.98	18.85	5.0	19.7	18.54	18.41	18.42	0.5	19.5
		1	0	23.87	23.94	23.81	0.0	24.7	18.73	18.77	18.71	0.0	20.0
		1	3	23.91	23.90	23.78	0.0	24.7	18.70	18.72	18.67	0.0	20.0
	16QAM	1	5	23.89	23.91	23.83	0.0	24.7	18.75	18.73	18.64	0.0	20.0
		3	0	23.91	23.95	23.76	0.0	24.7	18.73	18.74	18.69	0.0	20.0
		3	1	23.89	23.93	23.82	0.0	24.7	18.73	18.70	18.65	0.0	20.0
		3	3	23.87	23.90	23.79	0.0	24.7	18.70	18.71	18.69	0.0	20.0
		6	0	22.94	22.98	22.81	1.0	23.7	18.80	18.76	18.72	0.0	20.0
		1	0	23.19	23.14	23.24	1.0	23.7	19.12	19.05	18.99	0.0	20.0
	64QAM	1	3	23.22	23.12	23.22	1.0	23.7	19.14	19.08	18.92	0.0	20.0
		1	5	23.17	23.20	23.17	1.0	23.7	19.12	19.01	18.90	0.0	20.0
		3	0	23.12	23.09	22.97	1.0	23.7	18.92	18.90	18.79	0.0	20.0
		3	1	23.15	23.10	22.93	1.0	23.7	18.89	18.92	18.83	0.0	20.0
		3	3	23.12	23.07	22.95	1.0	23.7	18.91	18.92	18.80	0.0	20.0
		6	0	22.02	22.06	21.89	2.0	22.7	18.82	18.90	18.84	0.0	20.0
	256QAM	1	0	22.13	22.36	22.00	2.0	22.7	19.00	19.05	19.00	0.0	20.0
		1	3	22.16	22.30	22.06	2.0	22.7	19.00	19.09	19.01	0.0	20.0
		1	5	22.19	22.20	22.05	2.0	22.7	18.90	18.98	18.99	0.0	20.0
3		0	22.02	22.13	22.01	2.0	22.7	18.93	18.93	18.88	0.0	20.0	
3		1	22.04	22.13	22.02	2.0	22.7	18.96	18.93	18.87	0.0	20.0	
3		3	22.08	22.09	22.00	2.0	22.7	18.93	18.91	18.86	0.0	20.0	
QPSK	6	0	21.05	21.11	20.95	3.0	21.7	18.93	18.82	18.82	0.0	20.0	
	1	0	19.04	19.11	18.97	5.0	19.7	18.56	18.64	18.54	0.5	19.5	
	1	3	19.00	19.17	18.98	5.0	19.7	18.59	18.64	18.54	0.5	19.5	
	1	5	18.96	19.15	19.04	5.0	19.7	18.51	18.59	18.53	0.5	19.5	
	3	0	19.01	19.05	18.88	5.0	19.7	18.50	18.57	18.49	0.5	19.5	
	3	1	18.98	19.04	18.85	5.0	19.7	18.50	18.58	18.54	0.5	19.5	
16QAM	3	3	18.94	19.08	18.84	5.0	19.7	18.56	18.61	18.52	0.5	19.5	
	6	0	18.86	19.02	18.75	5.0	19.7	18.64	18.55	18.48	0.5	19.5	

**LTE Band 66 Ant F Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132072 1720 MHz	132322 1745 MHz	132572 1770 MHz			132072 1720 MHz	132322 1745 MHz	132572 1770 MHz		
20 MHz	QPSK	1	0	20.52	20.51	20.48	0.0	22.0	16.95	16.95	16.99	0.0	18.5
		1	49	20.62	20.60	20.50	0.0	22.0	17.10	17.10	16.89	0.0	18.5
		1	99	20.53	<b>20.63</b>	20.39	0.0	22.0	17.10	<b>17.13</b>	16.99	0.0	18.5
		50	0	20.55	<b>20.65</b>	20.54	0.0	22.0	17.10	17.09	17.04	0.0	18.5
		50	24	20.64	20.60	20.63	0.0	22.0	17.10	17.05	17.09	0.0	18.5
		50	50	20.60	20.60	20.57	0.0	22.0	17.06	<b>17.15</b>	17.01	0.0	18.5
	16QAM	100	0	20.51	20.55	20.54	0.0	22.0	17.11	17.03	17.03	0.0	18.5
		1	0	20.84	21.06	20.83	0.0	22.0	17.16	17.11	17.16	0.0	18.5
		1	49	20.87	21.10	20.89	0.0	22.0	17.35	17.25	17.04	0.0	18.5
		1	99	20.73	20.82	20.89	0.0	22.0	17.34	17.20	17.13	0.0	18.5
		50	0	20.57	20.65	20.58	0.0	22.0	17.08	17.12	17.04	0.0	18.5
		50	24	20.66	20.63	20.64	0.0	22.0	17.16	17.07	17.11	0.0	18.5
	64QAM	50	50	20.61	20.64	20.60	0.0	22.0	17.13	17.09	17.06	0.0	18.5
		100	0	20.63	20.59	20.63	0.0	22.0	17.14	17.07	17.07	0.0	18.5
		1	0	20.80	20.81	20.63	0.0	22.0	17.22	17.22	17.17	0.0	18.5
		1	49	20.79	20.82	20.72	0.0	22.0	17.41	17.29	17.10	0.0	18.5
		1	99	20.77	20.68	20.63	0.0	22.0	17.34	17.23	17.16	0.0	18.5
		50	0	20.32	20.36	20.29	0.5	21.5	17.10	17.13	17.01	0.0	18.5
	256QAM	50	24	20.39	20.34	20.37	0.5	21.5	17.15	17.09	17.10	0.0	18.5
		50	50	20.37	20.33	20.30	0.5	21.5	17.13	17.09	17.03	0.0	18.5
		100	0	20.37	20.32	20.36	0.5	21.5	17.15	17.07	17.05	0.0	18.5
		1	0	18.40	18.53	18.29	2.5	19.5	17.27	17.10	17.15	0.0	18.5
		1	49	18.59	18.60	18.48	2.5	19.5	17.41	17.25	17.16	0.0	18.5
		1	99	18.46	18.42	18.34	2.5	19.5	17.30	17.13	17.21	0.0	18.5
15 MHz	QPSK	50	0	18.30	18.37	18.24	2.5	19.5	17.09	17.15	17.02	0.0	18.5
		50	24	18.36	18.33	18.34	2.5	19.5	17.15	17.11	17.09	0.0	18.5
		50	50	18.34	18.30	18.30	2.5	19.5	17.13	17.09	17.08	0.0	18.5
		100	0	18.36	18.28	18.33	2.5	19.5	17.15	17.10	17.08	0.0	18.5
		1	0	20.75	20.79	20.78	0.0	22.0	17.22	17.30	16.91	0.0	18.5
		1	37	20.67	20.75	20.75	0.0	22.0	17.06	17.16	16.95	0.0	18.5
	16QAM	1	74	20.63	20.68	20.70	0.0	22.0	17.03	17.04	16.91	0.0	18.5
		36	0	20.68	20.75	20.77	0.0	22.0	17.06	17.05	16.97	0.0	18.5
		36	20	20.76	20.73	20.77	0.0	22.0	17.14	17.04	16.97	0.0	18.5
		36	39	20.76	20.77	20.78	0.0	22.0	17.13	17.10	17.07	0.0	18.5
		75	0	20.71	20.70	20.76	0.0	22.0	17.08	16.98	16.93	0.0	18.5
		1	0	20.97	21.14	21.12	0.0	22.0	17.33	17.39	17.06	0.0	18.5
	64QAM	1	37	21.01	21.11	21.20	0.0	22.0	17.24	17.34	17.12	0.0	18.5
		1	74	20.86	21.05	21.02	0.0	22.0	17.13	17.16	17.12	0.0	18.5
		36	0	20.77	20.81	20.81	0.0	22.0	17.10	17.08	17.01	0.0	18.5
		36	20	20.80	20.78	20.87	0.0	22.0	17.15	17.06	17.01	0.0	18.5
		36	39	20.79	20.84	20.83	0.0	22.0	17.10	17.11	17.08	0.0	18.5
		75	0	20.75	20.76	20.85	0.0	22.0	17.09	17.03	16.98	0.0	18.5
	256QAM	1	0	20.96	21.00	20.95	0.0	22.0	17.38	17.44	17.13	0.0	18.5
		1	37	21.03	21.01	21.03	0.0	22.0	17.21	17.35	17.16	0.0	18.5
		1	74	20.92	20.88	20.94	0.0	22.0	17.18	17.26	17.09	0.0	18.5
		36	0	20.47	20.51	20.47	0.0	22.0	17.07	17.09	17.00	0.0	18.5
		36	20	20.54	20.49	20.57	0.0	22.0	17.16	17.08	17.02	0.0	18.5
		36	39	20.53	20.52	20.54	0.0	22.0	17.11	17.12	17.06	0.0	18.5
256QAM	75	0	20.54	20.49	20.54	0.0	22.0	17.14	17.06	16.99	0.0	18.5	
	1	0	18.66	18.61	18.68	2.5	19.5	17.33	17.42	17.02	0.0	18.5	
	1	37	18.60	18.65	18.70	2.5	19.5	17.21	17.37	17.09	0.0	18.5	
	1	74	18.59	18.51	18.59	2.5	19.5	17.26	17.27	17.02	0.0	18.5	
	36	0	18.43	18.52	18.50	2.5	19.5	17.11	17.09	17.02	0.0	18.5	
	36	20	18.52	18.49	18.55	2.5	19.5	17.15	17.09	17.02	0.0	18.5	
256QAM	36	39	18.51	18.52	18.51	2.5	19.5	17.11	17.13	17.07	0.0	18.5	
	75	0	18.51	18.48	18.54	2.5	19.5	17.13	17.07	17.01	0.0	18.5	

**LTE Band 66 Ant F Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit	
				132022	132322	132622			132022	132322	132622			
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz			
10 MHz	QPSK	1	0	20.72	20.74	20.76	0.0	22.0	17.17	17.27	16.91	0.0	18.5	
		1	25	20.72	20.86	20.75	0.0	22.0	17.16	17.21	17.03	0.0	18.5	
		1	49	20.63	20.68	20.67	0.0	22.0	16.95	17.04	16.93	0.0	18.5	
		25	0	20.73	20.75	20.73	0.0	22.0	17.12	17.10	17.09	0.0	18.5	
		25	12	20.80	20.73	20.74	0.0	22.0	17.19	17.12	17.09	0.0	18.5	
		25	25	20.76	20.79	20.79	0.0	22.0	17.16	17.18	17.09	0.0	18.5	
	16QAM	50	0	20.73	20.73	20.72	0.0	22.0	17.15	17.09	17.09	0.0	18.5	
		1	0	20.90	21.16	21.10	0.0	22.0	17.27	17.38	17.11	0.0	18.5	
		1	25	20.95	21.17	21.09	0.0	22.0	17.37	17.35	17.19	0.0	18.5	
		1	49	20.92	20.99	21.03	0.0	22.0	17.15	17.18	17.09	0.0	18.5	
		25	0	20.83	20.82	20.78	0.0	22.0	17.13	17.16	17.15	0.0	18.5	
		25	12	20.87	20.80	20.78	0.0	22.0	17.23	17.16	17.15	0.0	18.5	
	64QAM	25	25	20.89	20.84	20.82	0.0	22.0	17.21	17.18	17.14	0.0	18.5	
		50	0	20.78	20.79	20.78	0.0	22.0	17.18	17.12	17.11	0.0	18.5	
		1	0	21.00	20.96	21.03	0.0	22.0	17.26	17.36	17.22	0.0	18.5	
		1	25	21.01	20.96	21.01	0.0	22.0	17.20	17.42	17.33	0.0	18.5	
		1	49	20.99	20.90	20.94	0.0	22.0	17.06	17.24	17.23	0.0	18.5	
		25	0	20.56	20.56	20.49	0.0	22.0	17.14	17.17	17.16	0.0	18.5	
	256QAM	25	12	20.57	20.52	20.52	0.0	22.0	17.17	17.15	17.17	0.0	18.5	
		25	25	20.59	20.57	20.54	0.0	22.0	17.15	17.17	17.15	0.0	18.5	
		50	0	20.56	20.55	20.48	0.0	22.0	17.18	17.14	17.13	0.0	18.5	
		1	0	18.56	18.65	18.61	2.5	19.5	17.27	17.36	17.13	0.0	18.5	
		1	25	18.66	18.78	18.71	2.5	19.5	17.30	17.42	17.18	0.0	18.5	
		1	49	18.61	18.63	18.57	2.5	19.5	17.14	17.24	17.05	0.0	18.5	
	5 MHz	QPSK	25	0	18.52	18.53	18.50	2.5	19.5	17.10	17.14	17.13	0.0	18.5
25			12	18.55	18.51	18.51	2.5	19.5	17.19	17.13	17.13	0.0	18.5	
25			25	18.53	18.57	18.48	2.5	19.5	17.16	17.20	17.09	0.0	18.5	
50			0	18.54	18.49	18.45	2.5	19.5	17.15	17.09	17.09	0.0	18.5	
1			0	20.73	20.72	20.74	0.0	22.0	17.08	17.14	17.02	0.0	18.5	
1			12	20.79	20.89	20.80	0.0	22.0	17.18	17.22	17.11	0.0	18.5	
16QAM		QPSK	1	24	20.64	20.76	20.68	0.0	22.0	17.03	17.11	17.06	0.0	18.5
			12	0	20.76	20.77	20.81	0.0	22.0	17.15	17.09	17.04	0.0	18.5
			12	7	20.82	20.80	20.86	0.0	22.0	17.21	17.26	17.15	0.0	18.5
			12	13	20.78	20.82	20.77	0.0	22.0	17.14	17.17	17.10	0.0	18.5
	25		0	20.75	20.74	20.76	0.0	22.0	17.14	17.07	17.00	0.0	18.5	
	1		0	21.13	21.02	21.10	0.0	22.0	17.28	17.33	17.18	0.0	18.5	
	16QAM	1	12	21.13	21.13	21.26	0.0	22.0	17.28	17.40	17.24	0.0	18.5	
		1	24	21.06	21.03	21.08	0.0	22.0	17.22	17.36	17.18	0.0	18.5	
		12	0	20.89	20.90	20.90	0.0	22.0	17.30	17.06	17.05	0.0	18.5	
		12	7	20.92	20.97	20.93	0.0	22.0	17.30	17.22	17.16	0.0	18.5	
64QAM	12	13	20.92	20.98	20.86	0.0	22.0	17.29	17.17	17.09	0.0	18.5		
	25	0	20.78	20.77	20.79	0.0	22.0	17.14	17.08	17.02	0.0	18.5		
	1	0	20.95	20.88	20.95	0.0	22.0	17.37	17.18	17.26	0.0	18.5		
	1	12	21.06	21.05	20.99	0.0	22.0	17.50	17.29	17.34	0.0	18.5		
	1	24	20.88	20.85	20.91	0.0	22.0	17.37	17.17	17.25	0.0	18.5		
	12	0	20.57	20.53	20.56	0.0	22.0	17.21	17.09	17.05	0.0	18.5		
	12	7	20.58	20.61	20.60	0.0	22.0	17.24	17.24	17.21	0.0	18.5		
	12	13	20.56	20.59	20.55	0.0	22.0	17.19	17.18	17.13	0.0	18.5		
	25	0	20.51	20.51	20.56	0.0	22.0	17.19	17.10	17.06	0.0	18.5		
	256QAM	1	0	18.61	18.66	18.58	2.5	19.5	17.21	17.27	17.16	0.0	18.5	
1		12	18.78	18.84	18.67	2.5	19.5	17.45	17.36	17.30	0.0	18.5		
1		24	18.61	18.68	18.57	2.5	19.5	17.29	17.20	17.26	0.0	18.5		
12		0	18.56	18.51	18.56	2.5	19.5	17.17	17.11	17.06	0.0	18.5		
12		7	18.60	18.54	18.57	2.5	19.5	17.25	17.27	17.15	0.0	18.5		
12		13	18.54	18.59	18.52	2.5	19.5	17.15	17.20	17.09	0.0	18.5		
25	0	18.53	18.47	18.53	2.5	19.5	17.18	17.06	17.04	0.0	18.5			



**LTE Band 66 Ant F Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
				131987	132322	132657			131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	20.67	20.65	20.71	0.0	22.0	17.11	17.01	17.03	0.0	18.5
		1	8	20.71	20.87	20.81	0.0	22.0	17.15	17.19	17.08	0.0	18.5
		1	14	20.70	20.65	20.63	0.0	22.0	16.95	17.02	17.06	0.0	18.5
		8	0	20.75	20.72	20.76	0.0	22.0	17.15	17.10	17.10	0.0	18.5
		8	4	20.70	20.86	20.79	0.0	22.0	17.19	17.18	17.10	0.0	18.5
		8	7	20.73	20.85	20.83	0.0	22.0	17.20	17.16	17.12	0.0	18.5
		15	0	20.72	20.71	20.76	0.0	22.0	17.15	17.07	17.10	0.0	18.5
	16QAM	1	0	20.98	20.98	21.07	0.0	22.0	17.28	17.19	17.13	0.0	18.5
		1	8	20.95	21.18	21.16	0.0	22.0	17.34	17.29	17.28	0.0	18.5
		1	14	20.89	20.98	21.03	0.0	22.0	17.10	17.15	17.20	0.0	18.5
		8	0	20.83	20.86	20.87	0.0	22.0	17.17	17.15	17.09	0.0	18.5
		8	4	20.82	20.98	20.88	0.0	22.0	17.23	17.17	17.10	0.0	18.5
		8	7	20.83	20.96	20.92	0.0	22.0	17.24	17.16	17.15	0.0	18.5
		15	0	20.77	20.78	20.80	0.0	22.0	17.19	17.13	17.10	0.0	18.5
	64QAM	1	0	21.05	20.89	20.95	0.0	22.0	17.28	17.13	17.22	0.0	18.5
		1	8	21.04	21.04	21.04	0.0	22.0	17.33	17.41	17.34	0.0	18.5
		1	14	20.88	20.85	20.89	0.0	22.0	17.28	17.15	17.23	0.0	18.5
		8	0	20.55	20.56	20.56	0.0	22.0	17.20	17.15	17.15	0.0	18.5
		8	4	20.62	20.65	20.59	0.0	22.0	17.24	17.29	17.14	0.0	18.5
		8	7	20.61	20.61	20.60	0.0	22.0	17.25	17.24	17.15	0.0	18.5
		15	0	20.58	20.54	20.50	0.0	22.0	17.20	17.07	17.14	0.0	18.5
256QAM	1	0	18.66	18.61	18.62	2.5	19.5	17.25	17.04	17.22	0.0	18.5	
	1	8	18.71	18.85	18.74	2.5	19.5	17.33	17.43	17.25	0.0	18.5	
	1	14	18.73	18.66	18.60	2.5	19.5	17.26	17.18	17.26	0.0	18.5	
	8	0	18.56	18.52	18.53	2.5	19.5	17.20	17.16	17.11	0.0	18.5	
	8	4	18.56	18.66	18.56	2.5	19.5	17.22	17.27	17.15	0.0	18.5	
	8	7	18.55	18.64	18.56	2.5	19.5	17.24	17.24	17.12	0.0	18.5	
	15	0	18.54	18.49	18.54	2.5	19.5	17.22	17.14	17.13	0.0	18.5	
3 MHz	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
1.4 MHz	QPSK	1	0	20.59	20.71	20.68	0.0	22.0	17.05	17.15	16.99	0.0	18.5
		1	3	20.59	20.69	20.68	0.0	22.0	17.09	17.10	17.06	0.0	18.5
		1	5	20.67	20.72	20.69	0.0	22.0	16.98	16.97	17.05	0.0	18.5
		3	0	20.58	20.64	20.61	0.0	22.0	17.06	17.12	17.02	0.0	18.5
		3	1	20.61	20.69	20.64	0.0	22.0	17.05	17.09	17.07	0.0	18.5
		3	3	20.57	20.65	20.55	0.0	22.0	17.04	17.06	17.05	0.0	18.5
		6	0	20.68	20.73	20.67	0.0	22.0	17.14	17.13	17.06	0.0	18.5
	16QAM	1	0	20.87	21.10	20.96	0.0	22.0	17.29	17.32	17.09	0.0	18.5
		1	3	20.86	21.11	20.94	0.0	22.0	17.23	17.26	17.17	0.0	18.5
		1	5	20.85	21.10	20.98	0.0	22.0	17.18	17.20	17.20	0.0	18.5
		3	0	20.83	20.94	20.87	0.0	22.0	17.19	17.18	17.09	0.0	18.5
		3	1	20.83	20.89	20.83	0.0	22.0	17.20	17.16	17.14	0.0	18.5
		3	3	20.84	20.91	20.81	0.0	22.0	17.12	17.13	17.13	0.0	18.5
		6	0	20.77	20.83	20.77	0.0	22.0	17.11	17.10	17.06	0.0	18.5
	64QAM	1	0	20.95	21.10	20.95	0.0	22.0	17.36	17.34	17.14	0.0	18.5
		1	3	20.88	21.07	20.91	0.0	22.0	17.46	17.31	17.14	0.0	18.5
		1	5	20.79	21.02	20.92	0.0	22.0	17.40	17.29	17.24	0.0	18.5
		3	0	20.84	20.95	20.90	0.0	22.0	17.20	17.21	17.13	0.0	18.5
		3	1	20.78	20.94	20.89	0.0	22.0	17.24	17.23	17.11	0.0	18.5
		3	3	20.77	20.92	20.89	0.0	22.0	17.25	17.22	17.13	0.0	18.5
		6	0	20.56	20.51	20.56	0.0	22.0	17.17	17.22	17.05	0.0	18.5
256QAM	1	0	18.55	18.71	18.62	2.5	19.5	17.21	17.37	17.09	0.0	18.5	
	1	3	18.61	18.77	18.62	2.5	19.5	17.27	17.35	17.17	0.0	18.5	
	1	5	18.55	18.72	18.59	2.5	19.5	17.17	17.26	17.23	0.0	18.5	
	3	0	18.49	18.67	18.57	2.5	19.5	17.21	17.24	17.04	0.0	18.5	
	3	1	18.49	18.67	18.54	2.5	19.5	17.26	17.25	17.08	0.0	18.5	
	3	3	18.52	18.63	18.54	2.5	19.5	17.22	17.27	17.06	0.0	18.5	
	6	0	18.55	18.66	18.54	2.5	19.5	17.23	17.28	17.05	0.0	18.5	

**LTE Band 71 Ant A Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				DSI = 0, 1			
				Measured Pwr (dBm)		MPR	Tune-up Limit
20 MHz	QPSK	1	0	133297	680.5 MHz		
		1	49	24.05			
		1	99	24.32	0.0	25.3	
		50	0	24.17	0.0	25.3	
		50	24	23.43	1.0	24.3	
		50	50	23.33	1.0	24.3	
	100	0	23.32	1.0	24.3		
	100	0	23.37	1.0	24.3		
	16QAM	1	0	23.71	1.0	24.3	
		1	49	23.64	1.0	24.3	
		1	99	23.58	1.0	24.3	
		50	0	22.41	2.0	23.3	
		50	24	22.36	2.0	23.3	
		50	50	22.34	2.0	23.3	
	64QAM	100	0	22.39	2.0	23.3	
		1	0	21.95	2.0	23.3	
		1	49	22.55	2.0	23.3	
		1	99	22.51	2.0	23.3	
		50	0	21.38	3.0	22.3	
		50	24	21.41	3.0	22.3	
	256QAM	50	50	21.31	3.0	22.3	
		100	0	21.31	3.0	22.3	
		1	0	18.71	5.0	20.3	
		1	49	19.45	5.0	20.3	
		1	99	19.34	5.0	20.3	
		50	0	19.19	5.0	20.3	
	15 MHz	QPSK	50	24	19.32	5.0	20.3
			50	50	19.35	5.0	20.3
			100	0	19.37	5.0	20.3
			1	0	24.53	680.5 MHz	MPR
1			37	24.45			
1			74	24.42	0.0	25.3	
36		0	23.45	1.0	24.3		
36		20	23.46	1.0	24.3		
36		39	23.42	1.0	24.3		
75		0	23.43	1.0	24.3		
16QAM		1	0	23.78	1.0	24.3	
		1	37	23.69	1.0	24.3	
		1	74	23.67	1.0	24.3	
		36	0	22.46	2.0	23.3	
		36	20	22.51	2.0	23.3	
		36	39	22.45	2.0	23.3	
64QAM		75	0	22.48	2.0	23.3	
		1	0	22.70	2.0	23.3	
		1	37	22.60	2.0	23.3	
		1	74	22.58	2.0	23.3	
		36	0	21.45	3.0	22.3	
		36	20	21.50	3.0	22.3	
256QAM		36	39	21.44	3.0	22.3	
		75	0	21.47	3.0	22.3	
		1	0	19.55	5.0	20.3	
		1	37	19.58	5.0	20.3	
		1	74	19.54	5.0	20.3	
		36	0	19.44	5.0	20.3	
256QAM		36	20	19.48	5.0	20.3	
		36	39	19.43	5.0	20.3	
	75	0	19.49	5.0	20.3		

**LTE Band 71 Ant A Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				133172	133297	133422		
				668 MHz	680.5 MHz	693 MHz		
10 MHz	QPSK	1	0	24.44	24.46	24.52	0.0	25.3
		1	25	24.53	24.44	24.50	0.0	25.3
		1	49	24.52	24.46	24.46	0.0	25.3
		25	0	23.50	23.47	23.47	1.0	24.3
		25	12	23.56	23.46	23.46	1.0	24.3
		25	25	23.54	23.51	23.51	1.0	24.3
	16QAM	50	0	23.55	23.50	23.42	1.0	24.3
		1	0	23.57	23.80	23.86	1.0	24.3
		1	25	23.77	23.82	23.84	1.0	24.3
		1	49	23.72	23.72	23.75	1.0	24.3
		25	0	22.53	22.51	22.47	2.0	23.3
		25	12	22.64	22.53	22.48	2.0	23.3
	64QAM	25	25	22.58	22.52	22.48	2.0	23.3
		50	0	22.59	22.51	22.43	2.0	23.3
		1	0	21.75	22.74	22.55	2.0	23.3
		1	25	22.40	22.78	22.66	2.0	23.3
		1	49	22.49	22.68	22.31	2.0	23.3
		25	0	21.02	21.46	21.47	3.0	22.3
	256QAM	25	12	21.51	20.86	21.50	3.0	22.3
		25	25	21.57	21.49	21.22	3.0	22.3
		50	0	21.58	21.50	21.03	3.0	22.3
		1	0	18.56	19.52	19.31	5.0	20.3
		1	25	19.72	19.66	19.66	5.0	20.3
		1	49	19.29	19.55	19.10	5.0	20.3
5 MHz	QPSK	25	0	19.49	19.44	19.44	5.0	20.3
		25	12	19.62	19.64	19.48	5.0	20.3
		25	25	19.59	19.58	19.51	5.0	20.3
		50	0	19.60	19.57	19.42	5.0	20.3
		1	0	24.61	24.45	24.41	0.0	25.3
		1	12	24.53	24.50	24.49	0.0	25.3
	16QAM	1	24	24.50	24.42	24.37	0.0	25.3
		12	0	23.56	23.41	23.45	1.0	24.3
		12	7	23.57	23.53	23.48	1.0	24.3
		12	13	23.55	23.45	23.49	1.0	24.3
		25	0	23.53	23.47	23.41	1.0	24.3
		1	0	23.82	23.74	23.83	1.0	24.3
	64QAM	1	12	23.94	23.74	23.89	1.0	24.3
		1	24	23.91	23.65	23.79	1.0	24.3
		12	0	22.66	22.46	22.59	2.0	23.3
		12	7	22.67	22.55	22.61	2.0	23.3
		12	13	22.63	22.51	22.66	2.0	23.3
		25	0	22.57	22.54	22.40	2.0	23.3
	256QAM	1	0	21.65	22.59	22.59	2.0	23.3
		1	12	22.43	22.68	22.57	2.0	23.3
		1	24	21.44	22.55	21.68	2.0	23.3
		12	0	20.89	21.44	21.25	3.0	22.3
		12	7	21.54	21.54	21.09	3.0	22.3
		12	13	21.33	21.50	21.09	3.0	22.3
256QAM	25	0	20.94	21.50	21.29	3.0	22.3	
	1	0	18.29	19.54	19.54	5.0	20.3	
	1	12	19.60	19.72	19.64	5.0	20.3	
	1	24	19.26	19.55	18.83	5.0	20.3	
	12	0	18.88	19.43	19.44	5.0	20.3	
	12	7	19.59	19.57	19.47	5.0	20.3	
256QAM	12	13	19.48	19.48	19.50	5.0	20.3	
	25	0	19.31	19.50	19.41	5.0	20.3	

**LTE Band 71 Ant E Measured Results**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				DSI = 0, 1			
				Measured Pwr (dBm)		MPR	Tune-up Limit
133297	680.5 MHz						
20 MHz	QPSK	1	0	24.46	0.0	25.3	
		1	49	24.38	0.0	25.3	
		1	99	24.33	0.0	25.3	
		50	0	23.45	1.0	24.3	
		50	24	23.40	1.0	24.3	
		50	50	23.39	1.0	24.3	
	16QAM	100	0	23.44	1.0	24.3	
		1	0	23.37	1.0	24.3	
		1	49	23.76	1.0	24.3	
		1	99	23.71	1.0	24.3	
		50	0	22.47	2.0	23.3	
		50	24	22.42	2.0	23.3	
	64QAM	50	50	22.42	2.0	23.3	
		100	0	22.52	2.0	23.3	
		1	0	22.48	2.0	23.3	
		1	49	22.63	2.0	23.3	
		1	99	22.56	2.0	23.3	
		50	0	21.43	3.0	22.3	
	256QAM	50	24	21.40	3.0	22.3	
		50	50	21.40	3.0	22.3	
		100	0	21.45	3.0	22.3	
		1	0	19.08	5.0	20.3	
		1	49	19.45	5.0	20.3	
		1	99	19.32	5.0	20.3	
15 MHz	QPSK	50	0	19.42	5.0	20.3	
		50	24	19.37	5.0	20.3	
		50	50	19.38	5.0	20.3	
		100	0	19.42	5.0	20.3	
		1	0	24.37	0.0	25.3	
		1	37	24.42	0.0	25.3	
	16QAM	1	74	24.37	0.0	25.3	
		36	0	23.44	1.0	24.3	
		36	20	23.37	1.0	24.3	
		36	39	23.39	1.0	24.3	
		75	0	23.40	1.0	24.3	
		1	0	23.60	1.0	24.3	
	64QAM	1	37	23.70	1.0	24.3	
		1	74	23.58	1.0	24.3	
		36	0	22.45	2.0	23.3	
		36	20	22.43	2.0	23.3	
		36	39	22.43	2.0	23.3	
		75	0	22.45	2.0	23.3	
	256QAM	1	0	22.58	2.0	23.3	
		1	37	22.65	2.0	23.3	
		1	74	22.61	2.0	23.3	
		36	0	21.44	3.0	22.3	
		36	20	21.42	3.0	22.3	
		36	39	21.42	3.0	22.3	
QPSK	75	0	21.45	3.0	22.3		
	1	0	19.42	5.0	20.3		
	1	37	19.54	5.0	20.3		
	1	74	19.45	5.0	20.3		
	36	0	19.42	5.0	20.3		
	36	20	19.39	5.0	20.3		
16QAM	36	39	19.39	5.0	20.3		
	75	0	19.44	5.0	20.3		

**LTE Band 71 Ant E Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				133172	133297	133422		
				668 MHz	680.5 MHz	693 MHz		
10 MHz	QPSK	1	0	23.72	24.49	24.48	0.0	25.3
		1	25	24.39	24.47	24.45	0.0	25.3
		1	49	24.40	24.33	24.33	0.0	25.3
		25	0	23.37	23.43	23.41	1.0	24.3
		25	12	23.46	23.53	23.41	1.0	24.3
	16QAM	25	25	23.43	23.46	23.41	1.0	24.3
		50	0	23.43	23.48	23.38	1.0	24.3
		1	0	22.91	23.66	23.76	1.0	24.3
		1	25	23.73	23.66	23.69	1.0	24.3
		1	49	23.71	23.62	23.60	1.0	24.3
	64QAM	25	0	22.40	22.49	22.43	2.0	23.3
		25	12	22.49	22.57	22.42	2.0	23.3
		25	25	22.45	22.49	22.44	2.0	23.3
		50	0	22.46	22.50	22.37	2.0	23.3
		1	0	21.66	22.73	22.67	2.0	23.3
	256QAM	1	25	22.66	22.73	22.61	2.0	23.3
		1	49	22.62	22.58	22.44	2.0	23.3
		25	0	21.43	21.49	21.43	3.0	22.3
		25	12	21.50	21.51	21.40	3.0	22.3
		25	25	21.44	21.50	21.45	3.0	22.3
5 MHz	QPSK	50	0	21.47	21.49	21.36	3.0	22.3
		1	0	18.12	19.46	19.47	5.0	20.3
		1	25	19.55	19.61	19.63	5.0	20.3
		1	49	19.39	19.49	19.47	5.0	20.3
		25	0	19.38	19.40	19.36	5.0	20.3
	16QAM	25	12	19.47	19.51	19.43	5.0	20.3
		25	25	19.46	19.48	19.46	5.0	20.3
		50	0	19.43	19.47	19.38	5.0	20.3
		1	0	24.26	24.44	24.37	0.0	25.3
		1	12	24.42	24.42	24.38	0.0	25.3
5 MHz	QPSK	1	24	24.39	24.37	24.26	0.0	25.3
		12	0	23.44	23.39	23.35	1.0	24.3
		12	7	23.44	23.39	23.38	1.0	24.3
		12	13	23.42	23.39	23.39	1.0	24.3
		25	0	23.40	23.42	23.29	1.0	24.3
	16QAM	1	0	23.06	23.85	23.68	1.0	24.3
		1	12	23.69	23.87	23.71	1.0	24.3
		1	24	23.68	23.79	23.59	1.0	24.3
		12	0	22.50	22.60	22.33	2.0	23.3
		12	7	22.53	22.59	22.37	2.0	23.3
64QAM	12	13	22.49	22.62	22.38	2.0	23.3	
	25	0	22.46	22.45	22.33	2.0	23.3	
	1	0	21.67	22.69	22.53	2.0	23.3	
	1	12	22.51	22.75	22.57	2.0	23.3	
	1	24	22.48	22.57	22.45	2.0	23.3	
256QAM	64QAM	12	0	21.12	21.45	21.35	3.0	22.3
		12	7	21.45	21.49	21.42	3.0	22.3
		12	13	21.43	21.50	21.44	3.0	22.3
		25	0	21.41	21.50	21.34	3.0	22.3
		1	0	18.05	19.60	19.50	5.0	20.3
	256QAM	1	12	19.55	19.70	19.58	5.0	20.3
		1	24	19.43	19.56	19.49	5.0	20.3
		12	0	18.91	19.42	19.34	5.0	20.3
		12	7	19.44	19.44	19.38	5.0	20.3
		12	13	19.37	19.45	19.40	5.0	20.3
25	0	19.38	19.45	19.28	5.0	20.3		

### 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	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
	$\leq 0.5^2$		$0^2$
DFT-s-OFDM QPSK	$\leq 1$		0
DFT-s-OFDM 16 QAM	$\leq 2$		$\leq 1$
DFT-s-OFDM 64 QAM		$\leq 2.5$	
DFT-s-OFDM 256 QAM		$\leq 4.5$	
CP-OFDM QPSK	$\leq 3$		$\leq 1.5$
CP-OFDM 16 QAM	$\leq 3$		$\leq 2$
CP-OFDM 64 QAM		$\leq 3.5$	
CP-OFDM 256 QAM		$\leq 6.5$	

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 <sub>RB</sub> )	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 <sup>1</sup>	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2 <sup>1</sup>	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 <sup>1</sup>	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2 <sup>1</sup>	1@1	1@9
15MHz	15	DFT-s	2@0	2@77	1@0	1@78	75@0	38@18	1@1	1@77
		CP	2@0	2@77	1@0	1@78	79@0	39@19 <sup>1</sup>	1@1	1@77
	30	DFT-s	2@0	2@38	1@0	1@37	36@0	18@9	1@1	1@38
		CP	2@0	2@38	1@0	1@37	38@0	19@9	1@1	1@38
	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 <sup>1</sup>	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

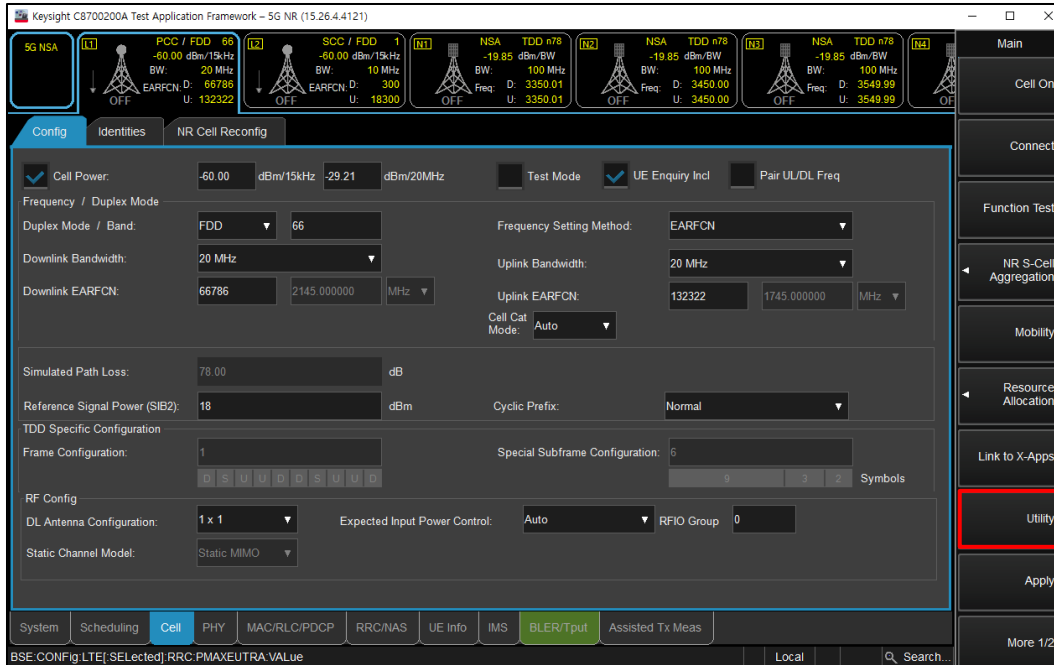
SAR test exclusion can be applied for testing overlapping NR bands as follows:

- 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.
- NR Band n2 (1850 – 1910 MHz) is covered by NR Band n25 (1850 – 1915 MHz)
  - NR Band n5 (824 – 849 MHz) is covered by NR Band n26 (814 – 849 MHz)
  - NR Band n38 (2570 – 2620 MHz) is covered by NR Band n41 (2496 – 2690 MHz)
  - NR Band n78 (3450 - 3550 MHz & 3700 – 3800 MHz) is covered by NR Band n77 (3450 - 3550 MHz & 3700 – 3980 MHz)

## 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)

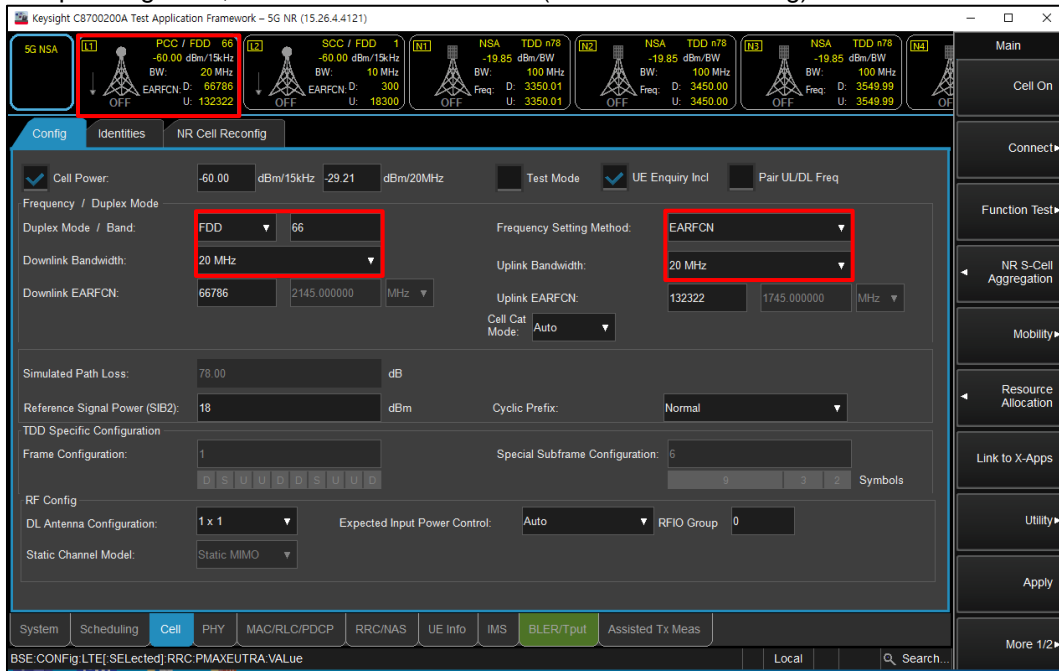


(Figure 1-2)



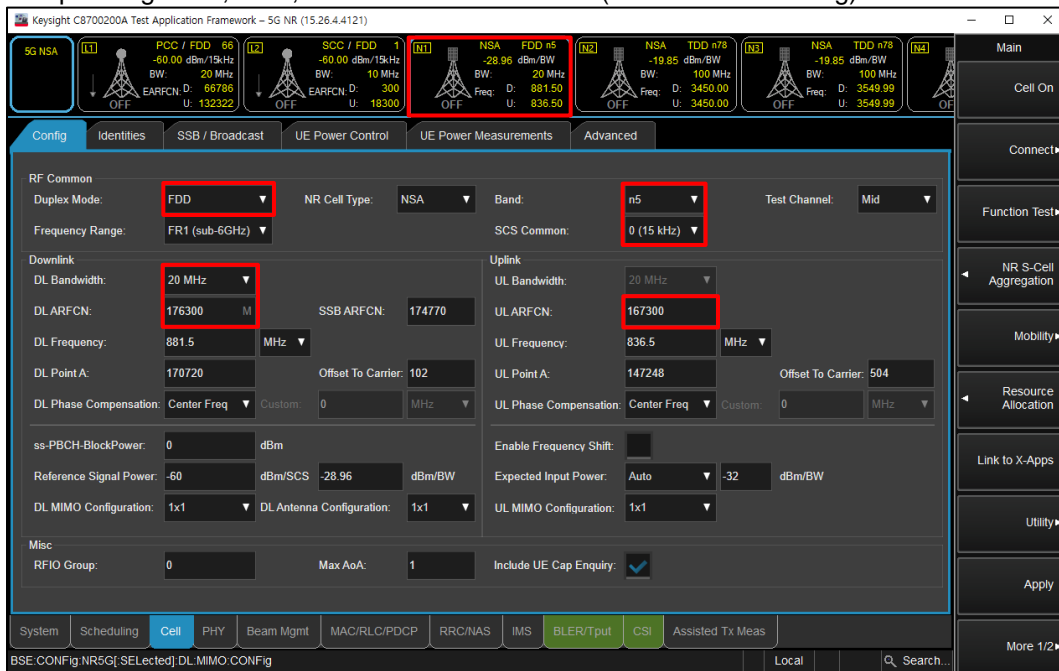
### NSA Mode

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



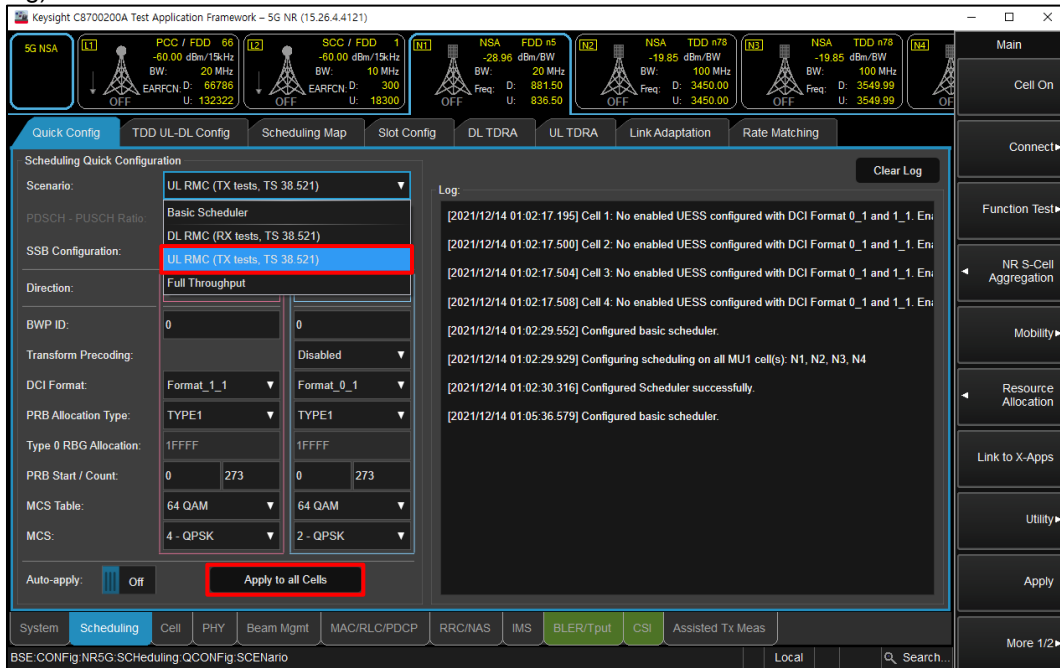
(Figure 2-1)

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



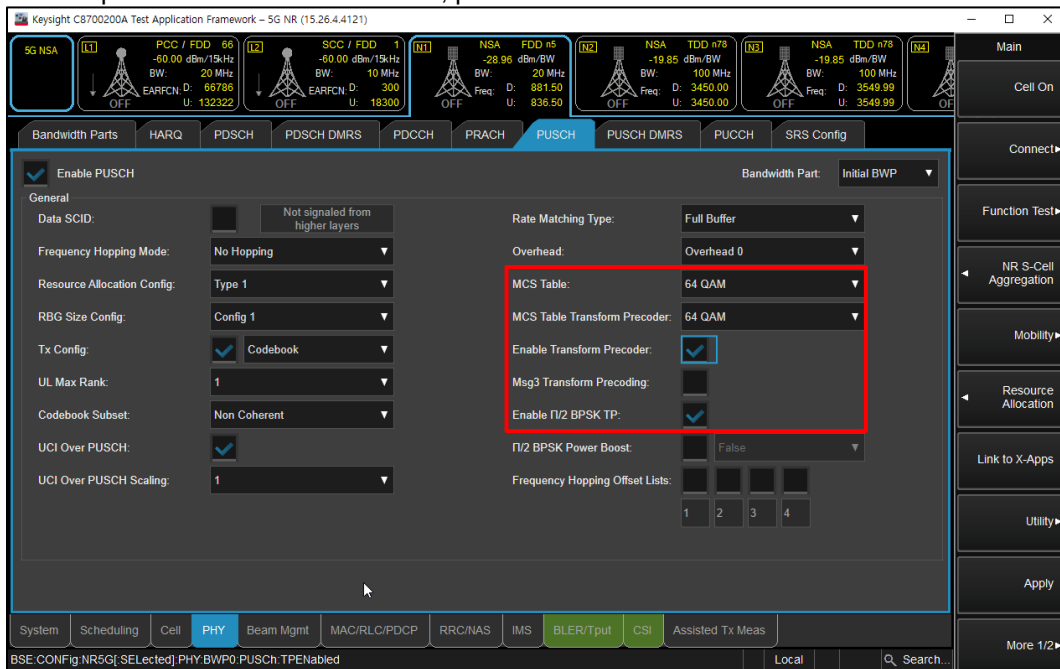
(Figure 2-2)

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



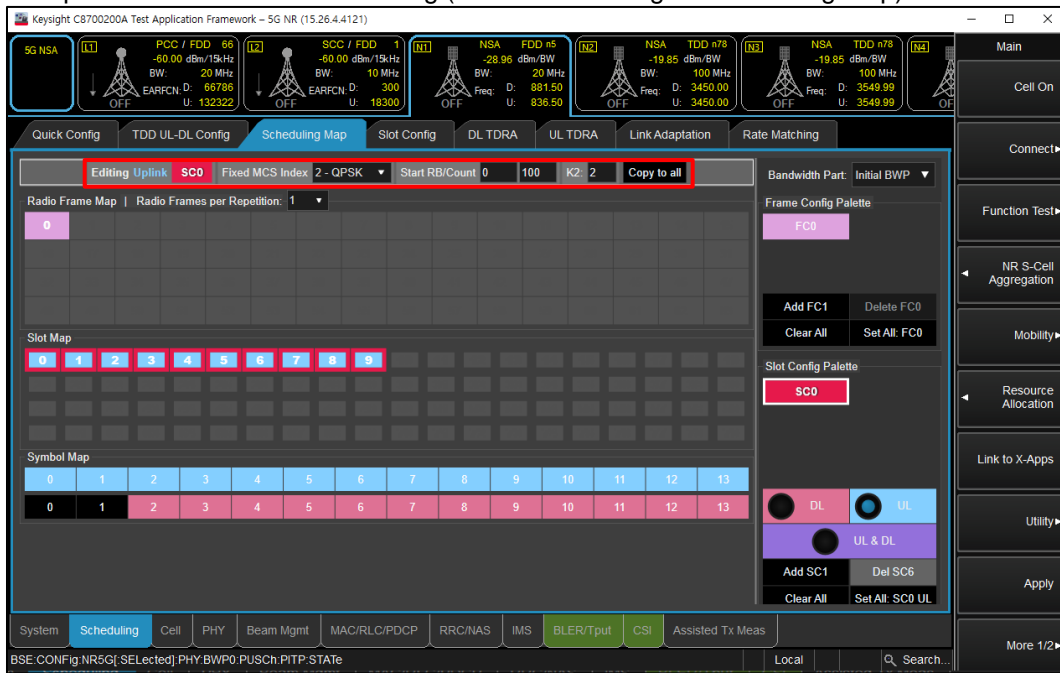
(Figure 2-3)

- 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



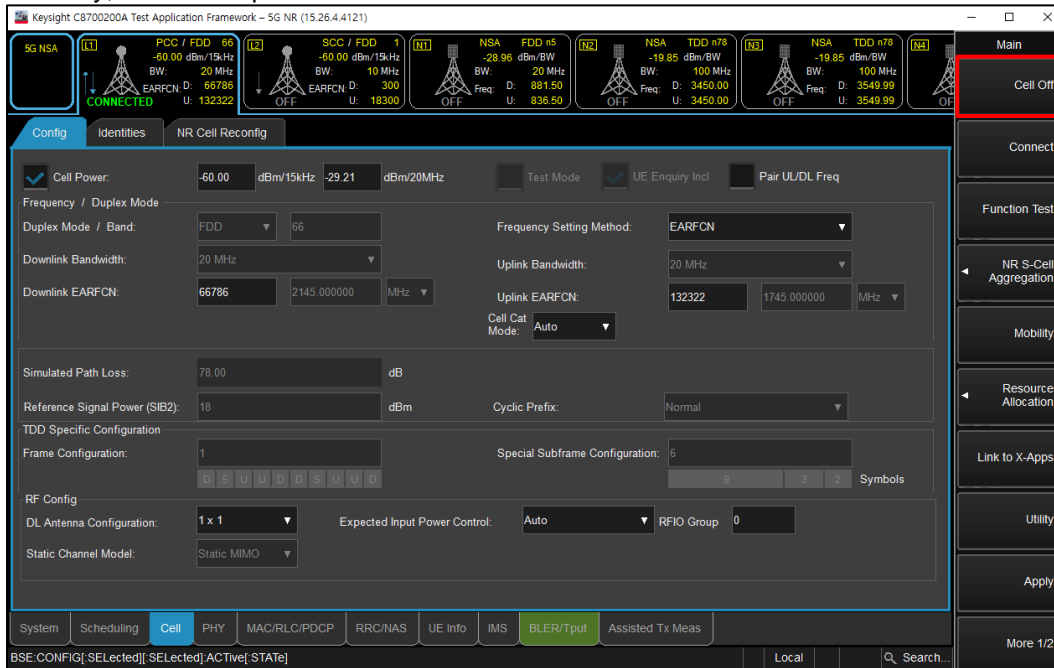
(Figure 2-4)

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



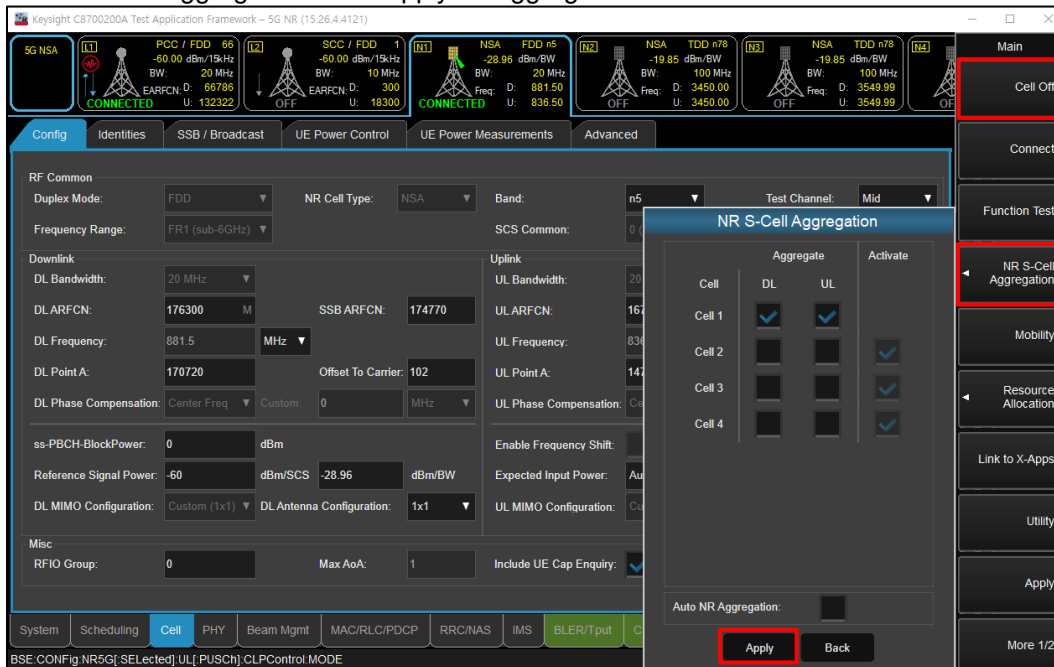
(Figure 2-5)

- 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



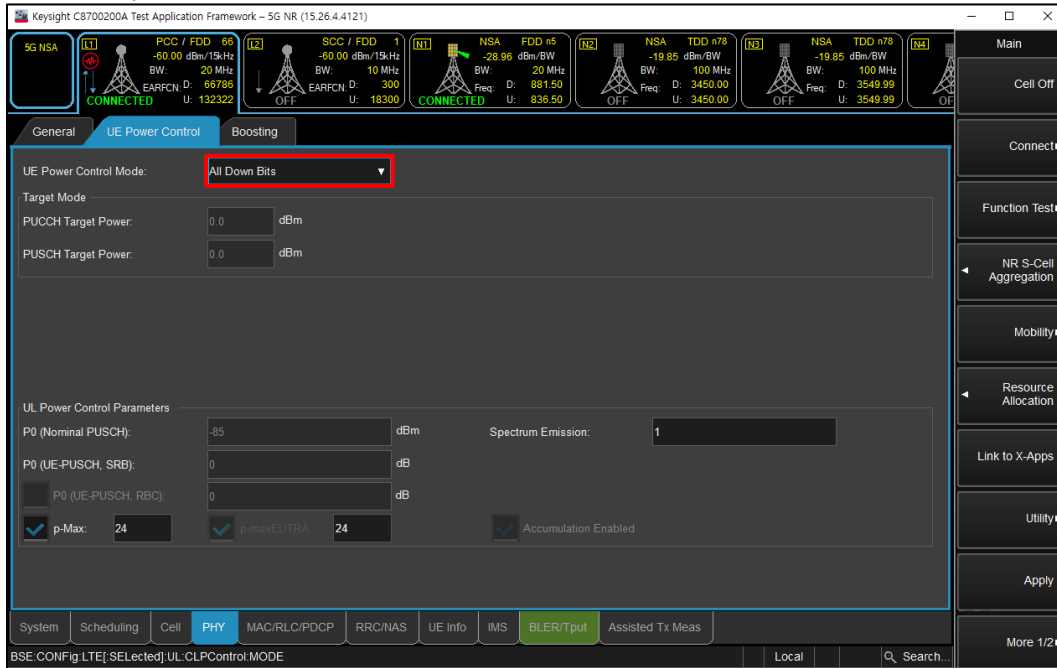
(Figure 2-6)

- 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



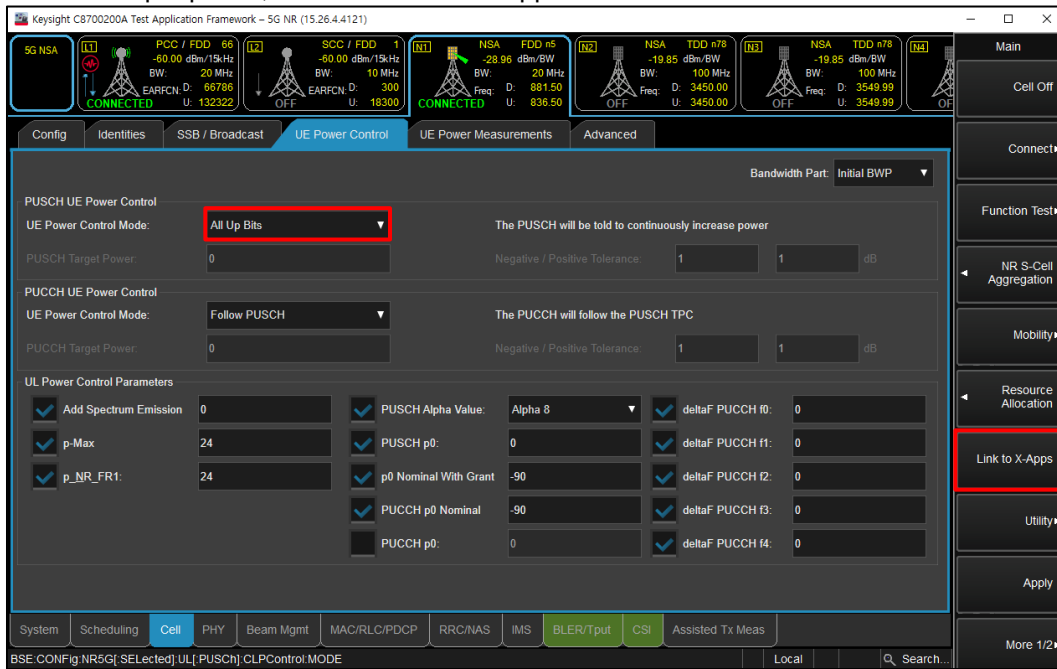
(Figure 2-7)

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



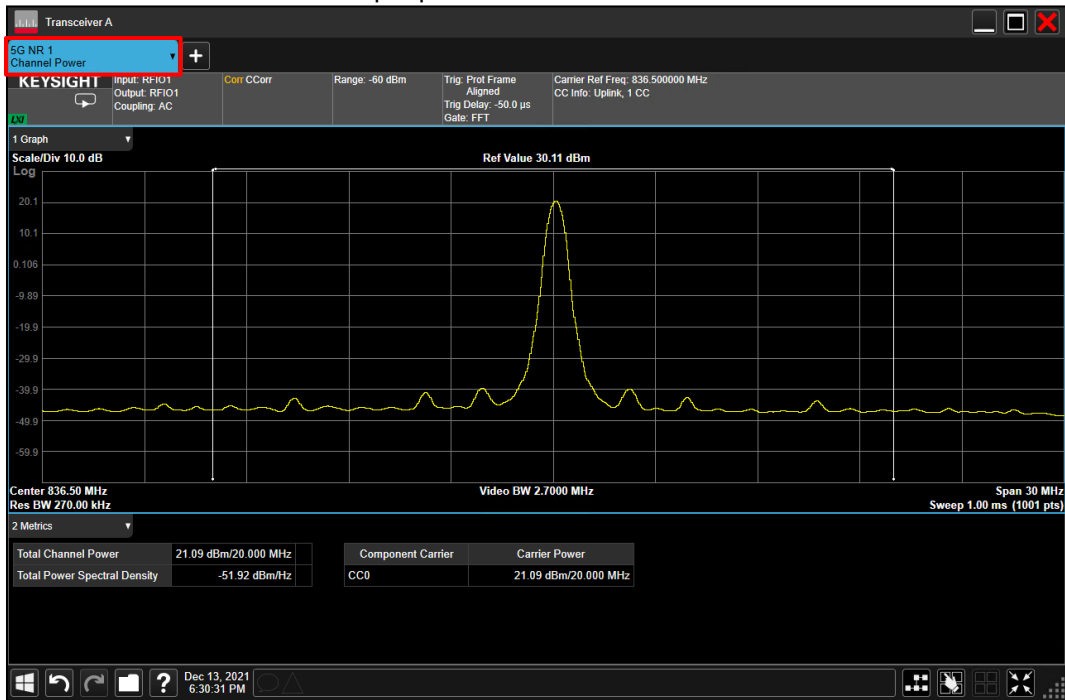
(Figure 2-8)

- 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”



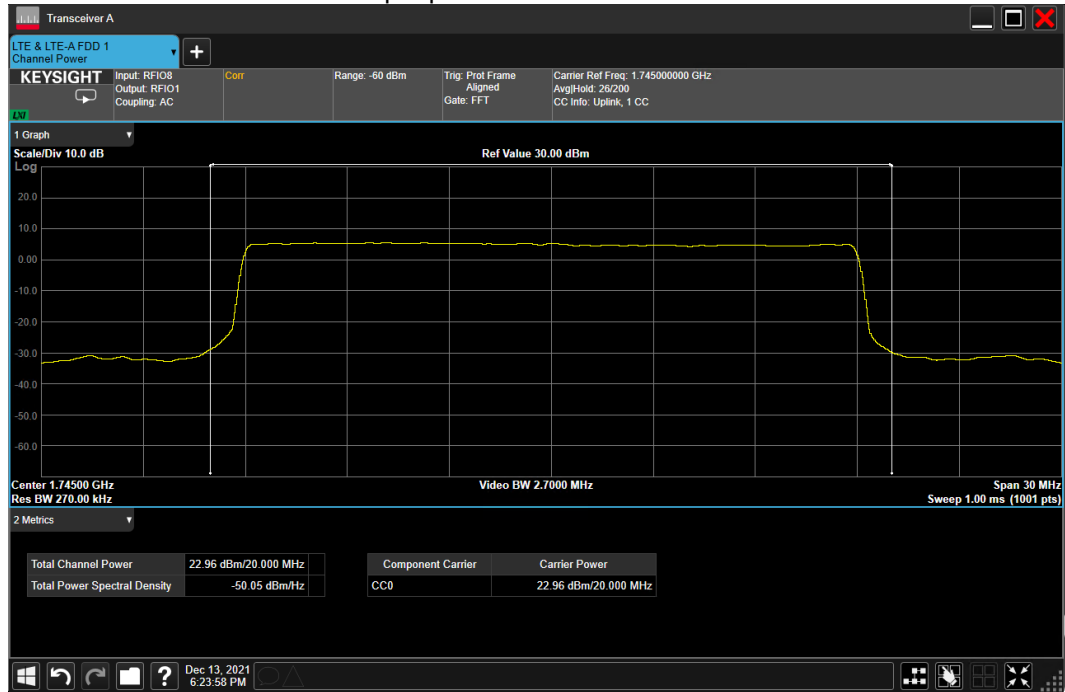
(Figure 2-9)

- Select "Channel Power" for NR output power



(Figure 2-10)

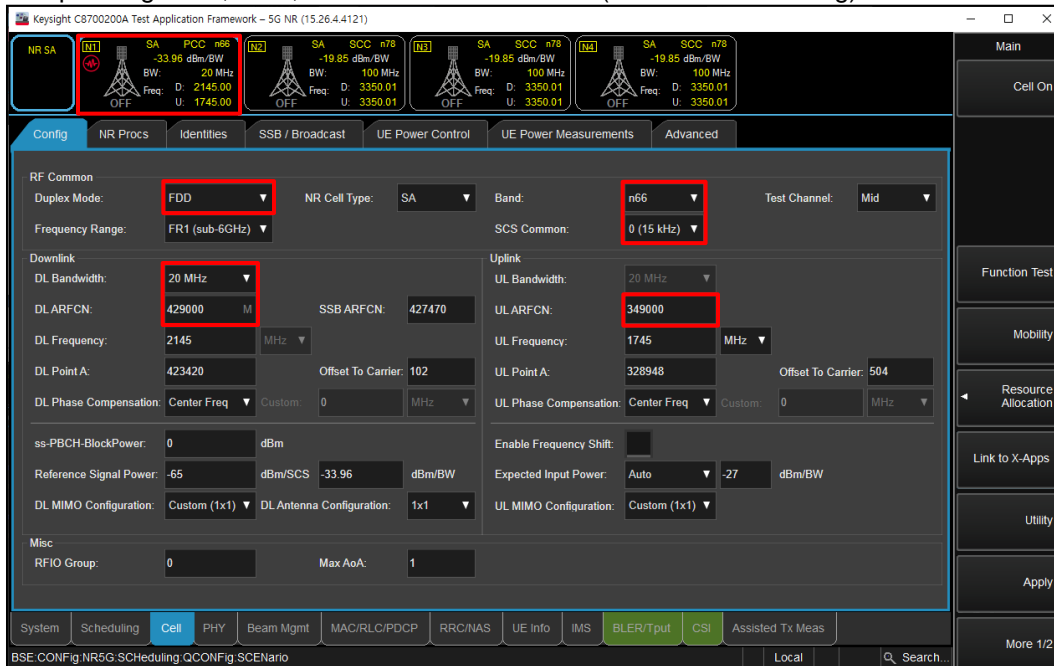
- Select "Channel Power" for LTE output power



(Figure 2-11)

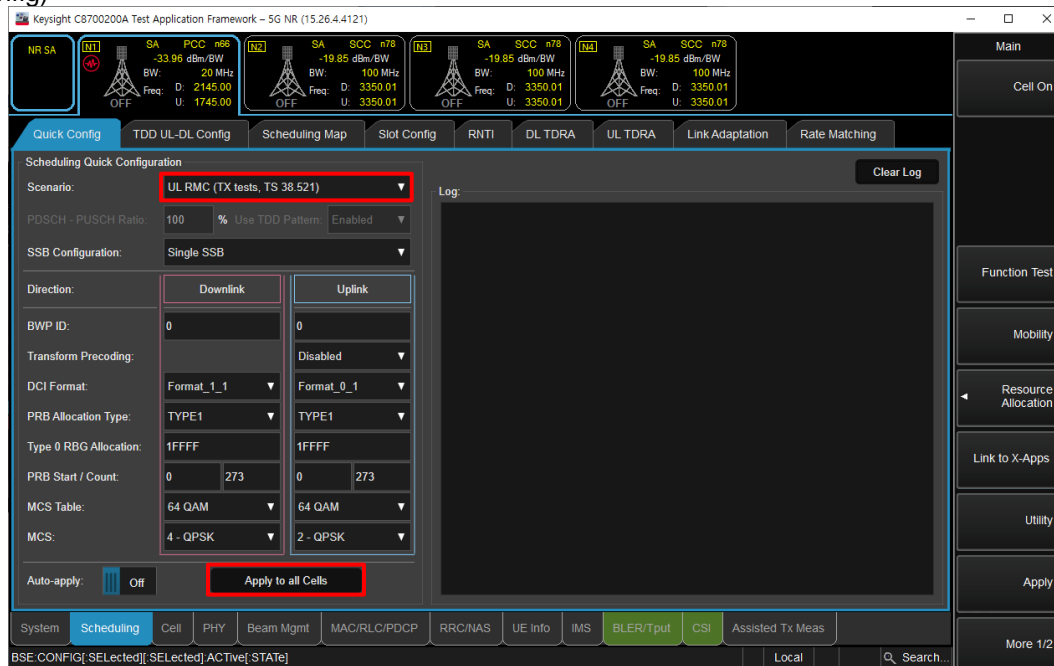
### SA Mode

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



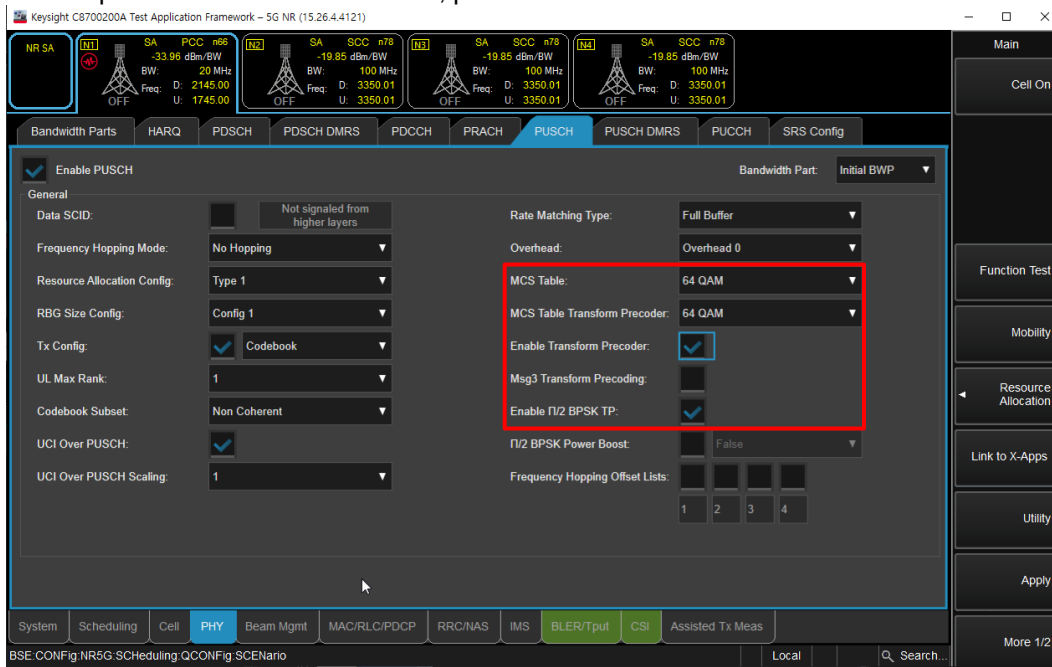
(Figure 3-1)

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



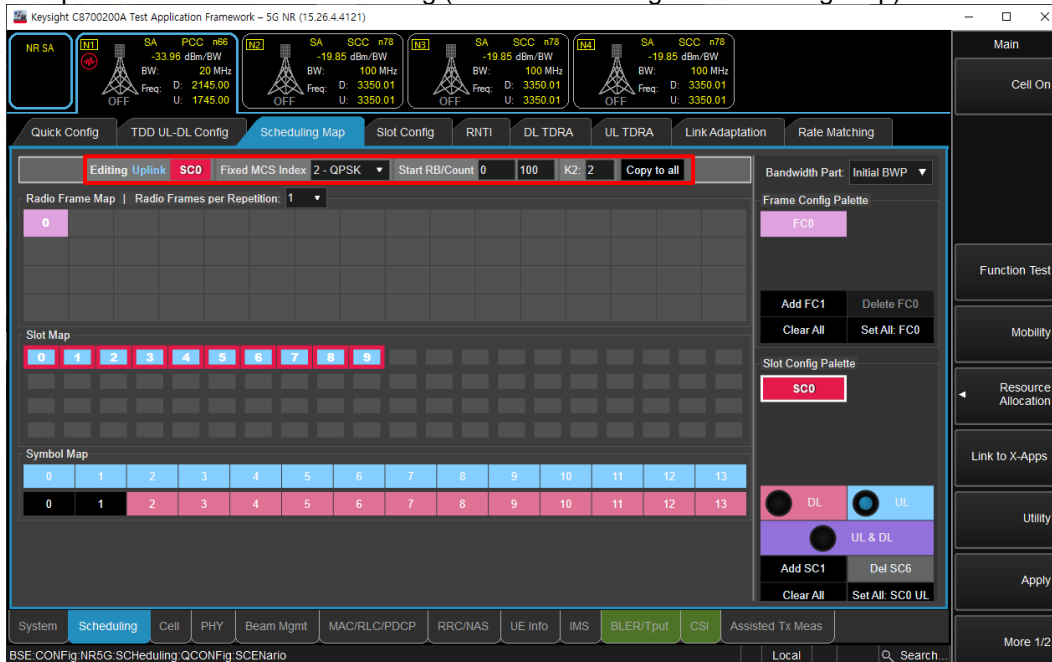
(Figure 3-2)

- 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)

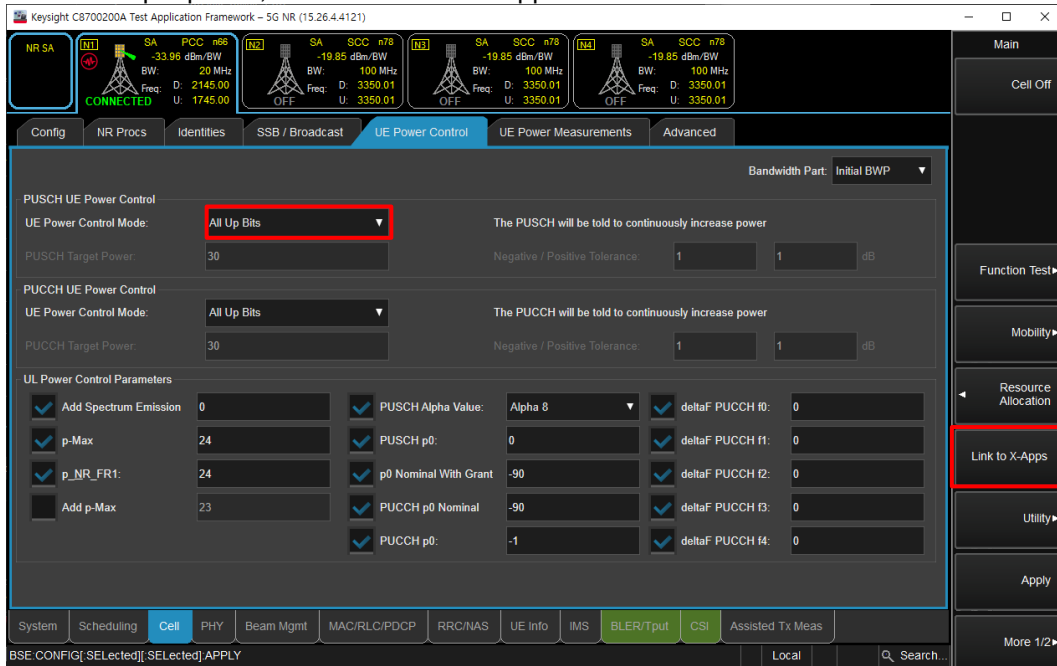
- Select Uplink Modulation and RB setting (NR -> Scheduling -> Scheduling Map)



(Figure 3-4)

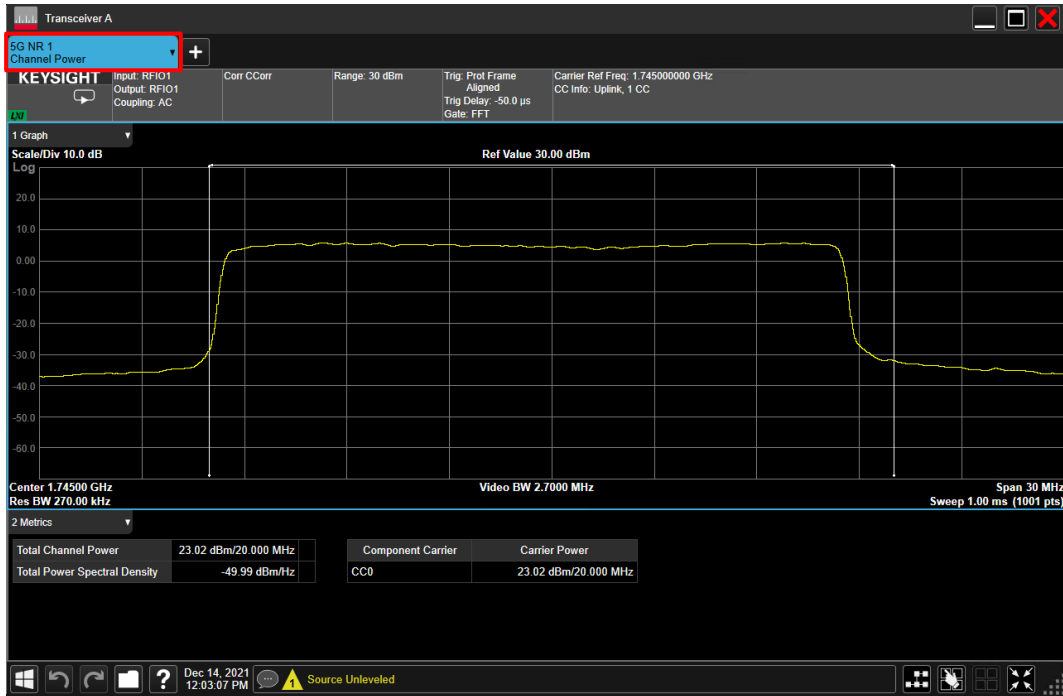


- Click “Cell On” button in the right of Test application screen
- If necessary, turn the Airplane Mode on/off in the DUT
- Select “All Up Bits” of UL Power control Mode (Cell -> UE Power Control)
- To read the output power, click the “Link to X-Apps”



(Figure 3-5)

- Select “Channel Power”



(Figure 3-6)

**NR Band n5 Ant.A Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)					
					DSI = 0, 1					
					Measured Pwr (dBm)		MPR	Tune-up Limit		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	167300	836.50 MHz			MPR	Tune-up Limit
			1	52	24.23		0.0	25.0		
			1	104	24.20		0.0	25.0		
			50	0	23.98		0.0	25.0		
			50	28	23.33		0.5	24.5		
			50	56	24.23		0.0	25.0		
		100	0	23.14	0.5		24.5			
		100	0	23.29	0.5		24.5			
		1	1	<b>24.38</b>	0.0		25.0			
		1	52	24.25	0.0		25.0			
		1	104	24.11	0.0		25.0			
		50	0	23.32	1.0		24.0			
		50	28	<b>24.26</b>	0.0		25.0			
		50	56	23.14	1.0		24.0			
		100	0	23.29	1.0		24.0			
		1	1	23.23	1.0		24.0			
		1	52	23.15	1.0		24.0			
		1	104	22.95	1.0		24.0			
	64QAM	1	1	21.98	2.5		22.5			
	256QAM	1	1	19.30	4.5		20.5			
CP-OFDM	QPSK	1	1	22.90	1.5	23.5				
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	167300	836.50 MHz	MPR	Tune-up Limit		
			1	39	23.99				0.0	25.0
			1	77	23.89				0.0	25.0
			1	77	23.80				0.0	25.0
			36	0	22.96				0.5	24.5
			36	21	23.86				0.0	25.0
		36	43	22.96	0.5				24.5	
		75	0	22.92	0.5				24.5	
		1	1	24.06	0.0				25.0	
		1	39	23.97	0.0				25.0	
		1	77	23.81	0.0				25.0	
		36	0	22.98	1.0				24.0	
		36	21	23.89	0.0				25.0	
		36	43	22.92	1.0				24.0	
		75	0	22.91	1.0				24.0	
		1	1	22.97	1.0				24.0	
		1	39	22.85	1.0				24.0	
		1	77	22.72	1.0				24.0	
	64QAM	1	1	21.62	2.5				22.5	
	256QAM	1	1	19.03	4.5				20.5	
CP-OFDM	QPSK	1	1	22.63	1.5	23.5				

**NR Band n5 Ant.A Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					165800	[REDACTED]	168800		
					829.00 MHz		844.00 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.93	[REDACTED]	23.82	0.0	25.0
			1	25	23.93	[REDACTED]	23.78	0.0	25.0
			1	50	23.96	[REDACTED]	23.76	0.0	25.0
			25	0	23.07	[REDACTED]	22.92	0.5	24.5
			25	13	23.96	[REDACTED]	23.80	0.0	25.0
			25	27	23.03	[REDACTED]	22.88	0.5	24.5
			50	0	23.07	[REDACTED]	22.92	0.5	24.5
		QPSK	1	1	24.09	[REDACTED]	23.86	0.0	25.0
			1	25	24.08	[REDACTED]	23.89	0.0	25.0
			1	50	24.02	[REDACTED]	23.88	0.0	25.0
			25	0	23.13	[REDACTED]	22.86	1.0	24.0
			25	13	23.95	[REDACTED]	23.78	0.0	25.0
			25	27	23.00	[REDACTED]	22.85	1.0	24.0
		16QAM	50	0	23.07	[REDACTED]	22.88	1.0	24.0
			1	1	22.75	[REDACTED]	22.69	1.0	24.0
			1	25	22.86	[REDACTED]	22.72	1.0	24.0
		64QAM	1	50	22.85	[REDACTED]	22.71	1.0	24.0
	1		1	21.71	[REDACTED]	21.45	2.5	22.5	
256QAM	1	1	18.92	[REDACTED]	18.73	4.5	20.5		
CP-OFDM	QPSK	1	1	22.64	[REDACTED]	22.54	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					165300	167300	169300		
					826.50 MHz	836.50 MHz	846.50 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.01	23.96	23.83	0.0	25.0
			1	12	23.95	23.81	23.70	0.0	25.0
			1	23	24.00	23.95	23.79	0.0	25.0
			12	0	23.05	22.95	22.81	0.5	24.5
			12	6	24.02	23.87	23.80	0.0	25.0
			12	13	23.02	22.89	22.82	0.5	24.5
			25	0	23.08	22.98	22.86	0.5	24.5
		QPSK	1	1	24.18	24.12	23.98	0.0	25.0
			1	12	24.08	23.95	23.86	0.0	25.0
			1	23	24.10	23.99	23.91	0.0	25.0
			12	0	23.04	22.98	22.81	1.0	24.0
			12	6	24.00	23.88	23.82	0.0	25.0
			12	13	22.97	22.90	22.83	1.0	24.0
		16QAM	25	0	23.08	23.04	22.88	1.0	24.0
			1	1	22.99	22.95	22.76	1.0	24.0
			1	12	22.87	22.84	22.64	1.0	24.0
		64QAM	1	23	22.93	22.81	22.73	1.0	24.0
	1		1	21.72	21.63	21.50	2.5	22.5	
256QAM	1	1	19.05	18.98	18.88	4.5	20.5		
CP-OFDM	QPSK	1	1	22.71	22.66	22.49	1.5	23.5	

**NR Band n5 Ant.E Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)							
					DSI = 0			DSI = 1				
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
					167300	836.50 MHz			167300	836.50 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.57	0.0	25.0	22.47	0.0	23.0		
			1	52	24.56	0.0	25.0	22.43	0.0	23.0		
			1	104	24.40	0.0	25.0	22.25	0.0	23.0		
			50	0	23.55	0.5	24.5	22.32	0.0	23.0		
			50	28	24.57	0.0	25.0	22.38	0.0	23.0		
			50	56	23.44	0.5	24.5	22.27	0.0	23.0		
		QPSK	100	0	23.67	0.5	24.5	22.46	0.0	23.0		
			1	1	24.70	0.0	25.0	22.43	0.0	23.0		
			1	52	<b>24.72</b>	0.0	25.0	<b>22.54</b>	0.0	23.0		
			1	104	24.56	0.0	25.0	22.30	0.0	23.0		
			50	0	23.61	1.0	24.0	22.36	0.0	23.0		
			50	28	<b>24.62</b>	0.0	25.0	<b>22.49</b>	0.0	23.0		
	16QAM	50	56	23.50	1.0	24.0	22.26	0.0	23.0			
		100	0	23.69	1.0	24.0	22.50	0.0	23.0			
		1	1	23.50	1.0	24.0	22.42	0.0	23.0			
		1	52	23.45	1.0	24.0	22.29	0.0	23.0			
		1	104	23.27	1.0	24.0	22.12	0.0	23.0			
		64QAM	1	1	22.26	2.5	22.5	22.12	0.0	23.0		
CP-OFDM	QPSK	1	1	19.53	4.5	20.5	19.41	2.5	20.5			
		1	1	23.14	1.5	23.5	22.44	0.0	23.0			
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.42	0.0	25.0	22.23	0.0	23.0		
			1	39	24.32	0.0	25.0	22.13	0.0	23.0		
			1	77	24.15	0.0	25.0	21.96	0.0	23.0		
			36	0	23.46	0.5	24.5	22.26	0.0	23.0		
			36	21	24.35	0.0	25.0	22.24	0.0	23.0		
			36	43	23.40	0.5	24.5	22.17	0.0	23.0		
		QPSK	75	0	23.40	0.5	24.5	22.19	0.0	23.0		
			1	1	24.46	0.0	25.0	22.34	0.0	23.0		
			1	39	24.34	0.0	25.0	22.25	0.0	23.0		
			1	77	24.35	0.0	25.0	22.10	0.0	23.0		
			36	0	23.49	1.0	24.0	22.23	0.0	23.0		
			36	21	24.38	0.0	25.0	22.23	0.0	23.0		
	16QAM	36	43	23.42	1.0	24.0	22.20	0.0	23.0			
		75	0	23.40	1.0	24.0	22.16	0.0	23.0			
		1	1	23.44	1.0	24.0	22.13	0.0	23.0			
		1	39	23.18	1.0	24.0	22.03	0.0	23.0			
		1	77	23.17	1.0	24.0	21.98	0.0	23.0			
		64QAM	1	1	22.05	2.5	22.5	22.01	0.0	23.0		
CP-OFDM	QPSK	1	1	19.46	4.5	20.5	19.38	2.5	20.5			
		1	1	23.08	1.5	23.5	22.25	0.0	23.0			

**NR Band n5 Ant.E 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
					165800	829.00 MHz	168800			165800	844.00 MHz	168800		
					829.00 MHz		844.00 MHz							
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.41		24.31	0.0	25.0	22.19		22.11	0.0	23.0
			1	25	24.57		24.31	0.0	25.0	22.24		22.03	0.0	23.0
			1	50	24.47		24.35	0.0	25.0	22.16		22.06	0.0	23.0
			25	0	24.03		23.25	0.5	24.5	22.34		22.13	0.0	23.0
			25	13	23.53		24.34	0.0	25.0	22.31		22.08	0.0	23.0
			25	27	23.48		23.29	0.5	24.5	22.30		22.15	0.0	23.0
			50	0	23.43		23.32	0.5	24.5	22.28		22.05	0.0	23.0
		QPSK	1	1	24.58		24.43	0.0	25.0	22.35		22.25	0.0	23.0
			1	25	24.51		24.40	0.0	25.0	22.41		22.14	0.0	23.0
			1	50	24.56		24.37	0.0	25.0	22.29		22.21	0.0	23.0
			25	0	23.44		23.28	1.0	24.0	22.30		22.11	0.0	23.0
			25	13	24.55		24.37	0.0	25.0	22.33		22.08	0.0	23.0
			25	27	23.49		23.33	1.0	24.0	22.27		22.04	0.0	23.0
			50	0	23.44		23.35	1.0	24.0	22.28		22.07	0.0	23.0
		16QAM	1	1	23.69		23.17	1.0	24.0	22.10		21.93	0.0	23.0
			1	25	23.36		23.18	1.0	24.0	22.20		21.95	0.0	23.0
			1	50	23.32		23.09	1.0	24.0	22.09		22.02	0.0	23.0
		64QAM	1	1	22.04		21.93	2.5	22.5	22.00		21.86	0.0	23.0
		256QAM	1	1	19.33		19.24	4.5	20.5	19.34		19.16	2.5	20.5
		CP-OFDM	QPSK	1	1	23.04		22.95	1.5	23.5	22.34		22.19	0.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					165300	826.50 MHz	167300			165300	836.50 MHz	169300		
					826.50 MHz		836.50 MHz			846.50 MHz				
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.47	24.37	24.17	0.0	25.0	22.27	22.18	22.09	0.0	23.0
			1	12	24.48	24.38	24.29	0.0	25.0	22.27	22.09	22.07	0.0	23.0
			1	23	24.43	24.29	24.27	0.0	25.0	22.21	22.03	22.11	0.0	23.0
			12	0	23.49	23.52	23.34	0.5	24.5	22.39	22.28	22.10	0.0	23.0
			12	6	24.52	24.47	24.41	0.0	25.0	22.39	22.23	22.13	0.0	23.0
			12	13	23.60	23.45	23.40	0.5	24.5	22.37	22.17	22.20	0.0	23.0
			25	0	23.58	23.39	23.38	0.5	24.5	22.36	22.14	22.12	0.0	23.0
		QPSK	1	1	24.50	24.50	24.41	0.0	25.0	22.32	22.31	22.17	0.0	23.0
			1	12	24.53	24.47	24.47	0.0	25.0	22.40	22.24	22.25	0.0	23.0
			1	23	24.53	24.43	24.43	0.0	25.0	22.34	22.16	22.17	0.0	23.0
			12	0	23.58	23.48	23.39	1.0	24.0	22.32	22.22	22.14	0.0	23.0
			12	6	23.60	24.45	24.32	0.0	25.0	22.38	22.22	22.11	0.0	23.0
			12	13	23.54	23.42	23.41	1.0	24.0	22.35	22.17	22.17	0.0	23.0
			25	0	23.49	23.47	23.30	1.0	24.0	22.25	22.20	22.20	0.0	23.0
		16QAM	1	1	23.33	23.36	23.17	1.0	24.0	22.16	22.12	22.05	0.0	23.0
			1	12	23.23	23.21	23.06	1.0	24.0	22.11	22.02	21.90	0.0	23.0
			1	23	23.40	23.25	23.20	1.0	24.0	22.20	22.05	22.10	0.0	23.0
		64QAM	1	1	22.11	22.09	21.97	2.5	22.5	22.12	22.12	22.01	0.0	23.0
		256QAM	1	1	19.45	19.48	19.29	4.5	20.5	19.45	19.45	19.30	2.5	20.5
		CP-OFDM	QPSK	1	1	23.14	23.17	23.02	1.5	23.5	22.41	22.40	22.28	0.0

**NR Band n7 Ant.B Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)							
					DSI = 1				DSI = 0			
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
					507000	2535.00 MHz			507000	2535.00 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.38	0.0	24.0	22.38	0.0	23.0		
			1	107	23.27	0.0	24.0	22.32	0.0	23.0		
			1	214	23.28	0.0	24.0	21.62	0.0	23.0		
			108	0	22.45	0.5	23.5	22.51	0.0	23.0		
			108	54	23.42	0.0	24.0	22.43	0.0	23.0		
			108	108	22.41	0.5	23.5	22.39	0.0	23.0		
		216	0	22.44	0.5	23.5	22.41	0.0	23.0			
		QPSK	1	1	23.40	0.0	24.0	22.42	0.0	23.0		
			1	107	23.44	0.0	24.0	<b>22.43</b>	0.0	23.0		
			1	214	23.41	0.0	24.0	22.40	0.0	23.0		
			108	0	22.38	1.0	23.0	22.40	0.0	23.0		
			108	54	23.45	0.0	24.0	<b>22.50</b>	0.0	23.0		
			108	108	22.44	1.0	23.0	22.41	0.0	23.0		
		216	0	22.47	1.0	23.0	22.39	0.0	23.0			
		16QAM	1	1	22.33	1.0	23.0	22.19	0.0	23.0		
			1	107	22.31	1.0	23.0	22.21	0.0	23.0		
			1	214	22.26	1.0	23.0	22.00	0.0	23.0		
		64QAM	1	1	20.99	2.5	21.5	20.98	0.0	23.0		
		256QAM	1	1	18.90	4.5	19.5	19.45	3.5	19.5		
		CP-OFDM	QPSK	1	1	22.40	1.5	22.5	21.92	0.5	22.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)							
					503500		MPR	Tune-up Limit	510500		MPR	Tune-up Limit
					2517.50 MHz	2552.50 MHz			2517.50 MHz	2552.50 MHz		
					35 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.21	23.09	0.0
1	93	23.31	23.17	0.0				24.0	22.41	22.33	0.0	23.0
1	186	23.17	22.52	0.0				24.0	22.43	22.27	0.0	23.0
90	0	22.83	22.74	0.5				23.5	22.35	22.26	0.0	23.0
90	49	23.32	23.37	0.0				24.0	22.36	22.33	0.0	23.0
90	98	22.74	22.77	0.5				23.5	22.36	22.30	0.0	23.0
180	0	22.82	22.69	0.5			23.5	22.38	22.27	0.0	23.0	
QPSK	1	1	23.17	23.10			0.0	24.0	22.39	22.24	0.0	23.0
	1	93	23.28	23.21			0.0	24.0	22.34	22.29	0.0	23.0
	1	186	23.13	22.27			0.0	24.0	22.26	21.57	0.0	23.0
	90	0	22.41	22.18			1.0	23.0	22.31	22.34	0.0	23.0
	90	49	23.26	23.29			0.0	24.0	22.42	22.42	0.0	23.0
	90	98	22.24	22.22			1.0	23.0	22.39	22.35	0.0	23.0
180	0	22.27	22.33	1.0			23.0	22.37	22.33	0.0	23.0	
16QAM	1	1	22.32	22.19			1.0	23.0	21.98	22.03	0.0	23.0
	1	93	22.34	22.21			1.0	23.0	21.93	22.07	0.0	23.0
	1	186	22.25	21.87			1.0	23.0	21.88	21.88	0.0	23.0
64QAM	1	1	20.72	20.59			2.5	21.5	20.56	20.56	0.0	23.0
256QAM	1	1	18.92	18.79			4.5	19.5	18.93	18.83	3.5	19.5
CP-OFDM	QPSK	1	1	21.54			21.84	1.5	22.5	21.53	21.87	0.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)							
					503000		MPR	Tune-up Limit	511000		MPR	Tune-up Limit
					2515.00 MHz	2555.00 MHz			2515.00 MHz	2555.00 MHz		
					30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.49	23.50	0.0
1	79	23.41	23.31	0.0				24.0	22.25	22.18	0.0	23.0
1	158	23.54	22.80	0.0				24.0	22.37	22.45	0.0	23.0
80	0	22.56	22.64	0.5				23.5	22.46	22.50	0.0	23.0
80	40	23.54	23.57	0.0				24.0	22.42	22.46	0.0	23.0
80	80	22.50	22.50	0.5				23.5	22.43	22.41	0.0	23.0
160	0	22.54	22.55	0.5			23.5	22.45	22.49	0.0	23.0	
QPSK	1	1	23.46	23.51			0.0	24.0	22.40	22.42	0.0	23.0
	1	79	23.46	23.44			0.0	24.0	22.35	22.37	0.0	23.0
	1	158	23.51	23.13			0.0	24.0	22.39	22.41	0.0	23.0
	80	0	22.49	22.50			1.0	23.0	22.37	22.47	0.0	23.0
	80	40	23.52	23.58			0.0	24.0	22.38	22.49	0.0	23.0
	80	80	22.54	22.54			1.0	23.0	22.43	22.43	0.0	23.0
160	0	22.54	22.62	1.0			23.0	22.33	22.51	0.0	23.0	
16QAM	1	1	22.39	22.37			1.0	23.0	22.26	22.25	0.0	23.0
	1	79	22.31	22.31			1.0	23.0	22.22	22.20	0.0	23.0
	1	158	22.38	22.21			1.0	23.0	22.29	22.01	0.0	23.0
64QAM	1	1	21.14	21.19			2.5	21.5	21.00	21.07	0.0	23.0
256QAM	1	1	18.45	18.51			4.5	19.5	18.37	19.41	3.5	19.5
CP-OFDM	QPSK	1	1	22.08			22.11	1.5	22.5	21.83	21.84	0.5

**NR Band n7 Ant.B 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
					502500	511500				502500	511500			
					2512.50 MHz	2557.50 MHz				2512.50 MHz	2557.50 MHz			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.44		23.44	0.0	24.0	22.34		22.37	0.0	23.0
			1	66	23.46		23.46	0.0	24.0	22.47		22.37	0.0	23.0
			1	131	23.59		22.84	0.0	24.0	22.46		21.95	0.0	23.0
			64	0	22.52		22.56	0.5	23.5	22.46		22.46	0.0	23.0
			64	34	23.51		23.48	0.0	24.0	22.42		22.39	0.0	23.0
			64	69	22.60		22.61	0.5	23.5	22.39		22.40	0.0	23.0
		128	0	22.54		22.50	0.5	23.5	22.45		22.42	0.0	23.0	
		QPSK	1	1	23.55		23.62	0.0	24.0	22.49		22.48	0.0	23.0
			1	66	23.60		23.56	0.0	24.0	22.47		22.43	0.0	23.0
			1	131	23.94		23.06	0.0	24.0	22.51		22.47	0.0	23.0
	64		0	22.58		22.62	1.0	23.0	22.47		22.49	0.0	23.0	
	16QAM	64	34	23.48		23.56	0.0	24.0	22.39		22.41	0.0	23.0	
		64	69	22.54		22.54	1.0	23.0	22.47		22.43	0.0	23.0	
		128	0	22.54		22.53	1.0	23.0	22.44		22.46	0.0	23.0	
		1	1	22.30		22.42	1.0	23.0	22.21		22.30	0.0	23.0	
		1	66	22.42		22.35	1.0	23.0	22.34		22.20	0.0	23.0	
		1	131	22.40		22.11	1.0	23.0	22.36		21.97	0.0	23.0	
	64QAM	1	1	21.07		21.16	2.5	21.5	21.04		21.09	0.0	23.0	
	256QAM	1	1	18.46		18.53	4.5	19.5	18.38		18.42	3.5	19.5	
	CP-OFDM	QPSK	1	1	22.01		20.46	1.5	22.5	21.53		21.99	0.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					502000	507000	512000			502000	507000	512000		
					2510.00 MHz	2535.00 MHz	2560.00 MHz			2510.00 MHz	2535.00 MHz	2560.00 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.31	23.27	23.34	0.0	24.0	22.25	22.20	22.22	0.0	23.0
			1	52	23.38	23.29	23.26	0.0	24.0	22.26	22.16	22.15	0.0	23.0
			1	104	23.44	23.30	22.87	0.0	24.0	22.28	22.26	22.24	0.0	23.0
			50	0	22.41	22.48	22.42	0.5	23.5	22.30	22.31	22.28	0.0	23.0
			50	28	23.39	23.41	23.41	0.0	24.0	22.27	22.32	22.22	0.0	23.0
			50	56	22.44	22.41	22.41	0.5	23.5	22.37	22.37	22.35	0.0	23.0
		100	0	22.45	22.46	22.42	0.5	23.5	22.27	22.34	22.27	0.0	23.0	
		QPSK	1	1	23.43	23.41	23.46	0.0	24.0	22.31	22.27	22.25	0.0	23.0
			1	52	23.37	23.37	23.36	0.0	24.0	22.30	22.35	22.24	0.0	23.0
			1	104	23.38	23.34	23.15	0.0	24.0	22.35	22.26	22.31	0.0	23.0
	50		0	22.45	22.48	22.51	1.0	23.0	22.34	22.36	22.32	0.0	23.0	
	16QAM	50	28	23.40	23.45	23.43	0.0	24.0	22.31	22.33	22.31	0.0	23.0	
		50	56	22.46	22.43	22.42	1.0	23.0	22.28	22.32	22.23	0.0	23.0	
		100	0	22.44	22.51	22.47	1.0	23.0	22.33	22.34	22.32	0.0	23.0	
		1	1	22.21	22.19	22.36	1.0	23.0	22.18	22.08	22.17	0.0	23.0	
		1	52	22.27	22.33	22.28	1.0	23.0	22.17	22.21	22.10	0.0	23.0	
		1	104	22.27	22.39	22.21	1.0	23.0	22.15	22.26	22.15	0.0	23.0	
	64QAM	1	1	21.02	21.01	21.09	2.5	21.5	20.95	20.88	20.92	0.0	23.0	
	256QAM	1	1	18.23	18.21	18.36	4.5	19.5	18.14	18.16	18.24	3.5	19.5	
	CP-OFDM	QPSK	1	1	21.95	21.92	22.09	1.5	22.5	21.83	21.88	21.90	0.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					501500	507000	512500			501500	507000	512500		
					2507.50 MHz	2535.00 MHz	2562.50 MHz			2507.50 MHz	2535.00 MHz	2562.50 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.35	23.28	23.33	0.0	24.0	22.18	22.24	22.30	0.0	23.0
			1	39	23.37	23.29	23.32	0.0	24.0	22.15	22.18	22.23	0.0	23.0
			1	77	23.44	23.41	22.98	0.0	24.0	22.20	22.26	21.61	0.0	23.0
			36	0	22.41	22.47	22.47	0.5	23.5	22.28	22.27	22.42	0.0	23.0
			36	21	23.44	23.40	23.43	0.0	24.0	22.32	22.27	22.29	0.0	23.0
			36	43	22.41	22.46	22.45	0.5	23.5	22.32	22.27	22.35	0.0	23.0
		75	0	22.41	22.44	22.48	0.5	23.5	22.33	22.31	22.27	0.0	23.0	
		QPSK	1	1	23.43	23.41	23.46	0.0	24.0	22.30	22.30	22.30	0.0	23.0
			1	39	23.37	23.38	23.40	0.0	24.0	22.29	22.27	22.22	0.0	23.0
			1	77	23.38	23.44	23.29	0.0	24.0	22.28	22.24	22.40	0.0	23.0
	36		0	22.49	22.49	22.46	1.0	23.0	22.39	22.32	22.34	0.0	23.0	
	16QAM	36	21	23.42	23.48	23.45	0.0	24.0	22.32	22.32	22.29	0.0	23.0	
		36	43	22.48	22.46	22.47	1.0	23.0	22.34	22.32	22.32	0.0	23.0	
		75	0	22.46	22.52	22.49	1.0	23.0	22.38	22.30	22.29	0.0	23.0	
		1	1	22.26	22.33	22.29	1.0	23.0	22.11	22.17	22.13	0.0	23.0	
		1	39	22.30	22.29	22.30	1.0	23.0	22.17	22.11	22.09	0.0	23.0	
		1	77	22.34	22.36	22.25	1.0	23.0	22.20	22.23	22.22	0.0	23.0	
	64QAM	1	1	21.01	21.13	21.12	2.5	21.5	20.92	20.99	20.94	0.0	23.0	
	256QAM	1	1	18.36	18.47	18.48	4.5	19.5	18.27	18.31	18.26	3.5	19.5	
	CP-OFDM	QPSK	1	1	22.00	22.07	22.11	1.5	22.5	21.78	21.68	21.96	0.5	22.5

**NR Band n7 Ant.B 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
					501000	507000	513000			501000	507000	513000		
					2505.00 MHz	2535.00 MHz	2565.00 MHz			2505.00 MHz	2535.00 MHz	2565.00 MHz		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.33	23.37	23.31	0.0	24.0	22.24	22.18	22.20	0.0	23.0
			1	25	23.30	23.32	23.33	0.0	24.0	22.19	22.18	22.20	0.0	23.0
			1	50	23.33	23.37	23.07	0.0	24.0	22.16	22.24	22.23	0.0	23.0
			25	0	22.33	22.45	22.43	0.5	23.5	22.31	22.28	22.40	0.0	23.0
			25	13	23.26	23.37	23.29	0.0	24.0	22.28	22.21	22.27	0.0	23.0
			25	27	22.35	22.47	22.36	0.5	23.5	22.33	22.33	22.37	0.0	23.0
		QPSK	50	0	22.33	22.48	22.47	0.5	23.5	22.28	22.28	22.27	0.0	23.0
			1	1	23.39	23.35	23.43	0.0	24.0	22.38	22.30	22.32	0.0	23.0
			1	25	23.35	23.46	23.39	0.0	24.0	22.35	22.33	22.28	0.0	23.0
			1	50	23.34	23.44	23.38	0.0	24.0	22.30	22.27	22.33	0.0	23.0
			25	0	22.42	22.37	22.45	1.0	23.0	22.38	22.33	22.36	0.0	23.0
			25	13	23.31	23.32	23.43	0.0	24.0	22.27	22.28	22.22	0.0	23.0
		16QAM	25	27	22.44	22.51	22.44	1.0	23.0	22.38	22.33	22.31	0.0	23.0
			50	0	22.42	22.34	22.48	1.0	23.0	22.36	22.31	22.29	0.0	23.0
			1	1	22.30	22.24	22.30	1.0	23.0	22.26	22.20	22.17	0.0	23.0
			1	25	22.21	22.22	22.27	1.0	23.0	22.17	22.14	22.14	0.0	23.0
64QAM	1	50	22.27	22.35	22.27	1.0	23.0	22.18	22.25	22.10	0.0	23.0		
	1	1	21.02	20.99	21.11	2.5	21.5	20.99	20.85	20.94	0.0	23.0		
256QAM	1	1	18.35	19.43	18.34	4.5	19.5	18.26	18.18	18.20	3.5	19.5		
CP-OFDM	QPSK	1	1	22.06	21.99	22.06	1.5	22.5	21.97	21.90	21.92	0.5	22.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					500500	507000	513500			500500	507000	513500		
					2502.50 MHz	2535.00 MHz	2567.50 MHz			2502.50 MHz	2535.00 MHz	2567.50 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	22.46	22.32	22.31	0.0	24.0	22.26	22.18	22.30	0.0	23.0
			1	12	22.42	22.33	22.44	0.0	24.0	22.28	22.20	22.25	0.0	23.0
			1	23	22.43	22.35	22.39	0.0	24.0	22.31	22.24	22.30	0.0	23.0
			12	0	22.45	22.31	22.31	0.5	23.5	22.29	22.21	22.30	0.0	23.0
			12	6	22.54	22.38	22.43	0.0	24.0	22.35	22.30	22.36	0.0	23.0
			12	13	22.33	22.39	22.39	0.5	23.5	22.32	22.23	22.34	0.0	23.0
		QPSK	25	0	22.41	22.44	22.47	0.5	23.5	22.35	22.35	22.35	0.0	23.0
			1	1	22.51	22.45	22.55	0.0	24.0	22.44	22.31	22.32	0.0	23.0
			1	12	22.49	22.49	22.49	0.0	24.0	22.41	22.27	22.45	0.0	23.0
			1	23	22.56	22.46	22.53	0.0	24.0	22.46	22.40	22.44	0.0	23.0
			12	0	22.42	22.33	22.39	1.0	23.0	22.29	22.17	22.19	0.0	23.0
			12	6	22.45	22.42	22.45	0.0	24.0	22.34	22.19	22.36	0.0	23.0
		16QAM	12	13	22.44	22.36	22.45	1.0	23.0	22.34	22.21	22.26	0.0	23.0
			25	0	22.52	22.43	22.49	1.0	23.0	22.39	22.28	22.33	0.0	23.0
			1	1	22.40	22.33	22.31	1.0	23.0	22.31	22.13	22.15	0.0	23.0
			1	12	22.42	22.37	22.37	1.0	23.0	22.26	22.14	22.19	0.0	23.0
64QAM	1	23	22.40	22.38	22.31	1.0	23.0	22.32	22.16	22.25	0.0	23.0		
	1	1	21.15	21.09	21.16	2.5	21.5	21.05	20.88	20.95	0.0	23.0		
256QAM	1	1	18.42	18.24	18.41	4.5	19.5	18.33	18.15	18.21	3.5	19.5		
CP-OFDM	QPSK	1	1	22.13	22.08	22.12	1.5	22.5	21.87	21.84	21.90	0.5	22.5	



**NR Band n7 Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
					DSI = 0				DSI = 1					
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					507000	2535.00 MHz				507000	2535.00 MHz			
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.95		0.0	20.5	17.07		0.0	18.5		
			1	107	19.97		0.0	20.5	17.08		0.0	18.5		
			1	214	20.09		0.0	20.5	17.01		0.0	18.5		
			108	0	20.13		0.0	20.5	17.29		0.0	18.5		
			108	54	20.10		0.0	20.5	17.21		0.0	18.5		
			108	108	20.14		0.0	20.5	17.23		0.0	18.5		
			216	0	20.12		0.0	20.5	17.26		0.0	18.5		
			1	1	20.07		0.0	20.5	17.25		0.0	18.5		
		QPSK	1	107	20.07		0.0	20.5	17.14		0.0	18.5		
			1	214	<b>20.21</b>		0.0	20.5	<b>17.26</b>		0.0	18.5		
			108	0	19.81		0.0	20.5	17.25		0.0	18.5		
			108	54	<b>20.19</b>		0.0	20.5	<b>17.31</b>		0.0	18.5		
			108	108	20.15		0.0	20.5	17.27		0.0	18.5		
			216	0	20.13		0.0	20.5	17.30		0.0	18.5		
			16QAM	1	1	19.96		0.0	20.5	17.09		0.0	18.5	
			1	107	19.92		0.0	20.5	17.08		0.0	18.5		
64QAM	1	214	19.94		0.0	20.5	17.03		0.0	18.5				
	1	1	20.16		0.0	20.5	17.21		0.0	18.5				
256QAM	1	1	18.32		1.5	19.0	16.72		0.5	18.0				
	1	1	20.22		0.0	20.5	17.35		0.0	18.5				
35 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.03		0.0	20.5	17.24		0.0	18.5		
			1	93	20.22		0.0	20.5	17.42		0.0	18.5		
			1	186	20.10		0.0	20.5	17.29		0.0	18.5		
			90	0	20.18		0.0	20.5	17.33		0.0	18.5		
			90	49	20.13		0.0	20.5	17.31		0.0	18.5		
			90	98	20.21		0.0	20.5	17.36		0.0	18.5		
			180	0	20.18		0.0	20.5	17.38		0.0	18.5		
			1	1	20.07		0.0	20.5	17.38		0.0	18.5		
		QPSK	1	93	20.26		0.0	20.5	17.30		0.0	18.5		
			1	186	20.09		0.0	20.5	17.31		0.0	18.5		
			90	0	20.18		0.0	20.5	17.33		0.0	18.5		
			90	49	20.13		0.0	20.5	17.33		0.0	18.5		
			90	98	20.16		0.0	20.5	17.37		0.0	18.5		
			180	0	20.16		0.0	20.5	17.33		0.0	18.5		
			16QAM	1	1	19.92		0.0	20.5	17.06		0.0	18.5	
			1	93	19.98		0.0	20.5	17.23		0.0	18.5		
64QAM	1	186	19.94		0.0	20.5	17.11		0.0	18.5				
	1	1	20.10		0.0	20.5	17.21		0.0	18.5				
256QAM	1	1	18.23		1.5	19.0	16.66		0.5	18.0				
	1	1	20.22		0.0	20.5	17.40		0.0	18.5				
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.92		0.0	20.5	17.18		0.0	18.5		
			1	79	20.09		0.0	20.5	17.09		0.0	18.5		
			1	158	20.26		0.0	20.5	17.29		0.0	18.5		
			80	0	19.92		0.0	20.5	17.16		0.0	18.5		
			80	40	20.01		0.0	20.5	17.27		0.0	18.5		
			80	80	20.00		0.0	20.5	17.23		0.0	18.5		
			160	0	20.02		0.0	20.5	17.23		0.0	18.5		
			1	1	19.94		0.0	20.5	17.27		0.0	18.5		
		QPSK	1	79	20.06		0.0	20.5	17.21		0.0	18.5		
			1	158	20.12		0.0	20.5	17.38		0.0	18.5		
			80	0	19.94		0.0	20.5	17.20		0.0	18.5		
			80	40	20.02		0.0	20.5	17.17		0.0	18.5		
			80	80	19.99		0.0	20.5	17.26		0.0	18.5		
			160	0	19.93		0.0	20.5	17.14		0.0	18.5		
			16QAM	1	1	19.71		0.0	20.5	16.99		0.0	18.5	
			1	79	19.75		0.0	20.5	16.89		0.0	18.5		
64QAM	1	158	19.95		0.0	20.5	17.07		0.0	18.5				
	1	1	19.90		0.0	20.5	17.19		0.0	18.5				
256QAM	1	1	18.03		1.5	19.0	16.54		0.5	18.0				
	1	1	20.06		0.0	20.5	17.28		0.0	18.5				

**NR Band n7 Ant.F 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
					502500	511500				502500	511500			
					2512.50 MHz	2557.50 MHz				2512.50 MHz	2557.50 MHz			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.92		20.13	0.0	20.5	17.10		17.19	0.0	18.5
			1	66	20.02		20.17	0.0	20.5	17.12		17.19	0.0	18.5
			1	131	20.10		20.13	0.0	20.5	17.16		16.99	0.0	18.5
			64	0	20.00		20.14	0.0	20.5	17.15		17.27	0.0	18.5
			64	34	20.10		20.09	0.0	20.5	17.24		17.20	0.0	18.5
			64	69	20.11		20.04	0.0	20.5	17.26		17.16	0.0	18.5
		QPSK	128	0	19.93		20.00	0.0	20.5	17.24		17.18	0.0	18.5
			1	1	19.83		20.15	0.0	20.5	17.23		17.16	0.0	18.5
			1	66	20.03		20.05	0.0	20.5	17.25		17.00	0.0	18.5
			1	131	20.06		20.10	0.0	20.5	17.17		17.02	0.0	18.5
			64	0	19.95		20.02	0.0	20.5	17.19		17.22	0.0	18.5
			64	34	19.97		20.03	0.0	20.5	17.17		17.11	0.0	18.5
		16QAM	64	69	20.05		20.03	0.0	20.5	17.32		17.21	0.0	18.5
			128	0	19.95		20.07	0.0	20.5	17.21		17.19	0.0	18.5
			1	1	19.76		19.96	0.0	20.5	17.16		17.08	0.0	18.5
			1	66	19.76		19.81	0.0	20.5	16.97		17.00	0.0	18.5
			1	131	19.95		19.88	0.0	20.5	17.20		17.03	0.0	18.5
			64QAM	1	1	19.91		20.20	0.0	20.5	17.29		17.31	0.0
256QAM	1	1	18.08		18.27	1.5	19.0	16.59		16.73	0.5	18.0		
CP-OFDM	QPSK	1	1	19.93		20.12	0.0	20.5	17.20		17.40	0.0	18.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					502000	507000	512000			502000	507000	512000		
					2510.00 MHz	2535.00 MHz	2560.00 MHz			2510.00 MHz	2535.00 MHz	2560.00 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.81	19.90	20.04	0.0	20.5	17.09	17.00	17.21	0.0	18.5
			1	52	19.87	19.96	19.95	0.0	20.5	16.88	16.87	17.20	0.0	18.5
			1	104	19.98	19.91	19.98	0.0	20.5	16.87	16.89	16.81	0.0	18.5
			50	0	19.85	19.95	20.06	0.0	20.5	17.16	17.08	17.05	0.0	18.5
			50	28	20.10	20.06	20.13	0.0	20.5	17.13	17.10	17.03	0.0	18.5
			50	56	19.91	19.97	20.05	0.0	20.5	17.12	17.10	17.10	0.0	18.5
		QPSK	100	0	19.87	19.98	20.03	0.0	20.5	17.14	17.10	17.11	0.0	18.5
			1	1	19.82	19.91	19.93	0.0	20.5	17.04	17.11	16.98	0.0	18.5
			1	52	19.85	19.94	19.83	0.0	20.5	17.12	16.99	16.85	0.0	18.5
			1	104	19.96	19.80	19.92	0.0	20.5	17.09	17.00	16.93	0.0	18.5
			50	0	19.88	20.00	20.00	0.0	20.5	17.10	17.13	17.12	0.0	18.5
			50	28	19.88	20.01	20.00	0.0	20.5	17.19	17.08	16.95	0.0	18.5
		16QAM	50	56	19.92	19.99	20.02	0.0	20.5	17.14	17.10	17.01	0.0	18.5
			100	0	19.82	19.95	20.01	0.0	20.5	17.22	17.11	17.12	0.0	18.5
			1	1	19.73	19.80	20.09	0.0	20.5	17.06	17.00	16.85	0.0	18.5
			1	52	19.64	19.80	20.06	0.0	20.5	16.90	16.92	16.85	0.0	18.5
			1	104	19.81	19.73	20.03	0.0	20.5	16.99	16.84	16.83	0.0	18.5
			64QAM	1	1	19.88	19.97	19.56	0.0	20.5	17.17	17.15	17.10	0.0
256QAM	1	1	17.88	18.06	18.11	1.5	19.0	16.53	16.49	16.41	0.5	18.0		
CP-OFDM	QPSK	1	1	20.06	19.91	20.12	0.0	20.5	17.25	17.21	17.14	0.0	18.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					501500	507000	512500			501500	507000	512500		
					2507.50 MHz	2535.00 MHz	2562.50 MHz			2507.50 MHz	2535.00 MHz	2562.50 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.83	19.96	19.98	0.0	20.5	17.08	16.86	16.95	0.0	18.5
			1	39	19.90	19.93	19.97	0.0	20.5	16.92	16.84	16.86	0.0	18.5
			1	77	19.87	19.96	19.99	0.0	20.5	16.97	16.86	16.90	0.0	18.5
			36	0	19.83	19.96	19.99	0.0	20.5	17.14	17.09	17.09	0.0	18.5
			36	21	19.94	20.01	20.08	0.0	20.5	17.12	17.00	17.02	0.0	18.5
			36	43	19.91	20.00	19.98	0.0	20.5	17.10	17.06	17.14	0.0	18.5
		QPSK	75	0	19.87	20.00	19.99	0.0	20.5	17.15	17.07	17.10	0.0	18.5
			1	1	19.80	19.97	19.94	0.0	20.5	17.12	17.02	17.02	0.0	18.5
			1	39	19.79	19.87	19.81	0.0	20.5	17.08	16.84	16.97	0.0	18.5
			1	77	19.90	19.85	19.95	0.0	20.5	17.18	16.96	17.02	0.0	18.5
			36	0	19.78	19.95	20.00	0.0	20.5	17.13	17.12	17.15	0.0	18.5
			36	21	19.80	19.94	19.99	0.0	20.5	17.14	17.08	17.01	0.0	18.5
		16QAM	36	43	19.94	19.98	20.02	0.0	20.5	17.10	17.08	17.14	0.0	18.5
			75	0	19.86	19.96	20.03	0.0	20.5	17.13	17.13	17.11	0.0	18.5
			1	1	19.73	19.91	19.85	0.0	20.5	17.10	16.98	17.00	0.0	18.5
			1	39	19.63	19.73	19.75	0.0	20.5	16.91	16.86	16.85	0.0	18.5
			1	77	19.77	19.77	19.87	0.0	20.5	17.03	16.89	16.96	0.0	18.5
			64QAM	1	1	19.90	20.06	20.06	0.0	20.5	17.21	17.14	17.20	0.0
256QAM	1	1	18.02	18.16	18.14	1.5	19.0	16.51	16.56	16.56	0.5	18.0		
CP-OFDM	QPSK	1	1	19.93	20.12	20.12	0.0	20.5	17.14	17.19	17.20	0.0	18.5	

**NR Band n7 Ant.F 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
					501000	507000	513000			501000	507000	513000		
					2505.00 MHz	2535.00 MHz	2565.00 MHz			2505.00 MHz	2535.00 MHz	2565.00 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.81	19.99	19.92	0.0	20.5	17.10	16.93	17.48	0.0	18.5
			1	25	19.87	19.99	19.93	0.0	20.5	16.94	16.96	17.40	0.0	18.5
			1	50	19.88	19.97	19.90	0.0	20.5	16.88	16.90	17.36	0.0	18.5
			25	0	19.78	19.97	19.89	0.0	20.5	17.10	17.13	17.49	0.0	18.5
			25	13	19.88	19.96	19.91	0.0	20.5	17.02	16.97	17.42	0.0	18.5
			25	27	19.91	20.01	19.92	0.0	20.5	17.12	17.11	17.49	0.0	18.5
		QPSK	50	0	19.82	20.00	19.92	0.0	20.5	17.08	17.07	17.45	0.0	18.5
			1	1	19.80	19.92	19.96	0.0	20.5	17.14	17.10	17.49	0.0	18.5
			1	25	19.78	19.97	19.92	0.0	20.5	17.01	16.98	17.40	0.0	18.5
			1	50	19.88	19.97	19.81	0.0	20.5	17.06	16.97	17.44	0.0	18.5
			25	0	19.79	20.00	19.95	0.0	20.5	17.16	17.14	17.53	0.0	18.5
			25	13	19.77	19.91	19.85	0.0	20.5	17.09	17.01	17.41	0.0	18.5
		16QAM	25	27	19.86	20.02	19.87	0.0	20.5	17.17	17.12	17.48	0.0	18.5
			50	0	19.82	20.01	19.88	0.0	20.5	17.18	17.11	17.51	0.0	18.5
			1	1	19.74	19.81	19.75	0.0	20.5	17.14	17.01	17.33	0.0	18.5
64QAM	1	25	19.61	19.78	19.71	0.0	20.5	16.95	16.93	17.29	0.0	18.5		
	1	50	19.77	19.84	19.74	0.0	20.5	16.90	16.85	17.31	0.0	18.5		
	1	1	19.86	20.01	20.04	0.0	20.5	17.21	17.20	17.59	0.0	18.5		
256QAM	1	1	17.81	18.01	18.01	1.5	19.0	16.56	16.52	16.93	0.5	18.0		
CP-OFDM	QPSK	1	1	19.89	20.03	20.03	0.0	20.5	17.24	17.27	17.62	0.0	18.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					500500	507000	513500			500500	507000	513500		
					2502.50 MHz	2535.00 MHz	2567.50 MHz			2502.50 MHz	2535.00 MHz	2567.50 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.86	19.98	20.02	0.0	20.5	17.48	17.06	16.90	0.0	18.5
			1	12	19.88	20.02	20.03	0.0	20.5	17.50	17.03	16.91	0.0	18.5
			1	23	19.90	20.05	20.05	0.0	20.5	17.53	17.00	16.94	0.0	18.5
			12	0	19.79	19.89	19.96	0.0	20.5	17.52	17.03	16.98	0.0	18.5
			12	6	19.93	20.04	20.03	0.0	20.5	17.55	17.03	17.02	0.0	18.5
			12	13	19.81	19.93	19.93	0.0	20.5	17.55	17.07	17.01	0.0	18.5
		QPSK	25	0	19.87	20.03	20.01	0.0	20.5	17.60	17.16	17.06	0.0	18.5
			1	1	19.89	20.03	20.02	0.0	20.5	17.59	17.18	17.01	0.0	18.5
			1	12	19.88	20.02	19.99	0.0	20.5	17.64	17.05	16.95	0.0	18.5
			1	23	19.87	19.98	20.05	0.0	20.5	17.60	17.08	16.98	0.0	18.5
			12	0	19.77	19.90	19.88	0.0	20.5	17.51	17.03	16.99	0.0	18.5
			12	6	19.83	19.95	19.97	0.0	20.5	17.55	17.05	16.95	0.0	18.5
		16QAM	12	13	19.79	19.93	19.94	0.0	20.5	17.57	17.09	17.04	0.0	18.5
			25	0	19.93	19.99	20.02	0.0	20.5	17.62	17.16	17.10	0.0	18.5
			1	1	19.80	19.85	19.86	0.0	20.5	17.51	17.03	16.96	0.0	18.5
64QAM	1	12	19.75	19.86	19.85	0.0	20.5	17.46	17.02	16.96	0.0	18.5		
	1	23	19.72	19.90	19.91	0.0	20.5	17.43	16.95	17.00	0.0	18.5		
	1	1	19.96	19.98	20.10	0.0	20.5	17.64	17.22	17.17	0.0	18.5		
256QAM	1	1	17.97	18.02	18.15	1.5	19.0	16.97	16.51	16.48	0.5	18.0		
CP-OFDM	QPSK	1	1	20.02	20.00	20.17	0.0	20.5	17.71	17.29	17.23	0.0	18.5	

**NR Band n12 Ant.A Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
					DSI = 0, 1			
					Measured Pwr (dBm)		MPR	Tune-up Limit
141500	707.50 MHz							
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.19	0.0	25.2	
			1	39	24.17	0.0	25.2	
			1	77	24.16	0.0	25.2	
			36	0	23.68	0.5	24.7	
			36	21	24.29	0.0	25.2	
			36	43	23.73	0.5	24.7	
		75	0	23.73	0.5	24.7		
		1	1	24.20	0.0	25.2		
		1	39	24.11	0.0	25.2		
		1	77	24.11	0.0	25.2		
		36	0	23.18	1.0	24.2		
		36	21	24.21	0.0	25.2		
		36	43	23.24	1.0	24.2		
		75	0	23.24	1.0	24.2		
		16QAM	1	1	22.95	1.0	24.2	
1	39	22.95	1.0	24.2				
1	77	22.98	1.0	24.2				
64QAM	1	1	21.76	2.5	22.7			
256QAM	1	1	19.08	4.5	20.7			
CP-OFDM	QPSK	1	1	22.72	1.5	23.7		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.32	0.0	25.2	
			1	25	24.25	0.0	25.2	
			1	50	24.10	0.0	25.2	
			25	0	23.82	0.5	24.7	
			25	13	24.26	0.0	25.2	
			25	27	23.69	0.5	24.7	
		50	0	23.73	0.5	24.7		
		1	1	24.33	0.0	25.2		
		1	25	24.26	0.0	25.2		
		1	50	24.11	0.0	25.2		
		25	0	23.26	1.0	24.2		
		25	13	24.11	0.0	25.2		
		25	27	23.17	1.0	24.2		
		50	0	23.19	1.0	24.2		
		16QAM	1	1	22.95	1.0	24.2	
1	25	23.07	1.0	24.2				
1	50	22.99	1.0	24.2				
64QAM	1	1	21.78	2.5	22.7			
256QAM	1	1	19.03	4.5	20.7			
CP-OFDM	QPSK	1	1	22.73	1.5	23.7		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.02	24.08	0.0	25.2
			1	12	23.87	24.15	0.0	25.2
			1	23	23.86	24.17	0.0	25.2
			12	0	23.44	23.55	0.5	24.7
			12	6	23.89	24.04	0.0	25.2
			12	13	23.51	23.44	0.5	24.7
		25	0	23.66	23.59	0.5	24.7	
		1	1	24.19	24.14	0.0	25.2	
		1	12	24.06	24.11	0.0	25.2	
		1	23	23.99	24.19	0.0	25.2	
		12	0	22.96	23.02	1.0	24.2	
		12	6	23.92	23.99	0.0	25.2	
		12	13	22.98	22.98	1.0	24.2	
		25	0	23.11	23.07	1.0	24.2	
		16QAM	1	1	22.96	22.98	1.0	24.2
1	12	22.95	22.89	1.0	24.2			
1	23	22.93	22.83	1.0	24.2			
64QAM	1	1	21.75	21.66	2.5	22.7		
256QAM	1	1	19.21	19.03	4.5	20.7		
CP-OFDM	QPSK	1	1	22.32	22.67	1.5	23.7	

**NR Band n12 Ant.E Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
					DSI = 0				DSI = 1					
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					141500	707.50 MHz				141500	707.50 MHz			
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.20	0.0	25.2	22.08	0.0	22.5				
			1	39	24.12	0.0	25.2	21.98	0.0	22.5				
			1	77	24.14	0.0	25.2	21.94	0.0	22.5				
			36	0	23.42	0.5	24.7	21.98	0.0	22.5				
			36	21	24.28	0.0	25.2	22.13	0.0	22.5				
			36	43	23.35	0.5	24.7	22.06	0.0	22.5				
		QPSK	75	0	23.30	0.5	24.7	22.18	0.0	22.5				
			1	1	<b>24.42</b>	0.0	25.2	<b>22.24</b>	0.0	22.5				
			1	39	24.26	0.0	25.2	22.10	0.0	22.5				
			1	77	24.20	0.0	25.2	22.03	0.0	22.5				
			36	0	23.36	1.0	24.2	22.18	0.0	22.5				
			36	21	<b>23.97</b>	0.0	25.2	<b>22.22</b>	0.0	22.5				
	16QAM	36	43	23.95	1.0	24.2	22.05	0.0	22.5					
		75	0	23.96	1.0	24.2	22.17	0.0	22.5					
		1	1	23.97	1.0	24.2	22.04	0.0	22.5					
		1	39	23.12	1.0	24.2	21.93	0.0	22.5					
CP-OFDM	QPSK	1	77	23.14	1.0	24.2	21.91	0.0	22.5					
		64QAM	1	1	21.93	2.5	22.7	22.03	0.0	22.5				
		256QAM	1	1	19.23	4.5	20.7	19.32	2.0	20.5				
		1	1	22.95	1.5	23.7	22.29	0.0	22.5					
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.55	0.0	25.2	22.24	0.0	22.5				
			1	25	24.55	0.0	25.2	22.15	0.0	22.5				
			1	50	24.47	0.0	25.2	22.04	0.0	22.5				
			25	0	23.88	0.5	24.7	22.16	0.0	22.5				
			25	13	24.50	0.0	25.2	22.22	0.0	22.5				
			25	27	23.87	0.5	24.7	22.09	0.0	22.5				
		QPSK	50	0	23.81	0.5	24.7	22.10	0.0	22.5				
			1	1	24.54	0.0	25.2	22.24	0.0	22.5				
			1	25	24.46	0.0	25.2	22.21	0.0	22.5				
			1	50	24.46	0.0	25.2	22.09	0.0	22.5				
			25	0	23.38	1.0	24.2	22.17	0.0	22.5				
			25	13	24.39	0.0	25.2	22.22	0.0	22.5				
	16QAM	25	27	23.36	1.0	24.2	22.07	0.0	22.5					
		50	0	23.32	1.0	24.2	22.20	0.0	22.5					
		1	1	23.39	1.0	24.2	22.14	0.0	22.5					
		1	25	23.11	1.0	24.2	21.95	0.0	22.5					
CP-OFDM	QPSK	1	50	23.05	1.0	24.2	21.78	0.0	22.5					
		64QAM	1	1	21.99	2.5	22.7	21.95	0.0	22.5				
		256QAM	1	1	19.32	4.5	20.7	19.14	2.0	20.5				
		1	1	22.96	1.5	23.7	22.32	0.0	22.5					
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.51	0.0	25.2	22.02	0.0	22.5				
			1	12	24.61	0.0	25.2	22.13	0.0	22.5				
			1	23	24.48	0.0	25.2	22.09	0.0	22.5				
			12	0	23.81	0.5	24.7	22.21	0.0	22.5				
			12	6	23.92	0.0	25.2	22.21	0.0	22.5				
			12	13	23.95	0.5	24.7	22.22	0.0	22.5				
		QPSK	25	0	23.99	0.5	24.7	22.12	0.0	22.5				
			1	1	24.41	0.0	25.2	22.15	0.0	22.5				
			1	12	24.57	0.0	25.2	22.24	0.0	22.5				
			1	23	24.43	0.0	25.2	22.13	0.0	22.5				
			12	0	23.22	1.0	24.2	22.18	0.0	22.5				
			12	6	24.17	0.0	25.2	22.16	0.0	22.5				
	16QAM	12	13	23.14	1.0	24.2	22.21	0.0	22.5					
		25	0	23.31	1.0	24.2	22.12	0.0	22.5					
		1	1	23.25	1.0	24.2	21.95	0.0	22.5					
		1	12	23.32	1.0	24.2	22.01	0.0	22.5					
CP-OFDM	QPSK	1	23	23.11	1.0	24.2	22.14	0.0	22.5					
		64QAM	1	1	21.99	2.5	22.7	22.01	0.0	22.5				
		256QAM	1	1	19.34	4.5	20.7	19.27	2.0	20.5				
		1	1	23.04	1.5	23.7	22.31	0.0	22.5					

**NR Band n25 Ant.A Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Reduced Average Power (dBm) Hotspot back-off					
					DSI = 1				DSI = 0					
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					376500	1882.50 MHz				376500	1882.50 MHz			
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.72		0.0	24.5	19.16		0.0	20.0		
			1	107	23.69		0.0	24.5	19.21		0.0	20.0		
			1	214	23.54		0.0	24.5	19.02		0.0	20.0		
			108	0	22.78		0.5	24.0	19.21		0.0	20.0		
			108	54	23.67		0.0	24.5	19.27		0.0	20.0		
			108	108	22.64		0.5	24.0	19.18		0.0	20.0		
		216	0	22.64		0.5	24.0	19.26		0.0	20.0			
		QPSK	1	1	23.68		0.0	24.5	19.28		0.0	20.0		
			1	107	23.73		0.0	24.5	19.29		0.0	20.0		
			1	214	23.72		0.0	24.5	19.26		0.0	20.0		
			108	0	22.72		1.0	23.5	19.22		0.0	20.0		
			108	54	23.73		0.0	24.5	19.23		0.0	20.0		
			108	108	22.71		1.0	23.5	19.17		0.0	20.0		
		216	0	22.70		1.0	23.5	19.16		0.0	20.0			
		16QAM	1	1	22.67		1.0	23.5	19.23		0.0	20.0		
			1	107	22.68		1.0	23.5	19.06		0.0	20.0		
			1	214	22.60		1.0	23.5	19.00		0.0	20.0		
		64QAM	1	1	21.33		2.5	22.0	19.38		0.0	20.0		
256QAM	1	1	18.55		4.5	20.0	18.64		0.0	20.0				
CP-OFDM	QPSK	1	1	22.22		1.5	23.0	19.32		0.0	20.0			
35 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.60		0.0	24.5	18.99		0.0	20.0		
			1	93	23.78		0.0	24.5	18.99		0.0	20.0		
			1	186	23.59		0.0	24.5	19.01		0.0	20.0		
			90	0	23.16		0.5	24.0	19.03		0.0	20.0		
			90	49	23.72		0.0	24.5	18.98		0.0	20.0		
			90	98	23.11		0.5	24.0	19.02		0.0	20.0		
		180	0	23.09		0.5	24.0	19.04		0.0	20.0			
		QPSK	1	1	23.54		0.0	24.5	18.91		0.0	20.0		
			1	93	23.59		0.0	24.5	18.99		0.0	20.0		
			1	186	23.58		0.0	24.5	18.84		0.0	20.0		
			90	0	22.58		1.0	23.5	19.04		0.0	20.0		
			90	49	23.67		0.0	24.5	18.84		0.0	20.0		
			90	98	22.62		1.0	23.5	18.82		0.0	20.0		
		180	0	22.59		1.0	23.5	18.98		0.0	20.0			
		16QAM	1	1	22.69		1.0	23.5	18.85		0.0	20.0		
			1	93	22.62		1.0	23.5	18.79		0.0	20.0		
			1	186	22.69		1.0	23.5	18.86		0.0	20.0		
		64QAM	1	1	21.07		2.5	22.0	18.74		0.0	20.0		
256QAM	1	1	18.94		4.5	20.0	18.81		0.0	20.0				
CP-OFDM	QPSK	1	1	22.14		1.5	23.0	19.02		0.0	20.0			
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.73		0.0	24.5	19.32		0.0	20.0		
			1	79	23.64		0.0	24.5	19.23		0.0	20.0		
			1	158	23.63		0.0	24.5	19.17		0.0	20.0		
			80	0	22.87		0.5	24.0	19.39		0.0	20.0		
			80	40	23.76		0.0	24.5	19.36		0.0	20.0		
			80	80	22.75		0.5	24.0	19.36		0.0	20.0		
		160	0	22.77		0.5	24.0	19.31		0.0	20.0			
		QPSK	1	1	23.82		0.0	24.5	19.50		0.0	20.0		
			1	79	23.81		0.0	24.5	19.36		0.0	20.0		
			1	158	23.77		0.0	24.5	19.38		0.0	20.0		
			80	0	22.79		1.0	23.5	19.42		0.0	20.0		
			80	40	23.79		0.0	24.5	19.40		0.0	20.0		
			80	80	22.78		1.0	23.5	19.31		0.0	20.0		
		160	0	22.76		1.0	23.5	19.38		0.0	20.0			
		16QAM	1	1	22.74		1.0	23.5	19.27		0.0	20.0		
			1	79	22.61		1.0	23.5	19.29		0.0	20.0		
			1	158	22.72		1.0	23.5	19.20		0.0	20.0		
		64QAM	1	1	21.48		2.5	22.0	19.53		0.0	20.0		
256QAM	1	1	18.79		4.5	20.0	18.81		0.0	20.0				
CP-OFDM	QPSK	1	1	22.44		1.5	23.0	19.57		0.0	20.0			

**NR Band n25 Ant.A 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				
					372500	1862.50 MHz	380500			372500	1862.50 MHz	380500						
					1862.50 MHz		1902.50 MHz			1862.50 MHz		1902.50 MHz						
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.72		23.73	0.0	24.5	19.30		19.36	0.0	20.0				
			1	66	23.76		23.66	0.0	24.5	19.39		19.28	0.0	20.0				
			1	131	23.60		23.68	0.0	24.5	19.22		19.37	0.0	20.0				
			64	0	22.78		22.80	0.5	24.0	19.40		19.36	0.0	20.0				
			64	34	23.79		23.76	0.0	24.5	19.36		19.35	0.0	20.0				
			64	69	22.70		22.73	0.5	24.0	19.33		19.33	0.0	20.0				
		QPSK	128	0	22.76		22.73	0.5	24.0	19.36		19.36	0.0	20.0				
			1	1	23.80		23.75	0.0	24.5	19.43		19.48	0.0	20.0				
			1	66	23.83		23.84	0.0	24.5	19.43		19.43	0.0	20.0				
			1	131	23.71		23.77	0.0	24.5	19.40		19.50	0.0	20.0				
			64	0	22.77		22.77	1.0	23.5	19.42		19.33	0.0	20.0				
			64	34	23.76		23.81	0.0	24.5	19.35		19.25	0.0	20.0				
		16QAM	64	69	22.72		22.74	1.0	23.5	19.29		19.37	0.0	20.0				
			128	0	22.78		22.82	1.0	23.5	19.34		19.28	0.0	20.0				
			1	1	22.65		22.64	1.0	23.5	19.26		19.20	0.0	20.0				
			1	66	22.66		22.62	1.0	23.5	19.27		19.06	0.0	20.0				
			1	131	22.52		22.70	1.0	23.5	19.14		19.35	0.0	20.0				
			64QAM	1	1	21.43		21.28	2.5	22.0	19.59		19.50	0.0	20.0			
256QAM	1	1	18.72		18.68	4.5	20.0	18.78		18.73	0.0	20.0						
CP-OFDM	QPSK	1	1	22.40		22.37	1.5	23.0	19.53		19.44	0.0	20.0					
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
					372000	1860.00 MHz	376500			1882.50 MHz	381000	372000			1860.00 MHz	376500	1882.50 MHz	381000
					1860.00 MHz		1905.00 MHz				1860.00 MHz	1882.50 MHz				1905.00 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.67		23.56	23.54	0.0	24.5	19.23		19.07	19.11	0.0	20.0		
			1	52	23.61		23.59	23.61	0.0	24.5	19.23		19.10	19.13	0.0	20.0		
			1	104	23.53		23.47	23.68	0.0	24.5	19.13		19.18	19.18	0.0	20.0		
			50	0	22.70		22.62	22.70	0.5	24.0	19.38		19.25	19.19	0.0	20.0		
			50	28	23.77		23.64	23.61	0.0	24.5	19.29		19.18	19.29	0.0	20.0		
			50	56	22.73		22.64	22.71	0.5	24.0	19.27		19.27	19.20	0.0	20.0		
		QPSK	100	0	22.64		22.68	22.59	0.5	24.0	19.31		19.18	19.24	0.0	20.0		
			1	1	23.72		23.63	23.54	0.0	24.5	19.35		19.22	19.24	0.0	20.0		
			1	52	23.63		23.60	23.59	0.0	24.5	19.20		19.15	19.11	0.0	20.0		
			1	104	23.62		23.60	23.64	0.0	24.5	19.20		19.20	19.23	0.0	20.0		
			50	0	22.73		22.65	22.71	1.0	23.5	19.41		19.28	19.19	0.0	20.0		
			50	28	23.71		23.67	23.63	0.0	24.5	19.32		19.21	19.18	0.0	20.0		
		16QAM	50	56	22.68		22.68	22.70	1.0	23.5	19.29		19.31	19.23	0.0	20.0		
			100	0	22.70		22.56	22.66	1.0	23.5	19.28		19.21	19.21	0.0	20.0		
			1	1	22.54		22.54	22.43	1.0	23.5	19.02		19.05	19.09	0.0	20.0		
			1	52	22.65		22.45	22.51	1.0	23.5	19.16		19.08	19.10	0.0	20.0		
			1	104	22.45		22.45	22.61	1.0	23.5	19.01		19.13	19.15	0.0	20.0		
			64QAM	1	1	21.35		21.15	21.25	2.5	22.0	19.40		19.22	19.30	0.0	20.0	
256QAM	1	1	18.64		18.52	18.50	4.5	20.0	18.70		18.55	18.62	0.0	20.0				
CP-OFDM	QPSK	1	1	22.35		22.15	22.17	1.5	23.0	19.46		19.31	19.36	0.0	20.0			
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
					371500	1857.50 MHz	376500			1882.50 MHz	381500	371500			1857.50 MHz	376500	1882.50 MHz	381500
					1857.50 MHz		1882.50 MHz				1907.50 MHz	1857.50 MHz				1882.50 MHz		1907.50 MHz
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.66		23.52	23.48	0.0	24.5	19.30		19.25	19.14	0.0	20.0		
			1	39	23.61		23.50	23.56	0.0	24.5	19.28		19.10	19.16	0.0	20.0		
			1	77	23.55		23.47	23.63	0.0	24.5	19.21		19.12	19.24	0.0	20.0		
			36	0	22.83		22.59	22.68	0.5	24.0	19.38		19.26	19.20	0.0	20.0		
			36	21	23.70		23.63	23.59	0.0	24.5	19.36		19.21	19.21	0.0	20.0		
			36	43	22.71		22.61	22.74	0.5	24.0	19.36		19.23	19.18	0.0	20.0		
		QPSK	75	0	22.75		22.66	22.66	0.5	24.0	19.34		19.25	19.21	0.0	20.0		
			1	1	23.78		23.64	23.55	0.0	24.5	19.47		19.28	19.10	0.0	20.0		
			1	39	23.70		23.57	23.57	0.0	24.5	19.35		19.25	19.15	0.0	20.0		
			1	77	23.66		23.56	23.71	0.0	24.5	19.26		19.19	19.24	0.0	20.0		
			36	0	22.82		22.67	22.69	1.0	23.5	19.43		19.23	19.27	0.0	20.0		
			36	21	23.72		23.65	23.66	0.0	24.5	19.37		19.27	19.19	0.0	20.0		
		16QAM	36	43	22.71		22.64	22.68	1.0	23.5	19.39		19.24	19.20	0.0	20.0		
			75	0	22.79		22.70	22.62	1.0	23.5	19.37		19.26	19.22	0.0	20.0		
			1	1	22.58		22.56	22.36	1.0	23.5	19.11		19.12	18.93	0.0	20.0		
			1	39	22.60		22.51	22.51	1.0	23.5	19.15		19.09	19.04	0.0	20.0		
			1	77	22.52		22.49	22.60	1.0	23.5	19.18		19.10	19.07	0.0	20.0		
			64QAM	1	1	21.50		21.26	21.22	2.5	22.0	19.62		19.39	19.27	0.0	20.0	
256QAM	1	1	18.81		18.61	18.65	4.5	20.0	18.84		18.69	18.70	0.0	20.0				
CP-OFDM	QPSK	1	1	22.52		22.26	22.28	1.5	23.0	19.58		19.41	19.31	0.0	20.0			

**NR Band n25 Ant.A 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
					371000	376500	382000			371000	376500	382000		
					1855.00 MHz	1882.50 MHz	1910.00 MHz			1855.00 MHz	1882.50 MHz	1910.00 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.60	23.47	23.56	0.0	24.5	19.27	19.12	19.13	0.0	20.0
			1	25	23.67	23.49	23.61	0.0	24.5	19.31	19.13	19.12	0.0	20.0
			1	50	23.65	23.47	23.52	0.0	24.5	19.24	19.05	19.13	0.0	20.0
			25	0	22.79	22.58	22.69	0.5	24.0	19.42	19.22	19.20	0.0	20.0
			25	13	23.74	23.51	23.59	0.0	24.5	19.33	19.16	19.13	0.0	20.0
			25	27	22.79	22.54	22.70	0.5	24.0	19.37	19.18	19.21	0.0	20.0
		QPSK	50	0	22.77	22.56	22.67	0.5	24.0	19.36	19.21	19.19	0.0	20.0
			1	1	23.76	23.57	23.56	0.0	24.5	19.43	19.21	19.16	0.0	20.0
			1	25	23.81	23.56	23.68	0.0	24.5	19.40	19.27	19.24	0.0	20.0
			1	50	23.66	23.48	23.67	0.0	24.5	19.32	19.13	19.21	0.0	20.0
			25	0	22.81	22.61	22.60	1.0	23.5	19.43	19.25	19.22	0.0	20.0
			25	13	23.77	23.50	23.61	0.0	24.5	19.32	19.15	19.17	0.0	20.0
		16QAM	25	27	22.77	22.57	22.68	1.0	23.5	19.38	19.24	19.19	0.0	20.0
			50	0	22.82	22.58	22.71	1.0	23.5	19.44	19.20	19.18	0.0	20.0
			1	1	22.54	22.49	22.45	1.0	23.5	19.21	19.09	18.96	0.0	20.0
64QAM	1	25	22.69	22.44	22.61	1.0	23.5	19.31	19.08	19.11	0.0	20.0		
	1	50	22.69	22.40	22.56	1.0	23.5	19.33	19.04	19.03	0.0	20.0		
256QAM	1	1	21.41	21.20	21.18	2.5	22.0	19.57	19.34	19.23	0.0	20.0		
256QAM	1	1	18.73	18.52	18.50	4.5	20.0	18.83	18.62	18.73	0.0	20.0		
CP-OFDM	QPSK	1	1	22.36	22.14	22.13	1.5	23.0	19.52	19.30	19.20	0.0	20.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					370500	376500	382500			370500	376500	382500		
					1852.50 MHz	1882.50 MHz	1912.50 MHz			1852.50 MHz	1882.50 MHz	1912.50 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.74	23.58	23.57	0.0	24.5	19.39	19.26	19.14	0.0	20.0
			1	12	23.64	23.49	23.57	0.0	24.5	19.23	19.15	19.12	0.0	20.0
			1	23	23.72	23.58	23.61	0.0	24.5	19.33	19.22	19.09	0.0	20.0
			12	0	22.76	22.56	22.64	0.5	24.0	19.34	19.19	19.18	0.0	20.0
			12	6	23.72	23.55	23.51	0.0	24.5	19.31	19.20	19.15	0.0	20.0
			12	13	22.68	22.51	22.64	0.5	24.0	19.31	19.18	19.08	0.0	20.0
		QPSK	25	0	22.82	22.66	22.63	0.5	24.0	19.40	19.24	19.20	0.0	20.0
			1	1	23.93	23.65	23.67	0.0	24.5	19.51	19.36	19.25	0.0	20.0
			1	12	23.79	23.50	23.63	0.0	24.5	19.31	19.21	19.19	0.0	20.0
			1	23	23.83	23.70	23.62	0.0	24.5	19.44	19.32	19.18	0.0	20.0
			12	0	22.64	22.47	22.60	1.0	23.5	19.34	19.20	19.13	0.0	20.0
			12	6	23.61	23.46	23.53	0.0	24.5	19.33	19.16	19.14	0.0	20.0
		16QAM	12	13	22.57	22.44	22.58	1.0	23.5	19.25	19.15	19.12	0.0	20.0
			25	0	22.75	22.52	22.54	1.0	23.5	19.44	19.25	19.18	0.0	20.0
			1	1	22.69	22.55	22.56	1.0	23.5	19.30	19.22	19.09	0.0	20.0
64QAM	1	12	22.58	22.37	22.62	1.0	23.5	19.20	19.13	19.03	0.0	20.0		
	1	23	22.76	22.56	22.59	1.0	23.5	19.36	19.18	19.02	0.0	20.0		
256QAM	1	1	21.39	21.20	21.17	2.5	22.0	19.58	19.39	19.27	0.0	20.0		
256QAM	1	1	18.74	18.57	18.63	4.5	20.0	18.97	18.78	18.69	0.0	20.0		
CP-OFDM	QPSK	1	1	22.37	22.24	22.24	1.5	23.0	19.57	19.45	19.28	0.0	20.0	



**NR Band n25 Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)							
					DSI = 0				DSI = 1			
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
					376500	1882.50 MHz			376500	1882.50 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.75	0.0	22.0	18.40	0.0	20.0		
			1	107	20.66	0.0	22.0	18.47	0.0	20.0		
			1	214	20.49	0.0	22.0	18.45	0.0	20.0		
			108	0	20.86	0.0	22.0	18.44	0.0	20.0		
			108	54	20.79	0.0	22.0	18.46	0.0	20.0		
			108	108	20.66	0.0	22.0	18.36	0.0	20.0		
		216	0	20.70	0.0	22.0	18.39	0.0	20.0			
		QPSK	1	1	<b>20.81</b>	0.0	22.0	<b>18.50</b>	0.0	20.0		
			1	107	20.77	0.0	22.0	18.46	0.0	20.0		
			1	214	20.61	0.0	22.0	18.43	0.0	20.0		
			108	0	20.82	0.0	22.0	18.46	0.0	20.0		
			108	54	<b>20.83</b>	0.0	22.0	<b>18.48</b>	0.0	20.0		
			108	108	20.69	0.0	22.0	18.39	0.0	20.0		
		216	0	20.74	0.0	22.0	18.40	0.0	20.0			
		16QAM	1	1	20.75	0.0	22.0	18.32	0.0	20.0		
			1	107	20.68	0.0	22.0	18.37	0.0	20.0		
		1	214	20.33	0.0	22.0	18.29	0.0	20.0			
		64QAM	1	1	20.87	0.0	22.0	18.51	0.0	20.0		
		256QAM	1	1	18.37	2.0	20.0	17.74	1.0	19.0		
		CP-OFDM	QPSK	1	1	20.81	0.0	22.0	18.44	0.0	20.0	
35 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.97	0.0	22.0	18.46	0.0	20.0		
			1	93	20.99	0.0	22.0	18.60	0.0	20.0		
			1	186	20.85	0.0	22.0	18.42	0.0	20.0		
			90	0	20.85	0.0	22.0	18.53	0.0	20.0		
			90	49	20.95	0.0	22.0	18.54	0.0	20.0		
			90	98	20.85	0.0	22.0	18.51	0.0	20.0		
		180	0	20.87	0.0	22.0	18.46	0.0	20.0			
		QPSK	1	1	20.93	0.0	22.0	18.46	0.0	20.0		
			1	93	20.99	0.0	22.0	18.61	0.0	20.0		
			1	186	20.83	0.0	22.0	18.48	0.0	20.0		
			90	0	20.86	0.0	22.0	18.54	0.0	20.0		
			90	49	20.89	0.0	22.0	18.49	0.0	20.0		
			90	98	20.86	0.0	22.0	18.43	0.0	20.0		
		180	0	20.83	0.0	22.0	18.43	0.0	20.0			
		16QAM	1	1	20.80	0.0	22.0	18.33	0.0	20.0		
			1	93	20.76	0.0	22.0	18.41	0.0	20.0		
		1	186	20.60	0.0	22.0	18.25	0.0	20.0			
		64QAM	1	1	21.03	0.0	22.0	18.53	0.0	20.0		
		256QAM	1	1	18.49	2.0	20.0	17.79	1.0	19.0		
		CP-OFDM	QPSK	1	1	21.05	0.0	22.0	18.63	0.0	20.0	
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.07	0.0	22.0	18.68	0.0	20.0		
			1	79	21.03	0.0	22.0	18.71	0.0	20.0		
			1	158	20.92	0.0	22.0	18.71	0.0	20.0		
			80	0	21.02	0.0	22.0	18.57	0.0	20.0		
			80	40	21.00	0.0	22.0	18.59	0.0	20.0		
			80	80	20.95	0.0	22.0	18.57	0.0	20.0		
		160	0	20.95	0.0	22.0	18.58	0.0	20.0			
		QPSK	1	1	21.24	0.0	22.0	18.71	0.0	20.0		
			1	79	21.11	0.0	22.0	18.71	0.0	20.0		
			1	158	21.02	0.0	22.0	18.74	0.0	20.0		
			80	0	21.05	0.0	22.0	18.61	0.0	20.0		
			80	40	20.96	0.0	22.0	18.57	0.0	20.0		
			80	80	20.95	0.0	22.0	18.56	0.0	20.0		
		160	0	21.00	0.0	22.0	18.56	0.0	20.0			
		16QAM	1	1	20.99	0.0	22.0	18.43	0.0	20.0		
			1	79	20.86	0.0	22.0	18.46	0.0	20.0		
		1	158	20.75	0.0	22.0	18.49	0.0	20.0			
		64QAM	1	1	21.08	0.0	22.0	18.68	0.0	20.0		
		256QAM	1	1	18.58	2.0	20.0	17.98	1.0	19.0		
		CP-OFDM	QPSK	1	1	21.27	0.0	22.0	18.76	0.0	20.0	

**NR Band n25 Ant.F 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
					372500	380500				372500	380500			
					1862.50 MHz	1902.50 MHz				1862.50 MHz	1902.50 MHz			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.90		20.63	0.0	22.0	18.54		18.51	0.0	20.0
			1	66	20.99		20.82	0.0	22.0	18.45		18.35	0.0	20.0
			1	131	20.87		20.77	0.0	22.0	18.54		18.73	0.0	20.0
			64	0	21.01		20.77	0.0	22.0	18.41		18.44	0.0	20.0
			64	34	20.98		20.76	0.0	22.0	18.42		18.42	0.0	20.0
			64	69	20.96		20.74	0.0	22.0	18.55		18.50	0.0	20.0
		QPSK	128	0	20.92		20.73	0.0	22.0	18.37		18.41	0.0	20.0
			1	1	21.04		20.73	0.0	22.0	18.53		18.48	0.0	20.0
			1	66	21.00		20.89	0.0	22.0	18.49		18.35	0.0	20.0
			1	131	20.92		20.87	0.0	22.0	18.55		18.75	0.0	20.0
			64	0	20.98		20.80	0.0	22.0	18.43		18.48	0.0	20.0
			64	34	20.95		20.75	0.0	22.0	18.38		18.42	0.0	20.0
		16QAM	64	69	20.94		20.78	0.0	22.0	18.50		18.53	0.0	20.0
			128	0	20.95		20.74	0.0	22.0	18.39		18.43	0.0	20.0
			1	1	20.96		20.64	0.0	22.0	18.37		18.37	0.0	20.0
64QAM	1	66	20.92		20.75	0.0	22.0	18.28		18.15	0.0	20.0		
	1	131	20.83		20.72	0.0	22.0	18.36		18.58	0.0	20.0		
	1	1	21.18		20.86	0.0	22.0	18.62		18.57	0.0	20.0		
256QAM	1	1	18.67		18.42	2.0	20.0	17.90		17.83	1.0	19.0		
CP-OFDM	QPSK	1	1	21.12		20.79	0.0	22.0	18.57		18.54	0.0	20.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					372000	376500	381000			372000	376500	381000		
					1860.00 MHz	1882.50 MHz	1905.00 MHz			1860.00 MHz	1882.50 MHz	1905.00 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.79	20.60	20.59	0.0	22.0	18.48	18.50	18.33	0.0	20.0
			1	52	20.81	20.63	20.65	0.0	22.0	18.50	18.43	18.36	0.0	20.0
			1	104	20.70	20.55	20.79	0.0	22.0	18.50	18.40	18.56	0.0	20.0
			50	0	20.80	20.64	20.59	0.0	22.0	18.38	18.38	18.35	0.0	20.0
			50	28	20.80	20.57	20.70	0.0	22.0	18.39	18.40	18.40	0.0	20.0
			50	56	20.75	20.54	20.70	0.0	22.0	18.42	18.33	18.37	0.0	20.0
		QPSK	100	0	20.88	20.66	20.62	0.0	22.0	18.40	18.39	18.43	0.0	20.0
			1	1	20.91	20.75	20.74	0.0	22.0	18.47	18.50	18.36	0.0	20.0
			1	52	20.95	20.72	20.72	0.0	22.0	18.44	18.44	18.40	0.0	20.0
			1	104	20.80	20.61	20.78	0.0	22.0	18.49	18.45	18.61	0.0	20.0
			50	0	20.85	20.66	20.61	0.0	22.0	18.34	18.39	18.34	0.0	20.0
			50	28	20.84	20.65	20.72	0.0	22.0	18.39	18.39	18.38	0.0	20.0
		16QAM	50	56	20.75	20.55	20.73	0.0	22.0	18.42	18.35	18.40	0.0	20.0
			100	0	20.86	20.67	20.72	0.0	22.0	18.41	18.41	18.42	0.0	20.0
			1	1	20.67	20.53	20.45	0.0	22.0	18.19	18.27	18.07	0.0	20.0
64QAM	1	52	20.75	20.54	20.47	0.0	22.0	18.29	18.23	18.21	0.0	20.0		
	1	104	20.46	20.25	20.59	0.0	22.0	18.19	18.14	18.35	0.0	20.0		
	1	1	20.86	20.76	20.81	0.0	22.0	18.49	18.46	18.39	0.0	20.0		
256QAM	1	1	18.44	18.25	18.31	2.0	20.0	17.77	17.78	17.73	1.0	19.0		
CP-OFDM	QPSK	1	1	21.00	20.84	20.92	0.0	22.0	18.57	18.61	18.52	0.0	20.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					371500	376500	381500			371500	376500	381500		
					1857.50 MHz	1882.50 MHz	1907.50 MHz			1857.50 MHz	1882.50 MHz	1907.50 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.83	20.53	20.41	0.0	22.0	18.48	18.36	18.42	0.0	20.0
			1	39	20.69	20.48	20.51	0.0	22.0	18.43	18.28	18.42	0.0	20.0
			1	77	20.66	20.54	20.60	0.0	22.0	18.43	18.21	18.52	0.0	20.0
			36	0	20.97	20.61	20.67	0.0	22.0	18.36	18.37	18.33	0.0	20.0
			36	21	20.83	20.57	20.67	0.0	22.0	18.44	18.31	18.31	0.0	20.0
			36	43	20.82	20.54	20.70	0.0	22.0	18.42	18.30	18.33	0.0	20.0
		QPSK	75	0	20.83	20.56	20.65	0.0	22.0	18.47	18.35	18.32	0.0	20.0
			1	1	20.93	20.56	20.63	0.0	22.0	18.42	18.39	18.39	0.0	20.0
			1	39	20.79	20.45	20.57	0.0	22.0	18.46	18.28	18.44	0.0	20.0
			1	77	20.62	20.55	20.64	0.0	22.0	18.37	18.22	18.47	0.0	20.0
			36	0	20.92	20.65	20.67	0.0	22.0	18.40	18.41	18.35	0.0	20.0
			36	21	20.86	20.57	20.66	0.0	22.0	18.47	18.33	18.38	0.0	20.0
		16QAM	36	43	20.84	20.53	20.70	0.0	22.0	18.41	18.36	18.32	0.0	20.0
			75	0	20.80	20.61	20.68	0.0	22.0	18.43	18.40	18.31	0.0	20.0
			1	1	20.71	20.54	20.32	0.0	22.0	18.23	18.26	18.17	0.0	20.0
64QAM	1	39	20.79	20.48	20.59	0.0	22.0	18.28	18.13	18.34	0.0	20.0		
	1	77	20.49	20.39	20.51	0.0	22.0	18.21	17.99	18.33	0.0	20.0		
	1	1	20.97	20.81	20.68	0.0	22.0	18.52	18.50	18.50	0.0	20.0		
256QAM	1	1	18.47	18.33	18.25	2.0	20.0	17.87	17.80	17.94	1.0	19.0		
CP-OFDM	QPSK	1	1	20.94	20.81	20.71	0.0	22.0	18.57	18.49	18.56	0.0	20.0	

**NR Band n25 Ant.F 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
					371000	376500	382000			371000	376500	382000		
					1855.00 MHz	1882.50 MHz	1910.00 MHz			1855.00 MHz	1882.50 MHz	1910.00 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.83	20.52	20.53	0.0	22.0	18.47	18.37	18.45	0.0	20.0
			1	25	20.87	20.65	20.86	0.0	22.0	18.41	18.40	18.31	0.0	20.0
			1	50	20.86	20.54	20.73	0.0	22.0	18.48	18.47	18.57	0.0	20.0
			25	0	20.95	20.58	20.59	0.0	22.0	18.43	18.39	18.35	0.0	20.0
			25	13	20.97	20.59	20.71	0.0	22.0	18.41	18.28	18.31	0.0	20.0
			25	27	20.89	20.50	20.63	0.0	22.0	18.44	18.38	18.35	0.0	20.0
		50	0	20.86	20.52	20.61	0.0	22.0	18.36	18.23	18.35	0.0	20.0	
		QPSK	1	1	20.79	20.66	20.65	0.0	22.0	18.46	18.42	18.41	0.0	20.0
			1	25	20.91	20.69	20.86	0.0	22.0	18.40	18.40	18.32	0.0	20.0
			1	50	20.87	20.60	20.83	0.0	22.0	18.49	18.49	18.55	0.0	20.0
			25	0	20.95	20.57	20.67	0.0	22.0	18.44	18.37	18.32	0.0	20.0
			25	13	20.88	20.62	20.74	0.0	22.0	18.42	18.38	18.33	0.0	20.0
			25	27	20.88	20.49	20.68	0.0	22.0	18.41	18.35	18.31	0.0	20.0
		50	0	20.87	20.53	20.66	0.0	22.0	18.39	18.34	18.31	0.0	20.0	
16QAM	1	1	20.62	20.46	20.45	0.0	22.0	18.17	18.16	18.14	0.0	20.0		
	1	25	20.79	20.46	20.67	0.0	22.0	18.22	18.17	18.08	0.0	20.0		
64QAM	1	1	21.01	20.66	20.60	0.0	22.0	18.48	18.36	18.38	0.0	20.0		
	1	1	18.40	18.22	18.20	2.0	20.0	17.83	17.68	17.73	1.0	19.0		
256QAM	1	1	18.40	18.22	18.20	2.0	20.0	17.83	17.68	17.73	1.0	19.0		
	1	1	21.08	20.75	20.76	0.0	22.0	18.58	18.47	18.54	0.0	20.0		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.78	20.64	20.74	0.0	22.0	18.43	18.47	18.10	0.0	20.0
			1	12	20.83	20.67	20.65	0.0	22.0	18.33	18.40	18.34	0.0	20.0
			1	23	20.80	20.48	20.61	0.0	22.0	18.20	18.44	18.36	0.0	20.0
			12	0	20.90	20.58	20.67	0.0	22.0	18.38	18.28	18.25	0.0	20.0
			12	6	20.93	20.66	20.71	0.0	22.0	18.39	18.37	18.34	0.0	20.0
			12	13	20.87	20.61	20.75	0.0	22.0	18.26	18.27	18.41	0.0	20.0
		25	0	20.89	20.64	20.59	0.0	22.0	18.34	18.19	18.30	0.0	20.0	
		QPSK	1	1	20.94	20.67	20.69	0.0	22.0	18.40	18.50	18.12	0.0	20.0
			1	12	20.98	20.68	20.81	0.0	22.0	18.38	18.42	18.36	0.0	20.0
			1	23	20.93	20.61	20.65	0.0	22.0	18.24	18.42	18.40	0.0	20.0
			12	0	20.93	20.64	20.68	0.0	22.0	18.40	18.29	18.28	0.0	20.0
			12	6	20.90	20.60	20.66	0.0	22.0	18.37	18.25	18.35	0.0	20.0
			12	13	20.90	20.50	20.57	0.0	22.0	18.29	18.28	18.38	0.0	20.0
		25	0	20.86	20.58	20.64	0.0	22.0	18.35	18.31	18.32	0.0	20.0	
16QAM	1	1	20.80	20.56	20.66	0.0	22.0	18.21	18.33	18.03	0.0	20.0		
	1	12	20.73	20.41	20.43	0.0	22.0	18.13	18.11	18.14	0.0	20.0		
64QAM	1	23	20.73	20.43	20.48	0.0	22.0	18.15	18.24	18.25	0.0	20.0		
	1	1	20.95	20.76	20.71	0.0	22.0	18.49	18.55	18.20	0.0	20.0		
256QAM	1	1	18.64	18.28	18.51	2.0	20.0	17.86	17.92	17.68	1.0	19.0		
	1	1	21.05	20.84	20.91	0.0	22.0	18.62	18.67	18.36	0.0	20.0		
CP-OFDM	QPSK	1	1	21.05	20.84	20.91	0.0	22.0	18.62	18.67	18.36	0.0	20.0	
		1	1	21.05	20.84	20.91	0.0	22.0	18.62	18.67	18.36	0.0	20.0	

**NR Band n26 Ant.A Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)			
					DSI = 0, 1			
					Measured Pwr (dBm)		MPR	Tune-up Limit
166300	831.50 MHz							
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.94	0.0	25.0	
			1	52	23.90	0.0	25.0	
			1	104	23.77	0.0	25.0	
			50	0	23.06	0.5	24.5	
			50	28	23.98	0.0	25.0	
			50	56	22.90	0.5	24.5	
			100	0	23.01	0.5	24.5	
		QPSK	1	1	24.10	0.0	25.0	
			1	52	24.11	0.0	25.0	
			1	104	23.84	0.0	25.0	
			50	0	23.07	1.0	24.0	
			50	28	24.01	0.0	25.0	
			50	56	22.95	1.0	24.0	
			100	0	23.04	1.0	24.0	
	16QAM	1	1	22.93	1.0	24.0		
		1	52	22.88	1.0	24.0		
1		104	22.66	1.0	24.0			
64QAM	1	1	21.66	2.5	22.5			
256QAM	1	1	19.03	4.5	20.5			
	CP-OFDM	QPSK	1	1	22.70	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
					164300	168300		
					821.50 MHz	841.50 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.16	24.08	0.0	25.0
			1	39	24.09	23.88	0.0	25.0
			1	77	24.09	23.96	0.0	25.0
			36	0	23.20	23.10	0.5	24.5
			36	21	24.22	23.96	0.0	25.0
			36	43	23.20	23.00	0.5	24.5
			75	0	23.25	23.05	0.5	24.5
		QPSK	1	1	24.19	24.10	0.0	25.0
			1	39	24.13	23.93	0.0	25.0
			1	77	24.21	24.02	0.0	25.0
			36	0	23.19	23.11	1.0	24.0
			36	21	24.20	23.98	0.0	25.0
			36	43	23.29	23.03	1.0	24.0
			75	0	23.16	23.03	1.0	24.0
		16QAM	1	1	23.13	22.98	1.0	24.0
			1	39	23.01	22.72	1.0	24.0
			1	77	22.96	22.87	1.0	24.0
	64QAM	1	1	21.51	21.62	2.5	22.5	
	256QAM	1	1	19.15	19.04	4.5	20.5	
	CP-OFDM	QPSK	1	1	22.43	22.63	1.5	23.5

**NR Band n26 Ant.A Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					163800	168800				
					819.00 MHz	844.00 MHz				
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.14		23.93	0.0	25.0	
			1	25	24.13		23.86	0.0	25.0	
			1	50	24.02		23.99	0.0	25.0	
			25	0	23.25		23.05	0.5	24.5	
			25	13	24.17		23.92	0.0	25.0	
			25	27	23.26		23.08	0.5	24.5	
		QPSK	50	0	23.21		23.06	0.5	24.5	
			1	1	24.27		23.99	0.0	25.0	
			1	25	24.21		23.98	0.0	25.0	
			1	50	24.18		24.05	0.0	25.0	
			25	0	23.24		23.10	1.0	24.0	
			25	13	24.18		23.99	0.0	25.0	
		16QAM	25	27	23.28		23.04	1.0	24.0	
			25	0	23.24		23.04	1.0	24.0	
			1	1	23.11		22.79	1.0	24.0	
			1	25	23.04		22.78	1.0	24.0	
64QAM	1	50	22.99		22.92	1.0	24.0			
	1	1	21.74		21.60	2.5	22.5			
256QAM	1	1	19.07		18.88	4.5	20.5			
	CP-OFDM	QPSK	1	1	22.51		22.62	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					163300	166300	169300			
					816.50 MHz	831.50 MHz	846.50 MHz			
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.16	24.05	24.05	0.0	25.0	
			1	12	24.05	23.98	23.99	0.0	25.0	
			1	23	24.20	23.99	24.02	0.0	25.0	
			12	0	23.15	23.09	22.96	0.5	24.5	
			12	6	24.15	24.10	24.05	0.0	25.0	
			12	13	23.21	23.04	23.02	0.5	24.5	
		QPSK	25	0	23.22	23.11	23.04	0.5	24.5	
			1	1	24.23	24.11	24.12	0.0	25.0	
			1	12	24.24	24.13	24.16	0.0	25.0	
			1	23	24.22	24.09	24.21	0.0	25.0	
			12	0	23.13	22.94	22.98	1.0	24.0	
			12	6	24.15	23.94	23.99	0.0	25.0	
		16QAM	12	13	23.10	23.00	22.95	1.0	24.0	
			25	0	23.22	23.03	23.08	1.0	24.0	
			1	1	23.14	22.87	22.90	1.0	24.0	
			1	12	23.08	22.86	22.85	1.0	24.0	
		64QAM	1	23	23.03	22.93	22.99	1.0	24.0	
			1	1	21.84	21.61	21.66	2.5	22.5	
		256QAM	1	1	19.15	18.98	18.94	4.5	20.5	
			CP-OFDM	QPSK	1	1	22.83	22.59	22.64	1.5

**NR Band n26 Ant.E Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
					DSI = 0				DSI = 1							
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
					166300	831.50 MHz				166300	831.50 MHz					
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.45		0.0	25.0	22.27		0.0	23.0				
			1	52	24.39		0.0	25.0	22.25		0.0	23.0				
			1	104	24.36		0.0	25.0	22.19		0.0	23.0				
			50	0	23.47		0.5	24.5	22.32		0.0	23.0				
			50	28	24.48		0.0	25.0	22.34		0.0	23.0				
			50	56	23.44		0.5	24.5	22.22		0.0	23.0				
			100	0	23.54		0.5	24.5	22.42		0.0	23.0				
		QPSK	1	1	24.61		0.0	25.0	22.41		0.0	23.0				
			1	52	24.53		0.0	25.0	22.40		0.0	23.0				
			1	104	24.55		0.0	25.0	22.24		0.0	23.0				
			50	0	23.50		1.0	24.0	22.28		0.0	23.0				
			50	28	24.54		0.0	25.0	22.34		0.0	23.0				
			50	56	23.48		1.0	24.0	22.26		0.0	23.0				
			100	0	23.56		1.0	24.0	22.30		0.0	23.0				
16QAM	1	1	23.26		1.0	24.0	22.16		0.0	23.0						
	1	52	23.33		1.0	24.0	22.07		0.0	23.0						
	1	104	23.28		1.0	24.0	22.05		0.0	23.0						
64QAM	1	1	22.00		2.5	22.5	22.04		0.0	23.0						
256QAM	1	1	19.33		4.5	20.5	19.45		2.5	20.5						
CP-OFDM	QPSK	1	1	23.08		1.5	23.5	22.43		0.0	23.0					
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				Measured Pwr (dBm)							
					164300	821.50 MHz	168300	841.50 MHz	MPR	Tune-up Limit	164300	821.50 MHz	168300	841.50 MHz	MPR	Tune-up Limit
					821.50 MHz	841.50 MHz	821.50 MHz	841.50 MHz								
					164300	821.50 MHz	168300	841.50 MHz	164300	821.50 MHz	168300	841.50 MHz				
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.44		0.0	25.0	22.09		0.0	23.0				
			1	39	24.43		0.0	25.0	22.05		0.0	23.0				
			1	77	24.58		0.0	25.0	22.17		0.0	23.0				
			36	0	23.95		0.5	24.5	22.21		0.0	23.0				
			36	21	24.52		0.0	25.0	22.20		0.0	23.0				
			36	43	23.99		0.5	24.5	22.18		0.0	23.0				
			75	0	23.96		0.5	24.5	22.25		0.0	23.0				
		QPSK	1	1	24.32		0.0	25.0	22.10		0.0	23.0				
			1	39	24.42		0.0	25.0	22.16		0.0	23.0				
			1	77	24.43		0.0	25.0	22.16		0.0	23.0				
			36	0	23.41		1.0	24.0	22.21		0.0	23.0				
			36	21	24.46		0.0	25.0	22.22		0.0	23.0				
			36	43	23.52		1.0	24.0	22.19		0.0	23.0				
			75	0	23.39		1.0	24.0	22.22		0.0	23.0				
		16QAM	1	1	23.22		1.0	24.0	21.93		0.0	23.0				
			1	39	23.30		1.0	24.0	22.08		0.0	23.0				
			1	77	23.33		1.0	24.0	22.10		0.0	23.0				
		64QAM	1	1	22.00		2.5	22.5	21.93		0.0	23.0				
256QAM	1	1	19.38		4.5	20.5	19.31		2.5	20.5						
CP-OFDM	QPSK	1	1	22.92		1.5	23.5	22.17		0.0	23.0					

**NR Band n26 Ant.E 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
					163800	168800	819.00 MHz			163800	168800	844.00 MHz		
					819.00 MHz	844.00 MHz								
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.60		24.60	0.0	25.0	22.19		22.08	0.0	23.0
			1	25	24.68		24.68	0.0	25.0	22.29		22.14	0.0	23.0
			1	50	24.65		24.67	0.0	25.0	22.30		22.07	0.0	23.0
			25	0	24.00		24.00	0.5	24.5	22.26		22.10	0.0	23.0
			25	13	24.60		24.60	0.0	25.0	22.31		22.13	0.0	23.0
			25	27	24.07		24.07	0.5	24.5	22.34		22.09	0.0	23.0
			50	0	24.04		24.04	0.5	24.5	22.25		22.10	0.0	23.0
		QPSK	1	1	24.54		24.54	0.0	25.0	22.50		22.41	0.0	23.0
			1	25	24.59		24.59	0.0	25.0	22.36		22.15	0.0	23.0
			1	50	24.59		24.59	0.0	25.0	22.37		22.24	0.0	23.0
			25	0	23.52		23.52	1.0	24.0	22.27		22.09	0.0	23.0
			25	13	24.56		24.56	0.0	25.0	22.34		22.14	0.0	23.0
			25	27	23.56		23.56	1.0	24.0	22.32		22.11	0.0	23.0
			50	0	23.55		23.55	1.0	24.0	22.26		22.10	0.0	23.0
		16QAM	1	1	23.20		23.20	1.0	24.0	21.96		21.91	0.0	23.0
			1	25	23.28		23.28	1.0	24.0	22.09		21.94	0.0	23.0
			1	50	23.36		23.36	1.0	24.0	22.16		21.95	0.0	23.0
		64QAM	1	1	21.98		21.98	2.5	22.5	21.91		21.85	0.0	23.0
256QAM	1	1	19.33		19.33	4.5	20.5	19.26		19.23	2.5	20.5		
CP-OFDM	QPSK	1	1	23.00		23.00	1.5	23.5	22.27		22.19	0.0	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					163300	166300	169300			163300	166300	169300		
					816.50 MHz	831.50 MHz	846.50 MHz			816.50 MHz	831.50 MHz	846.50 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.55	24.61	24.66	0.0	25.0	22.13	22.19	21.99	0.0	23.0
			1	12	24.64	24.66	24.69	0.0	25.0	22.27	22.25	22.15	0.0	23.0
			1	23	24.54	24.52	24.63	0.0	25.0	22.17	22.14	22.05	0.0	23.0
			12	0	24.02	23.97	24.04	0.5	24.5	22.28	22.31	22.12	0.0	23.0
			12	6	24.64	24.52	24.70	0.0	25.0	22.33	22.31	22.20	0.0	23.0
			12	13	24.00	24.03	24.09	0.5	24.5	22.31	22.24	22.17	0.0	23.0
			25	0	24.05	23.96	24.03	0.5	24.5	22.27	22.23	22.14	0.0	23.0
		QPSK	1	1	24.55	24.52	24.57	0.0	25.0	22.29	22.35	22.14	0.0	23.0
			1	12	24.64	24.60	24.72	0.0	25.0	22.38	22.40	22.27	0.0	23.0
			1	23	24.55	24.55	24.63	0.0	25.0	22.34	22.24	22.19	0.0	23.0
			12	0	23.53	23.46	23.60	1.0	24.0	22.27	22.27	22.13	0.0	23.0
			12	6	24.55	24.46	24.59	0.0	25.0	22.24	22.35	22.11	0.0	23.0
			12	13	23.57	23.45	23.56	1.0	24.0	22.26	22.25	22.18	0.0	23.0
			25	0	23.51	23.47	23.55	1.0	24.0	22.24	22.29	22.09	0.0	23.0
		16QAM	1	1	23.32	23.35	23.42	1.0	24.0	22.17	22.21	22.02	0.0	23.0
			1	12	23.38	23.33	23.37	1.0	24.0	22.12	22.15	22.07	0.0	23.0
			1	23	23.38	23.28	23.51	1.0	24.0	22.19	22.14	22.10	0.0	23.0
		64QAM	1	1	22.01	22.05	22.14	2.5	22.5	22.08	22.02	21.95	0.0	23.0
256QAM	1	1	19.38	19.43	19.48	4.5	20.5	19.33	19.34	19.28	2.5	20.5		
CP-OFDM	QPSK	1	1	23.04	23.17	23.23	1.5	23.5	22.45	22.34	22.29	0.0	23.0	

**NR Band n30 Ant.A Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
					DSI = 0				DSI = 1					
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					462000	2310.00 MHz				462000	2310.00 MHz			
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.65			0.0	23.5	20.14			0.0	21.0
			1	25	22.64			0.0	23.5	20.08			0.0	21.0
			1	50	22.72			0.0	23.5	20.13			0.0	21.0
			25	0	21.66			0.5	23.0	20.23			0.0	21.0
			25	13	22.61			0.0	23.5	20.16			0.0	21.0
			25	27	21.69			0.5	23.0	20.25			0.0	21.0
			50	0	21.71			0.5	23.0	20.22			0.0	21.0
		QPSK	1	1	<b>22.72</b>			0.0	23.5	<b>20.17</b>			0.0	21.0
			1	25	22.71			0.0	23.5	20.16			0.0	21.0
			1	50	22.71			0.0	23.5	20.12			0.0	21.0
			25	0	21.74			1.0	22.5	20.19			0.0	21.0
			25	13	<b>22.67</b>			0.0	23.5	<b>20.20</b>			0.0	21.0
			25	27	21.73			1.0	22.5	20.17			0.0	21.0
			50	0	21.77			1.0	22.5	20.14			0.0	21.0
	16QAM	1	1	21.57			1.0	22.5	20.01			0.0	21.0	
		1	25	21.54			1.0	22.5	19.92			0.0	21.0	
		1	50	21.69			1.0	22.5	20.08			0.0	21.0	
64QAM	1	1	20.23			2.5	21.0	20.23			0.0	21.0		
	1	1	17.56			4.5	19.0	17.69			1.5	19.5		
CP-OFDM	QPSK	1	1	21.37			1.5	22.0	20.31			0.0	21.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)									
					461500			MPR	Tune-up Limit	462500			MPR	Tune-up Limit
					2307.50 MHz		2312.50 MHz			2307.50 MHz		2312.50 MHz		
					461500	2310.00 MHz	462500	2312.50 MHz	461500	2310.00 MHz	462500	2312.50 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.81			0.0	23.5	20.18			0.0	21.0
			1	12	22.86			0.0	23.5	20.19			0.0	21.0
			1	23	22.83			0.0	23.5	20.12			0.0	21.0
			12	0	21.79			0.5	23.0	20.09			0.0	21.0
			12	6	22.80			0.0	23.5	20.22			0.0	21.0
			12	13	21.71			0.5	23.0	20.04			0.0	21.0
			25	0	21.80			0.5	23.0	20.14			0.0	21.0
		QPSK	1	1	22.93			0.0	23.5	20.25			0.0	21.0
			1	12	22.89			0.0	23.5	20.19			0.0	21.0
			1	23	22.84			0.0	23.5	20.13			0.0	21.0
			12	0	21.77			1.0	22.5	20.14			0.0	21.0
			12	6	22.84			0.0	23.5	20.14			0.0	21.0
			12	13	21.77			1.0	22.5	20.02			0.0	21.0
			25	0	21.79			1.0	22.5	20.28			0.0	21.0
	16QAM	1	1	21.67			1.0	22.5	20.03			0.0	21.0	
		1	12	21.65			1.0	22.5	20.06			0.0	21.0	
		1	23	21.64			1.0	22.5	20.04			0.0	21.0	
	64QAM	1	1	20.40			2.5	21.0	20.25			0.0	21.0	
		1	1	17.72			4.5	19.0	17.72			1.5	19.5	
	CP-OFDM	QPSK	1	1	21.48			1.5	22.0	20.34			0.0	21.0



**NR Band n30 Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
					DSI = 0				DSI = 1				
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	
					462000	2310.00 MHz			462000	2310.00 MHz			
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.91		0.0	21.0	17.64		0.0	18.5	
			1	25	19.92		0.0	21.0	17.74		0.0	18.5	
			1	50	19.76		0.0	21.0	17.69		0.0	18.5	
			25	0	19.85		0.0	21.0	17.71		0.0	18.5	
			25	13	19.94		0.0	21.0	17.79		0.0	18.5	
			25	27	19.78		0.0	21.0	17.69		0.0	18.5	
			50	0	19.87		0.0	21.0	17.67		0.0	18.5	
		QPSK	1	1	19.82		0.0	21.0	17.74		0.0	18.5	
			1	25	<b>19.89</b>		0.0	21.0	<b>17.98</b>		0.0	18.5	
			1	50	19.79		0.0	21.0	17.77		0.0	18.5	
			25	0	19.78		0.0	21.0	17.73		0.0	18.5	
			25	13	<b>19.81</b>		0.0	21.0	<b>17.97</b>		0.0	18.5	
			25	27	19.80		0.0	21.0	17.73		0.0	18.5	
		16QAM	50	0	19.74		0.0	21.0	17.78		0.0	18.5	
			1	1	19.75		0.0	21.0	17.71		0.0	18.5	
			1	25	19.82		0.0	21.0	17.68		0.0	18.5	
		64QAM	1	50	19.77		0.0	21.0	17.74		0.0	18.5	
1	1		19.74		0.5	20.5	17.82		0.0	18.5			
256QAM	1	1	17.12		2.5	18.5	16.87		1.0	17.5			
CP-OFDM	QPSK	1	1	19.78		0.0	21.0	17.94		0.0	18.5		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
					DSI = 0				DSI = 1				
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	
					461500	2307.50 MHz			462500	2312.50 MHz			
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.89		0.0	21.0	17.69		0.0	18.5	
			1	12	19.92		0.0	21.0	17.73		0.0	18.5	
			1	23	19.82		0.0	21.0	17.59		0.0	18.5	
			12	0	19.87		0.0	21.0	17.75		0.0	18.5	
			12	6	19.96		0.0	21.0	17.82		0.0	18.5	
			12	13	19.85		0.0	21.0	17.75		0.0	18.5	
			25	0	19.87		0.0	21.0	17.72		0.0	18.5	
		QPSK	1	1	19.89		0.0	21.0	17.68		0.0	18.5	
			1	12	19.96		0.0	21.0	17.86		0.0	18.5	
			1	23	19.91		0.0	21.0	17.72		0.0	18.5	
			12	0	19.79		0.0	21.0	17.69		0.0	18.5	
			12	6	19.96		0.0	21.0	17.85		0.0	18.5	
			12	13	19.88		0.0	21.0	17.80		0.0	18.5	
			25	0	19.90		0.0	21.0	17.79		0.0	18.5	
		16QAM	1	1	19.80		0.0	21.0	17.70		0.0	18.5	
			1	12	19.73		0.0	21.0	17.76		0.0	18.5	
			1	23	19.85		0.0	21.0	17.73		0.0	18.5	
		64QAM	1	1	19.73		0.5	20.5	17.86		0.0	18.5	
		256QAM	1	1	16.97		2.5	18.5	16.96		1.0	17.5	
		CP-OFDM	QPSK	1	1	20.04		0.0	21.0	17.91		0.0	18.5

**NR Band n66 Ant.A Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)							
					DSI = 1				DSI = 0			
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
					349000	1745.00 MHz			349000	1745.00 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.58		0.0	24.5	19.23		0.0	20.0
			1	107	23.63		0.0	24.5	19.25		0.0	20.0
			1	214	23.58		0.0	24.5	19.21		0.0	20.0
			108	0	22.66		0.5	24.0	19.16		0.0	20.0
			108	54	23.60		0.0	24.5	19.22		0.0	20.0
			108	108	22.58		0.5	24.0	19.25		0.0	20.0
		QPSK	216	0	22.61		0.5	24.0	19.20		0.0	20.0
			1	1	23.64		0.0	24.5	<b>19.31</b>		0.0	20.0
			1	107	23.63		0.0	24.5	19.25		0.0	20.0
			1	214	23.56		0.0	24.5	19.30		0.0	20.0
			108	0	22.61		1.0	23.5	19.23		0.0	20.0
			108	54	23.64		0.0	24.5	<b>19.26</b>		0.0	20.0
	16QAM	108	108	22.52		1.0	23.5	19.22		0.0	20.0	
		216	0	22.63		1.0	23.5	19.18		0.0	20.0	
		1	1	22.47		1.0	23.5	19.06		0.0	20.0	
		1	107	22.52		1.0	23.5	19.13		0.0	20.0	
64QAM	1	214	22.46		1.0	23.5	19.14		0.0	20.0		
	1	1	21.12		2.5	22.0	19.21		0.0	20.0		
256QAM	1	1	18.61		4.5	20.0	18.53		0.0	20.0		
CP-OFDM	QPSK	1	1	22.03		1.5	23.0	19.22		0.0	20.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)							
					345500		MPR	Tune-up Limit	345500		MPR	Tune-up Limit
					1727.50 MHz	1762.50 MHz			1727.50 MHz	1762.50 MHz		
					35 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.51		0.0
1	93	23.72		0.0				24.5	19.07		0.0	20.0
1	186	23.56		0.0				24.5	18.90		0.0	20.0
90	0	23.13		0.5				24.0	19.03		0.0	20.0
90	49	23.63		0.0				24.5	18.94		0.0	20.0
90	98	23.08		0.5				24.0	19.02		0.0	20.0
QPSK	180	0	23.05				0.5	24.0	18.93		0.0	20.0
	1	1	23.47				0.0	24.5	18.96		0.0	20.0
	1	93	23.62				0.0	24.5	19.00		0.0	20.0
	1	186	23.53				0.0	24.5	18.83		0.0	20.0
	90	0	22.51				1.0	23.5	19.00		0.0	20.0
	90	49	23.52				0.0	24.5	19.01		0.0	20.0
16QAM	90	98	22.56			1.0	23.5	19.02		0.0	20.0	
	180	0	22.58			1.0	23.5	19.04		0.0	20.0	
	1	1	22.60			1.0	23.5	18.67		0.0	20.0	
	1	93	22.61			1.0	23.5	18.93		0.0	20.0	
64QAM	1	186	22.54		1.0	23.5	18.82		0.0	20.0		
	1	1	20.93		2.5	22.0	18.66		0.0	20.0		
256QAM	1	1	18.99		4.5	20.0	18.97		0.0	20.0		
CP-OFDM	QPSK	1	1	21.97		1.5	23.0	18.79		0.0	20.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)							
					345000		MPR	Tune-up Limit	345000		MPR	Tune-up Limit
					1725.00 MHz	1765.00 MHz			1725.00 MHz	1765.00 MHz		
					30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.63		0.0
1	79	23.59		0.0				24.5	19.19		0.0	20.0
1	158	23.53		0.0				24.5	19.18		0.0	20.0
80	0	22.71		0.5				24.0	19.32		0.0	20.0
80	40	23.70		0.0				24.5	19.23		0.0	20.0
80	80	22.76		0.5				24.0	19.26		0.0	20.0
QPSK	160	0	22.67				0.5	24.0	19.21		0.0	20.0
	1	1	23.73				0.0	24.5	19.33		0.0	20.0
	1	79	23.74				0.0	24.5	19.24		0.0	20.0
	1	158	23.66				0.0	24.5	19.27		0.0	20.0
	80	0	22.70				1.0	23.5	19.31		0.0	20.0
	80	40	23.74				0.0	24.5	19.25		0.0	20.0
16QAM	80	80	22.62			1.0	23.5	19.30		0.0	20.0	
	160	0	22.69			1.0	23.5	19.23		0.0	20.0	
	1	1	22.61			1.0	23.5	19.10		0.0	20.0	
	1	79	22.66			1.0	23.5	19.21		0.0	20.0	
64QAM	1	158	22.54		1.0	23.5	19.06		0.0	20.0		
	1	1	21.34		2.5	22.0	19.38		0.0	20.0		
256QAM	1	1	18.67		4.5	20.0	18.71		0.0	20.0		
CP-OFDM	QPSK	1	1	22.35		1.5	23.0	19.39		0.0	20.0	

**NR Band n66 Ant.A 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
					344500	353500				344500	353500			
					1722.50 MHz	1767.50 MHz				1722.50 MHz	1767.50 MHz			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.59		23.26	0.0	24.5	19.08		19.24	0.0	20.0
			1	66	23.68		23.26	0.0	24.5	19.16		19.26	0.0	20.0
			1	131	23.47		23.23	0.0	24.5	18.98		19.20	0.0	20.0
			64	0	22.65		22.20	0.5	24.0	19.26		19.31	0.0	20.0
			64	34	23.64		23.80	0.0	24.5	19.21		19.30	0.0	20.0
			64	69	22.63		22.70	0.5	24.0	19.24		19.35	0.0	20.0
		128	0	22.59		22.77	0.5	24.0	19.19		19.24	0.0	20.0	
		QPSK	1	1	23.74		23.80	0.0	24.5	19.22		19.28	0.0	20.0
			1	66	23.71		23.86	0.0	24.5	19.30		19.36	0.0	20.0
			1	131	23.52		23.76	0.0	24.5	19.14		19.32	0.0	20.0
			64	0	22.70		22.72	1.0	23.5	19.25		19.34	0.0	20.0
			64	34	23.59		23.69	0.0	24.5	19.18		19.25	0.0	20.0
			64	69	22.63		22.73	1.0	23.5	19.21		19.38	0.0	20.0
		16QAM	128	0	22.58		22.71	1.0	23.5	19.18		19.27	0.0	20.0
			1	1	22.63		22.74	1.0	23.5	19.03		19.24	0.0	20.0
			1	66	22.58		22.53	1.0	23.5	19.13		19.12	0.0	20.0
		64QAM	1	131	22.39		22.61	1.0	23.5	18.98		19.21	0.0	20.0
			1	1	21.41		21.31	2.5	22.0	19.34		19.37	0.0	20.0
256QAM	1	1	18.76		18.85	4.5	20.0	18.68		18.71	0.0	20.0		
CP-OFDM	QPSK	1	1	22.39		22.32	1.5	23.0	19.38		19.42	0.0	20.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000			344000	349000	354000		
					1720.00 MHz	1745.00 MHz	1770.00 MHz			1720.00 MHz	1745.00 MHz	1770.00 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.36	23.46	23.37	0.0	24.5	18.94	19.03	18.96	0.0	20.0
			1	52	23.50	23.60	23.56	0.0	24.5	19.03	19.13	19.08	0.0	20.0
			1	104	23.35	23.48	23.52	0.0	24.5	19.00	19.09	19.00	0.0	20.0
			50	0	22.56	22.59	22.58	0.5	24.0	19.18	19.19	19.10	0.0	20.0
			50	28	23.54	23.58	23.52	0.0	24.5	19.07	19.16	19.11	0.0	20.0
			50	56	22.54	22.64	22.63	0.5	24.0	19.17	19.22	19.11	0.0	20.0
		100	0	22.51	22.58	22.57	0.5	24.0	19.14	19.18	19.06	0.0	20.0	
		QPSK	1	1	23.55	23.50	23.54	0.0	24.5	19.06	19.04	19.11	0.0	20.0
			1	52	23.52	23.58	23.52	0.0	24.5	19.06	19.14	19.04	0.0	20.0
			1	104	23.49	23.64	23.55	0.0	24.5	19.11	19.19	19.03	0.0	20.0
			50	0	22.57	22.60	22.65	1.0	23.5	19.16	19.23	19.16	0.0	20.0
			50	28	23.56	23.57	23.57	0.0	24.5	19.11	19.13	19.06	0.0	20.0
			50	56	22.57	22.55	22.59	1.0	23.5	19.16	19.26	19.15	0.0	20.0
		100	0	22.56	22.59	22.62	1.0	23.5	19.10	19.17	19.11	0.0	20.0	
		16QAM	1	1	22.37	22.33	22.39	1.0	23.5	18.84	18.91	18.92	0.0	20.0
			1	52	22.44	22.48	22.50	1.0	23.5	19.01	19.03	18.96	0.0	20.0
			1	104	22.35	22.42	22.52	1.0	23.5	19.01	19.08	18.96	0.0	20.0
		64QAM	1	1	21.18	21.10	21.25	2.5	22.0	19.18	19.14	19.21	0.0	20.0
256QAM	1	1	18.60	18.55	18.59	4.5	20.0	18.46	18.52	18.52	0.0	20.0		
CP-OFDM	QPSK	1	1	22.18	22.11	22.21	1.5	23.0	19.23	19.18	19.20	0.0	20.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500	349000	354500			343500	349000	354500		
					1717.50 MHz	1745.00 MHz	1772.50 MHz			1717.50 MHz	1745.00 MHz	1772.50 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.62	23.53	23.57	0.0	24.5	19.07	19.14	19.03	0.0	20.0
			1	39	23.68	23.58	23.49	0.0	24.5	19.05	19.10	19.00	0.0	20.0
			1	77	23.60	23.55	23.51	0.0	24.5	19.05	19.09	19.03	0.0	20.0
			36	0	22.80	22.65	22.68	0.5	24.0	19.13	19.21	19.12	0.0	20.0
			36	21	23.61	23.55	23.67	0.0	24.5	19.13	19.19	19.16	0.0	20.0
			36	43	22.57	22.67	22.66	0.5	24.0	19.16	19.23	19.11	0.0	20.0
		75	0	22.63	22.54	22.55	0.5	24.0	19.15	19.26	19.04	0.0	20.0	
		QPSK	1	1	23.70	23.66	23.61	0.0	24.5	19.20	19.21	19.16	0.0	20.0
			1	39	23.55	23.58	23.59	0.0	24.5	19.11	19.20	19.11	0.0	20.0
			1	77	23.60	23.57	23.63	0.0	24.5	19.08	19.22	19.07	0.0	20.0
			36	0	22.66	22.63	22.60	1.0	23.5	19.10	19.17	19.08	0.0	20.0
			36	21	23.60	23.57	23.54	0.0	24.5	19.12	19.21	19.04	0.0	20.0
			36	43	22.60	22.58	22.66	1.0	23.5	19.16	19.19	19.09	0.0	20.0
		75	0	22.60	22.56	22.54	1.0	23.5	19.18	19.21	19.12	0.0	20.0	
		16QAM	1	1	22.45	22.48	22.43	1.0	23.5	18.97	19.07	18.97	0.0	20.0
			1	39	22.51	22.44	22.45	1.0	23.5	19.05	19.06	19.00	0.0	20.0
			1	77	22.46	22.47	22.51	1.0	23.5	19.00	19.05	18.99	0.0	20.0
		64QAM	1	1	21.21	21.16	21.29	2.5	22.0	19.27	19.34	19.26	0.0	20.0
256QAM	1	1	18.66	18.72	18.65	4.5	20.0	18.62	18.70	18.56	0.0	20.0		
CP-OFDM	QPSK	1	1	22.27	22.27	22.26	1.5	23.0	19.32	19.36	19.26	0.0	20.0	

**NR Band n66 Ant.A Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000			343000	349000	355000		
					1715.00 MHz	1745.00 MHz	1775.00 MHz			1715.00 MHz	1745.00 MHz	1775.00 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.53	23.46	23.49	0.0	24.5	19.10	19.06	19.03	0.0	20.0
			1	25	23.56	23.62	23.64	0.0	24.5	19.10	19.05	19.09	0.0	20.0
			1	50	23.57	23.52	23.50	0.0	24.5	19.12	18.98	19.06	0.0	20.0
			25	0	22.67	22.57	22.71	0.5	24.0	19.25	19.17	19.18	0.0	20.0
			25	13	23.58	23.52	23.66	0.0	24.5	19.11	19.09	19.08	0.0	20.0
			25	27	22.67	22.60	22.70	0.5	24.0	19.20	19.15	19.15	0.0	20.0
		QPSK	50	0	22.65	22.55	22.67	0.5	24.0	19.23	19.10	19.15	0.0	20.0
			1	1	23.64	23.61	23.17	0.0	24.5	19.19	19.12	19.18	0.0	20.0
			1	25	23.64	23.60	23.74	0.0	24.5	19.21	19.18	19.17	0.0	20.0
			1	50	23.59	23.61	23.56	0.0	24.5	19.23	19.13	19.19	0.0	20.0
			25	0	22.66	22.64	22.78	1.0	23.5	19.29	19.14	19.16	0.0	20.0
			25	13	23.63	23.55	23.63	0.0	24.5	19.15	19.13	19.07	0.0	20.0
		16QAM	25	27	22.62	22.57	22.71	1.0	23.5	19.17	19.22	19.19	0.0	20.0
			50	0	22.65	22.61	22.73	1.0	23.5	19.22	19.11	19.14	0.0	20.0
			1	1	22.51	22.45	22.59	1.0	23.5	19.04	18.98	19.00	0.0	20.0
		64QAM	1	25	22.57	22.44	22.65	1.0	23.5	19.04	19.04	19.03	0.0	20.0
			1	50	22.49	22.40	22.48	1.0	23.5	19.02	18.98	19.10	0.0	20.0
		256QAM	1	1	21.31	21.22	21.24	2.5	22.0	19.33	19.20	19.24	0.0	20.0
			1	1	18.71	18.65	18.64	4.5	20.0	18.62	18.52	18.56	0.0	20.0
		CP-OFDM	QPSK	1	1	22.26	22.16	22.19	1.5	23.0	19.34	19.25	19.26	0.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500	349000	355500			342500	349000	355500		
					1712.50 MHz	1745.00 MHz	1777.50 MHz			1712.50 MHz	1745.00 MHz	1777.50 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.58	23.65	23.30	0.0	24.5	19.11	19.05	19.06	0.0	20.0
			1	12	23.63	23.69	23.52	0.0	24.5	19.14	19.15	19.18	0.0	20.0
			1	23	23.60	23.68	23.50	0.0	24.5	19.17	19.17	19.15	0.0	20.0
			12	0	22.62	22.57	22.59	0.5	24.0	19.16	19.09	19.08	0.0	20.0
			12	6	23.53	23.58	23.65	0.0	24.5	19.20	19.10	19.09	0.0	20.0
			12	13	22.61	22.50	22.59	0.5	24.0	19.20	19.06	19.07	0.0	20.0
		QPSK	25	0	22.58	22.58	22.63	0.5	24.0	19.26	19.13	19.09	0.0	20.0
			1	1	23.63	23.67	23.58	0.0	24.5	19.16	19.14	19.16	0.0	20.0
			1	12	23.62	23.66	23.67	0.0	24.5	19.16	19.17	19.25	0.0	20.0
			1	23	23.55	23.65	23.68	0.0	24.5	19.12	19.10	19.26	0.0	20.0
			12	0	22.52	22.57	22.43	1.0	23.5	19.07	19.05	19.06	0.0	20.0
			12	6	23.59	23.59	23.69	0.0	24.5	19.08	19.09	19.12	0.0	20.0
		16QAM	12	13	22.46	22.53	22.61	1.0	23.5	19.02	19.00	19.05	0.0	20.0
			25	0	22.59	22.62	22.73	1.0	23.5	19.12	19.16	19.12	0.0	20.0
			1	1	22.42	22.53	22.66	1.0	23.5	18.99	18.98	19.01	0.0	20.0
		64QAM	1	12	22.44	22.54	22.63	1.0	23.5	19.00	18.99	19.04	0.0	20.0
			1	23	22.46	22.53	22.54	1.0	23.5	19.03	19.02	19.05	0.0	20.0
		256QAM	1	1	21.22	21.25	21.30	2.5	22.0	19.22	19.21	19.18	0.0	20.0
			1	1	18.63	18.69	18.75	4.5	20.0	18.61	18.58	18.54	0.0	20.0
		CP-OFDM	QPSK	1	1	22.21	20.72	22.32	1.5	23.0	19.29	19.21	19.23	0.0

**NR Band n66 Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)												
					DSI = 0				DSI = 1								
					Measured Pw r (dBm)		MPR	Tune-up Limit	Measured Pw r (dBm)		MPR	Tune-up Limit					
					349000	1745.00 MHz			349000	1745.00 MHz							
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.77	20.80	0.0	22.0	17.28	17.34	0.0	18.5					
			1	107	20.66	20.80	0.0	22.0	17.38	17.34	0.0	18.5					
			1	214	20.59	20.80	0.0	22.0	17.13	17.34	0.0	18.5					
			108	0	20.80	20.84	0.0	22.0	17.34	17.31	0.0	18.5					
			108	54	20.84	20.79	0.0	22.0	17.31	17.27	0.0	18.5					
			108	108	20.79	20.86	0.0	22.0	17.27	17.32	0.0	18.5					
		QPSK	1	1	20.76	20.85	0.0	22.0	17.24	17.24	0.0	18.5					
			1	107	20.77	20.85	0.0	22.0	17.32	17.32	0.0	18.5					
			1	214	20.91	20.85	0.0	22.0	17.41	17.34	0.0	18.5					
			108	0	20.77	20.84	0.0	22.0	17.34	17.29	0.0	18.5					
			108	54	20.87	20.81	0.0	22.0	17.40	17.30	0.0	18.5					
			108	108	20.81	20.84	0.0	22.0	17.30	17.29	0.0	18.5					
		16QAM	1	1	20.85	20.85	0.0	22.0	17.24	17.24	0.0	18.5					
			1	107	20.74	20.85	0.0	22.0	17.28	17.24	0.0	18.5					
			1	214	20.66	20.85	0.0	22.0	17.11	17.24	0.0	18.5					
			1	1	20.94	20.85	0.0	22.0	17.29	17.24	0.0	18.5					
64QAM	1	1	20.94	20.85	0.0	22.0	17.29	17.24	0.0	18.5							
256QAM	1	1	18.42	20.85	2.0	20.0	16.70	17.24	0.5	18.0							
CP-OFDM	QPSK	1	1	20.84	20.85	0.0	22.0	17.45	17.24	0.0	18.5						
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pw r (dBm)				Measured Pw r (dBm)								
					345500	1727.50 MHz	352500	1765.50 MHz	MPR	Tune-up Limit	345500	1727.50 MHz	352500	1765.50 MHz	MPR	Tune-up Limit	
					35 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.90	20.93	0.0	22.0	17.50	17.50	0.0	18.5
								1	93	21.04	20.93	0.0	22.0	17.60	17.50	0.0	18.5
1	186	20.80	20.95	0.0				22.0	17.25	17.50	0.0	18.5					
90	0	20.80	20.86	0.0				22.0	17.26	17.26	0.0	18.5					
90	49	20.82	20.92	0.0				22.0	17.56	17.56	0.0	18.5					
90	98	20.88	20.93	0.0				22.0	17.41	17.41	0.0	18.5					
QPSK	180	0	20.78	20.86			0.0	22.0	17.48	17.48	0.0	18.5					
	1	1	20.85	20.96			0.0	22.0	17.52	17.52	0.0	18.5					
	1	93	21.09	21.13			0.0	22.0	17.59	17.59	0.0	18.5					
	1	186	20.81	20.96			0.0	22.0	17.35	17.35	0.0	18.5					
	90	0	20.85	20.86			0.0	22.0	17.47	17.47	0.0	18.5					
	90	49	20.84	20.89			0.0	22.0	17.53	17.53	0.0	18.5					
16QAM	90	98	20.93	20.86			0.0	22.0	17.44	17.44	0.0	18.5					
	180	0	20.83	20.85			0.0	22.0	17.36	17.36	0.0	18.5					
	1	1	20.73	20.75			0.0	22.0	17.28	17.28	0.0	18.5					
	1	93	20.90	20.77			0.0	22.0	17.23	17.23	0.0	18.5					
64QAM	1	186	20.64	21.03	0.0	22.0	17.15	17.15	0.0	18.5							
256QAM	1	1	21.01	20.95	0.0	22.0	17.55	17.55	0.0	18.5							
CP-OFDM	QPSK	1	1	18.31	21.06	2.0	20.0	16.89	16.89	0.5	18.0						
1	1	20.96	21.06	0.0	22.0	17.67	17.67	0.0	18.5								
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pw r (dBm)				Measured Pw r (dBm)								
					345000	1725.00 MHz	353000	1765.00 MHz	MPR	Tune-up Limit	345000	1725.00 MHz	353000	1765.00 MHz	MPR	Tune-up Limit	
					30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.04	21.09	0.0	22.0	17.60	17.60	0.0	18.5
								1	79	21.11	21.06	0.0	22.0	17.52	17.52	0.0	18.5
1	158	20.95	21.19	0.0				22.0	17.28	17.28	0.0	18.5					
80	0	20.83	20.97	0.0				22.0	17.48	17.48	0.0	18.5					
80	40	21.01	21.06	0.0				22.0	17.32	17.32	0.0	18.5					
80	80	20.86	21.04	0.0				22.0	17.35	17.35	0.0	18.5					
QPSK	160	0	20.94	21.00			0.0	22.0	17.38	17.38	0.0	18.5					
	1	1	21.10	21.14			0.0	22.0	17.49	17.49	0.0	18.5					
	1	79	21.06	21.06			0.0	22.0	17.49	17.49	0.0	18.5					
	1	158	20.95	21.18			0.0	22.0	17.37	17.37	0.0	18.5					
	80	0	20.84	21.03			0.0	22.0	17.49	17.49	0.0	18.5					
	80	40	20.85	21.04			0.0	22.0	17.30	17.30	0.0	18.5					
16QAM	80	80	20.91	21.00			0.0	22.0	17.33	17.33	0.0	18.5					
	160	0	20.83	21.01			0.0	22.0	17.40	17.40	0.0	18.5					
	1	1	20.81	21.01			0.0	22.0	17.17	17.17	0.0	18.5					
	1	79	20.87	20.79			0.0	22.0	17.31	17.31	0.0	18.5					
64QAM	1	158	20.70	20.99	0.0	22.0	17.07	17.07	0.0	18.5							
256QAM	1	1	20.93	21.05	0.0	22.0	17.45	17.45	0.0	18.5							
CP-OFDM	QPSK	1	1	18.47	20.97	2.0	20.0	16.82	16.82	0.5	18.0						
1	1	20.95	20.97	0.0	22.0	17.61	17.61	0.0	18.5								

**NR Band n66 Ant.F Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
					344500		353500			344500		353500		
					1722.50 MHz		1767.50 MHz			1722.50 MHz		1767.50 MHz		
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.84		21.17	0.0	22.0	17.33		17.33	0.0	18.5
			1	66	21.00		21.19	0.0	22.0	17.45		17.08	0.0	18.5
			1	131	20.86		21.16	0.0	22.0	17.08		17.30	0.0	18.5
			64	0	20.86		21.02	0.0	22.0	17.42		17.21	0.0	18.5
			64	34	20.92		21.20	0.0	22.0	17.24		17.18	0.0	18.5
			64	69	20.86		21.10	0.0	22.0	17.25		17.15	0.0	18.5
		128	0	20.78		20.97	0.0	22.0	17.35		17.20	0.0	18.5	
		1	1	20.84		20.95	0.0	22.0	17.31		17.36	0.0	18.5	
		1	66	20.99		21.04	0.0	22.0	17.46		17.09	0.0	18.5	
		1	131	20.58		21.07	0.0	22.0	17.05		17.09	0.0	18.5	
		64	0	20.80		20.98	0.0	22.0	17.42		17.23	0.0	18.5	
		64	34	20.87		20.99	0.0	22.0	17.27		17.41	0.0	18.5	
		64	69	20.82		21.02	0.0	22.0	17.27		17.18	0.0	18.5	
		128	0	20.79		21.01	0.0	22.0	17.37		17.19	0.0	18.5	
		1	1	20.73		20.97	0.0	22.0	17.12		17.36	0.0	18.5	
		1	66	20.87		20.85	0.0	22.0	17.35		16.78	0.0	18.5	
		1	131	20.54		21.08	0.0	22.0	16.90		17.11	0.0	18.5	
		64QAM	1	1	21.02		21.12	0.0	22.0	17.42		17.45	0.0	18.5
256QAM	1	1	18.46		18.61	2.0	20.0	17.05		16.80	0.5	18.0		
CP-OFDM	QPSK	1	1	21.01		20.65	0.0	22.0	17.61		17.50	0.0	18.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
					344000	349000	354000			344000	349000	354000		
					1720.00 MHz	1745.00 MHz	1770.00 MHz			1720.00 MHz	1745.00 MHz	1770.00 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.83	20.84	20.76	0.0	22.0	17.21	17.36	16.91	0.0	18.5
			1	52	20.85	21.00	20.93	0.0	22.0	17.22	17.25	16.96	0.0	18.5
			1	104	20.86	20.90	20.91	0.0	22.0	17.18	17.05	17.01	0.0	18.5
			50	0	20.76	20.73	20.81	0.0	22.0	17.28	17.32	17.10	0.0	18.5
			50	28	20.82	20.83	20.92	0.0	22.0	17.19	17.22	17.02	0.0	18.5
			50	56	20.67	20.71	20.82	0.0	22.0	17.15	17.09	16.99	0.0	18.5
		100	0	20.83	20.88	20.90	0.0	22.0	17.27	17.32	17.15	0.0	18.5	
		1	1	20.80	20.81	20.81	0.0	22.0	17.11	17.39	16.90	0.0	18.5	
		1	52	20.85	20.84	20.92	0.0	22.0	17.32	17.29	16.95	0.0	18.5	
		1	104	20.72	20.84	20.82	0.0	22.0	17.16	17.03	17.00	0.0	18.5	
		50	0	20.72	20.76	20.76	0.0	22.0	17.31	17.30	17.12	0.0	18.5	
		50	28	20.72	20.74	20.83	0.0	22.0	17.23	17.23	17.05	0.0	18.5	
		50	56	20.68	20.77	20.77	0.0	22.0	17.18	17.12	16.97	0.0	18.5	
		100	0	20.78	20.87	20.88	0.0	22.0	17.24	17.33	17.16	0.0	18.5	
		1	1	20.42	20.53	20.49	0.0	22.0	16.99	17.19	16.82	0.0	18.5	
		1	52	20.67	20.71	20.70	0.0	22.0	17.23	17.06	16.68	0.0	18.5	
		1	104	20.54	20.66	20.67	0.0	22.0	17.04	17.05	16.87	0.0	18.5	
		64QAM	1	1	20.80	20.84	20.82	0.0	22.0	17.32	17.38	17.00	0.0	18.5
256QAM	1	1	18.33	18.38	18.34	2.0	20.0	16.72	16.77	16.40	0.5	18.0		
CP-OFDM	QPSK	1	1	20.94	20.99	20.92	0.0	22.0	17.51	17.53	17.17	0.0	18.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit	Measured Pw r (dBm)			MPR	Tune-up Limit
					343500	349000	354500			343500	349000	354500		
					1717.50 MHz	1745.00 MHz	1772.50 MHz			1717.50 MHz	1745.00 MHz	1772.50 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.88	21.04	20.73	0.0	22.0	17.36	17.42	17.04	0.0	18.5
			1	39	20.91	20.95	20.74	0.0	22.0	17.25	17.15	16.97	0.0	18.5
			1	77	20.88	20.94	20.90	0.0	22.0	17.36	17.27	16.95	0.0	18.5
			36	0	20.80	20.98	20.77	0.0	22.0	17.37	17.30	17.08	0.0	18.5
			36	21	20.86	21.01	20.85	0.0	22.0	17.21	17.22	16.95	0.0	18.5
			36	43	20.78	20.89	20.75	0.0	22.0	17.22	17.14	16.91	0.0	18.5
		75	0	20.91	20.94	20.80	0.0	22.0	17.25	17.24	17.05	0.0	18.5	
		1	1	20.79	20.95	20.73	0.0	22.0	17.41	17.42	17.10	0.0	18.5	
		1	39	20.76	20.81	20.75	0.0	22.0	17.19	17.14	16.97	0.0	18.5	
		1	77	20.80	20.80	20.73	0.0	22.0	17.34	17.27	16.93	0.0	18.5	
		36	0	20.87	20.89	20.74	0.0	22.0	17.38	17.29	17.05	0.0	18.5	
		36	21	20.87	20.86	20.76	0.0	22.0	17.21	17.20	16.94	0.0	18.5	
		36	43	20.85	20.87	20.76	0.0	22.0	17.24	17.13	16.89	0.0	18.5	
		75	0	20.83	20.89	20.74	0.0	22.0	17.26	17.24	17.05	0.0	18.5	
		1	1	21.03	20.86	20.61	0.0	22.0	17.18	17.35	16.88	0.0	18.5	
		1	39	20.85	20.84	20.65	0.0	22.0	17.10	17.04	16.77	0.0	18.5	
		1	77	20.93	20.79	20.69	0.0	22.0	17.36	17.24	16.94	0.0	18.5	
		64QAM	1	1	20.47	21.06	20.90	0.0	22.0	17.52	17.53	17.11	0.0	18.5
256QAM	1	1	18.45	18.61	18.40	2.0	20.0	16.91	16.94	16.55	0.5	18.0		
CP-OFDM	QPSK	1	1	20.51	20.55	20.88	0.0	22.0	17.56	17.54	17.23	0.0	18.5	

**NR Band n66 Ant.F Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000			343000	349000	355000		
					1715.00 MHz	1745.00 MHz	1775.00 MHz			1715.00 MHz	1745.00 MHz	1775.00 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.89	20.96	20.93	0.0	22.0	17.42	17.33	16.97	0.0	18.5
			1	25	20.92	20.94	20.92	0.0	22.0	17.22	17.30	17.03	0.0	18.5
			1	50	20.88	20.91	20.91	0.0	22.0	17.22	17.14	17.09	0.0	18.5
			25	0	20.78	20.84	20.83	0.0	22.0	17.39	17.25	17.12	0.0	18.5
			25	13	20.88	20.94	20.97	0.0	22.0	17.34	17.19	17.02	0.0	18.5
			25	27	20.78	20.84	20.83	0.0	22.0	17.33	17.23	17.03	0.0	18.5
		50	0	20.78	20.79	20.83	0.0	22.0	17.35	17.13	17.04	0.0	18.5	
		QPSK	1	1	20.89	20.89	20.86	0.0	22.0	17.43	17.15	16.92	0.0	18.5
			1	25	20.87	20.91	20.91	0.0	22.0	17.30	17.31	17.08	0.0	18.5
			1	50	20.82	20.77	20.86	0.0	22.0	17.14	17.17	17.08	0.0	18.5
			25	0	20.77	20.76	20.85	0.0	22.0	17.40	17.26	17.05	0.0	18.5
			25	13	20.83	20.82	20.84	0.0	22.0	17.38	17.16	16.94	0.0	18.5
			25	27	20.74	20.76	20.81	0.0	22.0	17.32	17.21	16.97	0.0	18.5
		16QAM	1	1	20.60	20.68	20.61	0.0	22.0	17.20	16.99	16.71	0.0	18.5
			1	25	20.65	20.68	20.72	0.0	22.0	17.07	17.09	16.86	0.0	18.5
			1	50	20.65	20.65	20.64	0.0	22.0	17.11	17.07	17.01	0.0	18.5
		64QAM	1	1	20.90	20.89	20.86	0.0	22.0	17.49	17.19	17.11	0.0	18.5
		256QAM	1	1	18.32	18.44	18.44	2.0	20.0	16.83	16.59	16.42	0.5	18.0
CP-OFDM	QPSK	1	1	20.93	20.96	20.96	0.0	22.0	17.63	17.30	17.21	0.0	18.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500	349000	355500			342500	349000	355500		
					1712.50 MHz	1745.00 MHz	1777.50 MHz			1712.50 MHz	1745.00 MHz	1777.50 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.76	20.83	20.82	0.0	22.0	17.40	17.20	16.99	0.0	18.5
			1	12	20.81	21.01	21.02	0.0	22.0	17.49	17.43	17.03	0.0	18.5
			1	23	20.73	20.75	20.81	0.0	22.0	17.31	17.25	17.00	0.0	18.5
			12	0	20.77	20.78	20.86	0.0	22.0	17.37	17.31	16.96	0.0	18.5
			12	6	20.85	20.95	20.99	0.0	22.0	17.42	17.20	16.99	0.0	18.5
			12	13	20.77	20.78	20.88	0.0	22.0	17.35	17.26	16.99	0.0	18.5
		QPSK	25	0	20.77	20.85	20.87	0.0	22.0	17.35	17.33	16.92	0.0	18.5
			1	1	20.77	20.80	20.87	0.0	22.0	17.38	17.13	17.01	0.0	18.5
			1	12	20.85	20.95	21.01	0.0	22.0	17.47	17.37	17.03	0.0	18.5
			1	23	20.63	20.73	20.76	0.0	22.0	17.31	17.22	17.00	0.0	18.5
			12	0	20.75	20.79	20.90	0.0	22.0	17.42	17.28	17.00	0.0	18.5
			12	6	20.81	20.86	20.92	0.0	22.0	17.41	17.27	17.01	0.0	18.5
		16QAM	12	13	20.75	20.79	20.87	0.0	22.0	17.38	17.29	16.99	0.0	18.5
			25	0	20.74	20.75	20.87	0.0	22.0	17.39	17.30	16.96	0.0	18.5
			1	1	20.61	20.67	20.77	0.0	22.0	17.19	16.92	16.89	0.0	18.5
		64QAM	1	12	20.64	20.74	20.77	0.0	22.0	17.23	17.13	16.97	0.0	18.5
			1	23	20.69	20.69	20.72	0.0	22.0	17.27	17.17	16.95	0.0	18.5
			1	1	20.83	20.87	20.76	0.0	22.0	17.50	17.23	17.13	0.0	18.5
256QAM	1	1	18.32	18.42	18.50	2.0	20.0	16.88	16.65	16.53	0.5	18.0		
CP-OFDM	QPSK	1	1	20.94	20.95	20.91	0.0	22.0	17.63	17.37	17.18	0.0	18.5	





**NR Band n70 Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
					DSI = 0			DSI = 1					
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	
					340500	1702.50 MHz			340500	1702.50 MHz			
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.31	21.31	0.0	22.0	17.14	17.14	0.0	18.0	
			1	39	21.02	21.02	0.0	22.0	17.08	17.08	0.0	18.0	
			1	77	21.04	21.04	0.0	22.0	16.82	16.82	0.0	18.0	
			36	0	21.37	21.37	0.0	22.0	17.08	17.08	0.0	18.0	
			36	21	21.42	21.42	0.0	22.0	17.01	17.01	0.0	18.0	
			36	43	21.25	21.25	0.0	22.0	17.00	17.00	0.0	18.0	
		QPSK	75	0	21.41	21.41	0.0	22.0	17.15	17.15	0.0	18.0	
			1	1	21.41	21.41	0.0	22.0	17.20	17.20	0.0	18.0	
			1	39	21.44	21.44	0.0	22.0	17.06	17.06	0.0	18.0	
			1	77	21.45	21.45	0.0	22.0	17.21	17.21	0.0	18.0	
			36	0	21.13	21.13	0.0	22.0	17.09	17.09	0.0	18.0	
			36	21	21.18	21.18	0.0	22.0	17.11	17.11	0.0	18.0	
		16QAM	36	43	21.17	21.17	0.0	22.0	16.99	16.99	0.0	18.0	
			75	0	21.51	21.51	0.0	22.0	17.15	17.15	0.0	18.0	
			1	1	21.47	21.47	0.0	22.0	17.22	17.22	0.0	18.0	
			1	39	21.20	21.20	0.0	22.0	16.96	16.96	0.0	18.0	
64QAM	1	77	20.91	20.91	0.0	22.0	16.60	16.60	0.0	18.0			
	1	1	21.02	21.02	0.0	22.0	17.21	17.21	0.0	18.0			
256QAM	1	1	18.24	18.24	3.0	19.0	16.61	16.61	0.5	17.5			
	1	1	21.53	21.53	0.0	22.0	17.29	17.29	0.0	18.0			
CP-OFDM	QPSK	1	1	21.53	21.53	0.0	22.0	17.29	17.29	0.0	18.0		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	
					340500	1702.50 MHz			340500	1702.50 MHz			
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.83	21.83	0.0	22.0	17.19	17.19	0.0	18.0	
			1	25	21.88	21.88	0.0	22.0	17.15	17.15	0.0	18.0	
			1	50	21.80	21.80	0.0	22.0	17.07	17.07	0.0	18.0	
			25	0	21.73	21.73	0.0	22.0	17.18	17.18	0.0	18.0	
			25	13	21.83	21.83	0.0	22.0	17.03	17.03	0.0	18.0	
			25	27	21.70	21.70	0.0	22.0	17.13	17.13	0.0	18.0	
		QPSK	50	0	21.66	21.66	0.0	22.0	17.11	17.11	0.0	18.0	
			1	1	21.83	21.83	0.0	22.0	17.15	17.15	0.0	18.0	
			1	25	21.75	21.75	0.0	22.0	17.27	17.27	0.0	18.0	
			1	50	21.77	21.77	0.0	22.0	17.05	17.05	0.0	18.0	
			25	0	21.71	21.71	0.0	22.0	17.20	17.20	0.0	18.0	
			25	13	21.73	21.73	0.0	22.0	17.06	17.06	0.0	18.0	
		16QAM	25	27	21.69	21.69	0.0	22.0	17.09	17.09	0.0	18.0	
			50	0	21.69	21.69	0.0	22.0	17.12	17.12	0.0	18.0	
			1	1	21.66	21.66	0.0	22.0	17.11	17.11	0.0	18.0	
			1	25	21.54	21.54	0.0	22.0	17.05	17.05	0.0	18.0	
64QAM	1	50	21.53	21.53	0.0	22.0	16.84	16.84	0.0	18.0			
	1	1	21.00	21.00	0.0	22.0	17.11	17.11	0.0	18.0			
256QAM	1	1	18.30	18.30	3.0	19.0	16.56	16.56	0.5	17.5			
	1	1	21.83	21.83	0.0	22.0	17.36	17.36	0.0	18.0			
CP-OFDM	QPSK	1	1	21.83	21.83	0.0	22.0	17.36	17.36	0.0	18.0		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	
					339500	341500			339500	341500			
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.75	21.75	21.64	0.0	22.0	17.25	17.25	0.0	18.0
			1	12	21.86	21.86	21.80	0.0	22.0	17.15	17.15	0.0	18.0
			1	23	21.77	21.77	21.60	0.0	22.0	17.28	17.28	0.0	18.0
			12	0	21.78	21.78	21.63	0.0	22.0	17.23	17.23	0.0	18.0
			12	6	21.89	21.89	21.83	0.0	22.0	17.22	17.22	0.0	18.0
			12	13	21.80	21.80	21.70	0.0	22.0	17.22	17.22	0.0	18.0
		QPSK	25	0	21.77	21.77	21.69	0.0	22.0	17.25	17.25	0.0	18.0
			1	1	21.73	21.73	21.64	0.0	22.0	17.25	17.25	0.0	18.0
			1	12	21.89	21.89	21.74	0.0	22.0	17.18	17.18	0.0	18.0
			1	23	21.80	21.80	21.60	0.0	22.0	17.27	17.27	0.0	18.0
			12	0	21.75	21.75	21.64	0.0	22.0	17.26	17.26	0.0	18.0
			12	6	21.87	21.87	21.75	0.0	22.0	17.20	17.20	0.0	18.0
		16QAM	12	13	21.81	21.81	21.68	0.0	22.0	17.27	17.27	0.0	18.0
			25	0	21.81	21.81	21.66	0.0	22.0	17.24	17.24	0.0	18.0
			1	1	21.70	21.70	21.50	0.0	22.0	17.18	17.18	0.0	18.0
			1	12	21.68	21.68	21.55	0.0	22.0	17.15	17.15	0.0	18.0
64QAM	1	23	21.53	21.53	21.52	0.0	22.0	17.17	17.17	0.0	18.0		
	1	1	21.14	21.14	20.90	0.0	22.0	17.35	17.35	0.0	18.0		
256QAM	1	1	18.32	18.32	18.28	3.0	19.0	16.66	16.66	0.5	17.5		
	1	1	21.83	21.83	21.83	0.0	22.0	17.47	17.47	0.0	18.0		
CP-OFDM	QPSK	1	1	21.83	21.83	21.83	0.0	22.0	17.47	17.47	0.0	18.0	

**NR Band n71 Ant.A Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
					DSI = 0, 1			
					Measured Pwr (dBm)		MPR	Tune-up Limit
					136100	680.50 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.14	0.0	25.3	
			1	52	24.01	0.0	25.3	
			1	104	24.06	0.0	25.3	
			50	0	23.57	0.5	24.8	
			50	28	24.30	0.0	25.3	
			50	56	23.50	0.5	24.8	
		100	0	23.61	0.5	24.8		
		QPSK	1	1	24.22	0.0	25.3	
			1	52	24.21	0.0	25.3	
			1	104	24.08	0.0	25.3	
			50	0	23.60	1.0	24.3	
			50	28	24.29	0.0	25.3	
			50	56	23.49	1.0	24.3	
		16QAM	100	0	23.63	1.0	24.3	
			1	1	23.43	1.0	24.3	
			1	52	23.23	1.0	24.3	
	64QAM	1	104	23.24	1.0	24.3		
1		1	21.97	2.5	22.8			
256QAM	1	1	19.33	4.5	20.8			
CP-OFDM	QPSK	1	1	22.67	1.5	23.8		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
					134100	138100		
					670.50 MHz	690.50 MHz		
					670.50 MHz	690.50 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.07	24.24	0.0	25.3
			1	39	24.09	24.21	0.0	25.3
			1	77	24.52	24.17	0.0	25.3
			36	0	23.19	23.66	0.5	24.8
			36	21	24.59	24.44	0.0	25.3
			36	43	23.71	23.04	0.5	24.8
		75	0	23.32	23.26	0.5	24.8	
		QPSK	1	1	24.17	24.25	0.0	25.3
			1	39	24.29	24.26	0.0	25.3
			1	77	24.65	24.26	0.0	25.3
			36	0	23.08	23.71	1.0	24.3
			36	21	24.64	24.47	0.0	25.3
			36	43	23.69	23.03	1.0	24.3
		16QAM	75	0	23.42	23.38	1.0	24.3
			1	1	23.26	23.34	1.0	24.3
			1	39	23.25	23.24	1.0	24.3
	64QAM	1	77	23.40	23.40	1.0	24.3	
1		1	22.05	21.87	2.5	22.8		
256QAM	1	1	19.29	19.45	4.5	20.8		
CP-OFDM	QPSK	1	1	22.43	22.57	1.5	23.8	

**NR Band n71 Ant.A Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					133600	136100	138600		
					668.00 MHz	680.50 MHz	693.00 MHz		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	24.12	24.51	23.78	0.0	25.3
			1	25	24.07	24.59	24.20	0.0	25.3
			1	50	24.40	23.63	23.95	0.0	25.3
			25	0	23.01	23.48	23.42	0.5	24.8
			25	13	24.10	24.28	23.89	0.0	25.3
			25	27	23.69	23.60	22.88	0.5	24.8
		QPSK	50	0	23.32	23.63	23.07	0.5	24.8
			1	1	24.22	24.76	23.86	0.0	25.3
			1	25	24.14	24.69	24.35	0.0	25.3
			1	50	24.69	23.74	24.02	0.0	25.3
			25	0	23.02	23.44	23.49	1.0	24.3
			25	13	24.08	24.25	23.99	0.0	25.3
		16QAM	25	27	23.70	23.65	22.89	1.0	24.3
			50	0	23.34	23.67	23.10	1.0	24.3
			1	1	23.16	23.42	22.76	1.0	24.3
		64QAM	1	25	23.17	23.43	23.28	1.0	24.3
			1	50	23.49	22.87	23.10	1.0	24.3
			1	1	21.89	22.22	21.39	2.5	22.8
256QAM	1	1	19.17	19.52	18.90	4.5	20.8		
CP-OFDM	QPSK	1	1	22.41	22.99	22.01	1.5	23.8	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					133100	136100	139100		
					665.50 MHz	680.50 MHz	695.50 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.58	24.44	23.92	0.0	25.3
			1	12	23.65	24.13	23.46	0.0	25.3
			1	23	23.50	23.88	23.34	0.0	25.3
			12	0	22.69	23.21	22.89	0.5	24.8
			12	6	23.62	24.12	23.49	0.0	25.3
			12	13	22.76	23.42	22.77	0.5	24.8
		QPSK	25	0	22.74	23.30	22.96	0.5	24.8
			1	1	23.75	24.52	24.14	0.0	25.3
			1	12	23.80	24.42	23.71	0.0	25.3
			1	23	23.68	24.06	23.63	0.0	25.3
			12	0	22.83	23.35	22.88	1.0	24.3
			12	6	23.67	24.06	23.49	0.0	25.3
		16QAM	12	13	22.83	23.54	22.86	1.0	24.3
			25	0	22.82	23.43	22.93	1.0	24.3
			1	1	22.68	23.58	23.03	1.0	24.3
		64QAM	1	12	22.78	23.39	22.69	1.0	24.3
			1	23	22.68	23.09	22.58	1.0	24.3
			1	1	21.33	22.47	21.79	2.5	22.8
256QAM	1	1	18.82	19.79	19.50	4.5	20.8		
CP-OFDM	QPSK	1	1	21.92	22.72	22.20	1.5	23.8	

**NR Band n71 Ant.E Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
					DSI = 0, 1			
					Measured Pwr (dBm)		MPR	Tune-up Limit
136100	680.50 MHz							
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.72	0.0	25.3	
			1	52	24.73	0.0	25.3	
			1	104	24.75	0.0	25.3	
			50	0	23.87	0.5	24.8	
			50	28	24.84	0.0	25.3	
			50	56	23.84	0.5	24.8	
		QPSK	100	0	23.97	0.5	24.8	
			1	1	24.91	0.0	25.3	
			1	52	24.99	0.0	25.3	
			1	104	24.90	0.0	25.3	
			50	0	23.95	1.0	24.3	
			50	28	24.91	0.0	25.3	
		16QAM	50	56	23.90	1.0	24.3	
			100	0	23.97	1.0	24.3	
			1	1	23.61	1.0	24.3	
		64QAM	1	52	23.47	1.0	24.3	
			1	104	23.60	1.0	24.3	
			1	1	22.38	2.5	22.8	
256QAM	1	1	19.61	4.5	20.8			
	CP-OFDM	QPSK	1	1	23.34	1.5	23.8	
15 MHz	DFT-s-OFDM	π/2 BPSK	134100	670.50 MHz	138100	690.50 MHz	MPR	Tune-up Limit
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.11	24.62	0.0	25.3
			1	39	24.69	24.56	0.0	25.3
			1	77	24.65	24.44	0.0	25.3
			36	0	23.83	23.85	0.5	24.8
			36	21	24.64	24.61	0.0	25.3
			36	43	23.85	23.69	0.5	24.8
		QPSK	75	0	23.87	23.86	0.5	24.8
			1	1	24.20	24.77	0.0	25.3
			1	39	24.69	24.72	0.0	25.3
			1	77	24.80	24.57	0.0	25.3
			36	0	23.61	23.75	1.0	24.3
			36	21	24.66	24.67	0.0	25.3
		16QAM	36	43	23.80	23.71	1.0	24.3
			75	0	23.93	23.84	1.0	24.3
			1	1	23.23	23.58	1.0	24.3
		64QAM	1	39	23.51	23.50	1.0	24.3
			1	77	23.68	23.41	1.0	24.3
			1	1	21.71	22.37	2.5	22.8
256QAM	1	1	19.12	19.92	4.5	20.8		
	CP-OFDM	QPSK	1	1	22.46	23.35	1.5	23.8

**NR Band n71 Ant.E Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					133600	136100	138600		
					668.00 MHz	680.50 MHz	693.00 MHz		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.77	24.71	24.65	0.0	25.3
			1	25	24.61	24.76	24.54	0.0	25.3
			1	50	24.49	24.69	24.58	0.0	25.3
			25	0	23.67	23.89	23.75	0.5	24.8
			25	13	24.36	24.94	24.75	0.0	25.3
			25	27	23.71	23.89	23.69	0.5	24.8
		QPSK	50	0	23.49	23.89	23.70	0.5	24.8
			1	1	23.90	24.92	24.78	0.0	25.3
			1	25	24.71	24.90	24.70	0.0	25.3
			1	50	24.62	24.86	24.70	0.0	25.3
			25	0	23.53	23.89	23.74	1.0	24.3
			25	13	24.46	24.85	24.72	0.0	25.3
		16QAM	25	27	23.67	23.89	23.61	1.0	24.3
			50	0	23.53	23.86	23.70	1.0	24.3
			1	1	22.81	23.75	23.49	1.0	24.3
		64QAM	1	25	23.54	23.46	23.36	1.0	24.3
			1	50	23.61	23.50	23.42	1.0	24.3
			1	1	21.29	22.30	22.25	2.5	22.8
256QAM	1	1	18.37	19.74	19.60	4.5	20.8		
CP-OFDM	QPSK	1	1	22.04	22.99	23.31	1.5	23.8	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					133100	136100	139100		
					665.50 MHz	680.50 MHz	695.50 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.78	24.64	24.66	0.0	25.3
			1	12	24.37	24.77	24.70	0.0	25.3
			1	23	24.52	24.84	24.70	0.0	25.3
			12	0	23.60	23.97	23.84	0.5	24.8
			12	6	24.40	24.93	24.75	0.0	25.3
			12	13	23.35	23.90	23.78	0.5	24.8
		QPSK	25	0	23.45	23.92	23.76	0.5	24.8
			1	1	23.93	24.76	24.82	0.0	25.3
			1	12	24.55	24.89	24.73	0.0	25.3
			1	23	24.71	24.86	24.76	0.0	25.3
			12	0	23.67	23.98	23.88	1.0	24.3
			12	6	24.48	24.90	24.76	0.0	25.3
		16QAM	12	13	23.42	23.93	23.81	1.0	24.3
			25	0	23.36	23.96	23.78	1.0	24.3
			1	1	22.78	23.72	23.67	1.0	24.3
		64QAM	1	12	23.50	23.58	23.47	1.0	24.3
			1	23	23.56	23.78	23.60	1.0	24.3
			1	1	21.28	22.53	22.44	2.5	22.8
256QAM	1	1	18.52	19.81	19.80	4.5	20.8		
CP-OFDM	QPSK	1	1	22.06	23.04	23.28	1.5	23.8	

**NR Band n41(Voice/Data/SRS0) Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
					DSI = 0					DSI = 1						
					Measured Pwr (dBm)					Measured Pwr (dBm)						
					518598	2592.99 MHz	MPR	Tune-up Limit	518598	2592.99 MHz	MPR	Tune-up Limit				
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.05			0.0	20.5			17.45			0.0	18.0
			1	136	19.92			0.0	20.5			17.25			0.0	18.0
			1	271	20.03			0.0	20.5			17.49			0.0	18.0
			135	0	19.95			0.0	20.5			17.31			0.0	18.0
			135	69	19.88			0.0	20.5			17.24			0.0	18.0
			135	138	19.95			0.0	20.5			17.41			0.0	18.0
		270	0	19.96			0.0	20.5			17.37			0.0	18.0	
		QPSK	1	1	20.10			0.0	20.5			17.47			0.0	18.0
			1	136	19.79			0.0	20.5			17.34			0.0	18.0
			1	271	20.09			0.0	20.5			17.45			0.0	18.0
			135	0	19.91			0.0	20.5			17.41			0.0	18.0
			135	69	19.81			0.0	20.5			17.26			0.0	18.0
			135	138	19.90			0.0	20.5			17.35			0.0	18.0
		16QAM	270	0	19.91			0.0	20.5			17.34			0.0	18.0
			1	1	20.02			0.0	20.5			17.42			0.0	18.0
1	136		19.82			0.0	20.5			17.12			0.0	18.0		
64QAM	1	271	20.01			0.0	20.5			17.42			0.0	18.0		
	1	1	19.90			0.0	20.5			17.43			0.0	18.0		
256QAM	1	1	19.94			0.0	20.5			17.45			0.0	18.0		
CP-OFDM	QPSK	1	1	20.10			0.0	20.5			17.58			0.0	18.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
					508200					528996						
					Measured Pwr (dBm)					Measured Pwr (dBm)						
					508200	2541.00 MHz	MPR	Tune-up Limit	508200	2541.00 MHz	MPR	Tune-up Limit				
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.98			20.01	0.0	20.5	17.44			17.27	0.0	18.0
			1	122	19.77			19.93	0.0	20.5	17.47			17.42	0.0	18.0
			1	243	19.67			19.91	0.0	20.5	17.37			17.30	0.0	18.0
			120	0	19.72			19.91	0.0	20.5	17.38			17.35	0.0	18.0
			120	62	19.76			19.86	0.0	20.5	17.49			17.34	0.0	18.0
			120	125	19.75			19.87	0.0	20.5	17.32			17.30	0.0	18.0
		QPSK	243	0	19.69			19.93	0.0	20.5	17.39			17.26	0.0	18.0
			1	1	19.91			19.89	0.0	20.5	17.39			17.23	0.0	18.0
			1	122	19.74			19.91	0.0	20.5	17.43			17.26	0.0	18.0
			1	243	19.64			19.87	0.0	20.5	17.26			17.28	0.0	18.0
			120	0	19.72			19.81	0.0	20.5	17.41			17.31	0.0	18.0
			120	62	19.59			19.83	0.0	20.5	17.41			17.31	0.0	18.0
		16QAM	120	125	19.61			19.80	0.0	20.5	17.37			17.25	0.0	18.0
			243	0	19.73			19.86	0.0	20.5	17.32			17.19	0.0	18.0
			1	1	19.86			19.81	0.0	20.5	17.40			17.34	0.0	18.0
64QAM	1	122	19.67			19.76	0.0	20.5	17.35			17.16	0.0	18.0		
	1	243	19.48			19.77	0.0	20.5	17.29			17.19	0.0	18.0		
256QAM	1	1	19.87			19.86	0.0	20.5	17.42			17.33	0.0	18.0		
CP-OFDM	QPSK	1	1	20.05			20.01	0.0	20.5	17.56			17.29	0.0	18.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
					507204					529998						
					Measured Pwr (dBm)					Measured Pwr (dBm)						
					507204	2536.02 MHz	MPR	Tune-up Limit	507204	2536.02 MHz	MPR	Tune-up Limit				
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.82			19.82	0.0	20.5	17.45			17.25	0.0	18.0
			1	108	19.83			19.92	0.0	20.5	17.42			17.40	0.0	18.0
			1	215	19.68			19.84	0.0	20.5	17.36			17.24	0.0	18.0
			108	0	19.78			19.83	0.0	20.5	17.37			17.39	0.0	18.0
			108	54	19.83			19.92	0.0	20.5	17.52			17.35	0.0	18.0
			108	109	19.81			19.97	0.0	20.5	17.42			17.31	0.0	18.0
		QPSK	216	0	19.80			19.86	0.0	20.5	17.45			17.32	0.0	18.0
			1	1	19.85			19.85	0.0	20.5	17.46			17.35	0.0	18.0
			1	108	19.89			19.83	0.0	20.5	17.41			17.22	0.0	18.0
			1	215	19.81			19.82	0.0	20.5	17.33			17.21	0.0	18.0
			108	0	19.88			19.92	0.0	20.5	17.44			17.28	0.0	18.0
			108	54	19.92			19.88	0.0	20.5	17.45			17.32	0.0	18.0
		16QAM	108	109	19.89			19.91	0.0	20.5	17.43			17.21	0.0	18.0
			216	0	19.91			19.85	0.0	20.5	17.42			17.32	0.0	18.0
			1	1	19.84			19.77	0.0	20.5	17.33			17.30	0.0	18.0
64QAM	1	108	19.83			19.77	0.0	20.5	17.37			17.21	0.0	18.0		
	1	215	19.76			19.82	0.0	20.5	17.29			17.13	0.0	18.0		
256QAM	1	1	19.27			19.72	0.0	20.5	17.34			17.34	0.0	18.0		
CP-OFDM	QPSK	1	1	19.88			18.32	0.0	20.5	17.46			17.31	0.0	18.0	

**Notes:**

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

**NR Band n41(Voice/Data/SRS0) Ant.F 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
					506202		531000			506202		531000		
					2531.01 MHz		2655.00 MHz			2531.01 MHz		2655.00 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.71		19.87	0.0	20.5	17.34		17.23	0.0	18.0
			1	94	19.88		19.91	0.0	20.5	17.41		17.29	0.0	18.0
			1	187	19.84		19.86	0.0	20.5	17.46		17.26	0.0	18.0
			90	0	19.82		19.91	0.0	20.5	17.38		17.34	0.0	18.0
			90	49	19.94		19.91	0.0	20.5	17.52		17.38	0.0	18.0
			90	99	19.84		19.91	0.0	20.5	17.45		17.28	0.0	18.0
		180	0	19.86		19.87	0.0	20.5	17.50		17.26	0.0	18.0	
		QPSK	1	1	19.78		19.79	0.0	20.5	17.38		17.26	0.0	18.0
			1	94	19.79		19.77	0.0	20.5	17.41		17.21	0.0	18.0
			1	187	19.86		19.86	0.0	20.5	17.40		17.27	0.0	18.0
			90	0	19.75		19.93	0.0	20.5	17.43		17.33	0.0	18.0
			90	49	19.79		19.81	0.0	20.5	17.35		17.32	0.0	18.0
			90	99	19.77		19.93	0.0	20.5	17.42		17.31	0.0	18.0
		180	0	19.82		19.85	0.0	20.5	17.41		17.37	0.0	18.0	
		16QAM	1	1	19.75		19.71	0.0	20.5	17.23		17.33	0.0	18.0
			1	94	19.76		19.74	0.0	20.5	17.27		17.25	0.0	18.0
			1	187	19.73		19.79	0.0	20.5	17.31		17.15	0.0	18.0
			1	1	19.62		19.81	0.0	20.5	17.27		17.27	0.0	18.0
		64QAM	1	1	19.27		19.76	0.0	20.5	17.33		17.22	0.0	18.0
			1	1	19.83		19.81	0.0	20.5	17.39		17.35	0.0	18.0
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.74		19.72	0.0	20.5	17.39		17.31	0.0	18.0
			1	80	19.66		19.59	0.0	20.5	17.40		17.21	0.0	18.0
			1	160	19.82		19.93	0.0	20.5	17.53		17.34	0.0	18.0
			81	0	19.66		19.57	0.0	20.5	17.26		17.16	0.0	18.0
			81	40	19.81		19.71	0.0	20.5	17.44		17.26	0.0	18.0
			81	81	19.69		19.72	0.0	20.5	17.37		17.17	0.0	18.0
		162	0	19.77		19.76	0.0	20.5	17.48		17.30	0.0	18.0	
		QPSK	1	1	19.74		19.65	0.0	20.5	17.40		17.21	0.0	18.0
			1	80	19.62		19.53	0.0	20.5	17.33		17.11	0.0	18.0
			1	160	19.88		19.82	0.0	20.5	17.52		17.33	0.0	18.0
			81	0	19.56		19.53	0.0	20.5	17.29		17.12	0.0	18.0
			81	40	19.71		19.62	0.0	20.5	17.39		17.19	0.0	18.0
			81	81	19.74		19.71	0.0	20.5	17.33		17.26	0.0	18.0
		162	0	19.76		19.71	0.0	20.5	17.41		17.29	0.0	18.0	
		16QAM	1	1	19.75		19.64	0.0	20.5	17.25		17.04	0.0	18.0
			1	80	19.65		19.48	0.0	20.5	17.25		17.05	0.0	18.0
			1	160	19.82		19.79	0.0	20.5	17.38		17.21	0.0	18.0
			1	1	19.55		19.49	0.0	20.5	17.27		17.10	0.0	18.0
		64QAM	1	1	18.93		18.52	0.0	20.5	17.41		17.07	0.0	18.0
			1	1	19.76		19.68	0.0	20.5	17.44		17.23	0.0	18.0
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.79		19.82	0.0	20.5	17.53		17.43	0.0	18.0
			1	66	19.91		19.81	0.0	20.5	17.61		17.37	0.0	18.0
			1	131	19.92		20.01	0.0	20.5	17.63		17.51	0.0	18.0
			64	0	19.88		19.80	0.0	20.5	17.58		17.41	0.0	18.0
			64	34	20.01		19.98	0.0	20.5	17.70		17.51	0.0	18.0
			64	69	19.98		19.94	0.0	20.5	17.65		17.45	0.0	18.0
		128	0	19.90		19.87	0.0	20.5	17.60		17.44	0.0	18.0	
		QPSK	1	1	19.81		19.78	0.0	20.5	17.44		17.42	0.0	18.0
			1	66	19.83		19.75	0.0	20.5	17.50		17.23	0.0	18.0
			1	131	19.92		20.01	0.0	20.5	17.57		17.20	0.0	18.0
			64	0	19.89		19.75	0.0	20.5	17.53		17.31	0.0	18.0
			64	34	19.97		19.89	0.0	20.5	17.59		17.11	0.0	18.0
			64	69	19.93		19.93	0.0	20.5	17.65		17.17	0.0	18.0
		128	0	19.92		19.81	0.0	20.5	17.50		17.23	0.0	18.0	
		16QAM	1	1	19.73		19.77	0.0	20.5	17.33		17.44	0.0	18.0
			1	66	19.78		19.73	0.0	20.5	17.00		17.15	0.0	18.0
			1	131	19.95		19.83	0.0	20.5	17.43		17.18	0.0	18.0
			1	1	19.96		19.76	0.0	20.5	17.35		17.49	0.0	18.0
		64QAM	1	1	18.48		18.76	0.0	20.5	17.40		17.41	0.0	18.0
			1	1	19.56		19.91	0.0	20.5	17.45		17.51	0.0	18.0

**Notes:**

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

**NR Band n41(Voice/Data/SRS0) Ant.F 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	513468		523734	534000			503202	513468		523734	534000		
					2516.01 MHz	2567.34 MHz		2618.67 MHz	2670.00 MHz			2516.01 MHz	2567.34 MHz		2618.67 MHz	2670.00 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.11	19.69		19.67	19.87	0.0	20.5	17.31	17.46		17.17	17.31	0.0	18.0
			1	52	19.81	19.78		19.86	19.91	0.0	20.5	17.44	17.28		17.28	17.35	0.0	18.0
			1	104	19.73	19.68		19.89	19.79	0.0	20.5	17.19	17.35		17.33	17.21	0.0	18.0
			50	0	19.69	19.74		19.76	19.87	0.0	20.5	17.23	17.35		17.21	17.27	0.0	18.0
			50	28	19.89	19.78		19.91	19.91	0.0	20.5	17.11	17.30		17.43	17.36	0.0	18.0
			100	56	19.74	19.76		19.83	19.84	0.0	20.5	17.21	17.31		17.29	17.24	0.0	18.0
		500	0	19.76	19.73		19.86	19.82	0.0	20.5	17.18	17.33		17.20	17.26	0.0	18.0	
		QPSK	1	1	19.61	19.68		19.68	19.77	0.0	20.5	17.28	17.50		17.17	17.25	0.0	18.0
			1	52	19.66	19.65		19.77	19.81	0.0	20.5	17.12	17.28		17.19	17.20	0.0	18.0
			1	104	19.73	19.65		19.85	19.77	0.0	20.5	17.17	17.28		17.21	17.07	0.0	18.0
			50	0	19.73	19.73		19.72	19.89	0.0	20.5	17.11	17.35		17.27	17.33	0.0	18.0
			50	28	19.81	19.66		19.81	19.81	0.0	20.5	17.18	17.00		17.26	17.30	0.0	18.0
			100	56	19.82	19.76		19.85	19.79	0.0	20.5	17.12	17.30		17.31	17.28	0.0	18.0
		16QAM	1	1	19.52	19.61		19.61	19.72	0.0	20.5	17.33	17.50		17.05	17.12	0.0	18.0
			1	52	19.71	19.62		19.81	19.77	0.0	20.5	17.03	17.31		17.14	17.28	0.0	18.0
		64QAM	1	104	19.62	19.58		19.74	19.67	0.0	20.5	17.13	17.24		17.10	17.05	0.0	18.0
			1	1	19.68	19.65		19.61	19.69	0.0	20.5	17.25	17.51		17.11	17.17	0.0	18.0
		256QAM	1	1	19.60	19.71		19.66	19.01	0.0	20.5	17.31	17.56		17.10	17.21	0.0	18.0
			1	1	19.57	19.61		19.72	19.81	0.0	20.5	17.35	17.61		17.09	17.22	0.0	18.0
		30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.94	19.96	19.88	20.05	20.07	0.0	20.5	17.61	17.61	17.35	17.47	17.58
1	39				19.91	19.89	19.81	20.01	19.97	0.0	20.5	17.48	17.48	17.38	17.51	17.51	0.0	18.0
1	76				19.94	19.63	19.91	20.06	20.01	0.0	20.5	17.54	17.49	17.48	17.51	17.45	0.0	18.0
36	0				19.71	19.78	19.70	19.81	19.80	0.0	20.5	17.24	17.34	17.24	17.25	17.31	0.0	18.0
36	21				19.83	19.81	19.75	19.82	19.83	0.0	20.5	17.41	17.44	17.26	17.37	17.27	0.0	18.0
36	42				19.82	19.75	19.81	19.87	19.86	0.0	20.5	17.37	17.33	17.26	17.38	17.27	0.0	18.0
75	0			19.79	19.74	19.65	19.83	19.99	0.0	20.5	17.37	17.39	17.25	17.44	17.32	0.0	18.0	
QPSK	1			1	19.89	20.03	19.86	20.01	19.98	0.0	20.5	17.45	17.49	17.37	17.36	17.52	0.0	18.0
	1			39	19.81	19.92	19.75	19.88	19.86	0.0	20.5	17.38	17.45	17.35	17.41	17.34	0.0	18.0
	1			76	19.93	19.88	19.90	20.05	19.98	0.0	20.5	17.54	17.46	17.46	17.31	17.40	0.0	18.0
	36			0	19.69	19.81	19.72	19.81	19.84	0.0	20.5	17.31	17.40	17.18	17.33	17.21	0.0	18.0
	36			21	19.76	19.81	19.59	19.78	19.76	0.0	20.5	17.27	17.29	17.22	17.22	17.23	0.0	18.0
	36			42	19.84	19.77	19.68	19.81	19.86	0.0	20.5	17.46	17.32	17.25	17.30	17.26	0.0	18.0
75	0			19.82	19.74	19.69	19.79	19.81	0.0	20.5	17.29	17.36	17.29	17.36	17.27	0.0	18.0	
16QAM	1			1	19.71	19.77	19.67	19.82	20.02	0.0	20.5	17.27	17.37	17.21	17.33	17.25	0.0	18.0
	1			39	19.61	19.66	19.54	19.74	19.77	0.0	20.5	17.23	17.31	17.10	17.23	17.20	0.0	18.0
64QAM	1			76	19.68	19.62	19.77	19.87	19.69	0.0	20.5	17.33	17.25	17.17	17.28	17.14	0.0	18.0
	1			1	19.61	19.81	19.76	19.88	19.82	0.0	20.5	17.32	17.51	17.24	17.30	17.40	0.0	18.0
256QAM	1			1	18.41	19.88	19.12	19.84	19.23	0.0	20.5	17.34	17.36	17.20	17.30	17.22	0.0	18.0
	1			1	19.62	19.99	19.83	20.02	19.93	0.0	20.5	17.46	17.49	17.43	17.44	17.54	0.0	18.0
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.08	19.96	19.90	19.98	20.01	0.0	20.5	17.65	17.65	17.50	17.56	17.55	0.0	18.0
			1	32	20.15	19.85	19.83	19.92	19.89	0.0	20.5	17.72	17.58	17.48	17.58	17.49	0.0	18.0
			1	63	20.19	19.72	19.89	19.99	19.98	0.0	20.5	17.56	17.45	17.49	17.50	17.47	0.0	18.0
			32	0	20.05	19.83	19.75	19.78	19.79	0.0	20.5	17.54	17.49	17.39	17.46	17.41	0.0	18.0
			32	16	20.06	19.82	19.78	19.81	19.82	0.0	20.5	17.59	17.51	17.43	17.53	17.37	0.0	18.0
			32	33	20.03	19.82	19.88	19.85	19.82	0.0	20.5	17.58	17.42	17.41	17.51	17.45	0.0	18.0
		64	0	20.10	19.69	19.72	19.83	19.95	0.0	20.5	17.61	17.49	17.45	17.41	17.37	0.0	18.0	
		QPSK	1	1	20.09	19.97	19.92	19.98	19.83	0.0	20.5	17.63	17.56	17.35	17.42	17.42	0.0	18.0
			1	32	20.08	19.89	19.81	19.87	19.67	0.0	20.5	17.57	17.49	17.44	17.52	17.49	0.0	18.0
			1	63	20.06	19.91	19.89	20.02	19.98	0.0	20.5	17.48	17.39	17.44	17.45	17.44	0.0	18.0
			32	0	20.04	19.83	19.82	19.87	19.85	0.0	20.5	17.58	17.18	17.34	17.45	17.41	0.0	18.0
			32	16	19.96	19.78	19.62	19.82	19.71	0.0	20.5	17.49	17.39	17.30	17.36	17.31	0.0	18.0
			32	33	20.06	19.82	19.72	19.83	19.85	0.0	20.5	17.55	17.45	17.41	17.45	17.38	0.0	18.0
		64	0	20.08	19.77	19.62	19.82	19.75	0.0	20.5	17.58	17.45	17.44	17.48	17.39	0.0	18.0	
		16QAM	1	1	20.06	19.79	19.64	19.85	19.99	0.0	20.5	17.56	17.49	17.28	17.34	17.34	0.0	18.0
			1	32	20.03	19.69	19.62	19.79	19.87	0.0	20.5	17.49	17.32	17.29	17.44	17.30	0.0	18.0
		64QAM	1	63	19.98	19.63	19.74	19.84	19.75	0.0	20.5	17.45	17.46	17.33	17.38	17.27	0.0	18.0
			1	1	20.13	19.85	19.75	19.98	19.85	0.0	20.5	17.57	17.51	17.37	17.42	17.42	0.0	18.0
		256QAM	1	1	19.31	19.89	19.26	19.85	19.55	0.0	20.5	17.58	17.51	17.34	17.39	17.44	0.0	18.0
			1	1	20.08	19.97	19.87	19.78	19.87	0.0	20.5	17.57	17.51	17.41	17.48	17.46	0.0	18.0
CP-OFDM	QPSK	1	1	19.62	19.99	19.83	20.02	19.93	0.0	20.5	17.46	17.49	17.43	17.44	17.54	0.0	18.0	

**Notes:**

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



**NR Band n41(Voice/Data/SRS0) Ant.F 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	509904	518598	527298	535998			501204	509904	518598	527298	535998		
					2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz			2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.78	19.75	19.71	19.87	19.86	0.0	20.5	17.41	17.45	17.31	17.35	17.39	0.0	18.0
			1	25	19.79	19.81	19.78	19.97	19.87	0.0	20.5	17.49	17.49	17.35	17.28	17.34	0.0	18.0
			1	49	19.74	19.74	19.72	19.91	19.83	0.0	20.5	17.43	17.37	17.36	17.12	17.29	0.0	18.0
			25	0	19.63	19.71	19.69	19.71	19.81	0.0	20.5	17.24	17.34	17.20	17.29	17.34	0.0	18.0
			25	13	19.75	19.76	19.73	19.81	19.89	0.0	20.5	17.37	17.42	17.27	17.24	17.33	0.0	18.0
		25	26	19.71	19.68	19.68	19.71	19.74	0.0	20.5	17.31	17.29	17.21	17.17	17.35	0.0	18.0	
		50	0	19.71	19.78	19.81	19.85	19.87	0.0	20.5	17.39	17.44	17.37	17.25	17.29	0.0	18.0	
		QPSK	1	1	19.66	19.73	19.63	19.84	19.78	0.0	20.5	17.41	17.45	17.25	17.30	17.42	0.0	18.0
			1	25	19.73	19.75	19.68	20.01	19.89	0.0	20.5	17.45	17.46	17.32	17.25	17.36	0.0	18.0
			1	49	19.73	19.66	19.72	19.93	19.82	0.0	20.5	17.29	17.36	17.23	17.27	17.29	0.0	18.0
			25	0	19.68	19.71	19.61	19.74	19.67	0.0	20.5	17.25	17.34	17.18	17.24	17.31	0.0	18.0
			25	13	19.67	19.67	19.65	19.82	19.79	0.0	20.5	17.41	17.29	17.20	17.16	17.39	0.0	18.0
		25	26	19.69	19.66	19.71	19.84	19.79	0.0	20.5	17.31	17.33	17.19	17.07	17.32	0.0	18.0	
		50	0	19.76	19.76	19.81	19.82	19.78	0.0	20.5	17.37	17.41	17.32	17.13	17.25	0.0	18.0	
		16QAM	1	1	19.46	19.58	19.51	19.68	19.62	0.0	20.5	17.24	17.25	17.07	17.44	17.44	0.0	18.0
1	25		19.67	19.64	19.52	19.73	19.76	0.0	20.5	17.16	17.31	17.13	17.21	17.32	0.0	18.0		
1	49		19.61	19.53	19.58	19.65	19.65	0.0	20.5	17.26	17.22	17.14	17.10	17.25	0.0	18.0		
64QAM	1	1	18.93	19.61	19.48	19.63	19.67	0.0	20.5	17.21	17.31	17.07	17.38	17.45	0.0	18.0		
256QAM	1	1	18.51	19.66	19.13	19.66	19.62	0.0	20.5	17.27	17.33	17.06	17.35	17.51	0.0	18.0		
CP-OFDM	QPSK	1	1	19.71	19.73	19.69	19.83	19.81	0.0	20.5	17.39	17.45	17.21	17.36	17.63	0.0	18.0	
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.69	19.72	19.67	19.81	19.71	0.0	20.5	17.32	17.37	17.27	17.35	17.23	0.0	18.0
			1	18	19.13	19.79	19.68	19.86	19.75	0.0	20.5	17.30	17.37	17.24	17.38	17.22	0.0	18.0
			1	36	19.80	19.88	19.78	19.89	19.72	0.0	20.5	17.32	17.46	17.26	17.36	17.17	0.0	18.0
			18	0	19.71	19.67	19.71	19.81	19.79	0.0	20.5	17.31	17.33	17.27	17.35	17.21	0.0	18.0
			18	10	19.79	19.77	19.75	19.85	19.86	0.0	20.5	17.39	17.44	17.37	17.40	17.24	0.0	18.0
		18	20	19.75	19.75	19.70	19.83	19.77	0.0	20.5	17.33	17.28	17.25	17.32	17.17	0.0	18.0	
		36	0	19.66	19.72	19.61	19.73	19.71	0.0	20.5	17.27	17.26	17.23	17.26	17.09	0.0	18.0	
		QPSK	1	1	19.66	19.74	19.57	19.83	19.75	0.0	20.5	17.29	17.43	17.16	17.31	17.12	0.0	18.0
			1	18	19.72	19.77	19.65	19.73	19.76	0.0	20.5	17.27	17.42	17.25	17.29	17.14	0.0	18.0
			1	36	19.72	19.75	19.67	19.81	19.74	0.0	20.5	17.25	17.34	17.27	17.32	17.09	0.0	18.0
			18	0	19.74	19.71	19.74	19.81	19.80	0.0	20.5	17.35	17.29	17.34	17.28	17.17	0.0	18.0
			18	10	19.62	19.68	19.71	19.83	19.77	0.0	20.5	17.33	17.27	17.19	17.33	17.20	0.0	18.0
		18	20	19.65	19.68	19.66	19.86	19.75	0.0	20.5	17.31	17.33	17.30	17.32	17.18	0.0	18.0	
		36	0	19.76	19.66	19.52	19.64	19.66	0.0	20.5	17.27	17.38	17.11	17.27	17.09	0.0	18.0	
		16QAM	1	1	19.45	19.56	19.60	19.66	19.75	0.0	20.5	17.28	17.21	17.13	17.31	17.13	0.0	18.0
1	18		19.53	19.59	19.51	19.75	19.71	0.0	20.5	17.20	17.29	17.24	17.23	17.11	0.0	18.0		
1	36		19.56	19.58	19.61	19.81	19.71	0.0	20.5	17.25	17.22	17.22	17.27	17.03	0.0	18.0		
64QAM	1	1	19.55	19.63	19.61	19.64	19.70	0.0	20.5	17.28	17.28	17.23	17.28	17.15	0.0	18.0		
256QAM	1	1	19.69	19.67	19.18	19.72	19.66	0.0	20.5	17.22	17.34	17.22	17.31	17.13	0.0	18.0		
CP-OFDM	QPSK	1	1	19.71	19.75	19.61	19.76	19.77	0.0	20.5	17.24	17.51	17.22	17.21	17.18	0.0	18.0	
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.55	19.91	19.61	19.91	19.92	0.0	20.5	17.41	17.41	17.55	17.57	17.47	0.0	18.0
			1	12	19.65	19.87	19.85	19.85	19.85	0.0	20.5	17.58	17.42	17.51	17.47	17.41	0.0	18.0
			1	22	19.83	19.76	19.87	19.77	19.76	0.0	20.5	17.49	17.41	17.59	17.55	17.48	0.0	18.0
			12	0	19.62	19.85	19.88	19.88	19.82	0.0	20.5	17.36	17.50	17.32	17.44	17.37	0.0	18.0
			12	6	19.87	19.86	19.93	19.92	19.77	0.0	20.5	17.38	17.54	17.51	17.53	17.45	0.0	18.0
		12	12	19.96	19.91	19.77	19.79	19.68	0.0	20.5	17.29	17.49	17.44	17.43	17.37	0.0	18.0	
		24	0	19.64	19.87	19.87	19.77	19.66	0.0	20.5	17.33	17.36	17.38	17.36	17.18	0.0	18.0	
		QPSK	1	1	19.86	19.83	19.57	19.59	19.76	0.0	20.5	17.41	17.40	17.41	17.51	17.35	0.0	18.0
			1	12	19.87	19.85	19.75	19.70	19.83	0.0	20.5	17.53	17.45	17.46	17.46	17.41	0.0	18.0
			1	22	19.82	19.60	19.71	19.90	19.82	0.0	20.5	17.40	17.42	17.54	17.51	17.44	0.0	18.0
			12	0	19.88	19.94	19.66	19.85	19.52	0.0	20.5	17.37	17.54	17.35	17.41	17.25	0.0	18.0
			12	6	19.76	19.76	19.92	19.79	19.72	0.0	20.5	17.39	17.40	17.37	17.41	17.25	0.0	18.0
		12	12	19.72	19.78	19.76	19.68	19.55	0.0	20.5	17.31	17.40	17.31	17.44	17.23	0.0	18.0	
		24	0	19.77	19.87	19.85	19.72	19.61	0.0	20.5	17.34	17.35	17.23	17.38	17.19	0.0	18.0	
		16QAM	1	1	19.68	19.86	19.67	19.82	19.63	0.0	20.5	17.39	17.29	17.30	17.45	17.21	0.0	18.0
1	12		19.57	19.74	19.38	19.65	19.54	0.0	20.5	17.48	17.40	17.22	17.31	17.12	0.0	18.0		
1	22		19.71	19.72	19.52	19.66	19.65	0.0	20.5	17.44	17.41	17.29	17.39	17.13	0.0	18.0		
64QAM	1	1	19.13	19.68	19.51	19.72	19.74	0.0	20.5	17.35	17.38	17.31	17.41	17.23	0.0	18.0		
256QAM	1	1	18.22	19.26	19.59	19.74	19.71	0.0	20.5	17.41	17.38	17.45	17.47	17.23	0.0	18.0		
CP-OFDM	QPSK	1	1	19.61	19.65	19.64	19.62	19.65	0.0	20.5	17.44	17.41	17.49	17.61	17.44	0.0	18.0	

**Notes:**

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

**NR Band n41(Voice/Data/SRS0) Ant.B Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)							
					DSI = 0, 1							
					Measured Pwr (dBm)				MPR	Tune-up Limit		
					518598	2592.99 MHz						
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1								
			1	136					21.70		0.0	22.0
			1	271					21.71		0.0	22.0
			135	0					21.68		0.0	22.0
		135	69					21.77		0.0	22.0	
		135	138					21.72		0.0	22.0	
		270	0					21.74		0.0	22.0	
		1	1					21.50		0.0	22.0	
	CP-OFDM	QPSK	1	136					21.40		0.0	22.0
			1	271					21.70		0.0	22.0
			135	0					21.40		0.0	22.0
			135	69					21.39		0.0	22.0
		135	138					21.54		0.0	22.0	
		270	0					21.49		0.0	22.0	
		16QAM	1	1					21.60		0.0	22.0
		1	136						21.30		0.0	22.0
64QAM	1	271						21.60		0.0	22.0	
	1	1						21.60		0.0	22.0	
	256QAM	1	1					20.60		0.0	22.0	
	CP-OFDM	QPSK	1	1				21.70		0.0	22.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)							
					508200	528996	MPR	Tune-up Limit				
					2541.00 MHz	2644.98 MHz						
					90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.56		
1	122	21.47					21.62	0.0	22.0			
1	243	21.41					21.44	0.0	22.0			
120	0	21.46					21.46	0.0	22.0			
120	62	21.53					21.58	0.0	22.0			
120	125	21.34					21.52	0.0	22.0			
243	0	21.37					21.36	0.0	22.0			
1	1	21.50					21.73	0.0	22.0			
CP-OFDM	QPSK	1	122	21.42				21.66	0.0	22.0		
		1	243	21.32				21.59	0.0	22.0		
		120	0	21.42				21.43	0.0	22.0		
		120	62	21.32				21.63	0.0	22.0		
	120	125	21.34				21.55	0.0	22.0			
	243	0	21.40				21.46	0.0	22.0			
	16QAM	1	1	21.44				21.53	0.0	22.0		
	1	122	21.28					21.62	0.0	22.0		
64QAM	1	243	21.33				21.49	0.0	22.0			
	1	1	21.36				21.35	0.0	22.0			
	256QAM	1	1	20.76				20.99	0.0	22.0		
	CP-OFDM	QPSK	1	1	21.68			21.45	0.0	22.0		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)							
					507204	529998	MPR	Tune-up Limit				
					2536.02 MHz	2649.99 MHz						
					80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.47		
1	108	21.42					21.51	0.0	22.0			
1	215	21.37					21.54	0.0	22.0			
108	0	21.42					21.50	0.0	22.0			
108	54	21.46					21.53	0.0	22.0			
108	109	21.55					21.46	0.0	22.0			
216	0	21.48					21.47	0.0	22.0			
CP-OFDM	QPSK	1	1	21.40				21.52	0.0	22.0		
		1	108	21.39				21.47	0.0	22.0		
		1	215	21.51				21.49	0.0	22.0		
		108	0	21.52				21.55	0.0	22.0		
	108	54	21.38				21.53	0.0	22.0			
	108	109	21.43				21.51	0.0	22.0			
	216	0	21.45				21.49	0.0	22.0			
	16QAM	1	1	21.32				21.39	0.0	22.0		
1	108	21.23					21.35	0.0	22.0			
64QAM	1	215	21.22				21.47	0.0	22.0			
	1	1	21.32				21.46	0.0	22.0			
	256QAM	1	1	20.79				20.81	0.0	22.0		
	CP-OFDM	QPSK	1	1	21.48			21.33	0.0	22.0		

**Notes:**

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

**NR Band n41(Voice/Data/SRS0) Ant.B Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit		
					506202		531000				
					2531.01 MHz		2655.00 MHz				
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.38			21.55	0.0	22.0	
			1	94	21.39			21.48	0.0	22.0	
			1	187	21.36			21.32	0.0	22.0	
			90	0	21.44			21.42	0.0	22.0	
			90	49	21.48			21.45	0.0	22.0	
			90	99	21.46			21.45	0.0	22.0	
		180	0	21.45			21.57	0.0	22.0		
		1	1	21.38			21.35	0.0	22.0		
		1	94	21.43			21.44	0.0	22.0		
		1	187	21.52			21.41	0.0	22.0		
		90	0	21.49			21.38	0.0	22.0		
		90	49	21.52			21.39	0.0	22.0		
		90	99	21.44			21.42	0.0	22.0		
		180	0	21.38			21.38	0.0	22.0		
		1	1	21.35			21.45	0.0	22.0		
		1	94	21.37			21.55	0.0	22.0		
		1	187	21.39			21.52	0.0	22.0		
		16QAM	1	1	21.35			21.45	0.0	22.0	
		64QAM	1	1	21.35			21.45	0.0	22.0	
		256QAM	1	1	20.77			20.84	0.0	22.0	
CP-OFDM	QPSK	1	1	21.43			21.44	0.0	22.0		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit		
					505200	518598	531996				
					2526.00 MHz	2592.99 MHz	2659.98 MHz				
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.67		20.17		21.42	0.0	22.0
			1	80	21.37		21.11		21.40	0.0	22.0
			1	160	20.25		21.52		21.53	0.0	22.0
			81	0	21.42		21.35		21.36	0.0	22.0
			81	40	21.35		21.34		21.41	0.0	22.0
			81	81	21.31		21.34		21.35	0.0	22.0
		162	0	21.36		21.39		21.42	0.0	22.0	
		1	1	21.38		21.33		21.43	0.0	22.0	
		1	80	21.29		21.21		21.28	0.0	22.0	
		1	160	21.44		21.42		21.48	0.0	22.0	
		81	0	21.33		21.28		21.34	0.0	22.0	
		81	40	21.38		21.34		21.33	0.0	22.0	
		81	81	21.31		21.24		21.33	0.0	22.0	
		162	0	21.41		21.38		21.45	0.0	22.0	
		1	1	21.22		21.18		21.25	0.0	22.0	
		1	80	21.17		21.14		21.27	0.0	22.0	
		1	160	21.32		21.32		21.30	0.0	22.0	
		16QAM	1	1	21.24			21.21	0.0	22.0	
		64QAM	1	1	20.03		19.77		21.28	0.0	22.0
		256QAM	1	1	20.03		19.77		21.28	0.0	22.0
CP-OFDM	QPSK	1	1	21.51		21.32		21.50	0.0	22.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit		
					504204	518598	532998				
					2521.02 MHz	2592.99 MHz	2664.99 MHz				
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.55		21.51		21.68	0.0	22.0
			1	66	21.61		21.57		21.57	0.0	22.0
			1	131	21.71		21.71		21.71	0.0	22.0
			64	0	21.68		21.48		21.66	0.0	22.0
			64	34	21.81		21.65		21.76	0.0	22.0
			64	69	21.67		21.58		21.61	0.0	22.0
		128	0	21.66		21.52		21.66	0.0	22.0	
		1	1	21.63		21.45		21.57	0.0	22.0	
		1	66	21.57		21.47		21.52	0.0	22.0	
		1	131	21.64		21.57		21.65	0.0	22.0	
		64	0	21.63		21.44		21.56	0.0	22.0	
		64	34	21.63		21.56		21.61	0.0	22.0	
		64	69	21.75		21.57		21.57	0.0	22.0	
		128	0	21.61		21.49		21.61	0.0	22.0	
		1	1	21.45		21.42		21.63	0.0	22.0	
		1	66	21.53		21.37		21.62	0.0	22.0	
		1	131	21.52		21.58		21.72	0.0	22.0	
		16QAM	1	1	21.51		21.06		21.54	0.0	22.0
		64QAM	1	1	20.45		19.62		21.51	0.0	22.0
		256QAM	1	1	20.45		19.62		21.51	0.0	22.0
CP-OFDM	QPSK	1	1	21.64		21.53		21.69	0.0	22.0	

**Notes:**

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

**NR Band n41(Voice/Data/SRS0) Ant.B Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	
					503202	513468		523734	534000			
					2516.01 MHz	2567.34 MHz		2618.67 MHz	2670.00 MHz			
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.52	21.49		21.46	21.41	0.0	22.0	
			1	52	21.54	21.42		21.53	21.51	0.0	22.0	
			1	104	21.52	21.45		21.54	21.41	0.0	22.0	
			50	0	21.45	21.39		21.42	21.52	0.0	22.0	
			50	28	21.62	21.55		21.52	21.57	0.0	22.0	
			50	56	21.53	21.45		21.51	21.42	0.0	22.0	
		100	0	21.58	21.47		21.42	21.46	0.0	22.0		
		QPSK	1	1	21.51	21.35		21.33	21.39	0.0	22.0	
			1	52	21.43	21.38		21.37	21.49	0.0	22.0	
			1	104	21.45	21.39		21.42	21.45	0.0	22.0	
			50	0	21.45	21.32		21.47	21.51	0.0	22.0	
			50	28	21.47	21.41		21.45	21.49	0.0	22.0	
			50	56	21.55	21.39		21.51	21.43	0.0	22.0	
		100	0	21.49	21.42		21.41	21.45	0.0	22.0		
		16QAM	1	1	21.25	21.23		21.22	21.27	0.0	22.0	
			1	52	21.38	21.35		21.35	21.35	0.0	22.0	
		64QAM	1	104	21.41	21.33		21.39	21.42	0.0	22.0	
			1	1	21.36	21.33		21.23	21.34	0.0	22.0	
		256QAM	1	1	20.03	20.88		21.26	21.31	0.0	22.0	
		CP-OFDM	QPSK	1	1	21.37	21.33		21.32	21.35	0.0	22.0
		BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR
502200	510402						518598	526800	534996			
2511.00 MHz	2552.01 MHz						2592.99 MHz	2634.00 MHz	2674.98 MHz			
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.66	21.87	21.59	21.64	21.84	0.0	22.0	
			1	39	21.61	21.56	21.51	21.60	21.62	0.0	22.0	
			1	76	21.75	21.63	21.63	21.62	21.61	0.0	22.0	
			36	0	21.46	21.47	21.32	21.45	21.41	0.0	22.0	
			36	21	21.53	21.51	21.45	21.50	21.44	0.0	22.0	
			36	42	21.47	21.43	21.41	21.45	21.47	0.0	22.0	
		75	0	21.49	21.38	21.44	21.47	21.40	0.0	22.0		
		QPSK	1	1	21.56	21.65	21.58	21.61	21.47	0.0	22.0	
			1	39	21.58	21.49	21.58	21.55	21.59	0.0	22.0	
			1	76	21.72	21.51	21.57	21.61	21.57	0.0	22.0	
			36	0	21.53	21.43	21.32	21.41	21.42	0.0	22.0	
			36	21	21.43	21.41	21.35	21.42	21.46	0.0	22.0	
			36	42	21.50	21.39	21.38	21.48	21.47	0.0	22.0	
		75	0	21.49	21.42	21.39	21.49	21.52	0.0	22.0		
		16QAM	1	1	21.37	21.52	21.38	21.41	21.44	0.0	22.0	
			1	39	21.42	21.35	21.27	21.37	21.46	0.0	22.0	
		64QAM	1	76	21.37	21.36	21.35	21.47	21.39	0.0	22.0	
			1	1	21.19	21.52	21.25	21.53	20.79	0.0	22.0	
		256QAM	1	1	19.63	21.56	19.74	21.55	20.42	0.0	22.0	
		CP-OFDM	QPSK	1	1	21.61	21.66	21.23	21.68	21.63	0.0	22.0
		BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR
501702	510150						518598	527052	535500			
2508.51 MHz	2550.75 MHz						2592.99 MHz	2635.26 MHz	2677.50 MHz			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.56	21.52	21.48	21.59	21.59	0.0	22.0	
			1	32	21.57	21.54	21.52	21.67	21.62	0.0	22.0	
			1	63	21.61	21.48	21.57	21.56	21.47	0.0	22.0	
			32	0	21.47	21.47	21.42	21.53	21.48	0.0	22.0	
			32	16	21.57	21.44	21.51	21.57	21.49	0.0	22.0	
			32	33	21.51	21.42	21.45	21.49	21.47	0.0	22.0	
		64	0	21.56	21.47	21.50	21.56	21.52	0.0	22.0		
		QPSK	1	1	21.48	21.53	21.40	21.52	21.51	0.0	22.0	
			1	32	21.48	21.48	21.47	21.56	21.45	0.0	22.0	
			1	63	21.49	21.41	21.41	21.54	21.41	0.0	22.0	
			32	0	21.44	21.37	21.33	21.48	21.44	0.0	22.0	
			32	16	21.48	21.46	21.31	21.47	21.40	0.0	22.0	
			32	33	21.55	21.45	21.43	21.53	21.44	0.0	22.0	
		64	0	21.54	21.51	21.39	21.47	21.47	0.0	22.0		
		16QAM	1	1	21.40	21.44	21.39	21.42	21.44	0.0	22.0	
			1	32	21.36	21.38	21.38	21.45	21.37	0.0	22.0	
		64QAM	1	63	21.41	21.43	21.37	21.47	21.37	0.0	22.0	
			1	1	21.21	21.44	21.41	21.49	21.53	0.0	22.0	
		256QAM	1	1	19.83	21.42	20.41	21.52	21.57	0.0	22.0	
		CP-OFDM	QPSK	1	1	21.49	21.46	21.42	21.51	21.54	0.0	22.0

**Notes:**

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

**NR Band n41(Voice/Data/SRS0) Ant.B Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					501204	509904	518598	527298	535998		
					2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.58	21.52	21.51	21.63	21.58	0.0	22.0
			1	25	21.61	21.54	21.57	21.55	21.55	0.0	22.0
			1	49	21.69	21.67	21.62	21.71	21.68	0.0	22.0
			25	0	21.53	21.49	21.36	21.46	21.50	0.0	22.0
			25	13	21.46	21.51	21.41	21.59	21.53	0.0	22.0
			25	26	21.58	21.51	21.42	21.62	21.52	0.0	22.0
			50	0	21.49	21.54	21.41	21.53	21.47	0.0	22.0
			1	1	21.49	21.53	21.43	21.49	21.55	0.0	22.0
			1	25	21.49	21.52	21.41	21.51	21.46	0.0	22.0
			1	49	21.65	21.59	21.56	21.62	21.55	0.0	22.0
		QPSK	25	0	21.46	21.52	21.38	21.48	21.46	0.0	22.0
			25	13	21.39	21.45	21.32	21.39	21.41	0.0	22.0
			25	26	21.39	21.47	21.39	21.36	21.45	0.0	22.0
			50	0	21.48	21.50	21.37	21.43	21.48	0.0	22.0
			1	1	21.42	21.49	21.37	21.45	21.46	0.0	22.0
		16QAM	1	25	21.33	21.38	21.25	21.27	21.47	0.0	22.0
			1	49	21.41	21.35	21.42	21.45	21.57	0.0	22.0
		64QAM	1	1	21.44	21.47	21.41	21.51	21.44	0.0	22.0
			1	1	20.05	21.39	20.41	21.36	21.42	0.0	22.0
		CP-OFDM	QPSK	1	1	21.47	21.59	21.44	21.58	21.53	0.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					500700	509652	518598	527550	536496		
					2503.50 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.57	21.49	21.33	21.46	21.35	0.0	22.0
			1	18	21.62	21.49	21.38	21.46	21.36	0.0	22.0
			1	36	21.64	21.47	21.51	21.48	21.47	0.0	22.0
			18	0	21.51	21.42	21.38	21.55	21.38	0.0	22.0
			18	10	21.56	21.50	21.45	21.52	21.42	0.0	22.0
			18	20	21.48	21.39	21.39	21.44	21.45	0.0	22.0
			36	0	21.43	21.34	21.33	21.41	21.31	0.0	22.0
			1	1	21.49	21.41	21.27	21.46	21.39	0.0	22.0
			1	18	21.53	21.37	21.32	21.38	21.38	0.0	22.0
			1	36	21.49	21.36	21.37	21.41	21.45	0.0	22.0
		QPSK	18	0	21.51	21.42	21.38	21.48	21.41	0.0	22.0
			18	10	21.48	21.46	21.29	21.44	21.33	0.0	22.0
			18	20	21.45	21.43	21.39	21.48	21.37	0.0	22.0
			36	0	21.42	21.35	21.34	21.38	21.34	0.0	22.0
			1	1	21.44	21.36	21.25	21.32	21.31	0.0	22.0
		16QAM	1	18	21.37	21.35	21.19	21.43	21.34	0.0	22.0
			1	36	21.41	21.41	21.31	21.35	21.44	0.0	22.0
		64QAM	1	1	21.46	21.44	21.24	21.46	21.37	0.0	22.0
			1	1	20.17	20.75	20.77	21.37	21.45	0.0	22.0
		CP-OFDM	QPSK	1	1	21.53	21.46	21.32	21.43	21.44	0.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					500202	509400	518598	527802	537000		
					2501.01 MHz	2547.00 MHz	2592.99 MHz	2639.01 MHz	2685.00 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.68	21.37	21.13	21.54	21.44	0.0	22.0
			1	12	20.90	21.35	21.19	21.44	21.43	0.0	22.0
			1	22	21.41	21.43	21.37	21.52	21.47	0.0	22.0
			12	0	21.28	21.30	21.34	21.31	21.39	0.0	22.0
			12	6	21.40	21.43	21.33	21.40	21.51	0.0	22.0
			12	12	21.26	21.33	21.39	21.38	21.46	0.0	22.0
			24	0	21.25	21.22	21.25	21.27	21.32	0.0	22.0
			1	1	21.35	21.20	21.34	21.51	21.55	0.0	22.0
			1	12	21.28	21.34	21.27	21.48	21.47	0.0	22.0
			1	22	21.37	21.38	21.46	21.49	21.51	0.0	22.0
		QPSK	12	0	21.22	21.27	21.25	21.42	21.42	0.0	22.0
			12	6	21.31	21.31	21.27	21.51	21.43	0.0	22.0
			12	12	21.28	21.32	21.34	21.43	21.44	0.0	22.0
			24	0	21.26	21.22	21.27	21.36	21.45	0.0	22.0
			1	1	21.19	21.41	21.19	21.24	21.24	0.0	22.0
		16QAM	1	12	21.19	21.34	21.20	21.32	21.24	0.0	22.0
			1	22	21.24	21.37	21.27	21.36	21.37	0.0	22.0
		64QAM	1	1	20.98	21.33	21.21	21.32	20.75	0.0	22.0
			1	1	19.86	20.78	20.75	21.22	20.24	0.0	22.0
		CP-OFDM	QPSK	1	1	21.39	21.46	21.32	21.47	21.42	0.0

**Notes:**

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

**NR Band n41(SRS1) Ant.B/Ant.F Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm) - Ant.B						Maximum Allowed Average Power (dBm) - Ant.F						
		DSI = 0, 1						DSI = 0, 1						
		Measured Pwr (dBm)						Measured Pwr (dBm)						
				518598						518598				
				2592.99 MHz						2592.99 MHz				
100 MHz	SRS CW			17.92			18.0			15.30				16.0
				508200		528996				508200			528996	
				2541.00 MHz		2644.98 MHz				2541.00 MHz			2644.98 MHz	
90 MHz	SRS CW	17.80				17.77	18.0	15.07					14.66	16.0
				507204		529998				507204			529998	
				2536.02 MHz		2649.99 MHz				2536.02 MHz			2649.99 MHz	
80 MHz	SRS CW	17.87				17.88	18.0	15.09					15.03	16.0
				506202		531000				506202			531000	
				2531.01 MHz		2655.00 MHz				2531.01 MHz			2655.00 MHz	
70 MHz	SRS CW	17.84				17.73	18.0	15.01					15.45	16.0
				505200	518598	531996				505200	518598	531996		
				2526.00 MHz	2592.99 MHz	2659.98 MHz				2526.00 MHz	2592.99 MHz	2659.98 MHz		
60 MHz	SRS CW	17.93		17.91		17.84	18.0	15.11		15.79			15.69	16.0
				504204	518598	532998				504204	518598	532998		
				2521.02 MHz	2592.99 MHz	2664.99 MHz				2521.02 MHz	2592.99 MHz	2664.99 MHz		
50 MHz	SRS CW	17.95		17.96		17.98	18.0	15.22		15.77			15.88	16.0
				503202	513468	523734				503202	513468	523734	534000	
				2516.01 MHz	2567.34 MHz	2618.67 MHz				2516.01 MHz	2567.34 MHz	2618.67 MHz	2670.00 MHz	
40 MHz	SRS CW	17.82	17.99			17.92	18.0	15.14	15.19			15.66	15.55	16.0
				502200	510402	518598				502200	510402	518598	526800	534996
				2511.00 MHz	2552.01 MHz	2592.99 MHz				2511.00 MHz	2552.01 MHz	2592.99 MHz	2634.00 MHz	2674.98 MHz
30 MHz	SRS CW	17.97	17.95	17.96	17.97	17.92	18.0	15.03	15.18	15.73	15.24	15.51	16.0	
				501702	510150	518598				501702	510150	518598	527052	535500
				2508.51 MHz	2550.75 MHz	2592.99 MHz				2508.51 MHz	2550.75 MHz	2592.99 MHz	2635.26 MHz	2677.50 MHz
25 MHz	SRS CW	17.87	17.95	17.98	17.82	17.90	18.0	15.11	15.08	15.57	15.37	15.45	16.0	
				501204	509904	518598				501204	509904	518598	527298	535998
				2506.02 MHz	2549.52 MHz	2592.99 MHz				2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz
20 MHz	SRS CW	17.87	17.86	17.15	17.00	17.90	18.0	15.14	15.11	15.67	15.66	15.44	16.0	
				500700	509652	518598				500700	509652	518598	527550	536496
				2503.50 MHz	2548.26 MHz	2592.99 MHz				2503.50 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz
15 MHz	SRS CW	17.75	17.77	17.84	17.76	17.71	18.0	15.27	15.15	15.74	15.60	13.51	16.0	
				500202	509400	518598				500202	509400	518598	527802	537000
				2501.01 MHz	2547.00 MHz	2592.99 MHz				2501.01 MHz	2547.00 MHz	2592.99 MHz	2639.01 MHz	2685.00 MHz
10 MHz	SRS CW	16.35	17.94	17.85	17.85	16.75	18.0	15.47	15.19	15.63	15.58	15.51	16.0	

**Notes:**

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

**NR Band n41(SRS2) Ant.E/Ant.D Measured Results**

BW (MHz)	Mode	Maximum Allowed Averaged power (dBm) - Ant.E					Maximum Allowed Averaged power (dBm) - Ant.D						
		DSI = 0, 1					DSI = 0, 1						
		Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
100 MHz	SRS CW	518598						16.0	518598				
			2592.99 MHz						2592.99 MHz				
			15.03				16.0		17.69				18.0
90 MHz	SRS CW	508200					16.0	508200					18.0
		508200				528996		508200				528996	
		2541.00 MHz				2644.98 MHz		2541.00 MHz				2644.98 MHz	
		14.95				14.99	16.0	17.91				17.70	18.0
80 MHz	SRS CW	507204					16.0	507204					18.0
		507204				529998		507204				529998	
		2536.02 MHz				2649.99 MHz		2536.02 MHz				2649.99 MHz	
		14.99				14.95	16.0	17.82				17.72	18.0
70 MHz	SRS CW	506202					16.0	506202					18.0
		506202				531000		506202				531000	
		2531.01 MHz				2655.00 MHz		2531.01 MHz				2655.00 MHz	
		15.00				15.08	16.0	17.80				17.53	18.0
60 MHz	SRS CW	505200					16.0	505200					18.0
		505200		518598		531996		505200		518598		531996	
		2526.00 MHz		2592.99 MHz		2659.98 MHz		2526.00 MHz		2592.99 MHz		2659.98 MHz	
		14.98		15.02		15.12	16.0	17.77		17.64		17.62	18.0
50 MHz	SRS CW	504204					16.0	504204					18.0
		504204		518598		532998		504204		518598		532998	
		2521.02 MHz		2592.99 MHz		2664.99 MHz		2521.02 MHz		2592.99 MHz		2664.99 MHz	
		15.15		15.14		15.24	16.0	17.83		17.82		17.71	18.0
40 MHz	SRS CW	503202	513468		523734	534000	16.0	503202	513468		523734	534000	18.0
		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670.00 MHz		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670.00 MHz	
		15.01	14.98		14.99	15.08	16.0	17.74	17.64		17.51	17.39	18.0
30 MHz	SRS CW	502200	510402	518598	526800	534996	16.0	502200	510402	518598	526800	534996	18.0
		2511.00 MHz	2552.01 MHz	2592.99 MHz	2634.00 MHz	2674.98 MHz		2511.00 MHz	2552.01 MHz	2592.99 MHz	2634.00 MHz	2674.98 MHz	
		15.12	15.03	15.07	15.12	15.26	16.0	17.84	17.95	17.85	17.65	17.48	18.0
25 MHz	SRS CW	501702	510150	518598	527052	535500	16.0	501702	510150	518598	527052	535500	18.0
		2508.51 MHz	2550.75 MHz	2592.99 MHz	2635.26 MHz	2677.50 MHz		2508.51 MHz	2550.75 MHz	2592.99 MHz	2635.26 MHz	2677.50 MHz	
		15.02	14.92	15.01	15.02	15.07	16.0	17.80	17.84	17.68	17.57	17.41	18.0
20 MHz	SRS CW	501204	509904	518598	527298	535998	16.0	501204	509904	518598	527298	535998	18.0
		2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
		15.03	14.95	15.06	15.11	15.16	16.0	17.87	17.92	17.67	17.68	17.47	18.0
15 MHz	SRS CW	500700	509652	518598	527550	536496	16.0	500700	509652	518598	527550	536496	18.0
		2503.50 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		2503.50 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz	
		14.97	14.88	14.87	14.94	15.08	16.0	17.78	17.73	17.61	17.61	17.26	18.0
10 MHz	SRS CW	500202	509400	518598	527802	537000	16.0	500202	509400	518598	527802	537000	18.0
		2501.01 MHz	2547.00 MHz	2592.99 MHz	2639.01 MHz	2685.00 MHz		2501.01 MHz	2547.00 MHz	2592.99 MHz	2639.01 MHz	2685.00 MHz	
		15.17	15.18	15.13	15.14	15.18	16.0	17.77	17.71	17.61	17.44	17.23	18.0

**Notes:**

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

**NR Band n41(SRS3) Ant.D/Ant.E Measured Results**

BW (MHz)	Mode	Maximum Average Allowed Power (dBm) - Ant.D					Maximum Average Allowed Power (dBm) - Ant.E							
		DSI = 0, 1					DSI = 0, 1							
		Measured Pwr (dBm)					Measured Pwr (dBm)							
				518598					518598					
				2592.99 MHz					2592.99 MHz					
100 MHz	SRS CW			12.97					11.11			12.0		
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		508200				528996					528996			
		2541.00 MHz				2644.98 MHz					2644.98 MHz			
90 MHz	SRS CW	13.33				12.46			11.70			12.0		
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		507204				529998					529998			
		2536.02 MHz				2649.99 MHz					2649.99 MHz			
80 MHz	SRS CW	13.26				12.35			11.72			12.0		
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		506202				531000					531000			
		2531.01 MHz				2655.00 MHz					2655.00 MHz			
70 MHz	SRS CW	13.33				12.89			11.57			12.0		
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		505200		518598		531996					531996			
		2526.00 MHz		2592.99 MHz		2659.98 MHz					2659.98 MHz			
60 MHz	SRS CW	13.41		12.93		12.31			11.62		10.93	12.0		
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		504204		518598		532998					532998			
		2521.02 MHz		2592.99 MHz		2664.99 MHz					2664.99 MHz			
50 MHz	SRS CW	13.51		13.23		12.38			11.66		11.14	12.0		
		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670.00 MHz			2516.01 MHz	2567.34 MHz	2618.67 MHz	2670.00 MHz		
40 MHz	SRS CW	13.41	13.13		12.81	12.20			11.46	10.77	11.47	12.0		
		2511.00 MHz	2552.01 MHz	2592.99 MHz	2634.00 MHz	2674.98 MHz			2511.00 MHz	2552.01 MHz	2592.99 MHz	2634.00 MHz	2674.98 MHz	
30 MHz	SRS CW	13.56	13.42	13.16	12.70	12.41			11.65	11.15	11.22	11.96	12.0	
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		501702	510150	518598	527052	535500			501702	510150	518598	527052	535500	
		2508.51 MHz	2550.75 MHz	2592.99 MHz	2635.26 MHz	2677.50 MHz			2508.51 MHz	2550.75 MHz	2592.99 MHz	2635.26 MHz	2677.50 MHz	
25 MHz	SRS CW	13.53	13.42	13.08	12.68	12.22			11.53	10.92	11.12	11.93	11.59	12.0
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		501204	509904	518598	527298	535998			501204	509904	518598	527298	535998	
		2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz			2506.02 MHz	2549.52 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
20 MHz	SRS CW	13.67	13.44	13.18	12.73	12.30			11.47	10.78	11.12	11.87	11.41	12.0
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		500700	509652	518598	527550	536496			500700	509652	518598	527550	536496	
		2503.50 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz			2503.50 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz	
15 MHz	SRS CW	13.62	13.49	13.09	12.70	12.21			11.43	10.76	11.08	11.94	11.23	12.0
		Measured Pwr (dBm)					Measured Pwr (dBm)							
		500202	509400	518598	527802	537000			500202	509400	518598	527802	537000	
		2501.01 MHz	2547.00 MHz	2592.99 MHz	2639.01 MHz	2685.00 MHz			2501.01 MHz	2547.00 MHz	2592.99 MHz	2639.01 MHz	2685.00 MHz	
10 MHz	SRS CW	13.66	13.52	13.11	12.68	12.21			11.83	11.11	11.34	11.41	11.22	12.0

**Notes:**

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



**NR Band n48(Voice/Data/SRS0) Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
					DSI = 0					DSI = 1						
					Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
					638000	641666	643000	645332			638000	641666	643000	645332		
3570.00 MHz		3624.99 MHz	3679.98 MHz		3570.00 MHz		3624.99 MHz	3679.98 MHz								
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.92		19.81	19.75	0.0	20.5	16.32		16.16	16.13	0.0	16.5
			1	52	19.87		19.75	19.82	0.0	20.5	16.17		16.07	16.01	0.0	16.5
			1	104	19.83		19.76	19.78	0.0	20.5	16.05		15.99	16.04	0.0	16.5
			50	0	19.91		19.87	19.88	0.0	20.5	16.31		16.21	16.12	0.0	16.5
			50	28	19.97		19.93	19.91	0.0	20.5	16.31		16.21	16.11	0.0	16.5
			50	56	19.91		19.89	19.84	0.0	20.5	16.23		16.16	16.08	0.0	16.5
			100	0	19.88		19.80	19.74	0.0	20.5	16.30		16.17	16.14	0.0	16.5
			1	1	19.92		19.84	19.81	0.0	20.5	16.23		16.18	16.03	0.0	16.5
			1	52	19.80		19.76	19.64	0.0	20.5	16.07		16.09	16.02	0.0	16.5
		1	104	19.83		19.69	19.77	0.0	20.5	16.15		16.01	16.02	0.0	16.5	
		16QAM	50	0	19.98		19.89	19.86	0.0	20.5	16.33		16.11	16.01	0.0	16.5
			50	28	19.90		19.88	19.75	0.0	20.5	16.32		16.24	16.12	0.0	16.5
			50	56	19.95		19.76	19.85	0.0	20.5	16.18		16.09	16.10	0.0	16.5
			100	0	19.91		19.74	19.73	0.0	20.5	16.24		16.21	16.02	0.0	16.5
			1	1	19.96		19.83	19.81	0.0	20.5	16.29		16.15	16.14	0.0	16.5
			1	52	19.82		19.78	19.73	0.0	20.5	16.22		16.05	15.98	0.0	16.5
		64QAM	1	104	19.80		19.77	19.76	0.0	20.5	16.17		16.09	16.02	0.0	16.5
			1	1	19.97		19.84	19.88	0.0	20.5	16.21		16.25	16.15	0.0	16.5
256QAM	1	1	18.11		18.41	18.43	1.0	19.5	16.25		16.26	16.16	0.0	16.5		
CP-OFDM	QPSK	1	1	19.90		19.81	19.85	0.0	20.5	16.32		16.21	16.18	0.0	16.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
					637668	640334	643000	645666			637668	640334	643000	645666		
					3565.02 MHz	3605.01 MHz	3645.00 MHz	3684.99 MHz		3565.02 MHz	3605.01 MHz	3645.00 MHz	3684.99 MHz			
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.79	20.02	19.95	20.05	0.0	20.5	16.35	16.37	16.26	16.33	0.0	16.5
			1	39	19.93	19.93	19.99	19.96	0.0	20.5	16.27	16.25	16.25	16.25	0.0	16.5
			1	76	19.98	19.99	20.14	20.03	0.0	20.5	16.31	16.41	16.19	16.27	0.0	16.5
			36	0	19.90	19.86	19.97	19.87	0.0	20.5	16.11	16.13	16.11	16.19	0.0	16.5
			36	21	19.96	19.93	19.87	20.02	0.0	20.5	16.25	16.17	16.16	16.14	0.0	16.5
			36	42	19.82	19.87	19.96	19.92	0.0	20.5	16.17	16.14	16.22	16.32	0.0	16.5
			75	0	19.84	19.89	19.96	19.89	0.0	20.5	16.21	16.21	16.19	16.29	0.0	16.5
			1	1	19.93	20.03	20.13	20.11	0.0	20.5	16.23	16.43	16.36	16.23	0.0	16.5
			1	39	19.94	19.98	19.93	19.96	0.0	20.5	16.21	16.29	16.31	16.23	0.0	16.5
		1	76	19.96	20.08	19.69	20.11	0.0	20.5	16.30	16.42	16.32	16.16	0.0	16.5	
		16QAM	36	0	19.85	19.94	19.96	19.74	0.0	20.5	16.14	16.21	16.25	16.19	0.0	16.5
			36	21	19.92	19.95	19.97	19.92	0.0	20.5	16.12	16.31	16.22	16.26	0.0	16.5
			36	42	19.91	19.98	19.91	19.69	0.0	20.5	16.07	16.25	16.19	16.31	0.0	16.5
			75	0	19.87	20.00	19.89	19.66	0.0	20.5	16.25	16.18	16.17	16.36	0.0	16.5
			1	1	19.93	19.95	19.96	19.96	0.0	20.5	16.27	16.21	16.22	16.41	0.0	16.5
			1	39	19.93	20.03	19.87	19.54	0.0	20.5	16.26	16.17	16.14	16.38	0.0	16.5
		64QAM	1	76	19.95	19.97	19.98	19.84	0.0	20.5	16.21	16.13	16.19	16.31	0.0	16.5
			1	1	19.52	19.73	19.25	19.22	0.0	20.5	16.34	16.32	16.33	16.27	0.0	16.5
256QAM	1	1	18.31	18.03	18.41	18.48	1.0	19.5	16.27	16.26	16.25	16.28	0.0	16.5		
CP-OFDM	QPSK	1	1	19.96	20.05	19.92	19.89	0.0	20.5	16.36	16.25	16.19	16.32	0.0	16.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
					637334	640222	643112	646000			637334	640222	643112	646000		
					3560.01 MHz	3603.33 MHz	3646.68 MHz	3690.00 MHz		3560.01 MHz	3603.33 MHz	3646.68 MHz	3690.00 MHz			
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.92	19.87	19.85	19.91	0.0	20.5	16.30	16.21	16.19	16.03	0.0	16.5
			1	25	19.82	19.87	19.92	19.91	0.0	20.5	16.32	16.20	16.21	16.06	0.0	16.5
			1	49	19.77	19.95	19.82	19.88	0.0	20.5	16.23	16.23	16.11	16.05	0.0	16.5
			25	0	19.82	19.78	19.75	19.88	0.0	20.5	16.19	16.21	16.28	16.16	0.0	16.5
			25	13	19.94	19.90	19.81	19.91	0.0	20.5	16.22	16.22	16.23	16.13	0.0	16.5
			25	26	19.84	19.85	19.76	19.84	0.0	20.5	16.12	16.19	16.19	16.18	0.0	16.5
			50	0	19.87	19.95	19.84	19.93	0.0	20.5	16.24	16.24	16.33	16.14	0.0	16.5
			1	1	19.93	19.87	19.76	19.88	0.0	20.5	16.21	16.28	16.29	16.16	0.0	16.5
			1	25	19.94	19.92	19.94	19.92	0.0	20.5	16.18	16.23	16.26	16.19	0.0	16.5
		1	49	19.86	19.88	19.86	19.79	0.0	20.5	16.26	16.21	16.16	16.24	0.0	16.5	
		16QAM	25	0	19.95	19.84	19.84	19.91	0.0	20.5	16.22	16.12	16.30	16.15	0.0	16.5
			25	13	19.91	19.94	19.81	20.01	0.0	20.5	16.23	16.13	16.21	16.16	0.0	16.5
			25	26	19.92	19.83	19.85	19.95	0.0	20.5	16.28	16.21	16.25	16.18	0.0	16.5
			50	0	19.88	19.92	19.87	19.87	0.0	20.5	16.28	16.25	16.26	16.24	0.0	16.5
			1	1	19.84	19.75	19.77	19.84	0.0	20.5	16.32	16.19	16.30	16.22	0.0	16.5
			1	25	19.86	19.74	19.77	19.88	0.0	20.5	16.20	16.21	16.16	16.16	0.0	16.5
		64QAM	1	49	19.77	19.72	19.76	19.81	0.0	20.5	16.21	16.24	16.20	16.21	0.0	16.5
			1	1	19.55	19.81	19.82	19.85	0.0	20.5	16.31	16.16	16.21	16.19	0.0	16.5
256QAM	1	1	17.91	17.94	17.95	17.92	1.0	19.5	16.25	16.25	16.30	16.18	0.0	16.5		
CP-OFDM	QPSK	1	1	19.98	19.89	19.81	19.91	0.0	20.5	16.25	16.22	16.28	16.15	0.0	16.5	

**Notes:**

NR Band n48 were measured output power through FTM mode provided by manufacturer.

**NR Band n48(Voice/Data/SRS0) Ant.F 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
					637168	640168	643166	646166			637168	640168	643166	646166		
					3557.52 MHz	3602.52 MHz	3647.49 MHz	3692.49 MHz			3557.52 MHz	3602.52 MHz	3647.49 MHz	3692.49 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.84	19.85	19.85	19.95	0.0	20.5	16.16	16.23	16.21	16.16	0.0	16.5
			1	18	19.85	19.84	19.91	19.90	0.0	20.5	16.12	16.10	16.19	16.13	0.0	16.5
			1	36	19.87	19.94	19.95	19.96	0.0	20.5	16.13	16.09	16.22	16.25	0.0	16.5
			18	0	19.94	19.86	19.96	20.01	0.0	20.5	16.12	16.06	16.18	16.18	0.0	16.5
			18	10	19.91	19.97	19.85	20.06	0.0	20.5	16.09	16.03	16.25	16.20	0.0	16.5
			18	20	19.95	19.91	19.84	19.93	0.0	20.5	16.09	16.10	16.20	16.18	0.0	16.5
		36	0	19.77	19.86	19.92	19.91	0.0	20.5	16.13	16.15	16.18	16.11	0.0	16.5	
		1	1	19.95	19.84	19.91	19.97	0.0	20.5	16.22	16.05	16.19	16.23	0.0	16.5	
		1	18	19.94	19.91	19.87	19.88	0.0	20.5	16.04	16.03	16.07	16.18	0.0	16.5	
		1	36	19.96	19.93	19.85	19.90	0.0	20.5	16.15	16.13	16.16	16.19	0.0	16.5	
		18	0	19.94	19.91	19.83	19.90	0.0	20.5	16.09	16.12	16.10	16.23	0.0	16.5	
		18	10	19.92	19.82	19.81	19.99	0.0	20.5	16.15	16.17	16.06	16.23	0.0	16.5	
		18	20	19.81	19.84	19.96	20.02	0.0	20.5	16.15	16.11	16.07	16.21	0.0	16.5	
		36	0	19.85	19.79	19.70	19.99	0.0	20.5	16.09	16.13	16.06	16.20	0.0	16.5	
		1	1	19.87	19.92	19.81	19.95	0.0	20.5	16.26	16.09	16.09	16.19	0.0	16.5	
		1	18	19.84	19.82	19.81	19.88	0.0	20.5	16.08	16.15	16.16	16.15	0.0	16.5	
		1	36	19.91	19.92	19.86	20.09	0.0	20.5	16.09	16.18	16.25	16.18	0.0	16.5	
		64QAM	1	1	19.64	19.58	19.89	19.91	0.0	20.5	16.21	16.25	16.29	16.28	0.0	16.5
256QAM	1	1	18.19	18.38	18.34	18.33	1.0	19.5	16.12	16.16	16.30	16.35	0.0	16.5		
CP-OFDM	QPSK	1	1	19.91	19.93	19.93	19.99	0.0	20.5	16.23	16.18	16.21	16.35	0.0	16.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
					637000	640110	643222	646332			637000	640110	643222	646332		
					3555.00 MHz	3601.65 MHz	3648.33 MHz	3694.98 MHz			3555.00 MHz	3601.65 MHz	3648.33 MHz	3694.98 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.98	19.93	19.84	19.81	0.0	20.5	16.29	16.28	16.31	16.29	0.0	16.5
			1	12	19.96	19.95	19.82	19.87	0.0	20.5	16.24	16.17	16.21	16.26	0.0	16.5
			1	22	20.02	19.86	19.82	19.87	0.0	20.5	16.32	16.21	16.27	16.29	0.0	16.5
			12	0	19.89	19.86	19.79	19.76	0.0	20.5	16.19	16.19	16.18	16.16	0.0	16.5
			12	6	19.91	19.91	19.91	19.84	0.0	20.5	16.18	16.24	16.23	16.24	0.0	16.5
			12	12	19.78	19.84	19.79	19.79	0.0	20.5	16.15	16.14	16.16	16.19	0.0	16.5
		24	0	19.77	19.76	19.72	19.66	0.0	20.5	16.16	16.11	16.12	16.12	0.0	16.5	
		1	1	19.91	19.88	19.95	19.78	0.0	20.5	16.29	16.33	16.26	16.30	0.0	16.5	
		1	12	19.87	19.83	19.88	19.75	0.0	20.5	16.21	16.30	16.19	16.17	0.0	16.5	
		1	22	19.84	19.89	19.92	19.92	0.0	20.5	16.24	16.31	16.26	16.25	0.0	16.5	
		12	0	19.83	19.85	19.74	19.65	0.0	20.5	16.14	16.14	16.19	16.15	0.0	16.5	
		12	6	19.88	19.80	19.85	19.71	0.0	20.5	16.23	16.18	16.20	16.15	0.0	16.5	
		12	12	19.77	19.81	19.78	19.78	0.0	20.5	16.15	16.11	16.16	16.12	0.0	16.5	
		24	0	19.79	19.77	19.61	19.65	0.0	20.5	16.07	16.08	16.13	16.11	0.0	16.5	
		1	1	19.87	19.76	19.76	19.75	0.0	20.5	16.24	16.18	16.26	16.19	0.0	16.5	
		1	12	19.86	19.82	19.77	19.68	0.0	20.5	16.15	16.09	16.18	16.14	0.0	16.5	
		1	22	19.82	19.82	19.75	19.73	0.0	20.5	16.14	16.14	16.21	16.20	0.0	16.5	
		64QAM	1	1	19.87	19.66	19.84	19.71	0.0	20.5	16.18	16.27	16.22	16.31	0.0	16.5
256QAM	1	1	18.46	18.41	18.33	18.35	1.0	19.5	16.25	16.28	16.24	16.23	0.0	16.5		
CP-OFDM	QPSK	1	1	19.93	19.96	19.91	19.77	0.0	20.5	16.27	16.23	16.27	16.34	0.0	16.5	

**Notes:**

NR Band n48 were measured output power through FTM mode provided by manufacturer.

**NR Band n48(SRS1-Ant.C/SRS2-Ant.I/SRS3-Ant.D) Measured Results**

		Maximum Allowed Average Power (dBm)-SRS1									
		DSI = 0, 1									
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		638000 3570.00 MHz	641666 3624.99 MHz	645332 3679.98 MHz							
40 MHz	SRS CW	17.91		18.11	18.36	19.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637668 3565.02 MHz	640334 3605.01 MHz	643000 3645.00 MHz	645666 3684.99 MHz						
30 MHz	SRS CW	17.95	18.12	18.41	18.33	19.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690.00 MHz						
20 MHz	SRS CW	17.91	18.13	18.35	18.33	19.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637168 3557.52 MHz	640168 3602.52 MHz	643166 3647.49 MHz	646166 3692.49 MHz						
15 MHz	SRS CW	17.75	18.04	18.18	18.32	19.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637000 3555.00 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz						
10 MHz	SRS CW	17.86	18.02	18.27	18.48	19.0					
		Maximum Allowed Average Power (dBm)-SRS2									
		DSI = 0				DSI = 1					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit	Measured Pwr (dBm)				Tune-up Limit
		638000 3570.00 MHz	641666 3624.99 MHz	645332 3679.98 MHz			638000 3570.00 MHz	641666 3624.99 MHz	645332 3679.98 MHz		
40 MHz	SRS CW	17.70		18.04	18.40	19.0	11.09		11.36	11.74	12.5
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit	Measured Pwr (dBm)				Tune-up Limit
		637668 3565.02 MHz	640334 3605.01 MHz	643000 3645.00 MHz	645666 3684.99 MHz		637668 3565.02 MHz	640334 3605.01 MHz	643000 3645.00 MHz	645666 3684.99 MHz	
30 MHz	SRS CW	17.78	18.02	18.23	18.43	19.0	11.10	11.35	11.53	11.76	12.5
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit	Measured Pwr (dBm)				Tune-up Limit
		637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690.00 MHz		637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690.00 MHz	
20 MHz	SRS CW	17.77	17.92	18.20	18.54	19.0	11.11	11.22	11.39	11.58	12.5
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit	Measured Pwr (dBm)				Tune-up Limit
		637168 3557.52 MHz	640168 3602.52 MHz	643166 3647.49 MHz	646166 3692.49 MHz		637168 3557.52 MHz	640168 3602.52 MHz	643166 3647.49 MHz	646166 3692.49 MHz	
15 MHz	SRS CW	17.68	17.86	18.09	18.39	19.0	10.95	11.07	11.33	11.50	12.5
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit	Measured Pwr (dBm)				Tune-up Limit
		637000 3555.00 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz		637000 3555.00 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz	
10 MHz	SRS CW	17.75	17.98	18.22	18.49	19.0	11.07	11.26	11.38	11.71	12.5
		Maximum Allowed Average Power (dBm)-SRS3									
		DSI = 0, 1									
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		638000 3570.00 MHz	641666 3624.99 MHz	645332 3679.98 MHz							
40 MHz	SRS CW	17.03		17.41	17.33	18.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637668 3565.02 MHz	640334 3605.01 MHz	643000 3645.00 MHz	645666 3684.99 MHz						
30 MHz	SRS CW	16.52	16.78	16.92	16.94	18.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690.00 MHz						
20 MHz	SRS CW	16.43	16.68	16.72	17.04	18.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637168 3557.52 MHz	640168 3602.52 MHz	643166 3647.49 MHz	646166 3692.49 MHz						
15 MHz	SRS CW	16.37	16.56	16.67	16.82	18.0					
BW (MHz)	Mode	Measured Pwr (dBm)				Tune-up Limit					
		637000 3555.00 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz						
10 MHz	SRS CW	16.98	17.38	17.49	17.33	18.0					

**Notes:**

NR Band n48 were measured output power through FTM mode provided by manufacturer.

**NR Band n77-DoD (Voice/Data/SRS0) Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)							
					DSI = 0				DSI = 1			
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
					633334	3500.01 MHz			633334	3500.01 MHz		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.17	0.0	19.5	16.98	0.0	17.0		
			1	136	18.97	0.0	19.5	16.87	0.0	17.0		
			1	271	19.41	0.0	19.5	16.94	0.0	17.0		
			135	0	18.95	0.0	19.5	16.89	0.0	17.0		
			135	69	18.91	0.0	19.5	16.92	0.0	17.0		
			135	138	19.03	0.0	19.5	16.77	0.0	17.0		
		QPSK	270	0	18.97	0.0	19.5	16.88	0.0	17.0		
			1	1	19.10	0.0	19.5	16.91	0.0	17.0		
			1	136	18.83	0.0	19.5	16.77	0.0	17.0		
			1	271	18.92	0.0	19.5	16.81	0.0	17.0		
			135	0	18.97	0.0	19.5	16.90	0.0	17.0		
			135	69	18.85	0.0	19.5	16.87	0.0	17.0		
		16QAM	135	138	18.89	0.0	19.5	16.71	0.0	17.0		
			270	0	18.93	0.0	19.5	16.90	0.0	17.0		
		64QAM	1	1	18.81	0.0	19.5	16.97	0.0	17.0		
			1	136	18.75	0.0	19.5	16.78	0.0	17.0		
256QAM	1	271	19.06	0.0	19.5	16.83	0.0	17.0				
	1	1	18.79	0.0	19.5	16.99	0.0	17.0				
CP-OFDM	QPSK	1	1	18.88	0.0	19.5	16.98	0.0	17.0			
CP-OFDM	QPSK	1	1	18.95	0.0	19.5	16.99	0.0	17.0			
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.15	0.0	19.5	16.88	0.0	17.0		
			1	122	19.05	0.0	19.5	16.87	0.0	17.0		
			1	243	19.38	0.0	19.5	16.79	0.0	17.0		
			120	0	18.88	0.0	19.5	16.84	0.0	17.0		
			120	62	18.91	0.0	19.5	16.69	0.0	17.0		
			120	125	19.05	0.0	19.5	16.64	0.0	17.0		
		QPSK	243	0	18.88	0.0	19.5	16.74	0.0	17.0		
			1	1	18.94	0.0	19.5	16.87	0.0	17.0		
			1	122	18.92	0.0	19.5	16.67	0.0	17.0		
			1	243	19.13	0.0	19.5	16.74	0.0	17.0		
			120	0	18.73	0.0	19.5	16.86	0.0	17.0		
			120	62	18.82	0.0	19.5	16.69	0.0	17.0		
		16QAM	120	125	19.02	0.0	19.5	16.64	0.0	17.0		
			243	0	18.99	0.0	19.5	16.74	0.0	17.0		
		64QAM	1	1	18.69	0.0	19.5	16.78	0.0	17.0		
			1	122	18.79	0.0	19.5	16.69	0.0	17.0		
256QAM	1	243	19.02	0.0	19.5	16.72	0.0	17.0				
	1	1	18.79	0.0	19.5	16.87	0.0	17.0				
CP-OFDM	QPSK	1	1	18.94	0.0	19.5	16.84	0.0	17.0			
CP-OFDM	QPSK	1	1	18.96	0.0	19.5	16.96	0.0	17.0			
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.02	0.0	19.5	16.91	0.0	17.0		
			1	108	19.01	0.0	19.5	16.82	0.0	17.0		
			1	215	19.05	0.0	19.5	16.76	0.0	17.0		
			108	0	18.99	0.0	19.5	16.88	0.0	17.0		
			108	54	19.05	0.0	19.5	16.79	0.0	17.0		
			108	109	19.06	0.0	19.5	16.75	0.0	17.0		
		QPSK	216	0	19.15	0.0	19.5	16.78	0.0	17.0		
			1	1	19.15	0.0	19.5	16.84	0.0	17.0		
			1	108	18.84	0.0	19.5	16.75	0.0	17.0		
			1	215	18.84	0.0	19.5	16.80	0.0	17.0		
			108	0	19.01	0.0	19.5	16.87	0.0	17.0		
			108	54	18.88	0.0	19.5	16.74	0.0	17.0		
		16QAM	108	109	18.93	0.0	19.5	16.74	0.0	17.0		
			216	0	19.05	0.0	19.5	16.79	0.0	17.0		
		64QAM	1	1	19.09	0.0	19.5	16.86	0.0	17.0		
			1	108	18.93	0.0	19.5	16.70	0.0	17.0		
256QAM	1	215	18.94	0.0	19.5	16.75	0.0	17.0				
	1	1	18.97	0.0	19.5	16.92	0.0	17.0				
CP-OFDM	QPSK	1	1	19.02	0.0	19.5	16.88	0.0	17.0			
CP-OFDM	QPSK	1	1	18.85	0.0	19.5	16.94	0.0	17.0			

**Notes:**

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

**NR Band n77-DoD (Voice/Data/SRS0) Ant.F 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
					633334					633334				
					3500.01 MHz					3500.01 MHz				
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.05		0.0	19.5	16.88		0.0	17.0		
			1	94	18.92		0.0	19.5	16.79		0.0	17.0		
			1	187	18.96		0.0	19.5	16.73		0.0	17.0		
			90	0	19.09		0.0	19.5	16.85		0.0	17.0		
			90	49	19.01		0.0	19.5	16.76		0.0	17.0		
			90	99	19.01		0.0	19.5	16.72		0.0	17.0		
		180	0	18.98		0.0	19.5	16.75		0.0	17.0			
		QPSK	1	1	18.94		0.0	19.5	16.81		0.0	17.0		
			1	94	18.92		0.0	19.5	16.72		0.0	17.0		
			1	187	18.99		0.0	19.5	16.77		0.0	17.0		
			90	0	18.86		0.0	19.5	16.84		0.0	17.0		
			90	49	18.92		0.0	19.5	16.71		0.0	17.0		
			90	99	18.95		0.0	19.5	16.71		0.0	17.0		
		180	0	19.01		0.0	19.5	16.76		0.0	17.0			
		16QAM	1	1	18.96		0.0	19.5	16.83		0.0	17.0		
1	94		18.91		0.0	19.5	16.67		0.0	17.0				
1	187		18.88		0.0	19.5	16.72		0.0	17.0				
64QAM	1	1	18.95		0.0	19.5	16.89		0.0	17.0				
256QAM	1	1	18.95		0.0	19.5	16.85		0.0	17.0				
CP-OFDM	QPSK	1	1	19.11		0.0	19.5	16.91		0.0	17.0			
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					633334					633334				
					3500.01 MHz					3500.01 MHz				
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.16		0.0	19.5	16.93		0.0	17.0		
			1	80	18.75		0.0	19.5	16.84		0.0	17.0		
			1	160	19.35		0.0	19.5	16.78		0.0	17.0		
			81	0	18.78		0.0	19.5	16.90		0.0	17.0		
			81	40	18.83		0.0	19.5	16.81		0.0	17.0		
			81	81	18.82		0.0	19.5	16.77		0.0	17.0		
		162	0	18.83		0.0	19.5	16.80		0.0	17.0			
		QPSK	1	1	18.83		0.0	19.5	16.86		0.0	17.0		
			1	80	18.72		0.0	19.5	16.77		0.0	17.0		
			1	160	19.13		0.0	19.5	16.82		0.0	17.0		
			81	0	18.63		0.0	19.5	16.89		0.0	17.0		
			81	40	18.76		0.0	19.5	16.76		0.0	17.0		
			81	81	18.81		0.0	19.5	16.76		0.0	17.0		
		162	0	18.90		0.0	19.5	16.81		0.0	17.0			
		16QAM	1	1	18.55		0.0	19.5	16.88		0.0	17.0		
1	80		18.61		0.0	19.5	16.72		0.0	17.0				
1	160		18.90		0.0	19.5	16.77		0.0	17.0				
64QAM	1	1	18.67		0.0	19.5	16.94		0.0	17.0				
256QAM	1	1	18.74		0.0	19.5	16.90		0.0	17.0				
CP-OFDM	QPSK	1	1	18.96		0.0	19.5	16.96		0.0	17.0			
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					631668	633334	635000			631668	633334	635000		
					3475.02 MHz					3525.00 MHz				
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.16		19.05	0.0	19.5	16.82		16.84	0.0	17.0
			1	66	18.93		18.98	0.0	19.5	16.94		16.83	0.0	17.0
			1	131	19.35		19.42	0.0	19.5	16.89		16.83	0.0	17.0
			64	0	19.01		18.97	0.0	19.5	16.96		16.86	0.0	17.0
			64	34	19.00		18.99	0.0	19.5	16.99		16.83	0.0	17.0
			64	69	19.17		19.08	0.0	19.5	16.93		16.78	0.0	17.0
		128	0	19.07		18.90	0.0	19.5	16.88		16.83	0.0	17.0	
		QPSK	1	1	19.00		18.88	0.0	19.5	16.94		16.89	0.0	17.0
			1	66	19.00		18.97	0.0	19.5	16.81		16.82	0.0	17.0
			1	131	19.21		19.19	0.0	19.5	16.77		16.82	0.0	17.0
			64	0	18.76		18.84	0.0	19.5	16.98		16.79	0.0	17.0
			64	34	18.94		18.95	0.0	19.5	16.99		16.78	0.0	17.0
			64	69	19.13		19.05	0.0	19.5	16.81		16.76	0.0	17.0
		128	0	19.03		19.06	0.0	19.5	16.84		16.81	0.0	17.0	
		16QAM	1	1	18.58		18.71	0.0	19.5	16.90		16.77	0.0	17.0
1	66		18.83		18.88	0.0	19.5	16.83		16.76	0.0	17.0		
1	131		19.16		19.06	0.0	19.5	16.75		16.73	0.0	17.0		
64QAM	1	1	18.87		18.77	0.0	19.5	16.94		16.79	0.0	17.0		
256QAM	1	1	18.91		18.86	0.0	19.5	16.93		16.78	0.0	17.0		
CP-OFDM	QPSK	1	1	18.90		18.89	0.0	19.5	16.98		16.87	0.0	17.0	

**Notes:**

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

**NR Band n77-DoD (Voice/Data/SRS0) Ant.F 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	633334	635332			631334	633334	635332		
					3470.01 MHz	3529.98 MHz	3470.01 MHz			3529.98 MHz				
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.08	19.10	19.10	0.0	19.5	16.79	16.81	16.81	0.0	17.0
			1	52	19.07	18.92	18.92	0.0	19.5	16.91	16.80	16.80	0.0	17.0
			1	104	19.37	19.28	19.28	0.0	19.5	16.86	16.80	16.80	0.0	17.0
			50	0	18.94	18.89	18.89	0.0	19.5	16.93	16.83	16.83	0.0	17.0
			50	28	19.02	19.03	19.03	0.0	19.5	16.96	16.80	16.80	0.0	17.0
		50	56	19.14	18.98	18.98	0.0	19.5	16.90	16.75	16.75	0.0	17.0	
		100	0	19.01	18.92	18.92	0.0	19.5	16.85	16.80	16.80	0.0	17.0	
		QPSK	1	1	18.93	18.67	18.67	0.0	19.5	16.91	16.86	16.86	0.0	17.0
			1	52	19.08	18.90	18.90	0.0	19.5	16.78	16.79	16.79	0.0	17.0
			1	104	19.23	19.01	19.01	0.0	19.5	16.74	16.79	16.79	0.0	17.0
	50		0	18.77	18.67	18.67	0.0	19.5	16.95	16.76	16.76	0.0	17.0	
	50		28	18.94	18.86	18.86	0.0	19.5	16.96	16.75	16.75	0.0	17.0	
	16QAM	50	56	19.13	19.05	19.05	0.0	19.5	16.78	16.73	16.73	0.0	17.0	
		100	0	19.07	18.96	18.96	0.0	19.5	16.81	16.78	16.78	0.0	17.0	
		1	1	18.74	18.63	18.63	0.0	19.5	16.87	16.74	16.74	0.0	17.0	
		1	52	18.95	18.81	18.81	0.0	19.5	16.80	16.73	16.73	0.0	17.0	
		1	104	19.06	19.04	19.04	0.0	19.5	16.72	16.70	16.70	0.0	17.0	
	CP-OFDM	64QAM	1	1	18.80	18.81	18.81	0.0	19.5	16.91	16.76	16.76	0.0	17.0
		256QAM	1	1	18.94	18.85	18.85	0.0	19.5	16.90	16.75	16.75	0.0	17.0
	CP-OFDM	QPSK	1	1	18.94	18.88	18.88	0.0	19.5	16.95	16.84	16.84	0.0	17.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					631000	633334	635666							
					3465.00 MHz	3500.01 MHz	3534.99 MHz			3465.00 MHz	3500.01 MHz	3534.99 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.16	19.04	19.00	0.0	19.5	16.87	16.96	16.88	0.0	17.0
			1	39	19.01	18.88	18.86	0.0	19.5	16.95	16.85	16.91	0.0	17.0
			1	76	19.47	19.37	19.32	0.0	19.5	16.98	16.84	16.83	0.0	17.0
			36	0	18.69	18.71	18.64	0.0	19.5	16.84	16.75	16.57	0.0	17.0
			36	21	18.82	18.73	18.75	0.0	19.5	16.76	16.67	16.68	0.0	17.0
		36	42	18.88	18.91	18.76	0.0	19.5	16.90	16.60	16.62	0.0	17.0	
		75	0	18.79	18.76	18.67	0.0	19.5	16.78	16.72	16.58	0.0	17.0	
		QPSK	1	1	18.88	18.99	18.83	0.0	19.5	16.88	16.91	16.86	0.0	17.0
			1	39	18.95	18.92	18.86	0.0	19.5	16.89	16.71	16.69	0.0	17.0
			1	76	19.06	19.14	19.01	0.0	19.5	16.91	16.78	16.72	0.0	17.0
	36		0	18.62	18.69	18.57	0.0	19.5	16.89	16.79	16.70	0.0	17.0	
	36		21	18.65	18.72	18.62	0.0	19.5	16.78	16.64	16.61	0.0	17.0	
	16QAM	36	42	18.94	18.90	18.80	0.0	19.5	16.79	16.70	16.63	0.0	17.0	
		75	0	18.86	18.89	18.74	0.0	19.5	16.82	16.72	16.70	0.0	17.0	
		1	1	18.57	18.63	18.51	0.0	19.5	16.76	16.72	16.72	0.0	17.0	
		1	39	18.75	18.76	18.68	0.0	19.5	16.73	16.62	16.65	0.0	17.0	
		1	76	19.02	18.90	18.84	0.0	19.5	16.77	16.65	16.61	0.0	17.0	
	CP-OFDM	64QAM	1	1	18.65	18.80	18.59	0.0	19.5	16.83	16.84	16.76	0.0	17.0
		256QAM	1	1	18.79	18.92	18.68	0.0	19.5	16.76	16.85	16.71	0.0	17.0
	CP-OFDM	QPSK	1	1	18.92	18.73	18.78	0.0	19.5	16.99	16.99	16.88	0.0	17.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					630668	633334	636000							
					3460.02 MHz	3500.01 MHz	3540.00 MHz			3460.02 MHz	3500.01 MHz	3540.00 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.12	19.21	19.01	0.0	19.5	16.81	16.71	16.77	0.0	17.0
			1	25	19.01	19.01	18.60	0.0	19.5	16.78	16.73	16.74	0.0	17.0
			1	49	19.48	19.45	19.26	0.0	19.5	16.72	16.68	16.68	0.0	17.0
			25	0	18.80	18.78	18.62	0.0	19.5	16.65	16.51	16.61	0.0	17.0
			25	13	18.84	18.85	18.56	0.0	19.5	16.69	16.69	16.65	0.0	17.0
		25	26	19.02	19.08	18.75	0.0	19.5	16.65	16.56	16.61	0.0	17.0	
		50	0	18.84	18.80	18.66	0.0	19.5	16.76	16.69	16.72	0.0	17.0	
		QPSK	1	1	18.85	18.83	18.68	0.0	19.5	16.78	16.76	16.74	0.0	17.0
			1	25	18.93	18.95	18.60	0.0	19.5	16.66	16.73	16.62	0.0	17.0
			1	49	19.22	19.19	18.95	0.0	19.5	16.67	16.78	16.63	0.0	17.0
	25		0	18.71	18.68	18.45	0.0	19.5	16.74	16.63	16.70	0.0	17.0	
	25		13	18.82	18.78	18.50	0.0	19.5	16.64	16.60	16.60	0.0	17.0	
	16QAM	25	26	18.95	18.89	18.67	0.0	19.5	16.66	16.62	16.62	0.0	17.0	
		50	0	18.93	18.92	18.63	0.0	19.5	16.75	16.73	16.71	0.0	17.0	
		1	1	18.54	18.55	18.47	0.0	19.5	16.57	16.65	16.53	0.0	17.0	
		1	25	18.80	18.81	18.65	0.0	19.5	16.64	16.63	16.60	0.0	17.0	
		1	49	19.11	18.99	18.89	0.0	19.5	16.55	16.59	16.51	0.0	17.0	
	CP-OFDM	64QAM	1	1	18.78	18.72	18.62	0.0	19.5	16.65	16.60	16.61	0.0	17.0
		256QAM	1	1	18.82	18.81	18.75	0.0	19.5	16.55	16.61	16.51	0.0	17.0
	CP-OFDM	QPSK	1	1	18.91	18.91	18.82	0.0	19.5	16.78	16.75	16.74	0.0	17.0

**Notes:**

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

**NR Band n77-DoD (Voice/Data/SRS0) Ant.F 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
					630500	633334	636166			630500	633334	636166		
					3457.50 MHz	3500.01 MHz	3542.49 MHz			3457.50 MHz	3500.01 MHz	3542.49 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.13	19.13	18.95	0.0	19.5	16.61	16.59	16.55	0.0	17.0
			1	18	19.03	18.74	18.88	0.0	19.5	16.58	16.53	16.49	0.0	17.0
			1	36	19.47	19.47	19.43	0.0	19.5	16.59	16.52	16.58	0.0	17.0
			18	0	18.90	18.84	18.82	0.0	19.5	16.63	16.59	16.54	0.0	17.0
			18	10	19.02	19.03	18.91	0.0	19.5	16.63	16.64	16.63	0.0	17.0
			18	20	19.06	19.13	19.02	0.0	19.5	16.62	16.57	16.49	0.0	17.0
		36	0	18.88	18.85	18.68	0.0	19.5	16.55	16.51	16.52	0.0	17.0	
		1	1	18.84	18.93	18.71	0.0	19.5	16.65	16.55	16.59	0.0	17.0	
		1	18	18.94	19.01	18.76	0.0	19.5	16.56	16.55	16.49	0.0	17.0	
		1	36	19.15	19.26	19.01	0.0	19.5	16.56	16.66	16.56	0.0	17.0	
		18	0	18.85	18.74	18.61	0.0	19.5	16.66	16.62	16.63	0.0	17.0	
		18	10	18.92	18.98	18.76	0.0	19.5	16.61	16.59	16.57	0.0	17.0	
		18	20	19.05	19.02	18.98	0.0	19.5	16.65	16.71	16.58	0.0	17.0	
		36	0	18.98	18.92	18.89	0.0	19.5	16.61	16.51	16.54	0.0	17.0	
		1	1	18.66	18.60	18.63	0.0	19.5	16.62	16.55	16.56	0.0	17.0	
		1	18	18.78	18.86	18.73	0.0	19.5	16.54	16.51	16.51	0.0	17.0	
		1	36	19.19	19.07	19.07	0.0	19.5	16.57	16.53	16.55	0.0	17.0	
		64QAM	1	1	18.79	18.79	18.75	0.0	19.5	16.59	16.63	16.55	0.0	17.0
		256QAM	1	1	18.89	18.85	18.76	0.0	19.5	16.56	16.66	16.63	0.0	17.0
		CP-OFDM	QPSK	1	1	18.88	18.78	18.73	0.0	19.5	16.66	16.64	16.66	0.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					630334	633334	636332			630334	633334	636332		
					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	18.39	18.45	18.45	0.0	19.5	16.75	16.84	16.74	0.0	17.0
			1	12	18.21	18.23	18.22	0.0	19.5	16.72	16.75	16.69	0.0	17.0
			1	22	18.68	18.84	18.75	0.0	19.5	16.72	16.83	16.73	0.0	17.0
			12	0	18.08	18.12	18.06	0.0	19.5	16.60	16.63	16.59	0.0	17.0
			12	6	18.19	18.24	18.14	0.0	19.5	16.70	16.70	16.78	0.0	17.0
			12	12	18.25	18.27	18.22	0.0	19.5	16.62	16.73	16.62	0.0	17.0
		24	0	18.09	18.11	18.03	0.0	19.5	16.50	16.53	16.56	0.0	17.0	
		1	1	18.03	18.21	18.15	0.0	19.5	16.71	16.75	16.70	0.0	17.0	
		1	12	18.12	18.23	18.26	0.0	19.5	16.60	16.74	16.67	0.0	17.0	
		1	22	18.38	18.44	18.47	0.0	19.5	16.67	16.77	16.72	0.0	17.0	
		12	0	17.94	18.01	18.00	0.0	19.5	16.62	16.60	16.56	0.0	17.0	
		12	6	18.14	18.18	18.19	0.0	19.5	16.60	16.64	16.62	0.0	17.0	
		12	12	18.25	18.28	18.22	0.0	19.5	16.57	16.60	16.67	0.0	17.0	
		24	0	18.03	18.15	18.10	0.0	19.5	16.53	16.53	16.45	0.0	17.0	
		1	1	17.89	17.92	17.94	0.0	19.5	16.55	16.55	16.55	0.0	17.0	
		1	12	17.98	17.99	18.01	0.0	19.5	16.46	16.50	16.50	0.0	17.0	
		1	22	18.30	18.30	18.30	0.0	19.5	16.50	16.64	16.55	0.0	17.0	
		64QAM	1	1	18.03	18.05	18.10	0.0	19.5	16.60	16.60	16.59	0.0	17.0
		256QAM	1	1	18.17	18.18	18.07	0.0	19.5	16.59	16.63	16.60	0.0	17.0
		CP-OFDM	QPSK	1	1	18.15	18.13	18.14	0.0	19.5	16.73	16.75	16.62	0.0

**Notes:**

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

**NR Band n77 (Voice/Data/SRS0) Ant.F Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)													
					DSI = 0						DSI = 1							
					Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)					
					650000	3750.00 MHz	662000	3930.00 MHz	650000	3750.00 MHz			662000	3930.00 MHz	MPR	Tune-up Limit		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.85				18.77	0.0	19.5	16.68				16.87	0.0	17.0
			1	136	18.72				18.52	0.0	19.5	16.53				16.76	0.0	17.0
			1	271	18.82				18.93	0.0	19.5	16.76				16.99	0.0	17.0
			135	0	18.78				18.67	0.0	19.5	16.57				16.79	0.0	17.0
			135	69	18.78				18.68	0.0	19.5	16.46				16.68	0.0	17.0
			135	138	18.70				18.66	0.0	19.5	16.56				16.91	0.0	17.0
			270	0	18.69				18.66	0.0	19.5	16.52				16.82	0.0	17.0
			1	1	19.10				18.87	0.0	19.5	16.72				16.69	0.0	17.0
			1	136	18.65				18.52	0.0	19.5	16.37				16.35	0.0	17.0
		1	271	18.81				18.84	0.0	19.5	16.64				16.60	0.0	17.0	
		QPSK	135	0	18.76				18.66	0.0	19.5	16.64				16.60	0.0	17.0
			135	69	18.67				18.57	0.0	19.5	16.43				16.40	0.0	17.0
			135	138	18.75				18.65	0.0	19.5	16.61				16.59	0.0	17.0
			270	0	18.68				18.67	0.0	19.5	16.66				16.63	0.0	17.0
			1	1	18.72				18.70	0.0	19.5	16.77				16.82	0.0	17.0
			1	136	18.63				18.43	0.0	19.5	16.76				16.68	0.0	17.0
		16QAM	1	271	18.78				18.81	0.0	19.5	16.67				16.95	0.0	17.0
			64QAM	1	1	18.74				18.68	0.0	19.5	16.73				16.82	0.0
256QAM	1		1	18.81				18.71	0.0	19.5	16.74				16.79	0.0	17.0	
CP-OFDM	QPSK	1	1	18.96				18.81	0.0	19.5	16.95				16.94	0.0	17.0	
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.78				18.85	0.0	19.5	16.56				16.63	0.0	17.0
			1	122	18.76				18.89	0.0	19.5	16.45				16.65	0.0	17.0
			1	243	18.80				18.90	0.0	19.5	16.52				16.59	0.0	17.0
			120	0	18.69				18.83	0.0	19.5	16.32				16.64	0.0	17.0
			120	62	18.69				18.85	0.0	19.5	16.43				16.54	0.0	17.0
			120	125	18.63				18.92	0.0	19.5	16.46				16.60	0.0	17.0
			243	0	18.64				18.85	0.0	19.5	16.44				16.45	0.0	17.0
			1	1	18.78				18.91	0.0	19.5	16.49				16.65	0.0	17.0
			1	122	18.77				18.79	0.0	19.5	16.41				16.50	0.0	17.0
		1	243	18.83				18.92	0.0	19.5	16.53				16.60	0.0	17.0	
		QPSK	120	0	18.76				18.82	0.0	19.5	16.40				16.64	0.0	17.0
			120	62	18.66				18.81	0.0	19.5	16.27				16.51	0.0	17.0
			120	125	18.66				18.88	0.0	19.5	16.35				16.58	0.0	17.0
			243	0	18.67				18.82	0.0	19.5	16.61				16.57	0.0	17.0
			1	1	18.76				18.87	0.0	19.5	16.34				16.58	0.0	17.0
			1	122	18.64				18.73	0.0	19.5	16.53				16.49	0.0	17.0
		16QAM	1	243	18.71				18.87	0.0	19.5	16.57				16.55	0.0	17.0
			64QAM	1	1	18.77				18.76	0.0	19.5	16.55				16.54	0.0
256QAM	1		1	18.81				18.91	0.0	19.5	16.52				16.59	0.0	17.0	
CP-OFDM	QPSK	1	1	18.94				18.86	0.0	19.5	16.65				16.75	0.0	17.0	
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.76				19.02	0.0	19.5	16.46				16.68	0.0	17.0
			1	108	18.70				18.71	0.0	19.5	16.45				16.52	0.0	17.0
			1	215	18.76				18.83	0.0	19.5	16.54				16.62	0.0	17.0
			108	0	18.72				18.80	0.0	19.5	16.41				16.71	0.0	17.0
			108	54	18.63				18.85	0.0	19.5	16.44				16.70	0.0	17.0
			108	109	18.71				18.78	0.0	19.5	16.51				16.66	0.0	17.0
			216	0	18.62				18.76	0.0	19.5	16.48				16.60	0.0	17.0
			1	1	18.77				18.70	0.0	19.5	16.54				16.67	0.0	17.0
			1	108	18.71				18.69	0.0	19.5	16.36				16.52	0.0	17.0
		1	215	18.66				18.79	0.0	19.5	16.53				16.66	0.0	17.0	
		QPSK	108	0	18.69				18.75	0.0	19.5	16.56				16.74	0.0	17.0
			108	54	18.54				18.75	0.0	19.5	16.45				16.64	0.0	17.0
			108	109	18.65				18.75	0.0	19.5	16.50				16.76	0.0	17.0
			216	0	18.63				18.63	0.0	19.5	16.48				16.68	0.0	17.0
			1	1	18.73				18.57	0.0	19.5	16.56				16.71	0.0	17.0
			1	108	18.59				18.62	0.0	19.5	16.41				16.54	0.0	17.0
		16QAM	1	215	18.61				18.73	0.0	19.5	16.53				16.66	0.0	17.0
			64QAM	1	1	18.75				18.79	0.0	19.5	16.50				16.62	0.0
256QAM	1		1	18.75				18.66	0.0	19.5	16.55				16.61	0.0	17.0	
CP-OFDM	QPSK	1	1	18.90				18.67	0.0	19.5	16.66				16.75	0.0	17.0	

**Notes:**

NR Band n77 were measured output power through FTM mode provided by manufacturer.



**NR Band n77 (Voice/Data/SRS0) Ant.F 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				
					649000	653666		658334	663000			649000	653666		658334	663000						
					3735.00 MHz	3804.99 MHz		3875.01 MHz	3945.00 MHz			3735.00 MHz	3804.99 MHz		3875.01 MHz	3945.00 MHz						
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.56	18.53		18.76	18.69	0.0	19.5	16.46	16.60		16.80	16.84	0.0	17.0				
			1	94	18.59	18.57		18.69	18.73	0.0	19.5	16.46	16.57		16.68	16.87	0.0	17.0				
			1	187	18.58	18.70		18.73	18.98	0.0	19.5	16.46	16.74		16.74	16.99	0.0	17.0				
			90	0	18.61	18.65		18.80	18.80	0.0	19.5	16.39	16.66		16.78	16.91	0.0	17.0				
			90	49	18.61	18.70		18.88	18.87	0.0	19.5	16.43	16.73		16.81	16.88	0.0	17.0				
			90	99	18.56	18.61		18.80	18.94	0.0	19.5	16.51	16.67		16.73	16.93	0.0	17.0				
		180	0	18.66	18.66		18.76	18.76	0.0	19.5	16.55	16.66		16.74	16.83	0.0	17.0					
		1	1	18.57	18.69		18.76	18.76	0.0	19.5	16.47	16.62		16.74	16.83	0.0	17.0					
		1	94	18.47	18.53		18.66	18.66	0.0	19.5	16.37	16.59		16.66	16.73	0.0	17.0					
		1	187	18.62	18.71		18.80	18.98	0.0	19.5	16.38	16.75		16.74	16.98	0.0	17.0					
		90	0	18.64	18.66		18.81	18.74	0.0	19.5	16.56	16.68		16.89	16.87	0.0	17.0					
		90	49	18.58	18.64		18.73	18.71	0.0	19.5	16.39	16.71		16.81	16.84	0.0	17.0					
		90	99	18.60	18.69		18.80	18.83	0.0	19.5	16.45	16.68		16.80	16.99	0.0	17.0					
		180	0	18.60	18.63		18.82	18.84	0.0	19.5	16.50	16.67		16.81	16.83	0.0	17.0					
		1	1	18.57	18.52		18.70	18.65	0.0	19.5	16.55	16.52		16.66	16.72	0.0	17.0					
		1	94	18.50	18.49		18.60	18.61	0.0	19.5	16.38	16.51		16.70	16.71	0.0	17.0					
		1	187	18.46	18.61		18.78	18.97	0.0	19.5	16.46	16.73		16.78	16.99	0.0	17.0					
		1	1	18.62	18.58		18.68	18.71	0.0	19.5	16.48	16.49		16.76	16.76	0.0	17.0					
		1	1	18.61	18.52		18.70	18.79	0.0	19.5	16.45	16.49		16.74	16.74	0.0	17.0					
		1	1	18.71	18.61		18.80	18.79	0.0	19.5	16.63	16.62		16.82	16.83	0.0	17.0					
		60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.77	18.65		18.85	18.75	0.0	19.5	16.43	16.58		16.78	16.82	0.0	17.0		
					1	80	18.69	18.56		18.53	18.66	0.0	19.5	16.43	16.55		16.66	16.85	0.0	17.0		
					1	160	18.69	18.69		18.70	18.65	0.0	19.5	16.43	16.72		16.72	16.97	0.0	17.0		
					81	0	18.55	18.60		18.66	18.63	0.0	19.5	16.36	16.64		16.76	16.89	0.0	17.0		
81	40				18.71	18.67		18.68	18.76	0.0	19.5	16.40	16.71		16.79	16.86	0.0	17.0				
81	81				18.58	18.60		18.58	18.73	0.0	19.5	16.48	16.65		16.71	16.91	0.0	17.0				
162	0			18.70	18.72		18.67	18.82	0.0	19.5	16.52	16.64		16.72	16.81	0.0	17.0					
1	1			18.75	18.67		18.79	18.82	0.0	19.5	16.44	16.60		16.72	16.81	0.0	17.0					
1	80			18.41	18.55		18.53	18.63	0.0	19.5	16.34	16.57		16.64	16.71	0.0	17.0					
1	160			18.77	18.76		18.75	18.99	0.0	19.5	16.36	16.72		16.72	16.96	0.0	17.0					
81	0			18.56	18.57		18.69	18.72	0.0	19.5	16.54	16.65		16.87	16.85	0.0	17.0					
81	40			18.42	18.62		18.66	18.74	0.0	19.5	16.37	16.68		16.79	16.82	0.0	17.0					
81	81			18.47	18.58		18.43	18.78	0.0	19.5	16.43	16.65		16.78	16.97	0.0	17.0					
162	0			18.51	18.62		18.45	18.81	0.0	19.5	16.48	16.64		16.79	16.81	0.0	17.0					
1	1			18.56	18.52		18.66	18.63	0.0	19.5	16.53	16.49		16.64	16.70	0.0	17.0					
1	80			18.55	18.39		18.46	18.68	0.0	19.5	16.36	16.48		16.68	16.69	0.0	17.0					
1	160			18.58	18.60		18.67	18.89	0.0	19.5	16.44	16.70		16.76	16.97	0.0	17.0					
1	1			18.57	18.56		18.66	18.73	0.0	19.5	16.46	16.46		16.74	16.74	0.0	17.0					
1	1			18.57	18.48		18.52	18.60	0.0	19.5	16.43	16.46		16.72	16.72	0.0	17.0					
1	1			18.80	18.81		18.79	18.92	0.0	19.5	16.61	16.59		16.80	16.81	0.0	17.0					
50 MHz	DFT-s-OFDM			π/2 BPSK	1	1	18.76	18.93		18.89	19.02	18.60	0.0	19.5	16.48	16.67		16.72	16.86	16.88	0.0	17.0
					1	66	18.72	18.95		19.05	19.06	18.81	0.0	19.5	16.44	16.78		16.85	16.88	16.90	0.0	17.0
					1	131	18.78	18.86		18.94	18.95	18.68	0.0	19.5	16.45	16.71		16.84	16.82	16.84	0.0	17.0
					64	0	18.72	18.94		18.97	18.97	18.70	0.0	19.5	16.44	16.84		16.88	16.80	16.82	0.0	17.0
		64	34		18.92	18.96		19.04	19.03	18.92	0.0	19.5	16.51	16.83		16.94	16.93	16.95	0.0	17.0		
		64	69		18.88	18.88		19.04	18.97	18.77	0.0	19.5	16.47	16.76		16.90	16.79	16.81	0.0	17.0		
		128	0	18.83	18.87		19.04	19.01	18.78	0.0	19.5	16.43	16.76		16.89	16.89	16.91	0.0	17.0			
		1	1	18.79	18.82		18.89	19.01	18.62	0.0	19.5	16.45	16.76		16.79	16.85	16.87	0.0	17.0			
		1	66	18.77	18.83		19.01	18.95	18.73	0.0	19.5	16.43	16.81		16.84	16.82	16.84	0.0	17.0			
		1	131	18.84	18.87		18.94	18.92	18.84	0.0	19.5	16.43	16.77		16.75	16.79	16.81	0.0	17.0			
		64	0	18.80	18.84		19.00	18.83	18.74	0.0	19.5	16.53	16.71		16.82	16.85	16.87	0.0	17.0			
		64	34	18.86	18.89		19.04	18.90	18.81	0.0	19.5	16.49	16.75		16.89	16.90	16.92	0.0	17.0			
		64	69	18.85	18.92		19.01	18.81	18.73	0.0	19.5	16.48	16.73		16.82	16.86	16.88	0.0	17.0			
		128	0	18.76	18.89		19.02	18.80	18.61	0.0	19.5	16.52	16.79		16.81	16.96	16.98	0.0	17.0			
		1	1	18.78	18.85		18.81	18.75	18.49	0.0	19.5	16.45	16.78		16.74	16.90	16.92	0.0	17.0			
		1	66	18.70	18.81		19.00	18.82	18.68	0.0	19.5	16.37	16.68		16.79	16.79	16.81	0.0	17.0			
		1	131	18.72	18.88		18.87	18.81	18.57	0.0	19.5	16.39	16.66		16.77	16.51	16.53	0.0	17.0			
		1	1	18.82	18.95		18.87	18.84	18.65	0.0	19.5	16.50	16.75		16.78	16.54	16.56	0.0	17.0			
		1	1	18.81	18.75		18.80	18.83	18.55	0.0	19.5	16.48	16.78		16.77	16.61	16.63	0.0	17.0			
		1	1	18.82	18.98		19.01	18.94	18.57	0.0	19.5	16.61	16.86		16.86	16.73	16.75	0.0	17.0			

**Notes:**

NR Band n77 were measured output power through FTM mode provided by manufacturer.

**NR Band n77 (Voice/Data/SRS0) Ant.F 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	651200	654400	657600	660800	664000			648000	651200	654400	657600	660800	664000		
					3720.00 MHz	3768.00 MHz	3816.00 MHz	3864.00 MHz	3912.00 MHz	3960.00 MHz			3720.00 MHz	3768.00 MHz	3816.00 MHz	3864.00 MHz	3912.00 MHz	3960.00 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.03	18.79	18.79	18.91	18.76	18.67	0.0	19.5	16.46	16.42	16.48	16.52	16.44	16.48	0.0	17.0
			1	52	18.87	18.83	18.94	18.93	18.91	18.72	0.0	19.5	16.48	16.47	16.53	16.54	16.49	16.50	0.0	17.0
			1	104	18.88	18.77	18.86	18.81	18.91	18.64	0.0	19.5	16.44	16.42	16.48	16.50	16.44	16.46	0.0	17.0
			50	0	18.78	18.85	18.87	18.98	18.90	18.78	0.0	19.5	16.39	16.35	16.41	16.45	16.37	16.41	0.0	17.0
			50	28	18.86	18.91	18.99	19.04	18.95	18.85	0.0	19.5	16.43	16.39	16.45	16.49	16.41	16.45	0.0	17.0
			50	56	18.69	18.77	18.94	18.91	18.91	18.71	0.0	19.5	16.51	16.47	16.53	16.57	16.49	16.53	0.0	17.0
		100	0	18.77	18.84	18.82	18.90	18.87	18.79	0.0	19.5	16.55	16.51	16.57	16.61	16.53	16.57	0.0	17.0	
		QPSK	1	1	18.78	18.76	18.70	18.91	18.78	18.55	0.0	19.5	16.47	16.43	16.49	16.53	16.45	16.49	0.0	17.0
			1	52	18.71	18.72	18.85	18.83	18.78	18.70	0.0	19.5	16.37	16.33	16.39	16.43	16.35	16.39	0.0	17.0
			1	104	18.78	18.69	18.81	18.79	18.74	18.61	0.0	19.5	16.39	16.35	16.41	16.45	16.37	16.41	0.0	17.0
			50	0	18.83	18.75	18.89	18.88	18.93	18.72	0.0	19.5	16.57	16.53	16.59	16.63	16.55	16.59	0.0	17.0
			50	28	18.81	18.79	18.91	18.93	18.84	18.74	0.0	19.5	16.40	16.36	16.42	16.46	16.38	16.42	0.0	17.0
			50	56	18.72	18.74	18.95	18.87	18.91	18.71	0.0	19.5	16.46	16.42	16.48	16.52	16.44	16.48	0.0	17.0
		100	0	18.83	18.86	18.91	18.98	18.85	18.72	0.0	19.5	16.51	16.47	16.53	16.57	16.49	16.53	0.0	17.0	
		16QAM	1	1	18.72	18.77	18.79	18.77	18.72	18.55	0.0	19.5	16.56	16.52	16.58	16.62	16.54	16.58	0.0	17.0
			1	52	18.81	18.79	18.83	18.74	18.74	18.66	0.0	19.5	16.39	16.35	16.41	16.45	16.37	16.41	0.0	17.0
1	104		18.68	18.78	18.85	18.85	18.71	18.51	0.0	19.5	16.47	16.43	16.49	16.53	16.45	16.49	0.0	17.0		
50	0		18.79	18.71	18.68	18.86	18.81	18.56	0.0	19.5	16.49	16.45	16.51	16.55	16.47	16.51	0.0	17.0		
256QAM	1	1	18.81	18.72	18.69	18.85	18.78	18.53	0.0	19.5	16.46	16.42	16.48	16.52	16.44	16.48	0.0	17.0		
	1	1	18.85	18.73	18.84	18.91	18.81	18.61	0.0	19.5	16.64	16.60	16.66	16.70	16.62	16.66	0.0	17.0		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.98	19.02	19.01	19.14	18.91	18.94	0.0	19.5	16.50	16.44	16.52	16.57	16.46	16.51	0.0	17.0
			1	39	18.96	18.86	18.87	18.97	18.92	18.85	0.0	19.5	16.52	16.49	16.57	16.59	16.51	16.53	0.0	17.0
			1	76	19.02	18.97	18.91	18.96	18.95	18.82	0.0	19.5	16.48	16.44	16.52	16.55	16.46	16.49	0.0	17.0
			36	0	18.85	18.79	18.81	18.88	18.72	18.76	0.0	19.5	16.43	16.37	16.45	16.50	16.39	16.44	0.0	17.0
			36	21	18.91	18.84	18.85	18.95	18.81	18.73	0.0	19.5	16.47	16.41	16.49	16.54	16.43	16.48	0.0	17.0
			36	42	18.76	18.76	18.82	18.80	18.87	18.64	0.0	19.5	16.55	16.49	16.57	16.62	16.51	16.56	0.0	17.0
		75	0	18.79	18.78	18.82	18.92	18.85	18.92	0.0	19.5	16.59	16.53	16.61	16.66	16.55	16.60	0.0	17.0	
		QPSK	1	1	18.94	19.01	19.06	19.11	18.91	18.93	0.0	19.5	16.51	16.45	16.53	16.58	16.47	16.52	0.0	17.0
			1	39	18.97	18.84	18.94	18.99	18.95	18.81	0.0	19.5	16.41	16.35	16.43	16.48	16.37	16.42	0.0	17.0
			1	76	18.96	18.86	19.01	18.96	18.93	18.78	0.0	19.5	16.43	16.37	16.45	16.50	16.39	16.44	0.0	17.0
			36	0	18.78	18.81	18.91	18.97	18.91	18.73	0.0	19.5	16.61	16.55	16.63	16.68	16.57	16.62	0.0	17.0
			36	21	18.73	18.78	18.78	18.86	18.82	18.64	0.0	19.5	16.44	16.38	16.46	16.51	16.40	16.45	0.0	17.0
			36	42	18.85	18.75	18.85	18.90	18.85	18.78	0.0	19.5	16.50	16.44	16.52	16.57	16.46	16.51	0.0	17.0
		75	0	18.71	18.78	18.88	18.91	18.83	18.78	0.0	19.5	16.55	16.49	16.57	16.62	16.51	16.56	0.0	17.0	
		16QAM	1	1	18.75	18.76	18.83	18.98	18.84	18.81	0.0	19.5	16.60	16.54	16.62	16.67	16.56	16.61	0.0	17.0
			1	39	18.69	18.71	18.72	18.86	18.73	18.51	0.0	19.5	16.43	16.37	16.45	16.50	16.39	16.44	0.0	17.0
1	76		18.81	18.72	18.82	18.78	18.84	18.58	0.0	19.5	16.51	16.45	16.53	16.58	16.47	16.52	0.0	17.0		
50	0		18.77	18.75	18.87	18.98	18.95	18.81	0.0	19.5	16.53	16.47	16.55	16.60	16.49	16.54	0.0	17.0		
256QAM	1	1	18.85	18.73	18.86	19.04	18.92	18.81	0.0	19.5	16.50	16.44	16.52	16.57	16.46	16.51	0.0	17.0		
	1	1	18.99	19.08	19.01	19.18	19.07	19.00	0.0	19.5	16.68	16.62	16.70	16.75	16.64	16.69	0.0	17.0		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.75	18.87	18.92	18.84	18.81	18.78	0.0	19.5	16.52	16.54	16.58	16.63	16.52	16.35	0.0	17.0
			1	25	18.77	18.88	18.72	18.89	18.84	18.64	0.0	19.5	16.50	16.57	16.57	16.55	16.54	16.39	0.0	17.0
			1	49	18.72	18.83	18.87	18.84	18.77	18.66	0.0	19.5	16.52	16.51	16.48	16.58	16.49	16.37	0.0	17.0
			25	0	18.66	18.74	18.78	18.76	18.73	18.53	0.0	19.5	16.53	16.52	16.44	16.64	16.55	16.28	0.0	17.0
			25	13	18.74	18.85	18.90	18.92	18.52	18.60	0.0	19.5	16.62	16.56	16.47	16.65	16.61	16.44	0.0	17.0
			25	26	18.68	18.72	18.91	18.72	18.66	18.59	0.0	19.5	16.51	16.48	16.53	16.54	16.50	16.25	0.0	17.0
		50	0	18.82	18.88	18.81	18.95	18.73	18.61	0.0	19.5	16.56	16.55	16.63	16.75	16.60	16.42	0.0	17.0	
		QPSK	1	1	18.83	18.75	18.85	18.87	18.81	18.65	0.0	19.5	16.63	16.56	16.47	16.58	16.56	16.40	0.0	17.0
			1	25	18.82	18.84	18.65	18.81	18.81	18.60	0.0	19.5	16.57	16.52	16.51	16.55	16.48	16.42	0.0	17.0
			1	49	18.73	18.79	18.79	18.79	18.71	18.61	0.0	19.5	16.58	16.49	16.48	16.54	16.50	16.41	0.0	17.0
			25	0	18.68	18.79	18.69	18.86	18.75	18.51	0.0	19.5	16.46	16.52	16.53	16.65	16.60	16.37	0.0	17.0
			25	13	18.75	18.76	18.61	18.78	18.65	18.49	0.0	19.5	16.43	16.47	16.47	16.56	16.47	16.27	0.0	17.0
			25	26	18.73	18.78	18.63	18.75	18.75	18.58	0.0	19.5	16.51	16.52	16.49	16.58	16.53	16.36	0.0	17.0
		50	0	18.87	18.84	18.67	18.76	18.81	18.59	0.0	19.5	16.57	16.60	16.66	16.76	16.59	16.41	0.0	17.0	
		16QAM	1	1	18.64	18.67	18.71	18.67	18.68	18.57	0.0	19.5	16.38	16.54	16.46	16.53	16.47	16.41	0.0	17.0
			1	25	18.62	18.63	18.64	18.72	18.62	18.56	0.0	19.5	16.34	16.40	16.53	16.45	16.39	16.39	0.0	17.0
1	49		18.62	18.52	18.71	18.70	18.61	18.54	0.0	19.5	16.41	16.38	16.45	16.41	16.46	16.31	0.0	17.0		
50	0		18.71	18.69	18.64	18.86	18.69	18.55	0.0	19.5	16.43	16.39	16.54	16.46	16.48	16.40	0.0	17.0		
256QAM	1	1	18.77	18.51	18.65	18.67	18.68	18.61	0.0	19.5	16.43	16.43	16.46	16.48	16.47	16.38	0.0	17.0		
	1	1	18.67	18.81	18.84	18.95	18.90	18.77	0.0	19.5	16.61	16.67	16							

**NR Band n77 (Voice/Data/SRS0) Ant.F 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		
					647168	650700	654234	657766	661300	664832			647168	650700	654234	657766	661300	664832				
					3707.52 MHz	3760.50 MHz	3813.51 MHz	3866.49 MHz	3919.50 MHz	3972.48 MHz			3707.52 MHz	3760.50 MHz	3813.51 MHz	3866.49 MHz	3919.50 MHz	3972.48 MHz				
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.92	18.95	18.94	19.05	18.94	18.68	0.0	19.5	16.53	16.52	16.58	16.56	16.55	16.61	0.0	17.0		
			1	18	18.86	18.86	18.92	18.87	18.81	18.67	0.0	19.5	16.44	16.43	16.56	16.47	16.46	16.59	0.0	17.0		
			1	36	18.89	18.89	18.91	18.97	18.91	18.66	0.0	19.5	16.60	16.54	16.53	16.63	16.57	16.56	0.0	17.0		
			18	0	18.91	18.85	18.97	18.98	18.84	18.65	0.0	19.5	16.60	16.49	16.66	16.63	16.52	16.69	0.0	17.0		
			18	10	18.97	18.96	18.93	18.96	18.92	18.75	0.0	19.5	16.67	16.59	16.66	16.70	16.62	16.69	0.0	17.0		
			18	20	18.93	18.95	19.04	18.93	18.86	18.57	0.0	19.5	16.63	16.53	16.58	16.66	16.56	16.61	0.0	17.0		
		36	0	18.88	18.79	18.84	18.85	18.75	18.49	0.0	19.5	16.54	16.48	16.58	16.57	16.51	16.61	0.0	17.0			
		QPSK	1	1	18.85	18.82	18.85	18.89	18.85	18.61	0.0	19.5	16.53	16.59	16.55	16.56	16.62	16.58	0.0	17.0		
			1	18	18.83	18.77	18.89	18.81	18.77	18.51	0.0	19.5	16.41	16.47	16.48	16.42	16.48	16.49	0.0	17.0		
			1	36	18.81	18.87	18.43	18.92	18.79	18.61	0.0	19.5	16.61	16.63	16.56	16.62	16.64	16.57	0.0	17.0		
			18	0	18.80	18.92	18.92	18.85	18.87	18.66	0.0	19.5	16.47	16.61	16.57	16.48	16.62	16.58	0.0	17.0		
			18	10	18.91	18.91	18.88	18.86	18.86	18.52	0.0	19.5	16.48	16.62	16.51	16.49	16.63	16.52	0.0	17.0		
			18	20	18.81	18.89	18.94	18.96	18.85	18.59	0.0	19.5	16.60	16.68	16.67	16.61	16.69	16.68	0.0	17.0		
			36	0	18.79	18.85	18.91	18.82	18.81	18.53	0.0	19.5	16.45	16.51	16.57	16.46	16.52	16.58	0.0	17.0		
			16QAM	1	1	18.81	18.92	18.84	18.82	18.79	18.67	0.0	19.5	16.48	16.65	16.55	16.49	16.66	16.56	0.0	17.0	
				1	18	18.79	18.77	18.79	18.73	18.74	18.55	0.0	19.5	16.40	16.54	16.52	16.41	16.55	16.53	0.0	17.0	
				1	36	18.74	18.81	18.85	18.83	18.75	18.65	0.0	19.5	16.54	16.61	16.62	16.55	16.62	16.63	0.0	17.0	
				18	0	18.84	18.87	18.86	18.82	18.78	18.61	0.0	19.5	16.46	16.64	16.58	16.47	16.65	16.59	0.0	17.0	
				18	10	19.01	18.94	18.92	18.91	18.73	18.55	0.0	19.5	16.53	16.54	16.47	16.54	16.55	16.48	0.0	17.0	
		18		20	18.92	18.94	18.93	18.91	18.69	0.0	19.5	16.54	16.69	16.62	16.55	16.70	16.63	0.0	17.0			
		256QAM	1	1	18.92	18.97	18.94	18.93	18.91	18.69	0.0	19.5	16.54	16.69	16.62	16.55	16.70	16.63	0.0	17.0		
			CP-OFDM	QPSK	1	1	18.92	18.97	18.94	18.93	18.91	18.69	0.0	19.5	16.54	16.69	16.62	16.55	16.70	16.63	0.0	17.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit		
					647000	650600	654200	657800	661400	665000			647000	650600	654200	657800	661400	665000				
					3705.00 MHz	3759.00 MHz	3813.00 MHz	3867.00 MHz	3921.00 MHz	3975.00 MHz			3705.00 MHz	3759.00 MHz	3813.00 MHz	3867.00 MHz	3921.00 MHz	3975.00 MHz				
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	18.05	18.36	18.35	18.43	18.43	18.35	0.0	19.5	16.17	16.16	16.22	16.20	16.19	16.25	0.0	17.0		
			1	12	18.08	18.24	18.36	18.40	18.45	18.28	0.0	19.5	16.08	16.07	16.20	16.11	16.10	16.23	0.0	17.0		
			1	22	18.15	18.34	18.42	18.48	18.55	18.35	0.0	19.5	16.24	16.18	16.17	16.27	16.21	16.20	0.0	17.0		
			12	0	18.01	18.21	18.27	18.28	18.33	18.11	0.0	19.5	16.24	16.13	16.30	16.27	16.16	16.33	0.0	17.0		
			12	6	18.10	18.29	18.38	18.42	18.41	18.27	0.0	19.5	16.31	16.23	16.30	16.34	16.26	16.33	0.0	17.0		
			12	12	18.07	18.26	18.31	18.38	18.36	18.18	0.0	19.5	16.27	16.17	16.22	16.30	16.20	16.25	0.0	17.0		
		24	0	17.97	18.11	18.21	18.25	18.25	18.07	0.0	19.5	16.18	16.12	16.22	16.21	16.15	16.25	0.0	17.0			
		QPSK	1	1	18.09	18.27	18.34	18.43	18.45	18.22	0.0	19.5	16.17	16.23	16.19	16.20	16.26	16.22	0.0	17.0		
			1	12	18.16	18.26	18.38	18.42	18.42	18.23	0.0	19.5	16.05	16.11	16.12	16.06	16.12	16.13	0.0	17.0		
			1	22	18.15	18.31	18.40	18.48	18.44	18.31	0.0	19.5	16.25	16.27	16.20	16.26	16.28	16.21	0.0	17.0		
			12	0	18.08	18.14	18.27	18.36	18.37	18.13	0.0	19.5	16.11	16.25	16.21	16.12	16.26	16.22	0.0	17.0		
			12	6	18.11	18.19	18.32	18.43	18.42	18.19	0.0	19.5	16.12	16.26	16.15	16.13	16.27	16.16	0.0	17.0		
			12	12	18.10	18.28	18.33	18.39	18.29	18.25	0.0	19.5	16.24	16.32	16.31	16.25	16.33	16.32	0.0	17.0		
			24	0	17.96	18.14	18.21	18.28	18.33	18.11	0.0	19.5	16.09	16.15	16.21	16.10	16.16	16.22	0.0	17.0		
			16QAM	1	1	18.02	18.12	18.25	18.31	18.28	18.07	0.0	19.5	16.12	16.29	16.19	16.13	16.30	16.20	0.0	17.0	
				1	12	17.99	18.09	18.24	18.32	18.26	18.11	0.0	19.5	16.04	16.18	16.16	16.05	16.19	16.17	0.0	17.0	
				1	22	18.02	18.18	18.31	18.39	18.31	18.13	0.0	19.5	16.18	16.25	16.26	16.19	16.26	16.27	0.0	17.0	
				12	0	18.05	18.17	18.24	18.24	18.32	18.13	0.0	19.5	16.10	16.28	16.22	16.11	16.29	16.23	0.0	17.0	
				12	6	18.12	17.75	17.82	18.34	18.34	18.11	0.0	19.5	16.17	16.18	16.11	16.18	16.19	16.12	0.0	17.0	
		12		12	18.21	18.35	18.43	18.46	18.47	18.27	0.0	19.5	16.18	16.33	16.26	16.19	16.34	16.27	0.0	17.0		
		256QAM	1	1	18.21	18.35	18.43	18.46	18.47	18.27	0.0	19.5	16.18	16.33	16.26	16.19	16.34	16.27	0.0	17.0		
			CP-OFDM	QPSK	1	1	18.21	18.35	18.43	18.46	18.47	18.27	0.0	19.5	16.18	16.33	16.26	16.19	16.34	16.27	0.0	17.0

**Notes:**

NR Band n77 were measured output power through FTM mode provided by manufacturer.

**NR Band n77-Dod (SRS1-Ant.C/SRS3-Ant.D) Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)-SRS1			Maximum Allowed Average Power (dBm)-SRS3		
		DSI = 0, 1			DSI = 0, 1		
		Measured Pw r (dBm)			Tune-up Limit	Measured Pw r (dBm)	
		633334				633334	
		3500.01 MHz			3500.01 MHz		
100 MHz	SRS CW	18.07		19.0	17.26		17.5
		633334			633334		
		3500.01 MHz			3500.01 MHz		
90 MHz	SRS CW	18.10		19.0	17.25		17.5
		633334			633334		
		3500.01 MHz			3500.01 MHz		
80 MHz	SRS CW	18.12		19.0	17.24		17.5
		633334			633334		
		3500.01 MHz			3500.01 MHz		
70 MHz	SRS CW	18.09		19.0	17.31		17.5
		633334			633334		
		3500.01 MHz			3500.01 MHz		
60 MHz	SRS CW	18.04		19.0	17.21		17.5
		631668	635000		631668	635000	
		3475.02 MHz	3525.00 MHz		3475.02 MHz	3525.00 MHz	
50 MHz	SRS CW	18.09	18.30	19.0	17.35	17.35	17.5
		631334	635332		631334	635332	
		3470.01 MHz	3529.98 MHz		3470.01 MHz	3529.98 MHz	
40 MHz	SRS CW	18.01	18.15	19.0	17.20	17.27	17.5
		631000	633334	635666	631000	633334	635666
		3465.00 MHz	3500.01 MHz	3534.99 MHz	3465.00 MHz	3500.01 MHz	3534.99 MHz
30 MHz	SRS CW	18.07	18.17	18.32	17.15	17.31	17.41
		630668	633334	636000	630668	633334	636000
		3460.02 MHz	3500.01 MHz	3540.00 MHz	3460.02 MHz	3500.01 MHz	3540.00 MHz
20 MHz	SRS CW	18.01	18.11	18.24	17.14	17.18	17.33
		630500	633334	636166	630500	633334	636166
		3457.50 MHz	3500.01 MHz	3542.49 MHz	3457.50 MHz	3500.01 MHz	3542.49 MHz
15 MHz	SRS CW	17.90	17.98	18.15	17.01	17.05	17.25
		630334	633334	636332	630334	633334	636332
		3455.01 MHz	3500.01 MHz	3544.98 MHz	3455.01 MHz	3500.01 MHz	3544.98 MHz
10 MHz	SRS CW	17.85	18.06	18.22	17.15	17.28	17.41

**Notes:**

NR Band n77-Dod were measured output power through FTM mode provided by manufacturer.

**NR Band n77-Dod (SRS2-Ant.I) Measured Results**

		Maximum Allowed Average Power (dBm) - SRS2							
		DSI = 0			DSI = 1				
BW (MHz)	Mode	Measured Pwr (dBm)			Tune-up Limit	Measured Pwr (dBm)			Tune-up Limit
		633334	3500.01 MHz			633334	3500.01 MHz		
100 MHz	SRS CW	18.77			20.0	11.08			12.5
90 MHz	SRS CW	18.74			20.0	11.01			12.5
80 MHz	SRS CW	18.74			20.0	11.01			12.5
70 MHz	SRS CW	18.73			20.0	11.06			12.5
60 MHz	SRS CW	18.77			20.0	11.00			12.5
50 MHz	SRS CW	631668		635000	Tune-up Limit	631668		635000	Tune-up Limit
		3475.02 MHz		3525.00 MHz		3475.02 MHz		3525.00 MHz	
50 MHz	SRS CW	18.53		18.82	20.0	11.13		11.12	12.5
40 MHz	SRS CW	631500		635166	Tune-up Limit	631500		635166	Tune-up Limit
		3470.01 MHz		3529.98 MHz		3470.01 MHz		3529.98 MHz	
40 MHz	SRS CW	18.68		18.81	20.0	11.04		11.00	12.5
30 MHz	SRS CW	631168		635500	Tune-up Limit	631168		635500	Tune-up Limit
		3465.00 MHz	3500.01 MHz	3534.99 MHz		3465.00 MHz	3500.01 MHz	3534.99 MHz	
30 MHz	SRS CW	18.81	18.78	18.79	20.0	11.16	11.19	11.07	12.5
20 MHz	SRS CW	630834	633334	635832	Tune-up Limit	630834	633332	635832	Tune-up Limit
		3460.02 MHz	3500.01 MHz	3540.00 MHz		3460.02 MHz	3500.01 MHz	3540.00 MHz	
20 MHz	SRS CW	18.71	18.80	18.82	20.0	11.06	11.01	11.02	12.5
15 MHz	SRS CW	630500	633334	636166	Tune-up Limit	630500	633334	636166	Tune-up Limit
		3457.50 MHz	3500.01 MHz	3542.49 MHz		3457.50 MHz	3500.01 MHz	3542.49 MHz	
15 MHz	SRS CW	18.72	18.73	18.82	20.0	10.94	10.86	10.92	12.5
10 MHz	SRS CW	630334	633334	636332	Tune-up Limit	630334	633334	636332	Tune-up Limit
		3455.01 MHz	3500.01 MHz	3544.98 MHz		3455.01 MHz	3500.01 MHz	3544.98 MHz	
10 MHz	SRS CW	18.58	18.66	18.78	20.0	10.89	11.04	11.11	12.5

**Notes:**

NR Band n77-Dod were measured output power through FTM mode provided by manufacturer.

**NR Band n77 (SRS1-Ant.C/SRS3-Ant.D) Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)-SRS1						Maximum Allowed Average Power (dBm)-SRS3						
		DSI = 0, 1						DSI = 0, 1						
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		650000				662000	Tune-up Limit	650000					662000	Tune-up Limit
		3750.00 MHz				3930.00 MHz		3750.00 MHz					3930.00 MHz	
100 MHz	SRS CW	18.49				17.67	19.0	17.29					17.17	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		649668				656000	Tune-up Limit	649668				656000	662332	Tune-up Limit
		3745.02 MHz				3840.00 MHz		3745.02 MHz				3840.00 MHz	3934.98 MHz	
90 MHz	SRS CW	18.53				18.11	19.0	17.31				16.95	17.19	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		649334				656000	Tune-up Limit	649334				656000	662666	Tune-up Limit
		3740.01 MHz				3840.00 MHz		3740.01 MHz				3840.00 MHz	3939.99 MHz	
80 MHz	SRS CW	18.52				18.21	19.0	17.30				17.02	17.31	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		649000	653666			658334	Tune-up Limit	649000	653666			658334	663000	Tune-up Limit
		3735.00 MHz	3804.99 MHz			3875.01 MHz		3735.00 MHz	3804.99 MHz			3875.01 MHz	3945.00 MHz	
70 MHz	SRS CW	18.54	18.26			18.01	19.0	17.48	16.96			17.18	17.29	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		648668	653556			658444	Tune-up Limit	648668	653556			658444	663332	Tune-up Limit
		3730.02 MHz	3803.34 MHz			3876.66 MHz		3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz	
60 MHz	SRS CW	18.65	18.12			17.97	19.0	17.39	17.01			17.01	17.35	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		648334	652168			656000	Tune-up Limit	648334	652168			656000	659834	663666
		3725.01 MHz	3782.52 MHz			3840.00 MHz		3725.01 MHz	3782.52 MHz			3840.00 MHz	3897.51 MHz	3954.99 MHz
50 MHz	SRS CW	18.85	18.38			18.24	19.0	17.62	17.15			17.13	17.10	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		648000	651200	654400	657600	660800	Tune-up Limit	648000	651200	654400	657600	660800	664000	Tune-up Limit
		3720.00 MHz	3768.00 MHz	3816.00 MHz	3864.00 MHz	3912.00 MHz		3720.00 MHz	3768.00 MHz	3816.00 MHz	3864.00 MHz	3912.00 MHz	3960.00 MHz	
40 MHz	SRS CW	18.65	18.26	18.14	18.08	17.89	19.0	17.39	17.04	17.03	17.03	17.13	16.85	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		647668	651000	654334	657666	661000	Tune-up Limit	647668	651000	654334	657666	661000	664332	Tune-up Limit
		3715.02 MHz	3765.00 MHz	3815.01 MHz	3864.99 MHz	3915.00 MHz		3715.02 MHz	3765.00 MHz	3815.01 MHz	3864.99 MHz	3915.00 MHz	3964.98 MHz	
30 MHz	SRS CW	18.72	18.31	18.26	18.16	17.93	19.0	17.57	17.21	17.04	16.69	16.79	17.02	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		647334	650800	654266	657734	661200	Tune-up Limit	647334	650800	654266	657734	661200	664666	Tune-up Limit
		3710.01 MHz	3762.00 MHz	3813.99 MHz	3866.01 MHz	3918.00 MHz		3710.01 MHz	3762.00 MHz	3813.99 MHz	3866.01 MHz	3918.00 MHz	3969.99 MHz	
20 MHz	SRS CW	18.65	18.24	18.14	18.11	17.89	19.0	17.56	17.31	17.18	17.18	17.10	16.79	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		647168	650700	654234	657766	661300	Tune-up Limit	647168	650700	654234	657766	661300	664832	Tune-up Limit
		3707.52 MHz	3760.50 MHz	3813.51 MHz	3866.49 MHz	3919.50 MHz		3707.52 MHz	3760.50 MHz	3813.51 MHz	3866.49 MHz	3919.50 MHz	3972.48 MHz	
15 MHz	SRS CW	18.58	18.24	18.05	17.96	17.78	19.0	17.56	17.17	17.06	17.03	17.14	16.90	17.5
		Measured Pwr (dBm)						Measured Pwr (dBm)						
		647000	650600	654200	657800	661400	Tune-up Limit	647000	650600	654200	657800	661400	665000	Tune-up Limit
		3705.00 MHz	3759.00 MHz	3813.00 MHz	3867.00 MHz	3921.00 MHz		3705.00 MHz	3759.00 MHz	3813.00 MHz	3867.00 MHz	3921.00 MHz	3975.00 MHz	
10 MHz	SRS CW	18.58	18.29	18.12	17.89	17.71	19.0	17.47	17.06	16.97	17.01	17.06	16.82	17.5

**Notes:**

NR Band n77 were measured output power through FTM mode provided by manufacturer.

**NR Band n77 (SRS2-Ant.1) Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)-SRS2															
		DSI = 0							DSI = 1								
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		650000						662000	Tune-up Limit	650000						662000	Tune-up Limit
3750.00 MHz						3930.00 MHz		3750.00 MHz						3930.00 MHz			
100 MHz	SRS CW	19.50					19.86	20.0	12.00						12.22	12.5	
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		649668				656000	662332	Tune-up Limit	649668				656000	662332	Tune-up Limit		
		3745.02 MHz				3840.00 MHz	3934.98 MHz		3745.02 MHz				3840.00 MHz	3934.98 MHz			
90 MHz	SRS CW	19.35				19.76	19.94	20.0	11.69				12.10		12.18	12.5	
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		649334				656000	662666	Tune-up Limit	649334				656000	662666	Tune-up Limit		
		3740.01 MHz				3840.00 MHz	3939.99 MHz		3740.01 MHz				3840.00 MHz	3939.99 MHz			
80 MHz	SRS CW	19.41				19.71	19.92	20.0	11.66				12.12		12.14	12.5	
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		649000	653666			658334	663000	Tune-up Limit	649000	653666			658334	663000	Tune-up Limit		
		3735.00 MHz	3804.99 MHz			3875.01 MHz	3945.00 MHz		3735.00 MHz	3804.99 MHz			3875.01 MHz	3945.00 MHz			
70 MHz	SRS CW	19.33	19.57			19.73	19.97	20.0	11.60	12.04			12.15	12.20	12.5		
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		648668	653556			658444	663332	Tune-up Limit	648668	653556			658444	663332	Tune-up Limit		
		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	19.26	19.55			19.62	19.95	20.0	11.66	11.93			12.10	12.20	12.5		
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		648334	652168			656000	659834	663666	Tune-up Limit	648334	652168			656000	659834	663666	Tune-up Limit
		3725.01 MHz	3782.52 MHz			3840.00 MHz	3897.51 MHz	3954.99 MHz		3725.01 MHz	3782.52 MHz			3840.00 MHz	3897.51 MHz	3954.99 MHz	
50 MHz	SRS CW	19.46	19.61			19.68	19.68	19.81	20.0	11.72	11.96			12.21	12.17	11.88	12.5
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		648000	651200	654400	657600	660800	664000	Tune-up Limit	648000	651200	654400	657600	660800	664000	Tune-up Limit		
		3720.00 MHz	3768.00 MHz	3816.00 MHz	3864.00 MHz	3912.00 MHz	3960.00 MHz		3720.00 MHz	3768.00 MHz	3816.00 MHz	3864.00 MHz	3912.00 MHz	3960.00 MHz			
40 MHz	SRS CW	19.19	19.41	19.56	19.64	19.67	19.65	20.0	11.56	11.89	12.01	12.14	12.07	11.86	12.5		
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		647668	651000	654334	657666	661000	664332	Tune-up Limit	647668	651000	654334	657666	661000	664332	Tune-up Limit		
		3715.02 MHz	3765.00 MHz	3815.01 MHz	3864.99 MHz	3915.00 MHz	3964.98 MHz		3715.02 MHz	3765.00 MHz	3815.01 MHz	3864.99 MHz	3915.00 MHz	3964.98 MHz			
30 MHz	SRS CW	19.42	19.61	19.71	19.82	19.69	19.67	20.0	11.58	11.97	12.08	12.13	12.17	11.81	12.5		
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		647334	650800	654266	657734	661200	664666	Tune-up Limit	647334	650800	654266	657734	661200	664666	Tune-up Limit		
		3710.01 MHz	3762.00 MHz	3813.99 MHz	3866.01 MHz	3918.00 MHz	3969.99 MHz		3710.01 MHz	3762.00 MHz	3813.99 MHz	3866.01 MHz	3918.00 MHz	3969.99 MHz			
20 MHz	SRS CW	19.32	19.41	19.52	19.69	19.57	19.51	20.0	11.57	11.83	11.99	12.16	12.11	11.72	12.5		
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		647168	650700	654234	657766	661300	664832	Tune-up Limit	647168	650700	654234	657766	661300	664832	Tune-up Limit		
		3707.52 MHz	3760.50 MHz	3813.51 MHz	3866.49 MHz	3919.50 MHz	3972.48 MHz		3707.52 MHz	3760.50 MHz	3813.51 MHz	3866.49 MHz	3919.50 MHz	3972.48 MHz			
15 MHz	SRS CW	19.21	19.27	19.49	19.57	19.51	19.51	20.0	11.42	11.82	12.03	12.03	12.07	11.78	12.5		
		Measured Pwr (dBm)							Measured Pwr (dBm)								
		647000	650600	654200	657800	661400	665000	Tune-up Limit	647000	650600	654200	657800	661400	665000	Tune-up Limit		
		3705.00 MHz	3759.00 MHz	3813.00 MHz	3867.00 MHz	3921.00 MHz	3975.00 MHz		3705.00 MHz	3759.00 MHz	3813.00 MHz	3867.00 MHz	3921.00 MHz	3975.00 MHz			
10 MHz	SRS CW	19.04	19.33	19.42	19.55	19.48	19.54	20.0	11.53	11.82	12.07	12.17	12.08	11.79	12.5		

**Notes:**

NR Band n77 were measured output power through FTM mode provided by manufacturer.

### 9.5. Wi-Fi 2.4 GHz (DTS Band)

#### WLAN SISO mode output power results

Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
					DSI = 0			DSI = 1		
					Meas. Avg Pwr	Tune-up Limit	SAR Test (Yes/No)	Meas. Avg Pwr	Max. Tune-up Limit	SAR Test (Yes/No)
WiFi 2.4G SISO Ant.H	802.11b	1 Mbps	1	2412.0	18.08	19.00	Yes	14.36	15.00	Yes
			6	2437.0	18.37			14.50		
			11	2462.0	18.00			14.40		
			12	2467.0	Not Required	6.00	No	Not Required	6.00	No
			13	2474.0	Not Required	0.00	No	Not Required	0.00	No
	802.11g	6 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No
802.11n	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ac	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ax	7.3 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
WiFi 2.4G SISO Ant.J	802.11b	1 Mbps	1	2412.0	17.97	19.00	Yes	14.60	15.00	Yes
			6	2437.0	17.21			14.03		
			11	2462.0	17.58			14.00		
			12	2467.0	Not Required	6.00	No	Not Required	6.00	No
			13	2474.0	Not Required	0.00	No	Not Required	0.00	No
	802.11g	6 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No
802.11n	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ac	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ax	7.3 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	

#### WLAN MIMO mode output power results

Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
					DSI = 0			DSI = 1		
					Meas. Avg Pwr	Tune-up Limit	SAR Test (Yes/No)	Meas. Avg Pwr	Max. Tune-up Limit	SAR Test (Yes/No)
WiFi 2.4G MIMO Ant.H	802.11b	1 Mbps	1	2412.0	18.01	19.00	Yes	14.38	15.00	Yes
			6	2437.0	18.05			14.44		
			11	2462.0	17.82			14.32		
			12	2467.0	Not Required	6.00	No	Not Required	6.00	No
			13	2474.0	Not Required	0.00	No	Not Required	0.00	No
	802.11g	6 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No
802.11n	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ac	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ax	7.3 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
WiFi 2.4G MIMO Ant.J	802.11b	1 Mbps	1	2412.0	18.01	19.00	Yes	14.69	15.00	Yes
			6	2437.0	17.24			14.10		
			11	2462.0	17.58			14.17		
			12	2467.0	Not Required	6.00	No	Not Required	6.00	No
			13	2474.0	Not Required	0.00	No	Not Required	0.00	No
	802.11g	6 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No
802.11n	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ac	6.5 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	
802.11ax	7.3 Mbps	1-13	2412-2474	Not Required	18.00	No	Not Required	15.00	No	

**Note(s):**

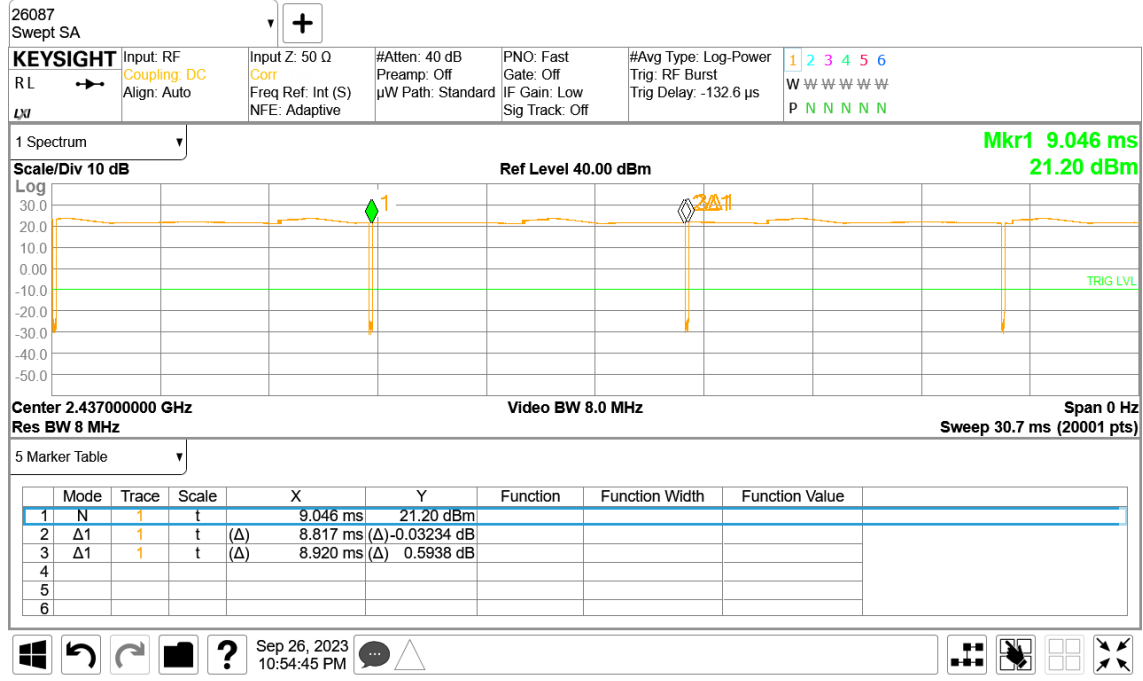
- SAR is not required for 802.11g/n modes when the adjusted SAR for 802.11b is < 1.2 W/kg.
- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11n/g/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.
- Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels. Refer to §6.3.



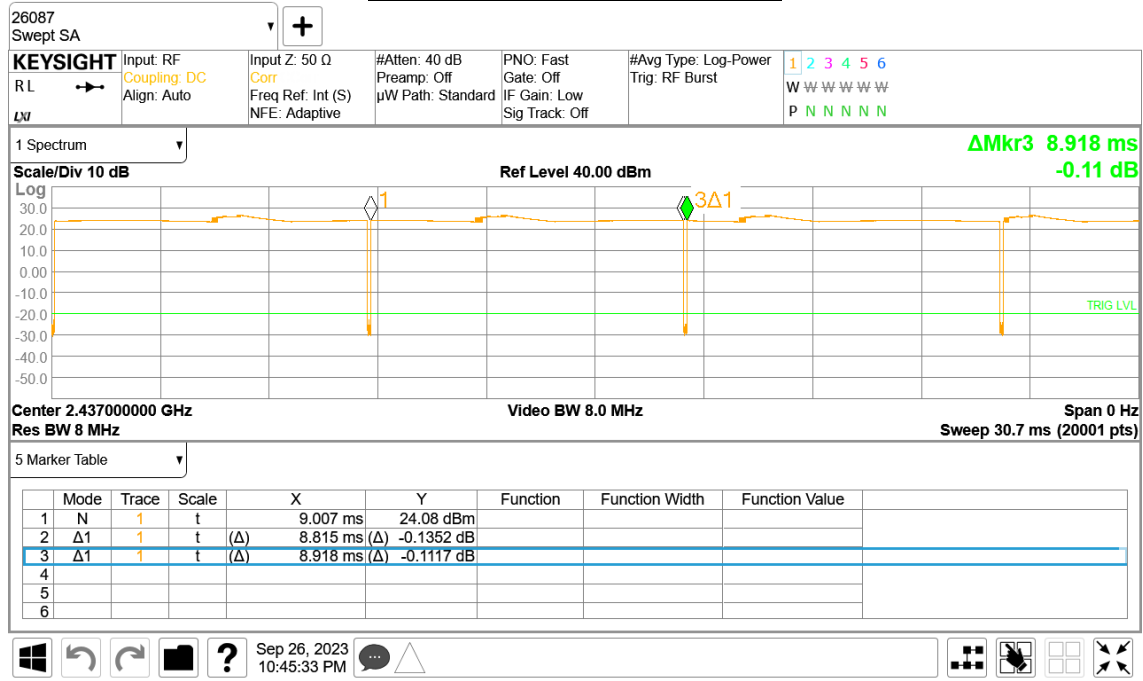
### Duty Factor Measured Results

Mode	T on (ms)	Period (ms)	Maximum Duty Cycle	Measured Duty Cycle	Crest Factor (maximum duty/ measured duty cycle)
802.11b-SISO	8.817	8.920	100.00%	98.8%	1.01
802.11b-MIMO	8.815	8.918	100.00%	98.8%	1.01

### Duty Cycle plots (802.11b-SISO)



### Duty Cycle plots (802.11b-MIMO)



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

#### WLAN SISO Ant.H output power Results

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Maximum Allowed Average power (dBm)					
						DSI = 0			DSI = 1		
						Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Power (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz SISO Ant.H	5.3 (UNII 2A)	802.11a	6 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	16.26	17.0	Yes	Not Required	14.0	No
				62	5310.0	15.87					
		802.11ac (VHT80)	29.3 Mbps	Not Required			16.5	No	13.45	14.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	14.0	No
	802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	14.0	No	
	802.11ax (HE80)	36.0 Mbps	Not Required			16.5	No	Not Required	14.0	No	
	UNII 1 & UNII 2A	802.11ac (VHT160)	58.5 Mbps	Not Required			16.0	No	Not Required	14.0	No
		802.11ax (HE160)	72.0 Mbps	Not Required			16.0	No	Not Required	14.0	No
	5.5 (U-NII 2C)	802.11a	6 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT40)	13.5 Mbps	106	5530.0	16.30	17.0	Yes	13.51	14.0	Yes
				122	5610.0	16.23			13.42		
				138	5690.0	16.32			13.39		
		802.11ac (VHT160)	58.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	14.0	No
	802.11ax (HE80)	36.0 Mbps	Not Required			17.0	No	Not Required	14.0	No	
	802.11ax (HE160)	72.0 Mbps	Not Required			17.0	No	Not Required	14.0	No	
	5.8 (UNII 3)	802.11a	6 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	16.29	17.0	Yes	13.52	14.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No	Not Required	14.0	No
	802.11ax (HE80)	36.0 Mbps	Not Required			17.0	No	Not Required	14.0	No	
	5.9 (U-NII 4)	802.11a	6 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No	Not Required	14.0	No
		802.11ac (VHT80)	29.3 Mbps	171	5855.0	16.40	17.0	Yes	13.56	14.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	14.0	No
802.11ax (HE40)		14.6 Mbps	Not Required			17.0	No	Not Required	14.0	No	
802.11ax (HE80)	30.6 Mbps	Not Required			17.0	No	Not Required	14.0	No		
UNII 3 & UNII 4	802.11ac (VHT160)	58.5 Mbps	Not Required			17.0	No	Not Required	14.0	No	
	802.11ax (HE160)	72.0 Mbps	Not Required			17.0	No	Not Required	14.0	No	

**Note(s):**

- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band 1 and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
  - ≤ 1.2 W/kg, SAR is not required for UNII band 1
  - > 1.2 W/kg, both bands should be tested independently for SAR.

**WLAN SISO Ant.E output power Results**

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Maximum Allowed Average power (dBm)					
						DSI = 0			DSI = 1		
						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 SISO Ant.E	5.3 (UNII 2A)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	15.77	17.0	Yes	Not Required	14.0	No
				62	5310.0	15.59					
		802.11ac (VHT80)	29.3 Mbps	Not Required		16.5	No	13.88	14.0	Yes	
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE80)	36.0 Mbps	Not Required		16.5	No	Not Required	14.0	No		
	UNII 1 & UNII 2A	802.11ac (VHT160)	58.5 Mbps	Not Required		16.0	No	Not Required	14.0	No	
		802.11ax (HE160)	72.0 Mbps	Not Required		16.0	No	Not Required	14.0	No	
	5.5 (U-NII 2C)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	16.11	17.0	Yes	13.05	14.0	Yes
				122	5610.0	15.77			13.31		
				138	5690.0	16.16			13.58		
		802.11ac (VHT160)	58.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE80)	36.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE160)	72.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	5.8 (UNII 3)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	16.19	17.0	Yes	13.54	14.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ax (HE80)	36.0 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	5.9 (U-NII 4)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
802.11ac (VHT20)		6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ac (VHT40)		13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ac (VHT80)		29.3 Mbps	171	5855.0	16.35	17.0	Yes	13.82	14.0	Yes	
802.11ax (HE20)		7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ax (HE80)		30.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
UNII 3 & UNII 4	802.11ac (VHT160)	58.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE160)	72.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		

**Note(s):**

- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band 1 and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
  - ≤ 1.2 W/kg, SAR is not required for UNII band 1
  - > 1.2 W/kg, both bands should be tested independently for SAR.

**WLAN MIMO Ant.H output power Results**

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Maximum Allowed Average power (dBm)					
						DSI = 0			DSI = 1		
						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.H	5.3 (UNII 2A)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	15.82	17.0	Yes	Not Required	14.0	No
				62	5310.0	16.02					
		802.11ac (VHT80)	29.3 Mbps	Not Required		16.5	No	13.56	14.0	Yes	
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE80)	36.0 Mbps	Not Required		16.5	No	Not Required	14.0	No		
	UNII 1 & UNII 2A	802.11ac (VHT160)	58.5 Mbps	Not Required		16.0	No	Not Required	14.0	No	
		802.11ax (HE160)	72.0 Mbps	Not Required		16.0	No	Not Required	14.0	No	
	5.5 (U-NII 2C)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	16.11	17.0	Yes	13.30	14.0	Yes
				122	5610.0	15.93			13.51		
				138	5690.0	15.84			13.52		
		802.11ac (VHT160)	58.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE80)	36.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE160)	72.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	5.8 (UNII 3)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
802.11ac (VHT80)		29.3 Mbps	155	5775.0	16.23	17.0	Yes	13.57	14.0	Yes	
802.11ax (HE20)		7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ax (HE80)		36.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
5.9 (U-NII 4)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ac (VHT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ac (VHT80)	29.3 Mbps	171	5855.0	16.34	17.0	Yes	13.71	14.0	Yes	
	802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE80)	30.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
UNII 3 & UNII 4	802.11ac (VHT160)	58.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE160)	72.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		

**Note(s):**

- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band 1 and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
  - ≤ 1.2 W/kg, SAR is not required for UNII band 1
  - > 1.2 W/kg, both bands should be tested independently for SAR.

**WLAN MIMO Ant.E output power Results**

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Maximum Allowed Average power (dBm)					
						DSI = 0			DSI = 1		
						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.E	5.3 (UNII 2A)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	16.30	Yes	Not Required	14.0	No	
				62	5310.0	15.78					
		802.11ac (VHT80)	29.3 Mbps	Not Required		16.5	No	13.69	14.0	Yes	
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE80)	36.0 Mbps	Not Required		16.5	No	Not Required	14.0	No		
	UNII 1 & UNII 2A	802.11ac (VHT160)	58.5 Mbps	Not Required		16.0	No	Not Required	14.0	No	
		802.11ax (HE160)	72.0 Mbps	Not Required		16.0	No	Not Required	14.0	No	
	5.5 (U-NII 2C)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	15.51	Yes	12.76	14.0	Yes	
				122	5610.0	15.66		12.97			
				138	5690.0	16.21		13.31			
		802.11ac (VHT160)	58.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	802.11ax (HE40)	14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE80)	36.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE160)	72.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	5.8 (UNII 3)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT40)	13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	15.65	Yes	13.32	14.0	Yes	
		802.11ax (HE20)	7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11ax (HE40)	14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
	802.11ax (HE80)	36.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	5.9 (U-NII 4)	802.11a	6 Mbps	Not Required		17.0	No	Not Required	14.0	No	
		802.11n (HT20)	6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No	
802.11n (HT40)		13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ac (VHT20)		6.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ac (VHT40)		13.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ac (VHT80)		29.3 Mbps	171	5855.0	15.90	Yes	13.62	14.0	Yes		
802.11ax (HE20)		7.3 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ax (HE40)		14.6 Mbps	Not Required		17.0	No	Not Required	14.0	No		
802.11ax (HE80)	30.6 Mbps	Not Required		17.0	No	Not Required	14.0	No			
UNII 3 & UNII 4	802.11ac (VHT160)	58.5 Mbps	Not Required		17.0	No	Not Required	14.0	No		
	802.11ax (HE160)	72.0 Mbps	Not Required		17.0	No	Not Required	14.0	No		

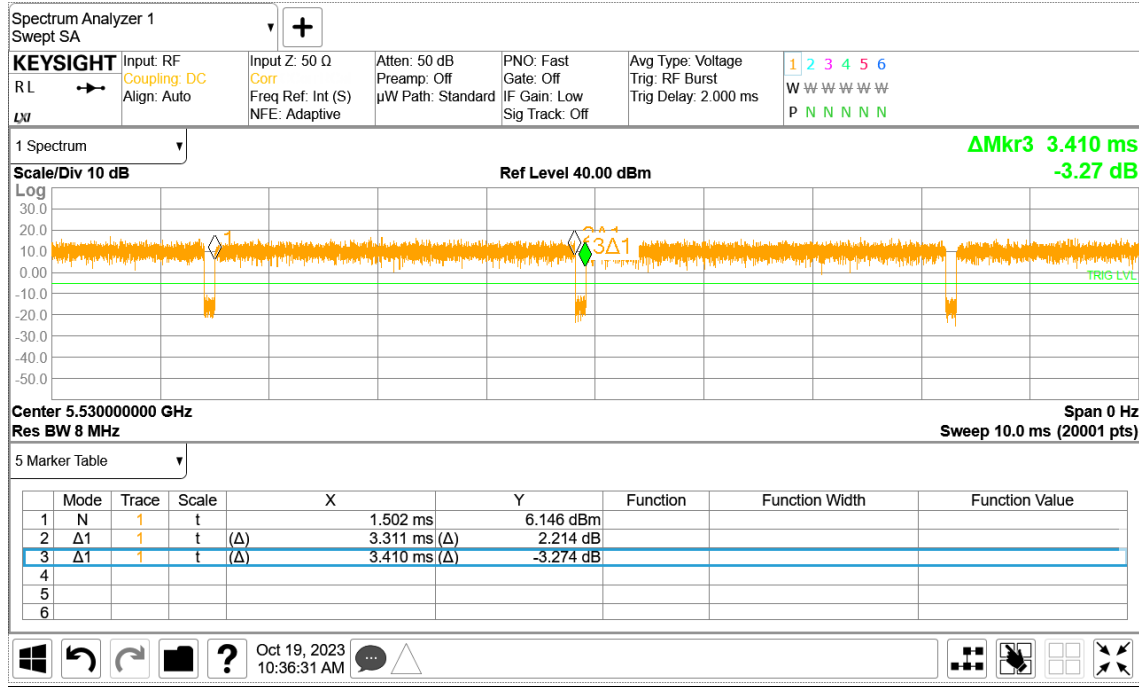
**Note(s):**

- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
- When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is
  - ≤ 1.2 W/kg, SAR is not required for UNII band I
  - > 1.2 W/kg, both bands should be tested independently for SAR.

**Duty Factor Measured Results (SISO mode)**

Mode	Data Rate	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11ac (VHT 80)	29.3 Mbps	3.311	3.410	97.1%	1.03
802.11n (HT 40)	13.5 Mbps	5.347	5.446	98.2%	1.02

**802.11ac (VHT80)**



**802.11n (HT40)**



**Duty Factor Measured Results (MIMO mode)**

Mode	Data Rate	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11ac (VHT 80)	29.3 Mbps	1.680	1.778	94.5%	1.06
802.11n (HT 40)	13.5 Mbps	5.347	5.446	98.2%	1.02

**802.11ac (VHT80)**



**802.11n (HT40)**



## 9.7. Bluetooth

### Bluetooth SISO output power Results

Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Maximum Allowed Average power (dBm)	
					DSI = 0	
					Meas Pwr	Tune-up Limit
2.4	BT SISO Ant.H	Bluetooth(LE) (1M)	0	2402	20.52	21.0
			19	2441	19.03	
			38	2480	19.30	
2.4	BT SISO Ant.J	Bluetooth(LE) (1M)	0	2402	16.75	18.0
			19	2441	17.35	
			38	2480	14.97	
Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Maximum Allowed Average power (dBm)	
					DSI = 1	
					Meas Pwr	Tune-up Limit
2.4	BT SISO Ant.H	Bluetooth(LE) (1M)	0	2402	15.20	17.0
			19	2441	16.61	
			38	2480	14.14	
2.4	BT SISO Ant.J	Bluetooth(LE) (1M)	0	2402	12.97	14.0
			19	2441	12.81	
			38	2480	11.75	

### Bluetooth dual(MIMO) output power Results

Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Maximum Allowed Average power (dBm)	
					DSI = 0, 1	
					Meas Pwr	Tune-up Limit
2.4	BT dual(MIMO) Ant.H	Bluetooth(BDR) (1M)	0	2402	13.90	14.5
			39	2441	13.45	
			78	2480	13.59	
2.4	BT dual(MIMO) Ant.J	Bluetooth(BDR) (1M)	0	2402	12.42	14.0
			39	2441	13.87	
			78	2480	12.09	



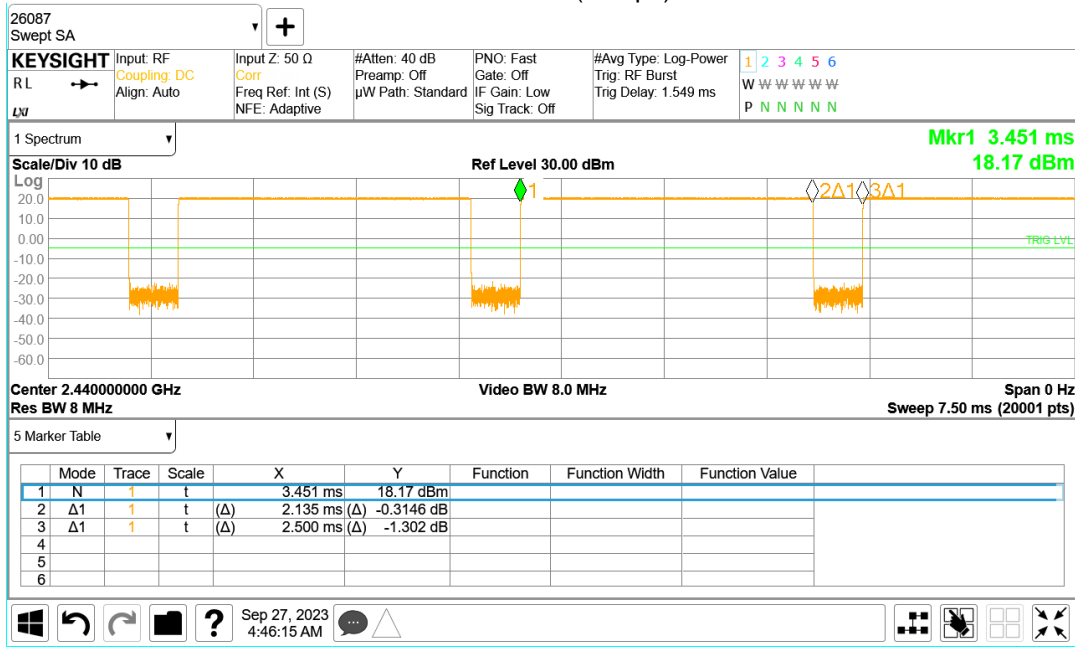
**Duty Factor Measured Results**

Mode	Type	T on (ms)	Period (ms)	Maximum Duty Cycle	Measured Duty Cycle	Crest Factor (maximum duty/ measured duty cycle)
LE-1M	255pkt	2.135	2.500	87.00%	85.40%	1.02
BDR	DH5	2.880	3.750	79.00%	76.80%	1.03

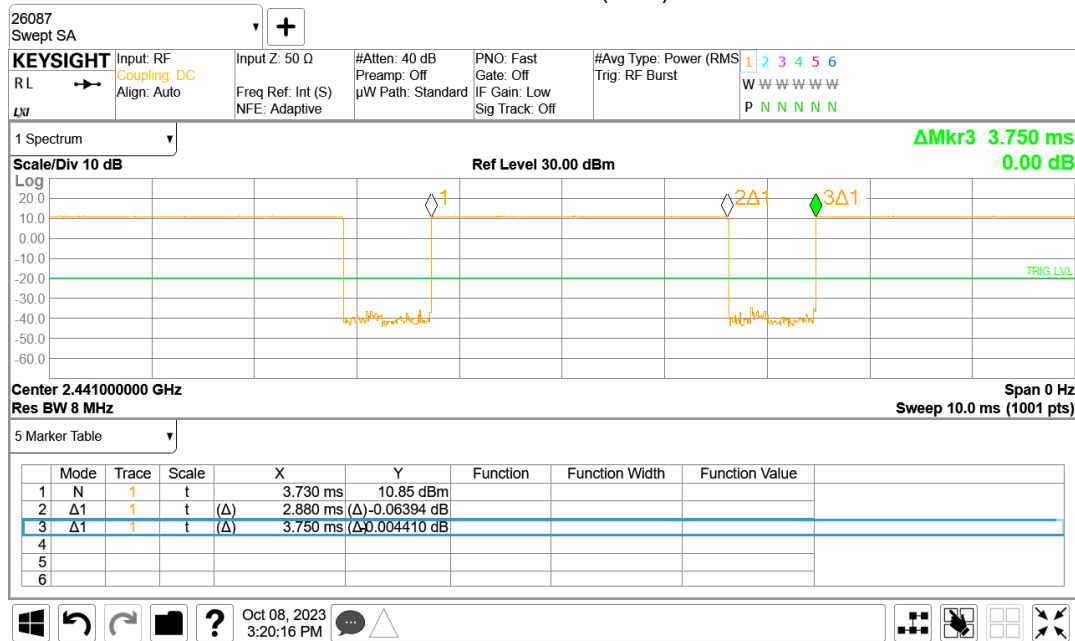
**Note(s):**

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

**Duty Cycle plots**  
Bluetooth-LE (1Mbps)



Bluetooth-BDR (DH5)



## 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:

- $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
- $\leq 0.6$  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
- $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  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.

When the separation distance required for body-worn accessory testing is greater than or equal to that tested for hotspot mode, using the same wireless mode test configuration for voice and data, the hotspot SAR data may be used to support body-worn accessory SAR compliance for that particular configuration.

### 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  $\leq 25$ mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg; However, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

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

### KDB 941225 D01 SAR test for 3G devices:

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is  $\leq 1.2$  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:

- $\leq 0.4$  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  $\leq 0.8$  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  $\leq 1.2$  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  $\leq 1.2$  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  $\leq 1.2$  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.	Reported	
Ant.A	Head	GPRS 2 Slots	0	Left Touch	190	836.6	32.50	31.14	0.170	0.233	
				Left Tilt	190	836.6	32.50	31.14	0.106	0.145	
				Right Touch	190	836.6	32.50	31.14	0.153	0.209	
				Right Tilt	190	836.6	32.50	31.14	0.081	0.111	
	Body-worn & Hotspot	GPRS 2 Slots	10	Rear	190	836.6	32.50	31.14	0.443	0.606	1
				Front	190	836.6	32.50	31.14	0.247	0.338	
	Hotspot	GPRS 2 Slots	10	Left	190	836.6	32.50	31.14	0.329	0.450	
				Bottom	190	836.6	32.50	31.14	0.158	0.216	
				Right	190	836.6	32.50	31.14	0.268	0.367	

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.	Reported	
Ant.E	Head	GPRS 4 Slots	0	Left Touch	128	824.4	26.00	24.35	0.627	0.917	
					190	836.6	26.00	24.48	0.615	0.873	
					251	848.8	26.00	24.48	0.564	0.800	
				Left Tilt	128	824.4	26.00	24.35	0.729	1.066	2
					190	836.6	26.00	24.48	0.669	0.949	
					251	848.8	26.00	24.48	0.559	0.793	
				Right Touch	190	836.6	26.00	24.48	0.444	0.630	
					190	836.6	26.00	24.48	0.381	0.541	
	Body-worn & Hotspot	GPRS 2 Slots	10	Rear	190	836.6	32.50	31.38	0.459	0.594	
				Front	190	836.6	32.50	31.38	0.399	0.516	
	Hotspot	GPRS 2 Slots	10	Top	190	836.6	32.50	31.38	0.358	0.463	
				Left	128	824.4	32.50	31.24	0.553	0.739	
					190	836.6	32.50	31.38	0.634	0.821	3
251					848.8	32.50	31.31	0.506	0.666		

**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.	Reported	
Ant.A	Head	GPRS 3 Slots	0	Left Touch	512	1850.2	27.50	26.38	0.069	0.089	4
				Left Tilt	512	1850.2	27.50	26.38	0.026	0.034	
				Right Touch	512	1850.2	27.50	26.38	0.036	0.047	
				Right Tilt	512	1850.2	27.50	26.38	0.027	0.035	
	Body-worn & Hotspot	GPRS 4 Slots	10	Rear	661	1880.0	23.00	21.69	0.251	0.339	
				Front	661	1880.0	23.00	21.69	0.238	0.322	
	Hotspot	GPRS 4 Slots	10	Left	661	1880.0	23.00	21.69	0.036	0.049	
				Bottom	661	1880.0	23.00	21.69	0.542	0.733	5
				Right	661	1880.0	23.00	21.69	0.056	0.076	

**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.	Reported	
Ant.A	Head	Rel.99 RMC	0	Left Touch	9400	1880.0	24.00	22.79	0.041	0.054	6
				Left Tilt	9400	1880.0	24.00	22.79	0.036	0.048	
				Right Touch	9400	1880.0	24.00	22.79	0.031	0.041	
				Right Tilt	9400	1880.0	24.00	22.79	0.019	0.025	
	Body-w orn & Hotspot	Rel.99 RMC	10	Rear	9400	1880.0	20.00	19.34	0.476	0.554	
				Front	9400	1880.0	20.00	19.34	0.379	0.441	
	Hotspot	Rel.99 RMC	10	Left	9400	1880.0	20.00	19.34	0.084	0.098	
				Bottom	9262	1852.4	20.00	19.34	0.980	1.141	7
					9400	1880.0	20.00	19.34	0.901	1.049	
					9538	1907.6	20.00	19.33	0.892	1.041	
Right	9400	1880.0	20.00	19.34	0.093	0.108					

**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.	Reported	
Ant.A	Head	Rel.99 RMC	0	Left Touch	1413	1732.6	24.00	22.77	0.190	0.252	8
				Left Tilt	1413	1732.6	24.00	22.77	0.055	0.073	
				Right Touch	1413	1732.6	24.00	22.77	0.119	0.158	
				Right Tilt	1413	1732.6	24.00	22.77	0.055	0.073	
	Body-w orn & Hotspot	Rel.99 RMC	10	Rear	1413	1732.6	20.00	19.24	0.525	0.625	
				Front	1413	1732.6	20.00	19.24	0.468	0.558	
	Hotspot	Rel.99 RMC	10	Left	1413	1732.6	20.00	19.24	0.076	0.091	
				Bottom	1312	1712.4	20.00	19.33	0.724	0.845	
					1413	1732.6	20.00	19.24	0.787	0.938	
					1513	1752.6	20.00	19.27	0.850	1.006	9
Right	1413	1732.6	20.00	19.24	0.109	0.130					

**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.	Reported	
Ant.A	Head	Rel.99 RMC	0	Left Touch	4183	836.6	25.00	23.79	0.163	0.215	
				Left Tilt	4183	836.6	25.00	23.79	0.104	0.137	
				Right Touch	4183	836.6	25.00	23.79	0.172	0.227	
				Right Tilt	4183	836.6	25.00	23.79	0.097	0.128	
	Body-worn & Hotspot	Rel.99 RMC	10	Rear	4183	836.6	25.00	23.79	0.354	0.468	10
				Front	4183	836.6	25.00	23.79	0.237	0.313	
	Hotspot	Rel.99 RMC	10	Left	4183	836.6	25.00	23.79	0.294	0.388	
				Bottom	4183	836.6	25.00	23.79	0.151	0.200	
				Right	4183	836.6	25.00	23.79	0.215	0.284	

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.	Reported				
Ant.E	Head	Rel.99 RMC	0	Left Touch	4132	826.4	23.00	22.51	1.050	1.175	11			
					4183	836.6	23.00	22.44	1.030	1.172				
					4233	846.6	23.00	22.48	1.040	1.172				
				Left Tilt	4132	826.4	23.00	22.51	0.956	1.070				
					4183	836.6	23.00	22.44	0.939	1.068				
					4233	846.6	23.00	22.48	0.887	1.000				
				Right Touch	4132	826.4	23.00	22.51	0.748	0.837				
					4183	836.6	23.00	22.44	0.749	0.852				
					4233	846.6	23.00	22.48	0.717	0.808				
				Right Tilt	4183	836.6	23.00	22.44	0.635	0.722				
				Body-worn & Hotspot	Rel.99 RMC	10	Rear	4183	836.6	25.00	23.98	0.410	0.519	
							Front	4183	836.6	25.00	23.98	0.369	0.467	
	Hotspot	Rel.99 RMC	10	Top	4183	836.6	25.00	23.98	0.356	0.450				
				Left	4183	836.6	25.00	23.98	0.462	0.584	12			

**Note(s):**

For Head SAR of WCDMA Band 5\_Ant.E, Adjusted SAR is not over 1.2 W/kg for other modes. So additional test is not required.

**10.6 LTE Band 5 (10MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.A	Head	QPSK	0	Left Touch	20525	836.5	1	0	25.00	24.15	0.178	0.216	
							25	0	24.00	23.14	0.140	0.171	
				Left Tilt	20525	836.5	1	0	25.00	24.15	0.071	0.086	
							25	0	24.00	23.14	0.055	0.067	
				Right Touch	20525	836.5	1	0	25.00	24.15	0.184	0.224	
							25	0	24.00	23.14	0.151	0.184	
	Right Tilt	20525	836.5	1	0	25.00	24.15	0.100	0.122				
				25	0	24.00	23.14	0.076	0.093				
	Body-worn & Hotspot	QPSK	10	Rear	20525	836.5	1	0	25.00	24.15	0.434	0.528	13
							25	0	24.00	23.14	0.388	0.473	
				Front	20525	836.5	1	0	25.00	24.15	0.264	0.321	
							25	0	24.00	23.14	0.223	0.272	
	Hotspot	QPSK	10	Left	20525	836.5	1	0	25.00	24.15	0.201	0.244	
							25	0	24.00	23.14	0.158	0.193	
				Bottom	20525	836.5	1	0	25.00	24.15	0.180	0.219	
							25	0	24.00	23.14	0.146	0.178	
				Right	20525	836.5	1	0	25.00	24.15	0.200	0.243	
							25	0	24.00	23.14	0.152	0.185	

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.E	Head	QPSK	0	Left Touch	20525	836.5	1	0	23.00	22.06	0.794	0.986	
							25	25	23.00	22.10	0.787	0.968	
							50	0	23.00	22.08	0.833	1.030	
				Left Tilt	20525	836.5	1	0	23.00	22.06	0.906	1.125	14
							25	25	23.00	22.10	0.889	1.094	
							50	0	23.00	22.08	0.864	1.068	
				Right Touch	20525	836.5	1	0	23.00	22.06	0.684	0.849	
							25	25	23.00	22.10	0.685	0.843	
							50	0	23.00	22.08	0.737	0.911	
				Right Tilt	20525	836.5	1	0	23.00	22.06	0.617	0.766	
							25	25	23.00	22.10	0.625	0.769	
	Body-worn & Hotspot	QPSK	10	Rear	20525	836.5	1	0	25.00	24.35	0.462	0.537	
							25	25	24.00	23.36	0.383	0.444	
				Front	20525	836.5	1	0	25.00	24.35	0.384	0.446	
							25	25	24.00	23.36	0.311	0.360	
	Hotspot	QPSK	10	Top	20525	836.5	1	0	25.00	24.35	0.400	0.465	
							25	25	24.00	23.36	0.334	0.387	
Left				20525	836.5	1	0	25.00	24.35	0.553	0.642	15	
						25	25	24.00	23.36	0.436	0.505		

**10.7 LTE Band 7 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.B	Head	QPSK	0	Left Touch	21100	2535.0	1	99	24.00	23.29	0.330	0.389	
							50	50	23.00	22.38	0.283	0.326	
				Left Tilt	21100	2535.0	1	99	24.00	23.29	0.146	0.172	
							50	50	23.00	22.38	0.115	0.133	
				Right Touch	21100	2535.0	1	99	24.00	23.29	0.152	0.179	
							50	50	23.00	22.38	0.124	0.143	
	Right Tilt	21100	2535.0	1	99	24.00	23.29	0.097	0.114				
				50	50	23.00	22.38	0.077	0.089				
	Body-worn & Hotspot	QPSK	10	Rear	21100	2535.0	1	99	23.00	22.24	0.637	0.759	16
							50	50	23.00	22.36	0.523	0.606	
				Front	21100	2535.0	1	99	23.00	22.24	0.485	0.578	
							50	50	23.00	22.36	0.394	0.457	
	Hotspot	QPSK	10	Bottom	21100	2535.0	1	99	23.00	22.24	0.418	0.498	
							50	50	23.00	22.36	0.344	0.399	
				Right	21100	2535.0	1	99	23.00	22.24	0.555	0.661	
							50	50	23.00	22.36	0.571	0.662	

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.F	Head	QPSK	0	Left Touch	21100	2535.0	1	99	18.50	17.24	0.347	0.464	
							50	0	18.50	17.38	0.347	0.449	
				Left Tilt	20850	2510.0	1	99	18.50	17.15	0.629	0.858	
							50	0	18.50	17.38	0.590	0.764	
					21350	2560.0	1	99	18.50	17.15	0.583	0.796	
							50	0	18.50	17.38	0.551	0.713	
				Right Touch	21100	2535.0	1	99	18.50	17.24	0.534	0.714	
							50	0	18.50	17.38	0.551	0.713	
					20850	2510.0	1	99	18.50	17.15	0.738	1.007	
							50	0	18.50	17.31	0.772	1.015	
							100	0	18.50	17.32	0.775	1.017	
							50	0	18.50	17.31	0.772	1.015	
	21100	2535.0	1	99	18.50	17.24	0.740	0.989					
			50	0	18.50	17.38	0.757	0.980					
			1	99	18.50	17.15	0.752	1.026					
			50	0	18.50	17.24	0.775	1.036	17				
	Body-worn & Hotspot	QPSK	10	Rear	21100	2535.0	1	99	20.50	19.85	0.356	0.413	
							50	0	20.50	19.92	0.396	0.453	
Front				21100	2535.0	1	99	20.50	19.85	0.244	0.283		
						50	0	20.50	19.92	0.230	0.263		
Hotspot	QPSK	10	Top	21100	2535.0	1	99	20.50	19.85	0.504	0.585		
						50	0	20.50	19.92	0.531	0.607	18	
			Right	21100	2535.0	1	99	20.50	19.85	0.044	0.051		
						50	0	20.50	19.92	0.042	0.048		



**10.8 LTE Band 12 (10MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.A	Head	QPSK	0	Left Touch	23095	707.5	1	25	25.20	24.29	0.159	0.196	
							25	25	24.20	23.26	0.126	0.156	
				Left Tilt	23095	707.5	1	25	25.20	24.29	0.082	0.101	
							25	25	24.20	23.26	0.052	0.065	
				Right Touch	23095	707.5	1	25	25.20	24.29	0.139	0.171	
							25	25	24.20	23.26	0.111	0.138	
	Right Tilt	23095	707.5	1	25	25.20	24.29	0.100	0.123				
				25	25	24.20	23.26	0.080	0.099				
	Body-worn & Hotspot	QPSK	10	Rear	23095	707.5	1	25	25.20	24.29	0.355	0.438	19
							25	25	24.20	23.26	0.281	0.349	
				Front	23095	707.5	1	25	25.20	24.29	0.194	0.239	
							25	25	24.20	23.26	0.154	0.191	
	Hotspot	QPSK	10	Left	23095	707.5	1	25	25.20	24.29	0.129	0.159	
							25	25	24.20	23.26	0.099	0.123	
				Bottom	23095	707.5	1	25	25.20	24.29	0.048	0.059	
25							25	24.20	23.26	0.044	0.055		
Right				23095	707.5	1	25	25.20	24.29	0.235	0.290		
						25	25	24.20	23.26	0.187	0.232		

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.			
									Tune-up limit	Meas.	Meas.	Reported				
Ant.E	Head	QPSK	0	Left Touch	23095	707.5	1	25	22.50	21.98	0.776	0.875				
							25	12	22.50	21.99	0.762	0.857				
							50	0	22.50	21.88	0.851	0.982	20			
				Left Tilt	23095	707.5	1	25	22.50	21.98	0.865	0.975				
							25	12	22.50	21.99	0.851	0.957				
							50	0	22.50	21.88	0.841	0.970				
				Right Touch	23095	707.5	1	25	22.50	21.98	0.700	0.789				
							25	12	22.50	21.99	0.741	0.833				
							25	12	22.50	21.99	0.611	0.689				
	Body-worn & Hotspot	QPSK	10	Rear	23095	707.5	1	25	25.20	24.20	0.559	0.704	21			
							25	12	24.20	23.20	0.445	0.560				
				Front	23095	707.5	1	25	25.20	24.20	0.427	0.538				
							25	12	24.20	23.20	0.347	0.437				
				Hotspot	QPSK	10	Top	23095	707.5	1	25	25.20	24.20	0.406	0.511	
										25	12	24.20	23.20	0.321	0.404	
Left	23095	707.5	1				25	25.20	24.20	0.464	0.584					
						25	12	24.20	23.20	0.371	0.467					

### 10.9 LTE Band 13 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.A	Head	QPSK	0	Left Touch	23230	782.0	1	25	25.00	24.07	0.181	0.224	
							25	12	24.00	23.06	0.145	0.180	
				Left Tilt	23230	782.0	1	25	25.00	24.07	0.088	0.109	
							25	12	24.00	23.06	0.068	0.084	
				Right Touch	23230	782.0	1	25	25.00	24.07	0.171	0.212	
							25	12	24.00	23.06	0.140	0.174	
	Right Tilt	23230	782.0	1	25	25.00	24.07	0.084	0.104				
				25	12	24.00	23.06	0.068	0.084				
	Body-w orn & Hotspot	QPSK	10	Rear	23230	782.0	1	25	25.00	24.07	0.484	0.600	22
							25	12	24.00	23.06	0.386	0.479	
				Front	23230	782.0	1	25	25.00	24.07	0.300	0.372	
							25	12	24.00	23.06	0.239	0.297	
	Hotspot	QPSK	10	Left	23230	782.0	1	25	25.00	24.07	0.269	0.333	
							25	12	24.00	23.06	0.214	0.266	
				Bottom	23230	782.0	1	25	25.00	24.07	0.107	0.133	
							25	12	24.00	23.06	0.086	0.107	
				Right	23230	782.0	1	25	25.00	24.07	0.216	0.268	
							25	12	24.00	23.06	0.172	0.214	

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.E	Head	QPSK	0	Left Touch	23230	782.0	1	25	25.00	24.27	0.665	0.787	23
							25	12	24.00	23.22	0.521	0.624	
				Left Tilt	23230	782.0	1	25	25.00	24.27	0.657	0.777	
							25	12	24.00	23.22	0.537	0.643	
				Right Touch	23230	782.0	1	25	25.00	24.27	0.517	0.612	
							25	12	24.00	23.22	0.435	0.521	
	Right Tilt	23230	782.0	1	25	25.00	24.27	0.472	0.558				
				25	12	24.00	23.22	0.387	0.463				
	Body-w orn & Hotspot	QPSK	10	Rear	23230	782.0	1	25	25.00	24.27	0.270	0.319	
							25	12	24.00	23.22	0.219	0.262	
				Front	23230	782.0	1	25	25.00	24.27	0.183	0.216	
							25	12	24.00	23.22	0.149	0.178	
	Hotspot	QPSK	10	Top	23230	782.0	1	25	25.00	24.27	0.182	0.215	
							25	12	24.00	23.22	0.146	0.175	
				Left	23230	782.0	1	25	25.00	24.27	0.319	0.377	24
							25	12	24.00	23.22	0.253	0.303	

**10.10 LTE Band 14 (10MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.A	Head	QPSK	0	Left Touch	23330	793.0	1	49	25.00	24.08	0.146	0.180	
							25	12	24.00	23.03	0.122	0.153	
				Left Tilt	23330	793.0	1	49	25.00	24.08	0.077	0.095	
							25	12	24.00	23.03	0.071	0.089	
				Right Touch	23330	793.0	1	49	25.00	24.08	0.188	0.232	
							25	12	24.00	23.03	0.160	0.200	
	Right Tilt	23330	793.0	1	49	25.00	24.08	0.096	0.119				
				25	12	24.00	23.03	0.076	0.095				
	Body-w orn & Hotspot	QPSK	10	Rear	23330	793.0	1	49	25.00	24.08	0.494	0.611	25
							25	12	24.00	23.03	0.389	0.486	
				Front	23330	793.0	1	49	25.00	24.08	0.271	0.335	
							25	12	24.00	23.03	0.190	0.238	
	Hotspot	QPSK	10	Left	23330	793.0	1	49	25.00	24.08	0.162	0.200	
							25	12	24.00	23.03	0.203	0.254	
				Bottom	23330	793.0	1	49	25.00	24.08	0.073	0.090	
25							12	24.00	23.03	0.093	0.116		
Right				23330	793.0	1	49	25.00	24.08	0.122	0.151		
						25	12	24.00	23.03	0.187	0.234		

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.E	Head	QPSK	0	Left Touch	23330	793.0	1	25	25.00	24.20	0.590	0.709	
							25	25	24.00	23.31	0.455	0.533	
				Left Tilt	23330	793.0	1	25	25.00	24.20	0.592	0.712	26
							25	25	24.00	23.31	0.473	0.554	
				Right Touch	23330	793.0	1	25	25.00	24.20	0.452	0.543	
							25	25	24.00	23.31	0.377	0.442	
	Right Tilt	23330	793.0	1	25	25.00	24.20	0.339	0.408				
				25	25	24.00	23.31	0.395	0.463				
	Body-w orn & Hotspot	QPSK	10	Rear	23330	793.0	1	25	25.00	24.20	0.236	0.284	
							25	25	24.00	23.31	0.189	0.222	
				Front	23330	793.0	1	25	25.00	24.20	0.159	0.191	
							25	25	24.00	23.31	0.120	0.141	
	Hotspot	QPSK	10	Top	23330	793.0	1	25	25.00	24.20	0.166	0.200	
							25	25	24.00	23.31	0.134	0.157	
				Left	23330	793.0	1	25	25.00	24.20	0.284	0.341	27
25							25	24.00	23.31	0.223	0.261		

**10.11 LTE Band 25 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.		
									Tune-up limit	Meas.	Meas.	Reported			
Ant.A	Head	QPSK	0	Left Touch	26590	1905.0	1	0	24.70	23.86	0.118	0.143			
									50	24	23.70	22.94	0.086	0.102	
				Left Tilt	26590	1905.0	1	0	24.70	23.86	0.050	0.061			
													50	24	23.70
				Right Touch	26590	1905.0	1	0	24.70	23.86	0.070	0.085			
													50	24	23.70
				Right Tilt	26590	1905.0	1	0	24.70	23.86	0.067	0.081			
													50	24	23.70
	Body-worn & Hotspot	QPSK	10	Rear	26590	1905.0	1	0	20.00	18.98	0.564	0.713			
									50	24	20.00	19.03	0.559	0.699	
				Front	26590	1905.0	1	0	20.00	18.98	0.449	0.568			
													50	24	20.00
	Hotspot	QPSK	10	Left	26590	1905.0	1	0	20.00	18.98	0.043	0.054			
									50	24	20.00	19.03	0.048	0.060	
				Bottom	26140	1860.0	1	0	20.00	18.97	0.891	1.129	28		
													50	24	20.00
					26365	1882.5	1	0	20.00	18.94	0.841	1.073			
													50	24	20.00
					26590	1905.0	1	0	20.00	18.98	0.807	1.021			
													50	24	20.00
Right				26590	1905.0	1	0	20.00	18.98	0.074	0.094				
												50	24	20.00	19.03

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
									Tune-up limit	Meas.	Meas.	Reported		
Ant.F	Head	QPSK	0	Left Touch	26590	1905.0	1	99	20.00	18.59	0.292	0.404		
									50	50	20.00	18.52	0.245	0.344
				Left Tilt	26590	1905.0	1	99	20.00	18.59	0.387	0.535		
													50	50
				Right Touch	26590	1905.0	1	99	20.00	18.59	0.495	0.685		
													50	50
				Right Tilt	26590	1905.0	1	99	20.00	18.59	0.507	0.701		
													50	50
	Body-worn & Hotspot	QPSK	10	Rear	26590	1905.0	1	99	22.00	20.79	0.326	0.431		
									50	50	22.00	20.79	0.326	0.431
				Front	26590	1905.0	1	99	22.00	20.79	0.181	0.239		
													50	50
	Hotspot	QPSK	10	Top	26590	1905.0	1	99	22.00	20.79	0.357	0.472	30	
									50	50	22.00	20.79	0.343	0.453
				Right	26590	1905.0	1	99	22.00	20.79	0.113	0.149		
													50	50

**10.12 LTE Band 26 (15MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.A	Head	QPSK	0	Left Touch	26865	831.5	1	0	25.00	24.02	0.175	0.219	
							36	20	24.00	23.00	0.141	0.178	
				Left Tilt	26865	831.5	1	0	25.00	24.02	0.091	0.114	
							36	20	24.00	23.00	0.065	0.082	
				Right Touch	26865	831.5	1	0	25.00	24.02	0.186	0.233	
							36	20	24.00	23.00	0.146	0.184	
	Right Tilt	26865	831.5	1	0	25.00	24.02	0.106	0.133				
				36	20	24.00	23.00	0.080	0.101				
	Body-worn & Hotspot	QPSK	10	Rear	26865	831.5	1	0	25.00	24.02	0.424	0.531	31
							36	20	24.00	23.00	0.377	0.475	
				Front	26865	831.5	1	0	25.00	24.02	0.282	0.353	
							36	20	24.00	23.00	0.230	0.290	
	Hotspot	QPSK	10	Left	26865	831.5	1	0	25.00	24.02	0.202	0.253	
							36	20	24.00	23.00	0.161	0.203	
				Bottom	26865	831.5	1	0	25.00	24.02	0.160	0.201	
36							20	24.00	23.00	0.136	0.171		
Right				26865	831.5	1	0	25.00	24.02	0.204	0.256		
						36	20	24.00	23.00	0.149	0.188		

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.E	Head	QPSK	0	Left Touch	26865	831.5	1	0	23.00	22.02	0.803	1.006	
							36	0	23.00	22.04	0.835	1.042	
							75	0	23.00	21.97	0.845	1.071	
				Left Tilt	26865	831.5	1	0	23.00	22.02	0.926	1.160	32
							36	0	23.00	22.04	0.907	1.131	
							75	0	23.00	21.97	0.893	1.132	
				Right Touch	26865	831.5	1	0	23.00	22.02	0.654	0.820	
							36	0	23.00	22.04	0.673	0.839	
							75	0	23.00	21.97	0.682	0.865	
				Right Tilt	26865	831.5	1	0	23.00	22.02	0.608	0.762	
							36	0	23.00	22.04	0.631	0.787	
	Body-worn & Hotspot	QPSK	10	Rear	26865	831.5	1	0	25.00	24.29	0.425	0.500	
							36	0	24.00	23.30	0.348	0.409	
				Front	26865	831.5	1	0	25.00	24.29	0.328	0.386	
							36	0	24.00	23.30	0.317	0.372	
	Hotspot	QPSK	10	Top	26865	831.5	1	0	25.00	24.29	0.377	0.444	
							36	0	24.00	23.30	0.310	0.364	
Left				26865	831.5	1	0	25.00	24.29	0.528	0.622	33	
						36	0	24.00	23.30	0.421	0.495		

**10.13 LTE Band 30 (10MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.A	Head	QPSK	0	Left Touch	27710	2310.0	1	25	23.50	22.77	0.083	0.098	
							25	12	22.50	21.73	0.068	0.081	
				Left Tilt	27710	2310.0	1	25	23.50	22.77	0.037	0.044	
							25	12	22.50	21.73	0.027	0.032	
				Right Touch	27710	2310.0	1	25	23.50	22.77	0.060	0.071	
							25	12	22.50	21.73	0.045	0.054	
	Right Tilt	27710	2310.0	1	25	23.50	22.77	0.047	0.056				
				25	12	22.50	21.73	0.039	0.047				
	Body-w orn & Hotspot	QPSK	10	Rear	27710	2310.0	1	25	21.00	20.11	0.415	0.509	
							25	12	21.00	20.09	0.416	0.513	
				Front	27710	2310.0	1	25	21.00	20.11	0.332	0.408	
							25	12	21.00	20.09	0.333	0.411	
	Hotspot	QPSK	10	Left	27710	2310.0	1	25	21.00	20.11	0.033	0.041	
							25	12	21.00	20.09	0.031	0.038	
				Bottom	27710	2310.0	1	25	21.00	20.11	0.871	1.069	34
							25	12	21.00	20.09	0.863	1.064	
							50	0	21.00	20.07	0.835	1.034	
				Right	27710	2310.0	1	25	21.00	20.11	0.092	0.113	
25	12	21.00	20.09				0.090	0.111					

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.			
									Tune-up limit	Meas.	Meas.	Reported				
Ant.F	Head	QPSK	0	Left Touch	27710	2310.0	1	25	18.50	17.74	0.594	0.708				
							25	12	18.50	17.76	0.613	0.727				
							Left Tilt	27710	2310.0	1	25	18.50	17.74	0.729	0.868	
										25	12	18.50	17.76	0.746	0.885	
				Right Touch	27710	2310.0	1	25	18.50	17.74	0.907	1.080				
							25	12	18.50	17.76	0.938	1.112				
							Right Tilt	27710	2310.0	1	25	18.50	17.74	0.938	1.117	
										25	12	18.50	17.74	0.938	1.117	
				Body-w orn & Hotspot	QPSK	10	Rear	27710	2310.0	1	25	21.00	19.81	0.395	0.520	
										25	12	21.00	19.90	0.407	0.524	
							Front	27710	2310.0	1	25	21.00	19.81	0.281	0.370	
										25	12	21.00	19.90	0.280	0.361	
	Hotspot	QPSK	10				Top	27710	2310.0	1	25	21.00	19.81	0.508	0.668	
										25	12	21.00	19.90	0.520	0.670	36
	Right	27710	2310.0	1	25	21.00	19.81	0.108	0.142							
				25	12	21.00	19.90	0.111	0.143							

**10.14 LTE Band 41 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.B	Head	QPSK	0	Left Touch	40620	2593.0	1	0	23.40	23.11	0.113	0.121	
									50	0	23.40	23.13	0.113
				Left Tilt	40620	2593.0	1	0	23.40	23.11	0.047	0.050	
									50	0	23.40	23.13	0.060
				Right Touch	40620	2593.0	1	0	23.40	23.11	0.061	0.065	
									50	0	23.40	23.13	0.062
	Right Tilt	40620	2593.0	1	0	23.40	23.11	0.077	0.082				
						50	0	23.40	23.13	0.098	0.104		
	Body-worn & Hotspot	QPSK	10	Rear	40620	2593.0	1	0	24.00	23.74	0.531	0.564	
									50	0	24.00	23.62	0.498
				Front	40620	2593.0	1	0	24.00	23.74	0.332	0.352	
									50	0	24.00	23.62	0.318
Hotspot	QPSK	10	Bottom	40620	2593.0	1	0	24.00	23.74	0.543	0.577	37	
								50	0	24.00	23.62	0.527	0.575
			Right	40620	2593.0	1	0	24.00	23.74	0.341	0.362		
								50	0	24.00	23.62	0.311	0.339

**LTE Band 41 Power Class 2**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Ant.B	Head	QPSK	0	Left Touch	40620	2593.0	1	0	25.00	24.74	0.123	0.131	
	Body-worn & Hotspot	QPSK	10	Bottom	40620	2593.0	1	0	25.60	25.06	0.479	0.542	

**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.

**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)		
Ant.B	Head	43.3	25.0	136.9	0.131	63.3	23.4	138.5	0.121	0.120	9.5
	Body-worn & Hotspot	43.3	25.6	157.2	0.542	63.3	24.0	159.0	0.577	0.571	-5.0

**Note(s):**

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)

**LTE Band 41 (20MHz Bandwidth) (Continued)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.F	Head	QPSK	0	Left Touch	41055	2636.5	1	0	20.00	19.15	0.416	0.506	
							50	50	20.00	19.18	0.403	0.487	
				Left Tilt	39750	2506.0	1	0	20.00	19.01	0.640	0.804	
							50	50	20.00	19.00	0.652	0.821	
					40185	2549.5	1	0	20.00	18.94	0.546	0.697	
							50	50	20.00	18.92	0.556	0.713	
				40620	2593.0	1	0	20.00	18.84	0.619	0.809		
						50	50	20.00	19.01	0.628	0.789		
				41055	2636.5	1	0	20.00	19.15	0.579	0.704		
						50	50	20.00	19.18	0.586	0.708		
						100	0	20.00	19.14	0.582	0.709		
						41490	2680.0	1	0	20.00	19.06	0.653	0.811
				50	50	20.00		19.14	0.658	0.802			
				Right Touch	39750	2506.0	1	0	20.00	19.01	0.781	0.981	
							50	50	20.00	19.00	0.793	0.998	
					40185	2549.5	1	0	20.00	18.94	0.768	0.980	
							50	50	20.00	18.92	0.780	1.000	
					40620	2593.0	1	0	20.00	18.84	0.746	0.974	
							50	50	20.00	19.01	0.760	0.955	
					41055	2636.5	1	0	20.00	19.15	0.814	0.990	
							50	50	20.00	19.18	0.826	0.998	
							100	0	20.00	19.14	0.821	1.001	
							41490	2680.0	1	0	20.00	19.06	0.832
					50	50	20.00		19.14	0.836	1.019		
	Right Tilt	39750	2506.0		1	0	20.00	19.01	0.771	0.968			
				50	50	20.00	19.00	0.779	0.981				
		40185	2549.5	1	0	20.00	18.94	0.755	0.964				
				50	50	20.00	18.92	0.767	0.984				
		40620	2593.0	1	0	20.00	18.84	0.747	0.976				
				50	50	20.00	19.01	0.762	0.957				
		41055	2636.5	1	0	20.00	19.15	0.817	0.994				
				50	50	20.00	19.18	0.843	1.018				
				100	0	20.00	19.14	0.833	1.015				
				41490	2680.0	1	0	20.00	19.06	0.924	1.147	38	
	50	50	20.00	19.14		0.931	1.135						
	Body-worn & Hotspot	QPSK	10	Rear	41055	2636.5	1	0	22.50	21.76	0.302	0.358	
							50	50	22.50	21.78	0.331	0.391	
				Front	41055	2636.5	1	0	22.50	21.76	0.193	0.229	
							50	50	22.50	21.78	0.214	0.253	
	Hotspot	QPSK	10	Top	39750	2506.0	1	0	22.50	21.70	0.631	0.759	
							50	50	22.50	21.72	0.621	0.743	
					40185	2549.5	1	0	22.50	21.72	0.464	0.555	
							50	50	22.50	21.70	0.475	0.571	
					40620	2593.0	1	0	22.50	21.59	0.505	0.623	
							50	50	22.50	21.68	0.521	0.629	
				41055	2636.5	1	0	22.50	21.76	0.547	0.649		
						50	50	22.50	21.78	0.552	0.652		
						41490	2680.0	1	0	22.50	21.60	0.523	0.643
50						50		22.50	21.68	0.543	0.656		
Right	41055	2636.5	1	0	22.50	21.76	0.078	0.092					
			50	50	22.50	21.78	0.071	0.084					



**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 offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	QPSK	0	Right Tilt	41490	2680.0	1	0	21.60	20.74	0.869	1.059	
	Body-worn & Hotspot	QPSK	10	Top	41490	2680.0	1	0	24.10	23.31	0.339	0.407	

**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.

**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)		
Ant.F	Head	43.3	21.6	62.6	1.059	63.3	20.0	63.3	1.147	1.134	-6.6
	Body-worn & Hotspot	43.3	24.1	111.3	0.407	63.3	22.5	112.6	0.643	0.636	-36.0

**Note(s):**

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)

**UL CA (Intraband-contiguous)\_41C test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Ant.B	Head	QPSK	0	Left Touch	40620	2593.0	1	0	40422	2573.2	1	99	23.40	22.51	0.126	0.155	
	Body-worn & Hotspot	QPSK	10	Bottom	40620	2593.0	50	0	40422	2573.2	50	50	24.00	23.10	0.724	0.891	

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	QPSK	0	Right Tilt	41490	2680.0	1	0	41292	2660.2	1	99	20.00	19.10	0.916	1.127	40
	Body-worn & Hotspot	QPSK	10	Top	41490	2680.0	1	0	41292	2660.2	1	99	22.50	21.20	0.738	0.996	

**10.15 LTE Band 48 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.F	Head	QPSK	0	Left Touch	55340	3560.0	1	99	19.00	18.28	0.440	0.519	
							50	50	19.00	18.38	0.453	0.523	
				Left Tilt	55340	3560.0	1	99	19.00	18.28	0.485	0.572	
							50	50	19.00	18.38	0.496	0.572	
				Right Touch	55340	3560.0	1	99	19.00	18.28	0.767	0.905	
							50	50	19.00	18.38	0.782	0.902	
							100	0	19.00	18.37	0.739	0.854	
					55773	3603.3	1	99	19.00	18.23	0.740	0.884	
							50	50	19.00	18.34	0.759	0.884	
							56207	3646.7	1	99	19.00	18.20	0.753
				Right Tilt	55340	3560.0	1	99	19.00	18.28	0.781	0.922	
							50	50	19.00	18.28	0.781	0.922	
					55773	3603.3	1	99	19.00	18.06	0.764	0.949	
							50	50	19.00	18.16	0.805	0.977	
					56640	3690.0	1	99	19.00	18.28	0.911	1.075	
				50	50	19.00	18.38	0.944	1.089				
	55773	3603.3	1	99	19.00	18.23	0.881	1.052					
	50	50	19.00	18.34	0.908	1.057							
	56207	3646.7	1	99	19.00	18.20	0.893	1.074					
	50	50	19.00	18.28	0.911	1.075							
	56640	3690.0	1	99	19.00	18.06	0.933	1.158	41				
	50	50	19.00	18.16	0.952	1.155							
	Body-w orn & Hotspot	QPSK	10	Rear	55340	3560.0	1	99	23.00	22.71	0.711	0.760	
							50	50	22.00	21.78	0.596	0.627	
							100	0	22.00	21.74	0.527	0.560	
					55773	3603.3	1	99	23.00	22.67	0.699	0.754	
							50	50	22.00	21.76	0.559	0.591	
							56207	3646.7	1	99	23.00	22.66	0.801
56640				3690.0	50	50	22.00	21.59	0.637	0.700			
					1	99	23.00	22.55	0.935	1.037	42		
Front				55340	3560.0	50	50	22.00	21.37	0.743	0.859		
						1	99	23.00	22.71	0.340	0.363		
50	50	22.00	21.78	0.275	0.289								
Hotspot	QPSK	10	Top	55340	3560.0	1	99	23.00	22.71	0.532	0.569		
						50	50	22.00	21.78	0.432	0.454		
			Right	55340	3560.0	1	99	23.00	22.71	0.097	0.104		
						50	50	22.00	21.78	0.077	0.081		

**UL CA (Intraband-contiguous)\_48 C test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	QPSK	0	Right Tilt	56640	3690.0	1	0	56442	3670.2	1	99	19.00	18.51	0.943	1.056	43
	Body-w orn & Hotspot	QPSK	10	Rear	56640	3690.0	1	0	56442	3670.2	1	99	23.00	22.59	0.831	0.913	

**10.16 LTE Band 66 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.		
									Tune-up limit	Meas.	Meas.	Reported			
Ant.A	Head	QPSK	0	Left Touch	132332	1745.0	1	0	24.70	24.11	0.220	0.252			
									50	0	23.70	23.09	0.177	0.204	
				Left Tilt	132332	1745.0	1	0	24.70	24.11	0.073	0.084			
									50	0	23.70	23.09	0.061	0.070	
				Right Touch	132332	1745.0	1	0	24.70	24.11	0.151	0.173			
									50	0	23.70	23.09	0.117	0.135	
				Right Tilt	132332	1745.0	1	0	24.70	24.11	0.082	0.094			
									50	0	23.70	23.09	0.066	0.076	
	Body-w orn & Hotspot	QPSK	10	Rear	132332	1745.0	1	0	20.00	18.85	0.494	0.644			
									50	0	20.00	18.93	0.504	0.645	
				Front	132332	1745.0	1	0	20.00	18.85	0.424	0.553			
									50	0	20.00	18.93	0.430	0.550	
	Hotspot	QPSK	10	Left	132332	1745.0	1	0	20.00	18.85	0.068	0.089			
									50	0	20.00	18.93	0.072	0.092	
				Bottom	132072	1720.0	1	0	20.00	18.84	0.719	0.939			
									50	0	20.00	18.85	0.710	0.925	
									100	0	20.00	18.85	0.721	0.940	
									132332	1745.0	1	0	20.00	18.85	0.728
				50	0	20.00	18.93	0.765	0.979						
				132572	1770.0	1	0	20.00	18.69	0.806	1.090	44			
50						0	20.00	18.77	0.819	1.087					
Right				132332	1745.0	1	0	20.00	18.85	0.107	0.139				
								50	0	20.00	18.93	0.108	0.138		

**UL CA (Intraband-contiguous)\_66B test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	QPSK	0	Left Touch	132322	1745.0	1	0	132229	1735.7	1	24	24.50	23.90	0.194	0.223	
	Body-w orn & Hotspot	QPSK	10	Bottom	132322	1745.0	1	0	132229	1735.7	1	24	20.00	19.03	0.666	0.833	45

**UL CA (Intraband-contiguous)\_66C test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	QPSK	0	Left Touch	132322	1745.0	1	0	132124	1725.2	1	99	24.50	24.03	0.208	0.232	
	Body-w orn & Hotspot	QPSK	10	Bottom	132572	1770.0	1	0	132374	1750.0	1	99	20.00	18.99	0.402	0.507	

**LTE Band 66 (20MHz Bandwidth) (Continued)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.F	Head	QPSK	0	Left Touch	132322	1745.0	1	99	18.50	17.13	0.315	0.432	
					50	50	18.50	17.15	0.339	0.463			
				Left Tilt	132322	1745.0	1	99	18.50	17.13	0.480	0.658	
					50	50	18.50	17.15	0.551	0.752			
				Right Touch	132322	1745.0	1	99	18.50	17.13	0.483	0.662	
					50	50	18.50	17.15	0.539	0.736			
				Right Tilt	132072	1720.0	50	50	18.50	17.06	0.726	1.011	46
					132322	1745.0	1	99	18.50	17.13	0.580	0.795	
					50	50	18.50	17.15	0.647	0.883			
	132572	1770.0	50	50	18.50	17.01	0.534	0.753					
		Rear	132322	1745.0	1	99	22.00	20.63	0.349	0.478			
			50	0	22.00	20.65	0.469	0.640					
		Front	132322	1745.0	1	99	22.00	20.63	0.257	0.352			
	50		0	22.00	20.65	0.256	0.349						
	Hotspot	QPSK	10	Top	132072	1720.0	1	99	22.00	20.53	0.665	0.933	
					50	0	22.00	20.55	0.657	0.917			
					132322	1745.0	1	99	22.00	20.63	0.696	0.954	47
					50	0	22.00	20.65	0.698	0.952			
					100	0	22.00	20.55	0.677	0.945			
					132572	1770.0	1	99	22.00	20.39	0.607	0.879	
				50	0	22.00	20.54	0.598	0.837				
Right				132322	1745.0	1	99	22.00	20.63	0.158	0.217		
				50	0	22.00	20.65	0.160	0.218				

**UL CA (Intraband-contiguous)\_66B test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	QPSK	0	Right Tilt	132322	1745.0	1	0	132229	1735.7	1	24	18.50	17.31	0.559	0.735	
	Body-worn & Hotspot	QPSK	10	Top	132322	1745.0	1	0	132229	1735.7	1	24	22.00	21.02	0.685	0.858	

**UL CA (Intraband-contiguous)\_66C test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	QPSK	0	Right Tilt	132072	1720.0	50	50	132270	1739.8	50	0	18.50	17.23	0.773	1.036	48
	Body-worn & Hotspot	QPSK	10	Top	132322	1745.0	1	99	132520	1764.8	1	0	22.00	20.77	0.633	0.840	

**10.17 LTE Band 71 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.A	Head	QPSK	0	Left Touch	133297	680.5	1	49	25.30	24.32	0.139	0.174	
							50	0	24.30	23.43	0.099	0.121	
				Left Tilt	133297	680.5	1	49	25.30	24.32	0.076	0.095	
							50	0	24.30	23.43	0.054	0.066	
				Right Touch	133297	680.5	1	49	25.30	24.32	0.092	0.115	
							50	0	24.30	23.43	0.085	0.104	
	Right Tilt	133297	680.5	1	49	25.30	24.32	0.059	0.074				
				50	0	24.30	23.43	0.043	0.053				
	Body-w orn & Hotspot	QPSK	10	Rear	133297	680.5	1	49	25.30	24.32	0.303	0.380	49
							50	0	24.30	23.43	0.272	0.332	
				Front	133297	680.5	1	49	25.30	24.32	0.161	0.202	
							50	0	24.30	23.43	0.156	0.191	
	Hotspot	QPSK	10	Left	133297	680.5	1	49	25.30	24.32	0.101	0.127	
							50	0	24.30	23.43	0.077	0.094	
				Bottom	133297	680.5	1	49	25.30	24.32	0.055	0.069	
50							0	24.30	23.43	0.040	0.049		
Right				133297	680.5	1	49	25.30	24.32	0.204	0.256		
						50	0	24.30	23.43	0.192	0.235		

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Reported	
Ant.E	Head	QPSK	0	Left Touch	133297	680.5	1	0	25.30	24.46	0.607	0.737	
							50	0	24.30	23.45	0.407	0.495	
				Left Tilt	133297	680.5	1	0	25.30	24.46	0.692	0.840	50
							50	0	24.30	23.45	0.469	0.570	
				Right Touch	133297	680.5	1	0	25.30	24.46	0.468	0.568	
							50	0	24.30	23.45	0.309	0.376	
	Right Tilt	133297	680.5	1	0	25.30	24.46	0.419	0.508				
				50	0	24.30	23.45	0.293	0.356				
	Body-w orn & Hotspot	QPSK	10	Rear	133297	680.5	1	0	25.30	24.46	0.202	0.245	51
							50	0	24.30	23.45	0.139	0.169	
				Front	133297	680.5	1	0	25.30	24.46	0.097	0.118	
							50	0	24.30	23.45	0.072	0.088	
	Hotspot	QPSK	10	Top	133297	680.5	1	0	25.30	24.46	0.104	0.126	
							50	0	24.30	23.45	0.078	0.095	
				Left	133297	680.5	1	0	25.30	24.46	0.082	0.099	
50							0	24.30	23.45	0.060	0.073		

**10.18 NR Band n5 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.				
										Tune-up limit	Meas.	Meas.	Scaled					
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	167300	836.5	1	1	25.00	24.38	0.173	0.200					
								50	28	25.00	24.26	0.168	0.199					
					Left Tilt	167300	836.5	1	1	25.00	24.38	0.088	0.102					
								50	28	25.00	24.26	0.097	0.115					
					Right Touch	167300	836.5	1	1	25.00	24.38	0.202	0.233					
								50	28	25.00	24.26	0.201	0.238					
	Right Tilt	167300	836.5	1	1	25.00	24.38	0.102	0.118									
				50	28	25.00	24.26	0.088	0.104									
	CP-OFDM	QPSK	0	Right Touch	167300	836.5	1	1	23.50	22.90	0.144	0.165						
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	167300	836.5	1	1	25.00	24.38	0.507	0.585					
								50	28	25.00	24.26	0.524	0.621	52				
					Front	167300	836.5	1	1	25.00	24.38	0.286	0.330					
								50	28	25.00	24.26	0.297	0.352					
					Hotspot	DFT-s-OFDM	QPSK	10	Left	167300	836.5	1	1	25.00	24.38	0.169	0.195	
												50	28	25.00	24.26	0.148	0.175	
	Bottom	167300	836.5	1					1	25.00	24.38	0.171	0.197					
				50					28	25.00	24.26	0.166	0.197					
	Right	167300	836.5	1	1	25.00	24.38	0.144	0.166									
50				28	25.00	24.26	0.123	0.146										
CP-OFDM	QPSK	10	Rear	167300	836.5	1	1	23.50	22.90	0.352	0.404							

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.				
										Tune-up limit	Meas.	Meas.	Scaled					
Ant.E	Head	DFT-s-OFDM	QPSK	0	Left Touch	167300	836.5	1	52	23.00	22.54	0.936	1.041	53				
								50	28	23.00	22.49	0.881	0.991					
								100	0	23.00	22.50	0.890	0.999					
					Left Tilt	167300	836.5	1	52	23.00	22.54	0.730	0.812					
								50	28	23.00	22.49	0.758	0.852					
								100	0	23.00	22.50	0.793	0.890					
					Right Touch	167300	836.5	1	52	23.00	22.54	0.721	0.802					
								50	28	23.00	22.49	0.727	0.818					
								100	0	23.00	22.50	0.739	0.829					
					Right Tilt	167300	836.5	1	52	23.00	22.54	0.598	0.665					
								50	28	23.00	22.49	0.594	0.668					
								CP-OFDM	QPSK	0	Left Touch	167300	836.5	1	1	23.00	22.44	0.904
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	167300	836.5	1	52	25.00	24.72	0.521	0.556					
								50	28	25.00	24.62	0.522	0.570	54				
					Front	167300	836.5	1	52	25.00	24.72	0.411	0.438					
								50	28	25.00	24.62	0.408	0.445					
					Hotspot	DFT-s-OFDM	QPSK	10	Top	167300	836.5	1	52	25.00	24.72	0.487	0.519	
												50	28	25.00	24.62	0.486	0.530	
Left	167300	836.5	1	52					25.00	24.72	0.477	0.509						
			50	28					25.00	24.62	0.480	0.524						
CP-OFDM	QPSK	10	Rear	167300	836.5	1	1	23.50	23.14	0.404	0.439							

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

**10.19 NR Band n7 (40MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.				
										Tune-up limit	Meas.	Meas.	Scaled					
Ant.B	Head	DFT-s-OFDM	QPSK	0	Left Touch	507000	2535.0	1	107	24.00	23.44	0.307	0.349					
								108	54	24.00	23.45	0.321	0.364					
					Left Tilt	507000	2535.0	1	107	24.00	23.44	0.125	0.142					
								108	54	24.00	23.45	0.130	0.148					
					Right Touch	507000	2535.0	1	107	24.00	23.44	0.127	0.144					
								108	54	24.00	23.45	0.130	0.148					
					Right Tilt	507000	2535.0	1	107	24.00	23.44	0.101	0.115					
								108	54	24.00	23.45	0.102	0.116					
	CP-OFDM	QPSK	0	Left Touch	507000	2535.0	1	1	22.50	22.40	0.304	0.311						
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	507000	2535.0	1	107	23.00	22.43	0.380	0.433					
								108	54	23.00	22.50	0.471	0.528	55				
					Front	507000	2535.0	1	107	23.00	22.43	0.283	0.323					
								108	54	23.00	22.50	0.310	0.348					
					Hotspot	DFT-s-OFDM	QPSK	10	Bottom	507000	2535.0	1	107	23.00	22.43	0.268	0.306	
												108	54	23.00	22.50	0.277	0.311	
	Right	507000	2535.0	1	107	23.00	22.43	0.446	0.509									
108				54	23.00	22.50	0.464	0.521										
CP-OFDM	QPSK	10	Rear	507000	2535.0	1	1	22.50	21.92	0.349	0.399							

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.			
										Tune-up limit	Meas.	Meas.	Scaled				
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	507000	2535.0	1	214	18.50	17.26	0.454	0.604				
								108	54	18.50	17.31	0.503	0.662				
								Left Tilt	507000	2535.0	1	214	18.50	17.26	0.650	0.865	
											108	54	18.50	17.31	0.738	0.971	
					Right Touch	507000	2535.0	1	214	18.50	17.26	0.789	1.050				
															108	54	18.50
								216	0	18.50	17.30	0.777	1.024				
														Right Tilt	507000	2535.0	1
					108	54	18.50	17.31	0.874	1.150							
					216	0	18.50	17.30	0.895	1.180							
					CP-OFDM	QPSK	0	Right Tilt	507000	2535.0	1	1	18.50	17.35	0.899	1.172	
					Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	507000	2535.0	1	214	20.50	20.21	0.294	0.314
	108	54	20.50	20.19								0.343	0.368				
	Front	507000	2535.0	1					214	20.50	20.21	0.220	0.235				
				108					54	20.50	20.19	0.239	0.257				
	Hotspot	DFT-s-OFDM	QPSK	10					Top	507000	2535.0	1	214	20.50	20.21	0.630	0.674
108												54	20.50	20.19	0.693	0.744	57
Right					507000	2535.0	1	214	20.50	20.21	0.060	0.064					
							108	54	20.50	20.19	0.057	0.061					
CP-OFDM	QPSK	10	Top	507000	2535.0	1	1	20.50	20.22	0.582	0.621						

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

**10.20 NR Band n12 (15MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	141500	707.5	1	1	25.20	24.20	0.121	0.152	
								36	21	25.20	24.21	0.130	0.163	
					Left Tilt	141500	707.5	1	1	25.20	24.20	0.075	0.094	
								36	21	25.20	24.21	0.078	0.098	
					Right Touch	141500	707.5	1	1	25.20	24.20	0.110	0.138	
								36	21	25.20	24.21	0.113	0.142	
	Right Tilt	141500	707.5	1	1	25.20	24.20	0.064	0.081					
				36	21	25.20	24.21	0.073	0.092					
	CP-OFDM	QPSK	0	Left Touch	141500	707.5	1	1	23.50	22.74	0.092	0.110		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	141500	707.5	1	1	25.20	24.20	0.309	0.389	58
								36	21	25.20	24.21	0.333	0.418	
					Front	141500	707.5	1	1	25.20	24.20	0.130	0.164	
								36	21	25.20	24.21	0.182	0.229	
	Hotspot	DFT-s-OFDM	QPSK	10	Left	141500	707.5	1	1	25.20	24.20	0.099	0.125	
								36	21	25.20	24.21	0.096	0.121	
					Bottom	141500	707.5	1	1	25.20	24.20	0.040	0.050	
								36	21	25.20	24.21	0.048	0.060	
					Right	141500	707.5	1	1	25.20	24.20	0.197	0.248	
36								21	25.20	24.21	0.219	0.275		
CP-OFDM	QPSK	10	Rear	141500	707.5	1	1	23.50	22.74	0.196	0.233			

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.E	Head	DFT-s-OFDM	QPSK	0	Left Touch	141500	707.5	1	1	22.50	22.24	1.010	1.072	
								36	21	22.50	22.22	1.040	1.109	59
								75	0	22.50	22.17	1.020	1.101	
					Left Tilt	141500	707.5	1	1	22.50	22.24	0.790	0.839	
								36	21	22.50	22.22	0.810	0.864	
								75	0	22.50	22.17	0.800	0.863	
					Right Touch	141500	707.5	1	1	22.50	22.24	0.658	0.699	
								36	21	22.50	22.22	0.710	0.757	
					Right Tilt	141500	707.5	1	1	22.50	22.24	0.543	0.577	
								36	21	22.50	22.22	0.583	0.622	
	CP-OFDM	QPSK	0	Left Touch	141500	707.5	1	1	22.50	22.29	1.010	1.060		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	141500	707.5	1	1	25.20	24.42	0.436	0.522	60
								36	21	25.20	23.97	0.535	0.710	
					Front	141500	707.5	1	1	25.20	24.42	0.321	0.384	
								36	21	25.20	23.97	0.408	0.542	
	Hotspot	DFT-s-OFDM	QPSK	10	Top	141500	707.5	1	1	25.20	24.42	0.371	0.444	
								36	21	25.20	23.97	0.468	0.621	
					Left	141500	707.5	1	1	25.20	24.42	0.386	0.462	
36								21	25.20	23.97	0.462	0.613		
CP-OFDM	QPSK	10	Rear	141500	707.5	1	1	23.70	22.95	0.334	0.397			

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.



**10.21 NR Band n25 (40MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	376500	1882.5	1	107	24.50	23.73	0.129	0.154	
								108	54	24.50	23.73	0.128	0.153	
					Left Tilt	376500	1882.5	1	107	24.50	23.73	0.050	0.060	
								108	54	24.50	23.73	0.047	0.056	
					Right Touch	376500	1882.5	1	107	24.50	23.73	0.080	0.096	
								108	54	24.50	23.73	0.080	0.096	
	Right Tilt	376500	1882.5	1	107	24.50	23.73	0.058	0.069					
				108	54	24.50	23.73	0.055	0.066					
	CP-OFDM	QPSK	0	Left Touch	376500	1882.5	1	1	23.00	22.22	0.117	0.140		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	376500	1882.5	1	107	20.00	19.29	0.391	0.460	
								108	54	20.00	19.23	0.362	0.432	
					Front	376500	1882.5	1	107	20.00	19.29	0.319	0.376	
								108	54	20.00	19.23	0.334	0.399	
	Hotspot	DFT-s-OFDM	QPSK	10	Left	376500	1882.5	1	107	20.00	19.29	0.055	0.065	
								108	54	20.00	19.23	0.055	0.066	
					Bottom	376500	1882.5	1	107	20.00	19.29	0.705	0.830	
								108	54	20.00	19.23	0.726	0.867	61
					Right	376500	1882.5	216	0	20.00	19.16	0.713	0.865	
1								107	20.00	19.29	0.083	0.098		
108	54	20.00	19.23	0.080	0.096									
CP-OFDM	QPSK	10	Bottom	376500	1882.5	1	1	20.00	19.32	0.632	0.739			

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	376500	1882.5	1	1	20.00	18.50	0.317	0.448	
								108	54	20.00	18.48	0.300	0.426	
					Left Tilt	376500	1882.5	1	1	20.00	18.50	0.402	0.568	
								108	54	20.00	18.48	0.371	0.526	
					Right Touch	376500	1882.5	1	1	20.00	18.50	0.483	0.682	
								108	54	20.00	18.48	0.464	0.658	
	Right Tilt	376500	1882.5	1	1	20.00	18.50	0.568	0.802	62				
				108	54	20.00	18.48	0.542	0.769					
	CP-OFDM	QPSK	0	Right Tilt	376500	1882.5	1	1	20.00	18.44	0.494	0.708		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	376500	1882.5	1	1	22.00	20.81	0.388	0.510	
								108	54	22.00	20.83	0.389	0.509	
					Front	376500	1882.5	1	1	22.00	20.81	0.229	0.301	
								108	54	22.00	20.83	0.224	0.293	
	Hotspot	DFT-s-OFDM	QPSK	10	Top	376500	1882.5	1	1	22.00	20.81	0.409	0.538	63
								108	54	22.00	20.83	0.395	0.517	
					Right	376500	1882.5	1	1	22.00	20.81	0.087	0.114	
								108	54	22.00	20.83	0.089	0.117	
	CP-OFDM	QPSK	10	Top	376500	1882.5	1	1	22.00	20.81	0.333	0.438		

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

**10.22 NR Band n26 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	166300	831.5	1	52	25.00	24.11	0.151	0.185	
								50	28	25.00	24.01	0.150	0.188	
					Left Tilt	166300	831.5	1	52	25.00	24.11	0.104	0.128	
								50	28	25.00	24.01	0.095	0.119	
					Right Touch	166300	831.5	1	52	25.00	24.11	0.180	0.221	
								50	28	25.00	24.01	0.182	0.229	
	Right Tilt	166300	831.5	1	52	25.00	24.11	0.077	0.095					
				50	28	25.00	24.01	0.105	0.132					
	CP-OFDM	QPSK	0	Right Touch	166300	831.5	1	1	23.50	22.70	0.145	0.174		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	166300	831.5	1	52	25.00	24.11	0.465	0.571	64
								50	28	25.00	24.01	0.472	0.593	
					Front	166300	831.5	1	52	25.00	24.11	0.261	0.320	
								50	28	25.00	24.01	0.261	0.328	
	Hotspot	DFT-s-OFDM	QPSK	10	Left	166300	831.5	1	52	25.00	24.11	0.159	0.195	
								50	28	25.00	24.01	0.159	0.200	
					Bottom	166300	831.5	1	52	25.00	24.11	0.166	0.204	
								50	28	25.00	24.01	0.159	0.200	
					Right	166300	831.5	1	52	25.00	24.11	0.127	0.156	
50								28	25.00	24.01	0.128	0.161		
CP-OFDM	QPSK	10	Rear	166300	831.5	1	1	23.50	22.70	0.273	0.328			

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.						
										Tune-up limit	Meas.	Meas.	Scaled							
Ant.E	Head	DFT-s-OFDM	QPSK	0	Left Touch	166300	831.5	1	1	23.00	22.41	0.949	1.087							
								50	28	23.00	22.34	0.946	1.101							
								100	0	23.00	22.30	0.899	1.056							
					Left Tilt	166300	831.5	1	1	23.00	22.41	0.748	0.857							
								50	28	23.00	22.34	0.781	0.909							
								100	0	23.00	22.30	0.799	0.939							
				Right Touch	166300	831.5	1	1	23.00	22.41	0.673	0.771								
							50	28	23.00	22.34	0.712	0.829								
							1	1	23.00	22.41	0.564	0.646								
				CP-OFDM	QPSK	0	Left Touch	166300	831.5	1	1	23.00	22.34	0.587	0.683					
										50	28	23.00	22.34	0.587	0.683					
										1	1	23.00	22.43	0.888	1.013					
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK							10	Rear	166300	831.5	1	1	25.00	24.61	0.473	0.517	66
														50	28	25.00	24.54	0.513	0.570	
	Front	166300	831.5							1	1	25.00	24.61	0.389	0.426					
				50	28	25.00	24.54	0.417	0.464											
	Hotspot	DFT-s-OFDM	QPSK	10	Top	166300	831.5	1	1	25.00	24.61	0.402	0.440							
								50	28	25.00	24.54	0.437	0.486							
Left					166300	831.5	1	1	25.00	24.61	0.518	0.567								
							50	28	25.00	24.54	0.507	0.564								
CP-OFDM					QPSK	10	Rear	166300	831.5	1	1	23.50	23.08	0.362	0.399					

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

**10.23 NR Band n30 (10MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.				
										Tune-up limit	Meas.	Meas.	Scaled					
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	462000	2310.0	1	1	23.50	22.72	0.089	0.107					
								25	13	23.50	22.67	0.092	0.111					
					Left Tilt	462000	2310.0	1	1	23.50	22.72	0.033	0.039					
								25	13	23.50	22.67	0.030	0.036					
					Right Touch	462000	2310.0	1	1	23.50	22.72	0.063	0.075					
								25	13	23.50	22.67	0.060	0.073					
					Right Tilt	462000	2310.0	1	1	23.50	22.72	0.053	0.063					
								25	13	23.50	22.67	0.054	0.065					
	CP-OFDM	QPSK	0	Left Touch	462000	2310.0	1	1	22.00	21.37	0.062	0.072						
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	462000	2310.0	1	1	21.00	20.17	0.436	0.528					
								25	13	21.00	20.20	0.414	0.498					
					Front	462000	2310.0	1	1	21.00	20.17	0.398	0.482					
								25	13	21.00	20.20	0.384	0.462					
					Hotspot	DFT-s-OFDM	QPSK	10	Left	462000	2310.0	1	1	21.00	20.17	0.035	0.042	
												25	13	21.00	20.20	0.034	0.041	
	Bottom	462000	2310.0	1					1	21.00	20.17	0.885	1.071	67				
				25					13	21.00	20.20	0.863	1.038					
	Right	462000	2310.0	1	1	21.00	20.17	0.103	0.125									
				25	13	21.00	20.20	0.103	0.124									
	CP-OFDM	QPSK	10	Bottom	462000	2310.0	1	1	21.00	20.31	0.792	0.928						

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	462000	2310.0	1	25	18.50	17.98	0.589	0.664	
								25	13	18.50	17.97	0.590	0.667	
					Left Tilt	462000	2310.0	1	25	18.50	17.98	0.721	0.813	
								25	13	18.50	17.97	0.726	0.820	
					Right Touch	462000	2310.0	1	25	18.50	17.98	0.882	0.994	
								25	13	18.50	17.97	0.881	0.995	
					Right Tilt	462000	2310.0	50	0	18.50	17.78	0.874	1.032	
								1	25	18.50	17.98	1.000	1.127	
	25	13	18.50	17.97	0.987	1.115								
	50	0	18.50	17.78	1.020	1.204	68							
	CP-OFDM	QPSK	0	Right Tilt	462000	2310.0	1	1	18.50	17.94	0.998	1.135		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	462000	2310.0	1	25	21.00	19.89	0.460	0.594	
								25	13	21.00	19.81	0.454	0.597	
					Front	462000	2310.0	1	25	21.00	19.89	0.295	0.381	
								25	13	21.00	19.81	0.293	0.385	
	Hotspot	DFT-s-OFDM	QPSK	10	Top	462000	2310.0	1	25	21.00	19.89	0.532	0.687	
								25	13	21.00	19.81	0.536	0.705	69
					Right	462000	2310.0	1	25	21.00	19.89	0.112	0.145	
								25	13	21.00	19.81	0.111	0.146	
	CP-OFDM	QPSK	10	Top	462000	2310.0	1	1	21.00	19.78	0.504	0.667		

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

**10.24 NR Band n41 (100MHz Bandwidth)**

**Voice/Data/SRS0 & SRS1 (switching mode)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	518598	2593.0	1	1	18.00	17.47	0.489	0.552	
								135	0	18.00	17.41	0.543	0.622	
					Left Tilt	518598	2593.0	1	1	18.00	17.47	0.781	0.882	
								135	0	18.00	17.41	0.732	0.839	
					Right Touch	518598	2593.0	1	1	18.00	17.47	0.830	0.938	
								135	0	18.00	17.41	0.792	0.907	
	Right Tilt	518598	2593.0	1	1	18.00	17.47	0.966	1.091					
				135	0	18.00	17.41	0.804	0.921					
	CP-OFDM	QPSK	0	Right Tilt	518598	2593.0	1	1	18.00	17.58	1.010	1.113	70	
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	518598	2593.0	1	1	20.50	20.10	0.651	0.714	
								135	0	20.50	19.91	0.595	0.682	
					Front	518598	2593.0	1	1	20.50	20.10	0.355	0.389	
								135	0	20.50	19.91	0.341	0.391	
	Hotspot	DFT-s-OFDM	QPSK	10	Top	518598	2593.0	1	1	20.50	20.10	0.810	0.888	71
								135	0	20.50	19.91	0.743	0.851	
270								0	20.50	19.91	0.721	0.826		
Right					518598	2593.0	1	1	20.50	20.10	0.045	0.049		
							135	0	20.50	19.91	0.067	0.077		
CP-OFDM	QPSK	10	Top	518598	2593.0	1	1	20.50	20.10	0.789	0.865			

**SRS1 & Voice/Data/SRS0 (switching mode)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.B	Head	DFT-s-OFDM	QPSK	0	Left Touch	518598	2593.0	1	271	22.00	21.70	0.087	0.093	72
								135	138	22.00	21.54	0.076	0.085	
					Left Tilt	518598	2593.0	1	271	22.00	21.70	0.021	0.023	
								135	138	22.00	21.54	0.029	0.032	
					Right Touch	518598	2593.0	1	271	22.00	21.70	0.038	0.040	
								135	138	22.00	21.54	0.041	0.046	
	Right Tilt	518598	2593.0	1	271	22.00	21.70	0.013	0.014					
				135	138	22.00	21.54	0.019	0.022					
	CP-OFDM	QPSK	0	Left Touch	518598	2593.0	1	1	22.00	21.70	0.086	0.092		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	518598	2593.0	1	271	22.00	21.70	0.362	0.388	
								135	138	22.00	21.54	0.314	0.349	
					Front	518598	2593.0	1	271	22.00	21.70	0.299	0.320	
								135	138	22.00	21.54	0.274	0.305	
	Hotspot	DFT-s-OFDM	QPSK	10	Bottom	518598	2593.0	1	271	22.00	21.70	0.395	0.423	
								135	138	22.00	21.54	0.511	0.568	73
135								138	22.00	21.54	0.252	0.280		
Right					518598	2593.0	1	271	22.00	21.70	0.345	0.370		
							135	138	22.00	21.54	0.252	0.280		
CP-OFDM	QPSK	10	Bottom	518598	2593.0	1	1	22.00	21.70	0.376	0.403			

**Note(s):**

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.
2. NR Band n41 (including SRS0/1/2/3) has support switching mode for Ant.F & Ant.B and Ant.D & Ant.E. So SAR tested at worst power configuration of each antennas in DSI's scenarios using FTM(Factory test mode).

**NR Band n41 (100MHz Bandwidth) (Continued)**

**SRS2 & SRS3(switching mode)**

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	
Ant.E	Head	SRS CW	0	Left Touch	518598	2593.0	16.00	15.03	0.281	0.351	74
				Left Tilt	518598	2593.0	16.00	15.03	0.235	0.294	
				Right Touch	518598	2593.0	16.00	15.03	0.173	0.216	
				Right Tilt	518598	2593.0	16.00	15.03	0.148	0.185	
	Body-w orn & Hotspot	SRS CW	10	Rear	518598	2593.0	16.00	15.03	0.020	0.026	
				Front	518598	2593.0	16.00	15.03	0.022	0.028	
	Hotspot	SRS CW	10	Top	518598	2593.0	16.00	15.03	0.020	0.025	
				Left	518598	2593.0	16.00	15.03	0.014	0.017	

**SRS3 & SRS2(switching mode)**

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	
Ant.D	Head	SRS CW	0	Left Touch	518598	2593.0	18.00	17.69	0.014	0.015	
				Left Tilt	518598	2593.0	18.00	17.69	0.004	0.005	
				Right Touch	518598	2593.0	18.00	17.69	0.000	0.000	
				Right Tilt	518598	2593.0	18.00	17.69	0.004	0.004	
	Body-w orn & Hotspot	SRS CW	10	Rear	518598	2593.0	18.00	17.69	0.178	0.191	75
				Front	518598	2593.0	18.00	17.69	0.027	0.029	
	Hotspot	SRS CW	10	Left	518598	2593.0	18.00	17.69	0.006	0.007	
				Bottom	518598	2593.0	18.00	17.69	0.067	0.072	

**Note(s):**

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.
2. NR Band n41 (including SRS0/1/2/3) has support switching mode for Ant.F & Ant.B and Ant.D & Ant.E. So SAR tested at worst power configuration of each antennas in DSI's scenarios using FTM(Factory test mode).

**10.25 NR Band n48 (40MHz Bandwidth)**

**(Voice/Data/SRS0)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	638000	3570.0	1	1	16.50	16.23	0.365	0.388	
							50	0	16.50	16.33	0.371	0.386		
					Left Tilt	638000	3570.0	1	1	16.50	16.23	0.512	0.545	
							50	0	16.50	16.33	0.413	0.429		
					Right Touch	638000	3570.0	1	1	16.50	16.23	0.765	0.814	
								50	0	16.50	16.33	0.729	0.758	
		100	0	16.50				16.24	0.768	0.815				
		Right Tilt	641666	3625.0	1	1	16.50	16.18	0.692	0.745				
					50	0	16.50	16.11	0.709	0.776				
					645332	3680.0	1	1	16.50	16.03	0.735	0.819		
					50	0	16.50	16.01	0.730	0.817				
		Right Tilt	638000	3570.0	1	1	16.50	16.23	0.981	1.044	76			
	50				0	16.50	16.33	0.894	0.930					
	100				0	16.50	16.24	0.868	0.922					
	641666		3625.0	1	1	16.50	16.18	0.894	0.962					
				50	0	16.50	16.11	0.891	0.975					
				645332	3680.0	1	1	16.50	16.03	0.929	1.035			
				50	0	16.50	16.01	0.847	0.948					
	CP-OFDM	QPSK	0	Right Tilt	638000	3570.0	1	1	16.50	16.18	0.844	0.909		
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	638000	3570.0	1	1	20.50	19.92	0.639	0.730	
								50	0	20.50	19.98	0.636	0.717	
								100	0	20.50	19.91	0.682	0.781	
					641666	3625.0	1	1	20.50	19.84	0.727	0.846		
							50	0	20.50	19.89	0.779	0.896		
645332							3680.0	1	1	20.50	19.81	0.936	1.097	77
				50	0	20.50	19.86	0.866	1.004					
Front		638000	3570.0	1	1	20.50	19.92	0.292	0.334					
				50	0	20.50	19.98	0.309	0.348					
Hotspot		DFT-s-OFDM	QPSK	10	Top	638000	3570.0	1	1	20.50	19.92	0.558	0.638	
	50							0	20.50	19.98	0.563	0.635		
	Right				638000	3570.0	1	1	20.50	19.92	0.092	0.105		
							50	0	20.50	19.98	0.091	0.103		
	CP-OFDM	QPSK	10	Rear	645332	3680.0	1	1	20.50	19.85	0.891	1.035		

**Note(s):**

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

**NR Band n48 (40MHz Bandwidth) (Continued)**

**(SRS1/SRS2/SRS3)**

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	
Ant.C	Head	SRS CW	0	Left Touch	645332	3680.0	19.00	18.36	0.000	0.000	
				Left Tilt	645332	3680.0	19.00	18.36	0.002	0.002	
				Right Touch	645332	3680.0	19.00	18.36	0.000	0.000	
				Right Tilt	645332	3680.0	19.00	18.36	0.000	0.000	
	Body-w orn & Hotspot	SRS CW	10	Rear	645332	3680.0	19.00	18.36	0.046	0.053	
				Front	645332	3680.0	19.00	18.36	0.017	0.020	
	Hotspot	SRS CW	10	Bottom	645332	3680.0	19.00	18.36	0.034	0.039	
				Right	645332	3680.0	19.00	18.36	0.084	0.097	
Ant.I	Head	SRS CW	0	Left Touch	638000	3570.0	12.50	11.09	0.476	0.659	
					641666	3625.0	12.50	11.36	0.621	0.807	
					645332	3680.0	12.50	11.74	0.600	0.715	
				Left Tilt	645332	3680.0	12.50	11.74	0.073	0.087	
					Right Touch	638000	3570.0	12.50	11.09	0.754	1.043
				641666		3625.0	12.50	11.36	0.917	1.192	78
				645332		3680.0	12.50	11.74	0.954	1.136	
				Right Tilt	645332	3680.0	12.50	11.74	0.074	0.088	
	Body-w orn & Hotspot	SRS CW	10	Rear	645332	3680.0	19.00	18.40	0.418	0.480	
				Front	645332	3680.0	19.00	18.40	0.451	0.518	79
	Hotspot	SRS CW	10	Right	645332	3680.0	19.00	18.40	0.135	0.155	
	Ant.D	Head	SRS CW	0	Left Touch	641666	3625.0	18.00	17.41	0.000	0.000
Left Tilt					641666	3625.0	18.00	17.41	0.000	0.000	
Right Touch					641666	3625.0	18.00	17.41	0.000	0.000	
Right Tilt					641666	3625.0	18.00	17.41	0.000	0.000	
Body-w orn & Hotspot		SRS CW	10	Rear	641666	3625.0	18.00	17.41	0.301	0.345	
				Front	641666	3625.0	18.00	17.41	0.024	0.027	
Hotspot		SRS CW	10	Left	641666	3625.0	18.00	17.41	0.049	0.056	
				Bottom	641666	3625.0	18.00	17.41	0.074	0.085	

**10.26 NR Band n66 (40MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	349000	1745.0	1	1	24.50	23.64	0.255	0.311	
								108	54	24.50	23.64	0.206	0.251	
					Left Tilt	349000	1745.0	1	1	24.50	23.64	0.066	0.080	
								108	54	24.50	23.64	0.087	0.106	
					Right Touch	349000	1745.0	1	1	24.50	23.64	0.156	0.190	
								108	54	24.50	23.64	0.146	0.178	
					Right Tilt	349000	1745.0	1	1	24.50	23.64	0.104	0.127	
								108	54	24.50	23.64	0.098	0.119	
	CP-OFDM	QPSK	0	Left Touch	349000	1745.0	1	1	23.00	22.03	0.178	0.223		
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	349000	1745.0	1	1	20.00	19.31	0.472	0.553	
								108	54	20.00	19.26	0.510	0.605	
					Front	349000	1745.0	1	1	20.00	19.31	0.398	0.467	
								108	54	20.00	19.26	0.423	0.502	
	Hotspot	DFT-s-OFDM	QPSK	10	Left	349000	1745.0	1	1	20.00	19.31	0.070	0.082	
								108	54	20.00	19.26	0.078	0.092	
					Bottom	349000	1745.0	1	1	20.00	19.31	0.762	0.893	80
								108	54	20.00	19.26	0.753	0.893	
								216	0	20.00	19.18	0.714	0.862	
					Right	349000	1745.0	1	1	20.00	19.31	0.121	0.142	
								108	54	20.00	19.26	0.116	0.138	
					CP-OFDM	QPSK	10	Bottom	349000	1745.0	1	1	20.00	19.22

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.			
										Tune-up limit	Meas.	Meas.	Scaled				
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	349000	1745.0	1	214	18.50	17.41	0.337	0.433				
								108	54	18.50	17.40	0.335	0.432				
					Left Tilt	349000	1745.0	1	214	18.50	17.41	0.442	0.568				
								108	54	18.50	17.40	0.505	0.651				
					Right Touch	349000	1745.0	1	214	18.50	17.41	0.449	0.577				
								108	54	18.50	17.40	0.512	0.660				
					Right Tilt	349000	1745.0	1	214	18.50	17.41	0.560	0.720				
								108	54	18.50	17.40	0.683	0.880	81			
	CP-OFDM	QPSK	0	Right Tilt	349000	1745.0	1	1	18.50	17.47	0.693	0.878					
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	349000	1745.0	1	214	22.00	20.91	0.309	0.397				
								108	54	22.00	20.87	0.350	0.454				
					Front	349000	1745.0	1	214	22.00	20.91	0.197	0.253				
								108	54	22.00	20.87	0.231	0.300				
	Hotspot	DFT-s-OFDM	QPSK	10	Top	349000	1745.0	1	214	22.00	20.91	0.458	0.589				
								108	54	22.00	20.87	0.555	0.720	82			
					Right	349000	1745.0	1	214	22.00	20.91	0.116	0.149				
								108	54	22.00	20.87	0.135	0.175				
					CP-OFDM	QPSK	10	Top	349000	1745.0	1	1	22.00	20.84	0.411	0.537	

**Note(s):**

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



**10.27 NR Band n70 (15MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	340500	1702.5	1	1	24.00	23.25	0.241	0.286	
								36	21	24.00	23.23	0.270	0.322	
					Left Tilt	340500	1702.5	1	1	24.00	23.25	0.067	0.080	
								36	21	24.00	23.23	0.072	0.086	
					Right Touch	340500	1702.5	1	1	24.00	23.25	0.144	0.171	
								36	21	24.00	23.23	0.144	0.172	
	Right Tilt	340500	1702.5	1	1	24.00	23.25	0.057	0.068					
				36	21	24.00	23.23	0.047	0.056					
	CP-OFDM	QPSK	0	Left Touch	340500	1702.5	1	1	22.50	21.87	0.122	0.141		
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	340500	1702.5	1	1	21.00	19.86	0.512	0.666	
								36	21	21.00	19.92	0.497	0.637	
					Front	340500	1702.5	1	1	21.00	19.86	0.421	0.547	
								36	21	21.00	19.92	0.417	0.535	
	Hotspot	DFT-s-OFDM	QPSK	10	Left	340500	1702.5	1	1	21.00	19.86	0.067	0.087	
								36	21	21.00	19.92	0.066	0.085	
					Bottom	340500	1702.5	1	1	21.00	19.86	0.753	0.979	
								36	21	21.00	19.92	0.790	1.013	
								75	0	21.00	19.89	0.806	1.041	83
Right					340500	1702.5	1	1	21.00	19.86	0.110	0.143		
	36	21	21.00	19.92			0.106	0.136						
CP-OFDM	QPSK	10	Bottom	340500	1702.5	1	1	21.00	20.04	0.737	0.919			

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	340500	1702.5	1	77	18.00	17.21	0.358	0.429	
								36	21	18.00	17.11	0.369	0.453	
					Left Tilt	340500	1702.5	1	77	18.00	17.21	0.521	0.625	
								36	21	18.00	17.11	0.551	0.676	
					Right Touch	340500	1702.5	1	77	18.00	17.21	0.554	0.665	
								36	21	18.00	17.11	0.563	0.691	
	Right Tilt	340500	1702.5	1	77	18.00	17.21	0.726	0.871					
				36	21	18.00	17.11	0.753	0.924	84				
				75	0	18.00	17.22	0.757	0.906					
	CP-OFDM	QPSK	0	Right Tilt	340500	1702.5	1	1	18.00	17.29	0.733	0.863		
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	340500	1702.5	1	77	22.00	21.45	0.411	0.466	
								36	21	22.00	21.18	0.440	0.531	
					Front	340500	1702.5	1	77	22.00	21.45	0.297	0.337	
								36	21	22.00	21.18	0.324	0.391	
	Hotspot	DFT-s-OFDM	QPSK	10	Top	340500	1702.5	1	77	22.00	21.45	0.767	0.871	
								36	21	22.00	21.18	0.796	0.961	85
								75	0	22.00	21.51	0.810	0.907	
					Right	340500	1702.5	1	77	22.00	21.45	0.171	0.194	
36								21	22.00	21.18	0.173	0.209		
CP-OFDM								QPSK	10	Top	340500	1702.5	1	1

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

**10.28 NR Band n71 (20MHz Bandwidth)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.A	Head	DFT-s-OFDM	QPSK	0	Left Touch	136100	680.5	1	1	25.30	24.22	0.081	0.104	
								50	28	25.30	24.29	0.097	0.122	
					Left Tilt	136100	680.5	1	1	25.30	24.22	0.042	0.054	
								50	28	25.30	24.29	0.044	0.056	
					Right Touch	136100	680.5	1	1	25.30	24.22	0.076	0.097	
								50	28	25.30	24.29	0.096	0.121	
	Right Tilt	136100	680.5	1	1	25.30	24.22	0.040	0.051					
				50	28	25.30	24.29	0.055	0.069					
	CP-OFDM	QPSK	0	Left Touch	136100	680.5	1	1	23.80	22.67	0.056	0.073		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	136100	680.5	1	1	25.30	24.22	0.198	0.254	
								50	28	25.30	24.29	0.283	0.357	86
					Front	136100	680.5	1	1	25.30	24.22	0.130	0.167	
								50	28	25.30	24.29	0.146	0.184	
	Hotspot	DFT-s-OFDM	QPSK	10	Left	136100	680.5	1	1	25.30	24.22	0.069	0.088	
								50	28	25.30	24.29	0.081	0.102	
					Bottom	136100	680.5	1	1	25.30	24.22	0.043	0.055	
								50	28	25.30	24.29	0.043	0.054	
					Right	136100	680.5	1	1	25.30	24.22	0.164	0.210	
50								28	25.30	24.29	0.157	0.198		
CP-OFDM	QPSK	10	Bottom	136100	680.5	1	1	23.80	22.67	0.145	0.188			

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Ant.E	Head	DFT-s-OFDM	QPSK	0	Left Touch	136100	680.5	1	52	25.30	24.99	0.354	0.380	
								50	28	25.30	24.91	0.365	0.399	87
					Left Tilt	136100	680.5	1	52	25.30	24.99	0.323	0.347	
								50	28	25.30	24.91	0.325	0.356	
					Right Touch	136100	680.5	1	52	25.30	24.99	0.276	0.296	
								50	28	25.30	24.91	0.283	0.310	
	Right Tilt	136100	680.5	1	52	25.30	24.99	0.234	0.251					
				50	28	25.30	24.91	0.239	0.261					
	CP-OFDM	QPSK	0	Left Touch	136100	680.5	1	1	23.80	23.34	0.329	0.366		
	Body-w orn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	136100	680.5	1	52	25.30	24.99	0.180	0.193	
								50	28	25.30	24.91	0.178	0.195	88
					Front	136100	680.5	1	52	25.30	24.99	0.147	0.158	
								50	28	25.30	24.91	0.148	0.162	
	Hotspot	DFT-s-OFDM	QPSK	10	Top	136100	680.5	1	52	25.30	24.99	0.150	0.161	
								50	28	25.30	24.91	0.150	0.164	
					Left	136100	680.5	1	52	25.30	24.99	0.107	0.115	
								50	28	25.30	24.91	0.105	0.115	
	CP-OFDM	QPSK	10	Rear	136100	680.5	1	1	23.80	23.34	0.143	0.159		

**Note(s):**  
 CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in each exposure conditions.

**10.29 NR Band n77 (100MHz Bandwidth)**

**(Voice/Data/SRS0)**

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.			
										Tune-up limit	Meas.	Meas.	Scaled					
Ant.F	Head	DFT-s-OFDM	QPSK	0	Left Touch	650000	3750.0	1	1	17.00	16.72	0.417	0.445					
								135	0	17.00	16.64	0.395	0.429					
						662000	3930.0	1	1	17.00	16.69	0.290	0.311					
								135	0	17.00	16.60	0.201	0.220					
						650000	3750.0	1	1	17.00	16.72	0.489	0.522					
								135	0	17.00	16.64	0.509	0.553					
					662000	3930.0	1	1	17.00	16.69	0.296	0.318						
							135	0	17.00	16.60	0.247	0.271						
					Right Touch	633334	3500.0	1	1	17.00	16.91	0.909	0.928	1				
								135	0	17.00	16.90	0.839	0.859					
								270	0	17.00	16.90	0.779	0.797					
						650000	3750.0	1	1	17.00	16.72	0.824	0.879					
	135	0	17.00	16.64				0.852	0.926									
	662000	3930.0	1	1				17.00	16.69	0.583	0.626							
	135	0	17.00	16.60	0.529	0.580												
	Right Tilt	633334	3500.0	1	1	17.00	16.91	1.030	1.052	1	89							
				135	0	17.00	16.90	0.914	0.935									
				270	0	17.00	16.90	0.821	0.840									
		650000	3750.0	1	1	17.00	16.72	0.933	0.995									
				135	0	17.00	16.64	0.924	1.004									
				662000	3930.0	1	1	17.00	16.69	0.659	0.708							
	135	0	17.00	16.60	0.581	0.637												
	CP-OFDM	QPSK	0	Right Tilt	633334	3500.0	1	1	17.00	16.99	1.040	1.042						
	Body-worn & Hotspot	DFT-s-OFDM	QPSK	10	Rear	633334	3500.0	1	1	19.50	19.10	0.532	0.583	1				
135								0	19.50	18.97	0.481	0.543						
650000						3750.0	1	1	19.50	19.10	0.775	0.850		90				
							270	0	19.50	18.68	0.709	0.856						
662000						3930.0	1	1	19.50	18.87	0.508	0.587						
							135	0	19.50	18.66	0.507	0.615						
Front					650000	3750.0	1	1	19.50	19.10	0.252	0.276						
							135	0	19.50	18.76	0.217	0.257						
Hotspot					DFT-s-OFDM	QPSK	10	Top	650000	3750.0	1	1	19.50	19.10	0.440	0.482		
											135	0	19.50	18.76	0.481	0.570		
	662000	3930.0	1	1					19.50	18.87	0.283	0.327						
			135	0				19.50	18.66	0.256	0.311							
	Right	650000	3750.0	1				1	19.50	19.10	0.117	0.128						
				135				0	19.50	18.76	0.118	0.140						
CP-OFDM	QPSK	10	Rear	650000	3750.0	1	1	19.50	18.96	0.691	0.782							

**Note(s):**

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

**NR Band n77 (100MHz) (Continued)**  
**(SRS1/SRS2/SRS3)**

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			
Ant.C	Head	SRS CW	0	Left Touch	650000	3750.0	19.00	18.49	0.010	0.011			
				Left Tilt	633334	3500.0	19.00	18.07	0.028	0.035	1		
					650000	3750.0	19.00	18.49	0.011	0.012			
				Right Touch	650000	3750.0	19.00	18.49	0.003	0.003			
				Right Tilt	650000	3750.0	19.00	18.49	0.000	0.000			
	Body-w orn & Hotspot	SRS CW	10	Rear	650000	3750.0	19.00	18.49	0.052	0.058			
				Front	650000	3750.0	19.00	18.49	0.024	0.027			
	Hotspot	SRS CW	10	Bottom	650000	3750.0	19.00	18.49	0.024	0.027			
				Right	633334	3500.0	19.00	18.07	0.264	0.327	1		
					650000	3750.0	19.00	18.49	0.060	0.067			
Ant.I	Head	SRS CW	0	Left Touch	650000	3750.0	12.50	12.00	0.600	0.673			
					662000	3930.0	12.50	12.22	0.516	0.550			
				Left Tilt	662000	3930.0	12.50	12.22	0.036	0.038			
				Right Touch	633334	3500.0	12.50	11.08	0.484	0.671	1		
					650000	3750.0	12.50	12.00	0.717	0.804			
					662000	3930.0	12.50	12.22	0.776	0.828		91	
				Right Tilt	662000	3930.0	12.50	12.22	0.068	0.073			
	Body-w orn & Hotspot	SRS CW	10	Rear	662000	3930.0	20.00	19.86	0.297	0.307			
				Front	633334	3500.0	20.00	18.77	0.123	0.163	1		
					662000	3930.0	20.00	19.86	0.366	0.378			
	Hotspot	SRS CW	10	Right	662000	3930.0	20.00	19.86	0.112	0.116			
	Ant.D	Head	SRS CW	0	Left Touch	633334	3500.0	17.50	17.26	0.000	0.000	1	
						650000	3750.0	17.50	17.29	<0.001	<0.001		
Left Tilt					650000	3750.0	17.50	17.29	<0.001	<0.001			
Right Touch					650000	3750.0	17.50	17.29	<0.001	<0.001			
Right Tilt					650000	3750.0	17.50	17.29	<0.001	<0.001			
Body-w orn & Hotspot		SRS CW	10	Rear	633334	3500.0	17.50	17.26	0.446	0.471	1	92	
					650000	3750.0	17.50	17.29	0.429	0.450			
					662000	3930.0	17.50	17.17	0.339	0.366			
				Front	650000	3750.0	17.50	17.29	0.008	0.008			
Hotspot		SRS CW	10	Left	650000	3750.0	17.50	17.29	0.033	0.035			
	Bottom			650000	3750.0	17.50	17.29	0.062	0.065				

**Note(s):**

- NR Band-Dod n77 are tested at worst configuration of NR Band n77 band.

### 10.30 Wi-Fi (DTS Band)

#### DTS SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	2.4GHz	802.11b 1 Mbps	Head	0	Left Touch	6	2437.0	0.188	98.8%	15.00	14.50	0.141	0.160	4	
					Left Tilt	6	2437.0	0.085	98.8%	15.00	14.50				
					Right Touch	6	2437.0	1.228	98.8%	15.00	14.50	0.688	0.781		93
					Right Tilt	6	2437.0	0.243	98.8%	15.00	14.50	0.190	0.216	2	
			Body-worn & Hotspot	10	Rear	6	2437.0	0.299	98.8%	19.0	18.37	0.194	0.227	4	
					Front	6	2437.0	0.327	98.8%	19.0	18.37				
			Hotspot	10	Top	6	2437.0	0.129	98.8%	19.0	18.37				
					Right	6	2437.0	0.362	98.8%	19.0	18.37	0.305	0.357	1	94
WLAN SISO Ant.J	2.4GHz	802.11b 1 Mbps	Head	0	Left Touch	1	2412.0	0.686	98.8%	15.0	14.60	0.589	0.653		
					Left Tilt	1	2412.0	0.121	98.8%	15.0	14.60				
					Right Touch	1	2412.0	0.551	98.8%	15.0	14.60	0.231	0.256	2	
					Right Tilt	1	2412.0	0.054	98.8%	15.0	14.60				
			Body-worn & Hotspot	10	Rear	1	2412.0	0.169	98.8%	19.0	18.98	0.123	0.125	4	
					Front	1	2412.0	0.176	98.8%	19.0	18.98	0.153	0.156	1	
			Hotspot	10	Top	1	2412.0	0.008	98.8%	19.0	18.98				
					Left	1	2412.0	0.109	98.8%	19.0	18.98				

#### DTS MIMO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	2.4GHz	802.11b 1 Mbps	Head	0	Left Touch	1	2412.0	0.924	98.8%	15.00	14.38				
						6	2437.0	0.970	98.8%	15.00	14.44				
					Left Tilt	1	2412.0	0.123	98.8%	15.00	14.38				
					Right Touch	1	2412.0	1.312	98.8%	15.00	14.38	0.672	0.784		
					Right Tilt	1	2412.0	0.367	98.8%	15.00	14.38	0.296	0.345	2	
			Body-worn & Hotspot	10	Rear	1	2412.0	0.351	98.8%	19.0	18.01	0.213	0.271	4	
					Front	1	2412.0	0.255	98.8%	19.0	18.01				
			Hotspot	10	Top	1	2412.0	0.168	98.8%	19.0	18.01				
					Left	1	2412.0	0.101	98.8%	19.0	18.01				
Right	1	2412.0			0.427	98.8%	19.0	18.01	0.300	0.381	1	95			
WLAN MIMO Ant.J	2.4GHz	802.11b 1 Mbps	Head	0	Left Touch	1	2412.0	0.924	98.8%	15.0	14.69	0.780	0.848		
						6	2437.0	0.970	98.8%	15.0	14.10	0.798	0.993	3	96
					Left Tilt	1	2412.0	0.123	98.8%	15.0	14.69				
					Right Touch	1	2412.0	1.312	98.8%	15.0	14.69				
					Right Tilt	1	2412.0	0.367	98.8%	15.0	14.69				
			Body-worn & Hotspot	10	Rear	1	2412.0	0.351	98.8%	19.0	18.88				
					Front	1	2412.0	0.255	98.8%	19.0	18.88				
			Hotspot	10	Top	1	2412.0	0.168	98.8%	19.0	18.88				
					Left	1	2412.0	0.101	98.8%	19.0	18.88				
Right	1	2412.0			0.427	98.8%	19.0	18.88							

#### Note(s):

1. When the Highest reported SAR is  $\leq 0.4$  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  $\leq 0.8$  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.

### 10.31 Wi-Fi (U-NII Bands)

#### U-NII 2A SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	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 SISO Ant.H	5.3 GHz U-NII 2A	802.11ac VHT 80	Head	0	Left Touch	58	5290.0	0.244	97.1%	14.00	13.45									
					Left Tilt	58	5290.0	0.163	97.1%	14.00	13.45									
					Right Touch	58	5290.0	0.647	97.1%	14.00	13.45	0.415	0.485						97	
					Right Tilt	58	5290.0	0.491	97.1%	14.00	13.45	0.287	0.335						2	
		802.11n HT40	Body-w orn	10	Rear	54	5270.0	0.651	98.2%	17.00	16.26	0.482	0.582						98	
					Front	54	5270.0	0.192	98.2%	17.00	16.26	0.157	0.190						2	
		802.11n HT40	Product Specific 10-g	0	Rear	54	5270.0	8.430	98.2%	17.00	16.26					1.650	1.993	2		
					Front	54	5270.0	6.569	98.2%	17.00	16.26					0.661	0.798	4		
	Top				54	5270.0	2.960	98.2%	17.00	16.26										
	Right				54	5270.0	14.900	98.2%	17.00	16.26							2.550	3.080		99
					62	5310.0	11.704	98.2%	16.50	15.27							1.180	1.595	3	
WLAN SISO Ant.E	5.3 GHz U-NII 2A	802.11ac VHT 80	Head	0	Left Touch	58	5290.0	0.150	97.1%	14.00	13.88									
					Left Tilt	58	5290.0	0.121	97.1%	14.00	13.88									
					Right Touch	58	5290.0	0.177	97.1%	14.00	13.88	0.106	0.112						4	
					Right Tilt	58	5290.0	0.180	97.1%	14.00	13.88	0.122	0.129						1	
		802.11n HT40	Body-w orn	10	Rear	54	5270.0	0.501	98.2%	17.00	15.77	0.341	0.461							
					Front	54	5270.0	0.161	98.2%	17.00	15.77	0.089	0.120						2	
		802.11n HT40	Product Specific 10-g	0	Rear	54	5270.0	10.700	98.2%	17.00	15.77					1.500	2.028			
						62	5310.0	8.219	98.2%	16.50	15.34					0.797	1.060	3		
	Front				54	5270.0	1.480	98.2%	17.00	15.77					0.407	0.550	2			
	Top				54	5270.0	1.330	98.2%	17.00	15.77										
	Left				54	5270.0	1.130	98.2%	17.00	15.77										

#### U-NII 2A MIMO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	5.3 GHz U-NII 2A	802.11ac VHT 80	Head	0	Left Touch	58	5290.0	0.309	94.5%	14.00	13.56								
					Left Tilt	58	5290.0	0.274	94.5%	14.00	13.56								
					Right Touch	58	5290.0	1.270	94.5%	14.00	13.56	0.464	0.543						100
					Right Tilt	58	5290.0	0.451	94.5%	14.00	13.56	0.327	0.383						2
		802.11n HT40	Body-w orn	10	Rear	54	5270.0	0.908	98.2%	17.00	15.82	0.657	0.878						101
					Front	54	5270.0	0.196	98.2%	17.00	15.82	0.157	0.210						2
		802.11n HT40	Product Specific 10-g	0	Rear	54	5270.0	11.000	98.2%	17.00	15.82					2.130	2.847	2	
						62	5310.0	9.677	98.2%	16.50	15.30					1.120	1.504	3	
	Front				54	5270.0	4.850	98.2%	17.00	15.82					0.907	1.212	4		
	Top				54	5270.0	2.670	98.2%	17.00	15.82									
	Left				54	5270.0	1.560	98.2%	17.00	15.82									
	Right				54	5270.0	15.700	98.2%	17.00	15.82							2.280	3.047	
WLAN MIMO Ant.E	5.3 GHz U-NII 2A	802.11ac VHT 80	Head	0	Left Touch	58	5290.0	0.309	94.5%	14.00	13.69								
					Left Tilt	58	5290.0	0.274	94.5%	14.00	13.69								
					Right Touch	58	5290.0	1.270	94.5%	14.00	13.69								
					Right Tilt	58	5290.0	0.451	94.5%	14.00	13.69								
		802.11n HT40	Body-w orn	10	Rear	54	5270.0	0.908	98.2%	17.00	16.30								
					Front	54	5270.0	0.196	98.2%	17.00	16.30								
		802.11n HT40	Product Specific 10-g	0	Rear	54	5270.0	11.000	98.2%	17.00	16.30					1.370	1.639		
						62	5310.0	9.677	98.2%	16.50	14.30					0.904	1.528		
	Front				54	5270.0	4.850	98.2%	17.00	16.30									
	Top				54	5270.0	2.670	98.2%	17.00	16.30									
	Left				54	5270.0	1.560	98.2%	17.00	16.30									
	Right				54	5270.0	15.700	98.2%	17.00	16.30									
	62	5310.0	12.400	98.2%	16.50	14.30													

**Note(s):**

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

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

**U-NII 2C SISO SAR results**

Antenna	Frequency Band	Mode	RF Exposure Conditions	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 SISO Ant.H	5.5 GHz U-NII 2C	802.11ac VHT 80	Head	0	Left Touch	106	5530.0	0.148	97.1%	14.00	13.51									
					Left Tilt	106	5530.0	0.117	97.1%	14.00	13.51									
					Right Touch	106	5530.0	0.850	97.1%	14.00	13.51	0.638	0.736						103	
					Right Tilt	106	5530.0	0.835	97.1%	14.00	13.51	0.232	0.267						2	
		802.11ac VHT 80	Body-worn	10	Rear	138	5690.0	0.914	97.1%	17.00	16.32	0.396	0.477						104	
					Front	138	5690.0	0.115	97.1%	17.00	16.32	0.063	0.076						2	
		802.11ac VHT 80	Product Specific 10-g	0	Rear	138	5690.0	6.681	97.1%	17.00	16.32					0.906	1.091		4	
					Front	138	5690.0	1.880	97.1%	17.00	16.32					0.457	0.550		4	
					Top	138	5690.0	2.548	97.1%	17.00	16.32									
					Right	138	5690.0	17.678	97.1%	17.00	16.32					1.210	1.457		1	
WLAN SISO Ant.E	5.5 GHz U-NII 2C	802.11ac VHT 80	Head	0	Left Touch	138	5690.0	0.078	97.1%	14.00	13.58									
					Left Tilt	138	5690.0	0.061	97.1%	14.00	13.58									
					Right Touch	138	5690.0	0.087	97.1%	14.00	13.58	0.000	0.000						1	
					Right Tilt	138	5690.0	0.070	97.1%	14.00	13.58									
		802.11ac VHT 80	Body-worn	10	Rear	138	5690.0	0.662	97.1%	17.00	16.16	0.203	0.254						1	
					Front	138	5690.0	0.005	97.1%	17.00	16.16									
		802.11ac VHT 80	Product Specific 10-g	0	Rear	138	5690.0	4.510	97.1%	17.00	16.16					0.725	0.906		1	
					Front	138	5690.0	0.237	97.1%	17.00	16.16									
					Top	138	5690.0	0.582	97.1%	17.00	16.16									
					Left	138	5690.0	0.186	97.1%	17.00	16.16									

**U-NII 2C MIMO SAR results**

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	5.5 GHz U-NII 2C	802.11ac VHT 80	Head	0	Left Touch	138	5690.0	0.092	94.5%	14.00	13.52								
					Left Tilt	138	5690.0	0.106	94.5%	14.00	13.52								
					Right Touch	138	5690.0	0.885	94.5%	14.00	13.52	0.311	0.368					1	
					Right Tilt	138	5690.0	0.285	94.5%	14.00	13.52								
		802.11ac VHT 80	Body-worn	10	Rear	138	5690.0	0.825	94.5%	17.00	15.84	0.350	0.484						
					Front	138	5690.0	0.730	94.5%	17.00	15.84	0.057	0.079					2	
		802.11ac VHT 80	Product Specific 10-g	0	Rear	138	5690.0	8.651	94.5%	17.00	15.84					0.784	1.084		2
					Front	138	5690.0	2.658	94.5%	17.00	15.84					0.385	0.532		4
					Top	138	5690.0	1.660	94.5%	17.00	15.84								
					Right	138	5690.0	20.147	94.5%	17.00	15.84					1.700	2.350		108
WLAN MIMO Ant.E	5.5 GHz U-NII 2C	802.11ac VHT 80	Head	0	Left Touch	138	5690.0	0.092	94.5%	14.00	13.31								
					Left Tilt	138	5690.0	0.106	94.5%	14.00	13.31								
					Right Touch	138	5690.0	0.885	94.5%	14.00	13.31								
					Right Tilt	138	5690.0	0.285	94.5%	14.00	13.31								
		802.11ac VHT 80	Body-worn	10	Rear	138	5690.0	0.825	94.5%	17.00	16.21								
					Front	138	5690.0	0.730	94.5%	17.00	16.21								
		802.11ac VHT 80	Product Specific 10-g	0	Rear	138	5690.0	8.651	94.5%	17.00	16.21								
					Front	138	5690.0	2.658	94.5%	17.00	16.21								
					Top	138	5690.0	1.660	94.5%	17.00	16.21								
					Right	138	5690.0	20.147	94.5%	17.00	16.21								

**Note(s):**

1. When the Highest reported SAR is  $\leq 0.4$  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  $\leq 0.8$  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 SISO SAR results**

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	5.8 GHz U-NII 3	802.11ac VHT 80	Head	0	Left Touch	155	5775.0	0.107	97.1%	14.00	13.52				
					Left Tilt	155	5775.0	0.118	97.1%	14.00	13.52				
					Right Touch	155	5775.0	0.807	97.1%	14.00	13.52	0.489	0.562		109
					Right Tilt	155	5775.0	0.328	97.1%	14.00	13.52	0.227	0.261	2	
		802.11ac VHT 80	Body-w orn & Hotspot	10	Rear	155	5775.0	0.772	97.1%	17.00	16.29	0.560	0.679		110
					Front	155	5775.0	0.252	97.1%	17.00	16.29				
		802.11ac VHT 80	Hotspot	10	Top	155	5775.0	0.125	97.1%	17.00	16.29				
					Right	155	5775.0	0.621	97.1%	17.00	16.29	0.450	0.546	2	
WLAN SISO Ant.E	5.8 GHz U-NII 3	802.11ac VHT 80	Head	0	Left Touch	155	5775.0	0.083	97.1%	14.00	13.54				
					Left Tilt	155	5775.0	0.059	97.1%	14.00	13.54				
					Right Touch	155	5775.0	0.086	97.1%	14.00	13.54	0.000	0.000	1	
					Right Tilt	155	5775.0	0.077	97.1%	14.00	13.54				
		802.11ac VHT 80	Body-w orn & Hotspot	10	Rear	155	5775.0	0.583	97.1%	17.00	16.19	0.164	0.204	1	
					Front	155	5775.0	0.053	97.1%	17.00	16.19				
		802.11ac VHT 80	Hotspot	10	Top	155	5775.0	0.071	97.1%	17.00	16.19				
					Left	155	5775.0	0.050	97.1%	17.00	16.19				

**U-NII 3 MIMO SAR results**

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	5.8 GHz U-NII 3	802.11ac VHT 80	Head	0	Left Touch	155	5775.0	0.091	94.5%	14.00	13.57				
					Left Tilt	155	5775.0	0.110	94.5%	14.00	13.57				
					Right Touch	155	5775.0	2.320	94.5%	14.00	13.57	0.519	0.606		111
					Right Tilt	155	5775.0	0.450	94.5%	14.00	13.57	0.161	0.188	2	
		802.11ac VHT 80	Body-w orn & Hotspot	10	Rear	155	5775.0	0.609	94.5%	17.00	16.23	0.448	0.566	2	112
					Front	155	5775.0	0.217	94.5%	17.00	16.23				
		802.11ac VHT 80	Hotspot	10	Top	155	5775.0	0.177	94.5%	17.00	16.23				
					Left	155	5775.0	0.059	94.5%	17.00	16.23				
WLAN MIMO Ant.E	5.8 GHz U-NII 3	802.11ac VHT 80	Head	0	Left Touch	155	5775.0	0.091	94.5%	14.00	13.32				
					Left Tilt	155	5775.0	0.110	94.5%	14.00	13.32				
					Right Touch	155	5775.0	2.320	94.5%	14.00	13.32				
					Right Tilt	155	5775.0	0.450	94.5%	14.00	13.32				
		802.11ac VHT 80	Body-w orn & Hotspot	10	Rear	155	5775.0	0.609	94.5%	17.00	15.65				
					Front	155	5775.0	0.217	94.5%	17.00	15.65				
802.11ac VHT 80	Hotspot	10	Top	155	5775.0	0.177	94.5%	17.00	15.65						
			Left	155	5775.0	0.059	94.5%	17.00	15.65						
Right	155	5775.0	1.510	94.5%	17.00	15.65									

**Note(s):**

1. When the Highest reported SAR is  $\leq 0.4$  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  $\leq 0.8$  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 4 SISO SAR results**

Antenna	Frequency Band	Mode	RF Exposure Conditions	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 SISO Ant.H	5.9 GHz U-NII 4	802.11ac VHT 80	Head	0	Left Touch	171	5855.0	0.113	97.1%	14.00	13.56								
					Left Tilt	171	5855.0	0.139	97.1%	14.00	13.56								
					Right Touch	171	5855.0	0.985	97.1%	14.00	13.56	0.659	0.751				113		
					Right Tilt	171	5855.0	0.533	97.1%	14.00	13.56	0.180	0.205				2		
		802.11ac VHT 80	Body-w orn	10	Rear	171	5855.0	0.875	97.1%	17.00	16.40	0.611	0.722					114	
					Front	171	5855.0	0.746	97.1%	17.00	16.40	0.217	0.257				2		
		802.11ac VHT 80	Product Specific 10-g	0	Rear	171	5855.0	11.100	97.1%	17.00	16.40					1.790	2.117		115
					Front	171	5855.0	4.380	97.1%	17.00	16.40					0.480	0.568		4
					Top	171	5855.0	1.660	97.1%	17.00	16.40								
					Right	171	5855.0	8.905	97.1%	17.00	16.40						1.580	1.868	
		WLAN SISO Ant.E	5.9 GHz U-NII 4	802.11ac VHT 80	Head	0	Left Touch	171	5855.0	0.031	97.1%	14.00	13.82						
							Left Tilt	171	5855.0	0.023	97.1%	14.00	13.82						
Right Touch	171						5855.0	0.054	97.1%	14.00	13.82	0.000	0.000					1	
Right Tilt	171						5855.0	0.022	97.1%	14.00	13.82								
802.11ac VHT 80	Body-w orn			10	Rear	171	5855.0	0.568	97.1%	17.00	16.35	0.168	0.201					1	
					Front	171	5855.0	0.084	97.1%	17.00	16.35								
802.11ac VHT 80	Product Specific 10-g			0	Rear	171	5855.0	11.700	97.1%	17.00	16.35					0.607	0.726		1
					Front	171	5855.0	0.408	97.1%	17.00	16.35								
					Top	171	5855.0	0.582	97.1%	17.00	16.35								
					Left	171	5855.0	0.714	97.1%	17.00	16.35								

**U-NII 4 MIMO SAR results**

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	5.9 GHz U-NII 4	802.11ac VHT 80	Head	0	Left Touch	171	5855.0	0.160	94.5%	14.00	13.71								
					Left Tilt	171	5855.0	0.191	94.5%	14.00	13.71								
					Right Touch	171	5855.0	1.240	94.5%	14.00	13.71	0.775	0.877						
					Right Tilt	171	5855.0	0.983	94.5%	14.00	13.71	0.508	0.575				2	116	
		802.11ac VHT 80	Body-w orn	10	Rear	171	5855.0	0.551	94.5%	17.00	16.34	0.396	0.488					117	
					Front	171	5855.0	0.295	94.5%	17.00	16.34	0.145	0.179				2		
		802.11ac VHT 80	Product Specific 10-g	0	Rear	171	5855.0	15.145	94.5%	17.00	16.34					1.300	1.602		118
					Front	171	5855.0	1.850	94.5%	17.00	16.34					0.458	0.564		4
					Top	171	5855.0	1.554	94.5%	17.00	16.34								
					Left	171	5855.0	0.676	94.5%	17.00	16.34								
		WLAN MIMO Ant.E	5.9 GHz U-NII 4	802.11ac VHT 80	Head	0	Left Touch	171	5855.0	0.160	94.5%	14.00	13.62						
							Left Tilt	171	5855.0	0.191	94.5%	14.00	13.62						
Right Touch	171						5855.0	1.240	94.5%	14.00	13.62								
Right Tilt	171						5855.0	0.983	94.5%	14.00	13.62								
802.11ac VHT 80	Body-w orn			10	Rear	171	5855.0	0.551	94.5%	17.00	15.90								
					Front	171	5855.0	0.295	94.5%	17.00	15.90								
802.11ac VHT 80	Product Specific 10-g			0	Rear	171	5855.0	15.145	94.5%	17.00	15.90								
					Front	171	5855.0	1.901	94.5%	17.00	15.90								
					Top	171	5855.0	1.554	94.5%	17.00	15.90								
					Left	171	5855.0	0.676	94.5%	17.00	15.90								
Right	171			5855.0	15.065	94.5%	17.00	15.90											

**Note(s):**

1. When the Highest reported SAR is  $\leq 0.4$  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  $\leq 0.8$  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.

### 10.32 Bluetooth

#### Bluetooth SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	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.H	2.4GHz	LE, 1M	Head	0	Left Touch	19	2440.0	85.40%	17.00	16.61	0.118	0.131	119
					Left Tilt	19	2440.0	85.40%	17.00	16.61	0.043	0.048	
					Right Touch	19	2440.0	85.40%	17.00	16.61	0.520	0.579	
					Right Tilt	19	2440.0	85.40%	17.00	16.61	0.136	0.151	
			Body-worn & Hotspot	10	Rear	0	2402.0	85.4%	21.00	20.52	0.325	0.370	
					Front	0	2402.0	85.4%	21.00	20.52	0.266	0.302	
			Hotspot	10	Top	0	2402.0	85.4%	21.00	20.52	0.110	0.125	
					Right	0	2402.0	85.4%	21.00	20.52	0.503	0.572	
BT SISO Ant.J	2.4GHz	LE, 1M	Head	0	Left Touch	0	2402.0	85.40%	14.00	12.97	0.465	0.601	121
					Left Tilt	0	2402.0	85.40%	14.00	12.97	0.052	0.068	
					Right Touch	0	2402.0	85.40%	14.00	12.97	0.242	0.313	
					Right Tilt	0	2402.0	85.40%	14.00	12.97	0.030	0.039	
			Body-worn & Hotspot	10	Rear	19	2441.0	85.4%	18.00	17.35	0.166	0.196	
					Front	19	2441.0	85.4%	18.00	17.35	0.173	0.205	
			Hotspot	10	Top	19	2441.0	85.4%	18.00	17.35	0.004	0.005	
					Left	19	2441.0	85.4%	18.00	17.35	0.075	0.089	

#### Bluetooth MIMO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
BT MIMO Ant.H	2.4GHz	BDR 1Mbps	Head	0	Left Touch	39	2441.0	76.8%	14.50	13.45			122
					Left Tilt	39	2441.0	76.8%	14.50	13.45			
					Right Touch	39	2441.0	76.8%	14.50	13.45	0.242	0.317	
					Right Tilt	39	2441.0	76.8%	14.50	13.45	0.052	0.069	
			Body-worn & Hotspot	10	Rear	39	2441.0	76.8%	14.50	13.45	0.046	0.060	
					Front	39	2441.0	76.8%	14.50	13.45	0.041	0.054	
			Hotspot	10	Top	39	2441.0	76.8%	14.50	13.45	0.041	0.054	
					Left	39	2441.0	76.8%	14.50	13.45			
Right	39	2441.0	76.8%	14.50	13.45	0.124	0.162	123					
BT MIMO Ant.J	2.4GHz	BDR 1Mbps	Head	0	Left Touch	39	2441.0	76.8%	14.00	13.87	0.344	0.365	124
					Left Tilt	39	2441.0	76.8%	14.00	13.87	0.045	0.048	
					Right Touch	39	2441.0	76.8%	14.00	13.87			
					Right Tilt	39	2441.0	76.8%	14.00	13.87			
			Body-worn & Hotspot	10	Rear	39	2441.0	76.8%	14.00	13.87			
					Front	39	2441.0	76.8%	14.00	13.87			
			Hotspot	10	Top	39	2441.0	76.8%	14.00	13.87			
					Left	39	2441.0	76.8%	14.00	13.87	0.009	0.009	
Right	39	2441.0	76.8%	14.00	13.87								

### 10.33 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	0.016	125
				Front	A	106	13.6	0.000	
				Top	A	106	13.6	0.000	
				Right	A	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  $\geq 0.8$  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  $\geq 1.45$  or  $3.6$  W/kg ( $\sim 10\%$  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  $\geq 1.5$  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	Antenna	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
750	LTE B12	Ant.E	Head	Left Tilt	N	0.865	N/A	N/A
	NR Bn12	Ant.E	Head	Left Touch	Y	1.040	1.030	1.01
835	WCDMA B5	Ant.E	Head	Left Touch	Y	1.050	1.030	1.02
	LTE B5	Ant.E	Head	Left Tilt	N	0.906	N/A	N/A
	LTE B26	Ant.E	Head	Left Tilt	N	0.926	N/A	N/A
	NR Bn5	Ant.E	Head	Left Touch	N	0.936	N/A	N/A
	NR Bn26	Ant.E	Head	Left Touch	N	0.949	N/A	N/A
1750	WCDMA B4	Ant.A	Hotspot	Bottom	Y	0.850	0.849	1.00
	LTE B66	Ant.A	Hotspot	Bottom	N	0.819	N/A	N/A
	NR Bn70	Ant.A	Hotspot	Bottom	N	0.806	N/A	N/A
	NR Bn70	Ant.F	Hotspot	Top	N	0.810	N/A	N/A
1900	WCDMA B2	Ant.A	Hotspot	Bottom	Y	0.980	0.940	1.04
	LTE Band 25	Ant.A	Hotspot	Bottom	N	0.891	N/A	N/A
2300	LTE B30	Ant.A	Hotspot	Bottom	N	0.871	N/A	N/A
	LTE B30	Ant.F	Head	Right Tilt	Y	1.040	1.030	1.01
	NR Bn30	Ant.A	Hotspot	Bottom	N	0.875	N/A	N/A
	NR Bn30	Ant.F	Head	Right Tilt	N	1.020	N/A	N/A
2600	LTE B41	Ant.F	Head	Right Tilt	N	0.931	N/A	N/A
	NR Bn7	Ant.F	Head	Right Tilt	N	0.923	N/A	N/A
	NR Bn41	Ant.F	Head	Right Tilt	Y	1.010	0.952	1.06
3500	LTE B48	Ant.F	Head	Right Tilt	N	0.965	N/A	N/A
	NR Bn48	Ant.F	Head	Right Tilt	N	0.981	N/A	N/A
	NR Bn77	Ant.F	Head	Right Tilt	Y	1.040	1.020	1.02

### Peak spatial-average (10g of tissue)

Frequency Band (MHz)	Air Interface	Antenna	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
5200	UNII-2A	Ant.H	Product 10-g	Right	Y	2.550	2.500	1.02

### 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	Simultaneous transmission scenarios					
Head & Body-w orn & Hotspot & Phablet-10g	1	WWAN (2G/3G/LTE/NR)	+	(DTS Ant.1 and/or DTS Ant.2)			
	2	WWAN (2G/3G/LTE/NR)	+	(UNII Ant.1 and/or UNII Ant.2)			
	3	WWAN (2G/3G/LTE/NR)	+	(BT Ant.1 and/or BT Ant.2)			
	4	WWAN (2G/3G/LTE/NR)	+	(BT Ant.1 + DTS Ant.2)			
	5	WWAN (2G/3G/LTE/NR)	+	(UNII Ant.1 and/or UNII Ant.2)	+	(BT Ant.1 and/or BT Ant.2)	
	6	WWAN (2G/3G/LTE/NR)	+	(UNII Ant.1 and/or UNII Ant.2)	+	(DTS Ant.1 and/or DTS Ant.2)	
	7	WWAN (2G/3G/LTE/NR)	+	(UNII Ant.1 + DTS Ant.2)	+	(BT Ant.1)	
	8	WWAN (2G/3G/LTE/NR)	+	(UNII Ant.2 + DTS Ant.2)	+	(BT Ant.1)	
	9	WWAN (2G/3G/LTE/NR)	+	(UNII MIMO + DTS Ant.2)	+	(BT Ant.1)	
	10	WWAN (ENDC/ULCA)	+	(DTS Ant.1 and/or DTS Ant.2)			
	11	WWAN (ENDC/ULCA)	+	(UNII Ant.1 and/or UNII Ant.2)			
	12	WWAN (ENDC/ULCA)	+	(BT Ant.1 and/or BT Ant.2)			
	13	WWAN (ENDC/ULCA)	+	(BT Ant.1 and/or DTS Ant.2)			
	14	WWAN (ENDC/ULCA)	+	(UNII Ant.1 and/or UNII Ant.2)	+	(BT Ant.1 and/or BT Ant.2)	
	15	WWAN (ENDC/ULCA)	+	(UNII Ant.1 and/or UNII Ant.2)	+	(DTS Ant.1 and/or DTS Ant.2)	
	16	WWAN (ENDC/ULCA)	+	(UNII Ant.1 + DTS Ant.2)	+	(BT Ant.1)	
	17	WWAN (ENDC/ULCA)	+	(UNII Ant.2 + DTS Ant.2)	+	(BT Ant.1)	
	18	WWAN (ENDC/ULCA)	+	(UNII MIMO + DTS Ant.2)	+	(BT Ant.1)	
Phablet-10g	19	Scenarios item (1-18)	+	NFC			

**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 w ith Bluetooth Radio.
5. Orange box means RSDB operations. (RSDB mode operates up to 4Tx.)
6. DTS Radio can transmit simultaneously w ith Bluetooth Radio in only RSDB operations
7. NR Radio support to both SA and NSA(ENDC) Radio.
8. LTE Radio support to ULCA Radio.
9. BT tethering is considered about each RF exposure conditions.
10. NFC can transmit simultaneously w ith other Radios in Phablet-10g condition.

**Note(s):**

Qualcomm Smart Transmit algorithm support to WWAN/WLAN/BT except NFC. And This device has support 2 Antenna groups.

Each antenna group has controls the total RF exposure from all transmitter to not exceed FCC limit. Therefore, in Part.1 report, it is evaluated whether the sum of the groups of each antenna does not exceed FCC limit or spatial separation is applied. In addition, each antenna group need to satisfies simultaneous transmission analysis with External radios (NFC and UWB) in Part.1 report.

For Qualcomm Smart Transmit algorithm verification of each antenna group, please refer to the Part.2 test report.

## 12.1 Sub6/mmW Antenna Groups

The 2nd Generation phase V of Smart Transmit (GEN2.5) operates based on pre-defined antenna groups of Sub6 antennas and mmW modules. Sub6 Tx antennas and mmW modules 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 TER) : Demonstrate that the sum of maximum *adjusted* SAR/PD from each of the sub6 and mmW AGs and the *adjusted* SAR/PD values from radios outside Smart Transmit (NFC) should be less than the regulatory limit for each supported DSI.
2. If the condition#1 is not met for only Sub6 antennas, then for a given antenna and module 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.

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

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.

3. If the condition#2 is not met for both Sub6 and mmW antennas, Following Qualcomm's guide, sub6 Antennas performs fast volume scan in DASY system and mmW modules use qualcomm's simulation tool result to apply the TER calculation in SDOTER(Spatial Distribution Overlay based Total Exposure Ration) tool.

Note : Adjusted SAR/PD;

- a. Adjusted SAR followed below procedures.  
Exposure scaling for su6 antennas/radios (referred to as 'adjusted SAR' values):  
If EFS Plimit =< NV setting Pax, then SAR exposure should be scaled to EFS Plimit + device uncertainty, else SAR exposure should be scaled to maximum {EFS Plimit, NV setting Pmax + device uncertainty}.
- b. Adjusted PD followed below procedures.  
On the worst-case surface/position (dominant): PD exposure should correspond to reported input.power.limit, i.e., PD exposure should be equal to (PD\_design\_target + device uncertainty) if at least one beam has input.power.limit =< NV setting Pmax, else, PD exposure should be equal to PD\_desing\_target.  
For all other surfaces/positions (non-dominant): it is exposure ratio (of evaluated surface/position to worst-case surface/position for a given Tx power) multiplied by scaled PD exposure on the worst-case surface as computed above.

This device supports antenna groups like below table.

DSI No.	Antenna Groups	Grouped antenna list					
		Ant.A(Sub6)	Ant.B(Sub.6)	Ant.C(Sub.6)	Ant.D(Sub.6)	Ant.N(mmW)	
DSI=0	AG0	Ant.A(Sub6)	Ant.B(Sub.6)	Ant.C(Sub.6)	Ant.D(Sub.6)	Ant.N(mmW)	
	AG1	Ant.E(Sub6)	Ant.F(Sub6)	Ant.I(Sub6)	Ant.M(mmW)		
DSI=1	AG0	Ant.A(Sub6)	Ant.B(Sub.6)	Ant.C(Sub.6)	Ant.D(Sub.6)	Ant.N(mmW)	Ant.M(mmW)
	AG1	Ant.E(Sub6)	Ant.F(Sub6)	Ant.I(Sub6)	Ant.N(mmW)	Ant.M(mmW)	
	ER(s)	NFC Ant.					
ER = Exteral radios/antennas supported ourtside of Smart Transmit							

**Note(s):**

For DSI = 1 (Head exposure scenario, both mmW modules (Ant.N & Ant.M) included in both Antenna groups (AG0 and AG1). All mmW modules are shared antennas between AG0 and AG1 for DSI=1, Once sub6\_ant\_AG0 and sub6\_ant\_AG1 are proved for simultaneous transmission at their corresponding adjusted power level following the procedures provide in section 4.2.5 of Qualcomm document (80-W211-4), then AG0 and AG1 ae valid antenna group. There is no need to consider mmW modules additionally for TER calculation. The operation of Sub6 ant and mmW module in Antenna group is verified in Part.2 report.

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 (DSI=1) exposure Antenna group analysis

#### Condition#1

#### Antenna Group 0 : Ant.A, Ant.B, Ant.C, Ant.D

Antenna Group		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0	
Antenna		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A	
RF exposure	Test position	GSM850		GSM1900		WCDMA B2		WCDMA B4		WCDMA B5		LTE B5		LTE B12		LTE B13		LTE B14		LTE B25	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)
	Plimit (dBm)	26.4	28.8	23.2	29.7	24.0	32.7	24.0	26.0	25.0	27.3	25.0	27.4	25.2	28.3	25.0	27.5	25.0	27.2	24.7	29.2
Head	Left Touch	0.233	0.405	0.089	0.398	0.054	0.400	0.252	0.399	0.215	0.365	0.216	0.375	0.196	0.400	0.224	0.398	0.180	0.299	0.143	0.403
	Left Tilt	0.145	0.252	0.034	0.152	0.048	0.356	0.073	0.116	0.137	0.233	0.086	0.149	0.101	0.206	0.109	0.194	0.095	0.158	0.061	0.172
	Right Touch	0.209	0.363	0.047	0.210	0.041	0.304	0.158	0.250	0.227	0.386	0.224	0.389	0.171	0.349	0.212	0.377	0.232	0.385	0.085	0.240
	Right Tilt	0.111	0.193	0.035	0.156	0.025	0.185	0.073	0.116	0.128	0.217	0.122	0.212	0.123	0.251	0.104	0.185	0.119	0.197	0.081	0.228

Antenna Group		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0	
Antenna		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A	
RF exposure	Test position	LTE B26		LTE B30		LTE B66		LTE B71		NR Bn5		NR Bn12		NR Bn25		NR Bn26		NR Bn30		NR Bn66	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)
	Plimit (dBm)	25.0	27.2	23.5	29.6	24.7	26.7	25.3	28.9	25.0	27.1	25.2	29.1	24.5	28.6	25.0	27.2	23.5	29.1	24.5	25.6
Head	Left Touch	0.219	0.363	0.098	0.399	0.252	0.399	0.174	0.399	0.200	0.324	0.163	0.400	0.154	0.396	0.188	0.312	0.111	0.403	0.311	0.401
	Left Tilt	0.114	0.189	0.044	0.179	0.084	0.133	0.095	0.218	0.115	0.187	0.098	0.241	0.060	0.154	0.128	0.212	0.039	0.142	0.106	0.137
	Right Touch	0.233	0.387	0.071	0.289	0.173	0.274	0.115	0.263	0.238	0.386	0.142	0.349	0.096	0.247	0.229	0.380	0.075	0.272	0.190	0.245
	Right Tilt	0.133	0.221	0.056	0.228	0.094	0.149	0.074	0.170	0.118	0.191	0.092	0.226	0.069	0.177	0.132	0.219	0.065	0.236	0.127	0.164

Antenna Group		AG0		AG0		AG0_Ant.A	
Antenna		Ant.A		Ant.A		AG0_Ant.A	
RF exposure	Test position	NR Bn70		NR Bn71		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Highest Adjusted SAR	
	Plimit (dBm)	24.0	24.9	25.3	30.3	0.405	
Head	Left Touch	0.322	0.396	0.122	0.386	0.405	
	Left Tilt	0.086	0.106	0.056	0.177	0.356	
	Right Touch	0.172	0.212	0.121	0.383	0.389	
	Right Tilt	0.068	0.084	0.069	0.218	0.251	

Antenna Group		AG0		AG0		AG0		AG0		AG0_Ant.B	
Antenna		Ant.B		Ant.B		Ant.B		Ant.B		AG0_Ant.B	
RF exposure	Test position	LTE B7		LTE B41		NR Bn7		NR Bn41		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Highest Adjusted SAR	
	Plimit (dBm)	24.0	24.1	21.4	21.4	24.0	24.4	22.0	22.0	0.399	
Head	Left Touch	0.389	0.398	0.121	0.121	0.364	0.399	0.093	0.093	0.399	
	Left Tilt	0.172	0.176	0.064	0.064	0.148	0.162	0.032	0.032	0.176	
	Right Touch	0.179	0.183	0.066	0.066	0.148	0.162	0.046	0.046	0.183	
	Right Tilt	0.114	0.117	0.104	0.104	0.116	0.127	0.022	0.022	0.127	

Antenna Group		AG0		AG0		AG0_Ant.C	
Antenna		Ant.C		Ant.C		AG0_Ant.C	
RF exposure	Test position	NR Bn48-SRS		NR Bn77-SRS		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Highest Adjusted SAR	
	Plimit (dBm)	19.0	19.0	19.0	19.0	0.011	
Head	Left Touch	0.000	0.000	0.011	0.011	0.011	
	Left Tilt	0.002	0.002	0.035	0.035	0.035	
	Right Touch	0.000	0.000	0.003	0.003	0.003	
	Right Tilt	0.000	0.000	0.000	0.000	0.000	

Antenna Group		AG0		AG0		AG0		AG0_Ant.D	
Antenna		Ant.D		Ant.D		Ant.D		AG0_Ant.D	
RF exposure	Test position	NR Bn41-SRS		NR Bn48-SRS		NR Bn77-SRS		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Highest Adjusted SAR	
	Plimit (dBm)	18.0	18.0	18.0	18.0	17.5	17.5	0.015	
Head	Left Touch	0.015	0.015	0.000	0.000	0.001	0.001	0.015	
	Left Tilt	0.005	0.005	0.000	0.000	0.001	0.001	0.005	
	Right Touch	0.000	0.000	0.000	0.000	0.001	0.001	0.001	
	Right Tilt	0.004	0.004	0.000	0.000	0.001	0.001	0.004	

**Antenna Group 1 : Ant.E, Ant.F, Ant.I, Ant.H, Ant.J, Ant.H+J, Ant.H+E**

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1			
Antenna		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E			
RF exposure	Test position	GSM850		WCDMA B5		LTE B5		LTE B12		LTE B13		LTE B14		LTE B26		LTE B71		NR Band n5		NR Band n12	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)
	Plimit (dBm)	22.8	22.8	23.0	23.0	23.0	23.0	22.5	22.5	25.0	26.0	25.0	26.4	23.0	23.0	25.3	26.0	23.0	23.0	22.5	22.5
Head	Left Touch	0.917	0.917	1.175	1.175	1.030	1.030	0.982	0.982	0.787	0.991	0.709	0.979	1.071	1.071	0.737	0.866	1.041	1.041	1.109	1.109
	Left Tilt	1.066	1.066	1.070	1.070	1.125	1.125	0.975	0.975	0.777	0.978	0.712	0.983	1.160	1.160	0.840	0.987	0.890	0.890	0.864	0.864
	Right Touch	0.630	0.630	0.852	0.852	0.911	0.911	0.833	0.833	0.612	0.770	0.543	0.750	0.865	0.865	0.568	0.667	0.829	0.829	0.757	0.757
	Right Tilt	0.541	0.541	0.722	0.722	0.769	0.769	0.703	0.703	0.558	0.702	0.463	0.639	0.787	0.787	0.508	0.597	0.668	0.668	0.622	0.622

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1	
Antenna		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		AG1_Ant.E	
RF exposure	Test position	NR Bn26		NR Bn41-SRS		NR Bn71		UNII 5.3GHz		UNII 5.5GHz		UNII 5.8GHz		UNII 5.9GHz		UNII 6GHz		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
	Plimit (dBm)	23.0	23.0	16.0	16.0	25.3	29.2	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	10.0	10.0		
Head	Left Touch	1.101	1.101	0.351	0.351	0.399	0.399	0.129	0.129	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	1.175	
	Left Tilt	0.939	0.939	0.294	0.294	0.356	0.356	0.129	0.129	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.038	1.160	
	Right Touch	0.829	0.829	0.216	0.216	0.31	0.31	0.761	0.761	0.112	0.112	0.000	0.000	0.000	0.000	0.035	0.035	0.911	
	Right Tilt	0.683	0.683	0.185	0.185	0.261	0.261	0.641	0.641	0.129	0.129	0.000	0.000	0.000	0.000	0.039	0.039	0.787	

Antenna Group		AG1		AG1		AG1_Ant.I	
Antenna		Ant.I		Ant.I		AG1_Ant.I	
RF exposure	Test position	NR Bn48-SRS		NR Bn77-SRS		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
	Plimit (dBm)	12.5	12.5	12.5	12.5		
Head	Left Touch	0.807	0.807	0.673	0.673	0.807	
	Left Tilt	0.087	0.087	0.038	0.038	0.087	
	Right Touch	1.192	1.192	0.828	0.828	1.192	
	Right Tilt	0.088	0.088	0.073	0.073	0.088	

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1_Ant.H	
Antenna		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H		AG1_Ant.H	
RF exposure	Test position	DTS 2.4GHz		UNII 5.3GHz		UNII 5.5GHz		UNII 5.8GHz		UNII 5.9GHz		UNII 6GHz		Bluetooth		Bluetooth		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)				
	Plimit (dBm)	15.0	15.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	10.0	10.0	17.0	17.0					
Head	Left Touch	0.160	0.160	0.485	0.485	0.736	0.736	0.562	0.562	0.751	0.751	0.013	0.013	0.131	0.131	0.751			
	Left Tilt	0.781	0.781	0.485	0.485	0.736	0.736	0.562	0.562	0.751	0.751	0.007	0.007	0.048	0.048	0.781			
	Right Touch	0.781	0.781	0.485	0.485	0.736	0.736	0.562	0.562	0.751	0.751	0.304	0.304	0.579	0.579	0.781			
	Right Tilt	0.216	0.216	0.335	0.335	0.267	0.267	0.261	0.261	0.205	0.205	0.060	0.060	0.151	0.151	0.335			

Antenna Group		AG1		AG1		AG1_Ant.J	
Antenna		Ant.J		Ant.J		AG1_Ant.J	
RF exposure	Test position	DTS 2.4GHz		Bluetooth		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
	Plimit (dBm)	15.0	15.0	14.0	14.0		
Head	Left Touch	0.653	0.653	0.601	0.601	0.653	
	Left Tilt	0.653	0.653	0.068	0.068	0.653	
	Right Touch	0.256	0.256	0.313	0.313	0.313	
	Right Tilt	0.653	0.653	0.039	0.039	0.653	

Antenna Group		AG1		AG1		AG1_Ant.H+J	
Antenna		Ant.H+J		Ant.H+J		AG1_Ant.H+J	
RF exposure	Test position	DTS 2.4GHz		Bluetooth		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
	Plimit (dBm)	15.0	15.0	14.5	18.5		
Head	Left Touch	0.993	0.993	0.365	0.917	0.993	
	Left Tilt	0.993	0.993	0.048	0.121	0.993	
	Right Touch	0.784	0.784	0.317	0.796	0.796	
	Right Tilt	0.345	0.345	0.069	0.173	0.345	

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1_Ant.H+E	
Antenna		Ant.H+E		Ant.H+E		Ant.H+E		Ant.H+E		Ant.H+E		Ant.H+E		Ant.H+E		AG1_Ant.H+E	
RF exposure	Test position	UNII 5.3GHz		UNII 5.5GHz		UNII 5.8GHz		UNII 5.9GHz		UNII 6GHz		UNII 6GHz		UNII 6GHz		Highest Adjusted SAR	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)				
	Plimit (dBm)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	10.0	10.0						
Head	Left Touch	0.543	0.543	0.368	0.368	0.606	0.606	0.877	0.877	0.024	0.024	0.877					
	Left Tilt	0.543	0.543	0.368	0.368	0.606	0.606	0.877	0.877	0.031	0.031	0.877					
	Right Touch	0.543	0.543	0.368	0.368	0.606	0.606	0.877	0.877	0.223	0.223	0.877					
	Right Tilt	0.383	0.383	0.368	0.368	0.188	0.188	0.575	0.575	0.050	0.050	0.575					

**Note(s):**

Green value mean is highest reported SAR of initial SAR test procedure.



**Summation of AG0 and AG1**

Antenna Group		AG0_Ant.A	AG0_Ant.B	AG0_Ant.C	AG0_Ant.D	AG0
Antenna		Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)
RF exposure	Test position					
Head	Left Touch	0.405	0.399	0.011	0.015	0.405
	Left Tilt	0.356	0.176	0.035	0.005	0.356
	Right Touch	0.389	0.183	0.003	0.001	0.389
	Right Tilt	0.251	0.127	0.000	0.004	0.251

Antenna Group		AG1_Ant.E	AG1_Ant.F	AG1_Ant.I	AG1_Ant.H	AG1
Antenna		Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)
RF exposure	Test position					
Head	Left Touch	1.175	0.727	0.807	0.751	1.175
	Left Tilt	1.160	0.971	0.087	0.781	1.160
	Right Touch	0.911	1.123	1.192	0.781	1.192
	Right Tilt	0.787	1.233	0.088	0.335	1.233

Antenna Group		AG1_Ant.J	AG1_Ant.H+J	AG1_Ant.H+E
Antenna		Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)
RF exposure	Test position			
Head	Left Touch	0.653	0.993	0.877
	Left Tilt	0.653	0.993	0.877
	Right Touch	0.313	0.796	0.877
	Right Tilt	0.653	0.345	0.575

Antenna Group		AG0	AG1	AG0 + AG1 (W/kg)	FCC 1-g SAR Limit (W/kg)
Antenna		Highest Adjusted SAR (W/kg)	Highest Adjusted SAR (W/kg)		
RF exposure	Test position				
Head	Left Touch	0.405	1.175	1.580	1.6
	Left Tilt	0.356	1.160	1.516	
	Right Touch	0.389	1.192	1.581	
	Right Tilt	0.251	1.233	1.484	

**Note(s):**

Additional evaluation is not required due to below FCC limit.

### 12.1.2 Body/Hotspot (DSI=0) exposure Antenna group analysis

#### Condition#1

#### Antenna Group 0 : Ant.A, Ant.B, Ant.C, Ant.D

Antenna Group		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0																			
Antenna		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A																			
RF exposure	Test position	GSM850		GSM1900		WCDMA B2		WCDMA B4		WCDMA B5		LTE B5		LTE B12		LTE B13		LTE B14		LTE B25																	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)																
		Plimit (dBm)		26.5		27.3		20.0		20.0		20.0		20.0		25.0		26.9		25.0		27.1		25.2		27.4		25.0		27.2		25.0		27.1		20.0	
Body-worm & Hotspot's SAR	Rear	0.606	0.724	0.339	0.339	0.554	0.554	0.625	0.625	0.468	0.732	0.528	0.848	0.438	0.722	0.600	1.000	0.611	1.000	0.713	0.713																
	Front	0.338	0.404	0.322	0.322	0.441	0.441	0.558	0.558	0.313	0.489	0.321	0.516	0.239	0.394	0.372	0.620	0.335	0.548	0.568																	
	Top	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
	Left	0.450	0.537	0.049	0.049	0.098	0.098	0.091	0.091	0.388	0.607	0.244	0.392	0.159	0.262	0.333	0.555	0.254	0.416	0.060	0.060																
	Bottom	0.216	0.258	0.733	0.733	1.141	1.141	1.006	1.006	0.200	0.313	0.219	0.352	0.059	0.097	0.133	0.222	0.116	0.190	1.129	1.129																
Body-worm & Hotspot's ER	Rear	0.367	0.439	0.076	0.076	0.108	0.108	0.130	0.130	0.284	0.444	0.243	0.390	0.230	0.478	0.447	0.234	0.383	0.094	0.094																	
	Front	0.45	0.25	0.20	0.20	0.35	0.35	0.39	0.39	0.46	0.31	0.32	0.45	0.63	0.39	0.34	0.63	0.34	0.06	0.06																	
	Top	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																	
	Left	0.34	0.03	0.06	0.06	0.06	0.06	0.06	0.06	0.38	0.25	0.16	0.35	0.26	0.35	0.26	0.35	0.26	0.04	0.04																	
	Bottom	0.16	0.46	0.71	0.71	0.63	0.63	0.20	0.20	0.22	0.22	0.06	0.14	0.12	0.12	0.12	0.12	0.12	0.12	0.71	0.71																
Right	0.27	0.05	0.07	0.07	0.08	0.08	0.28	0.28	0.24	0.24	0.30	0.28	0.24	0.24	0.24	0.24	0.24	0.24	0.06	0.06																	

Antenna Group		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0		AG0																			
Antenna		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A		Ant.A																			
RF exposure	Test position	LTE B26		LTE B30		LTE B66		LTE B71		NR Bn5		NR Bn12		NR Bn25		NR Bn26		NR Bn30		NR Bn66																	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)																
		Plimit (dBm)		25.0		26.9		21.0		21.0		25.3		27.5		25.0		27.1		25.2		27.3		20.0		20.0		25.0		27.3		21.0		21.0		20.0	
Body-worm & Hotspot's SAR	Rear	0.531	0.815	0.513	0.513	0.645	0.645	0.380	0.636	0.621	1.000	0.418	0.683	0.460	0.460	0.593	1.000	0.528	0.528	0.605	0.605																
	Front	0.353	0.542	0.411	0.411	0.553	0.553	0.202	0.338	0.352	0.567	0.229	0.374	0.399	0.328	0.553	0.482	0.482	0.502	0.502																	
	Top	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
	Left	0.253	0.388	0.041	0.041	0.092	0.092	0.127	0.213	0.195	0.314	0.125	0.204	0.066	0.066	0.200	0.337	0.042	0.042	0.092	0.092																
	Bottom	0.201	0.308	1.069	1.069	1.090	1.090	0.069	0.116	0.197	0.317	0.060	0.098	0.867	0.867	0.204	0.344	1.071	1.071	0.893	0.893																
Body-worm & Hotspot's ER	Rear	0.256	0.393	0.113	0.113	0.139	0.139	0.256	0.429	0.166	0.267	0.275	0.448	0.098	0.098	0.161	0.272	0.125	0.125	0.142	0.142																
	Front	0.51	0.32	0.40	0.40	0.35	0.35	0.21	0.35	0.23	0.23	0.25	0.35	0.35	0.30	0.31	0.30	0.31	0.31	0.31																	
	Top	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																	
	Left	0.24	0.03	0.06	0.06	0.13	0.13	0.20	0.13	0.04	0.21	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03																	
	Bottom	0.19	0.67	0.68	0.68	0.07	0.07	0.20	0.06	0.54	0.22	0.67	0.67	0.56	0.67	0.56	0.67	0.56	0.67	0.56																	
Right	0.25	0.07	0.09	0.09	0.27	0.27	0.17	0.28	0.06	0.17	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08																	

Antenna Group		AG0		AG0		AG0		AG0		AG0_Ant.B	
Antenna		Ant.B		Ant.B		Ant.B		Ant.B		Ant.B	
RF exposure	Test position	LTE B7		LTE B41		NR Bn7		NR Bn41		Highest Adjusted ER	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
		Plimit (dBm)		23.0		22.0		22.0		22.0	
Body-worm & Hotspot's SAR	Rear	0.759	0.759	0.564	0.564	0.528	0.528	0.388	0.388		
	Front	0.578	0.578	0.352	0.352	0.348	0.348	0.320	0.320		
	Top	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Left	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Bottom	0.498	0.498	0.891	0.891	0.311	0.311	0.568	0.568		
Body-worm & Hotspot's ER	Rear	0.661	0.661	0.362	0.362	0.521	0.521	0.370	0.370		
	Front	0.47	0.35	0.33	0.33	0.24	0.24	0.47	0.47		
	Top	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Left	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Bottom	0.31	0.56	0.19	0.19	0.36	0.36	0.56	0.56		
Right	0.41	0.23	0.33	0.33	0.23	0.23	0.41	0.41			

Antenna Group		AG0		AG0		AG0_Ant.C	
Antenna		Ant.C		Ant.C		Ant.C	
RF exposure	Test position	NR Bn48-SRS		NR Bn77-SRS		Highest Adjusted ER	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
		Plimit (dBm)		19.0		19.0	
Body-worm & Hotspot's SAR	Rear	0.053	0.053	0.058	0.058		
	Front	0.020	0.020	0.027	0.027		
	Top	0.000	0.000	0.000	0.000		
	Left	0.000	0.000	0.000	0.000		
	Bottom	0.039	0.039	0.027	0.027		
Body-worm & Hotspot's ER	Rear	0.097	0.097	0.327	0.327		
	Front	0.03	0.04	0.04	0.04		
	Top	0.01	0.02	0.02	0.02		
	Left	0.00	0.00	0.00	0.00		
	Bottom	0.02	0.02	0.02	0.02		
Right	0.06	0.20	0.20	0.20			

Antenna Group		AG0		AG0		AG0		AG0_Ant.D	
Antenna		Ant.D		Ant.D		Ant.D		Ant.D	
RF exposure	Test position	NR Bn41-SRS		NR Bn48-SRS		NR Bn77-SRS		Highest Adjusted ER	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
		Plimit (dBm)		18.0		18.0		17.5	
Body-worm & Hotspot's SAR	Rear	0.191	0.191	0.345	0.345	0.471	0.471		
	Front	0.029	0.029	0.027	0.027	0.008	0.008		
	Top	0.000	0.000	0.000	0.000	0.000	0.000		
	Left	0.007	0.007	0.056	0.056	0.035	0.035		
	Bottom	0.072	0.072	0.085	0.085	0.065	0.065		
Body-worm & Hotspot's ER	Rear	0.000	0.000	0.000	0.000	0.000	0.000		
	Front	0.12	0.22	0.29	0.29	0.29	0.29		
	Top	0.00	0.00	0.00	0.00	0.00	0.00		
	Left	0.00	0.04	0.02	0.02	0.04	0.04		
	Bottom	0.05	0.05	0.04	0.04	0.05	0.05		
Right	0.00	0.00	0.00	0.00	0.00	0.00			

**Antenna Group 1 : Ant.E, Ant.F, Ant.I, Ant.H**

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1			
Antenna		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E			
RF exposure	Test position	GSM850		WCDMA B5		LTE B5		LTE B12		LTE B13		LTE B14		LTE B26		LTE B71		NR Band n5		NR Band n12	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)
		Plimit (dBm)		26.5	26.7	25.0	26.7	25.0	26.3	25.2	26.4	25.0	26.1	25.0	26.5	26.3	26.9	25.0	27.0	25.2	26.2
Body-worn & Hotspot's SAR	Rear	0.594	0.822	0.519	0.768	0.537	0.724	0.704	0.932	0.319	0.731	0.284	0.730	0.500	0.706	0.245	0.894	0.570	0.908	0.710	0.892
	Front	0.516	0.540	0.467	0.691	0.446	0.602	0.538	0.712	0.216	0.495	0.191	0.491	0.386	0.545	0.118	0.430	0.445	0.709	0.542	0.681
	Top	0.463	0.485	0.450	0.666	0.465	0.627	0.511	0.677	0.215	0.493	0.200	0.514	0.444	0.627	0.126	0.460	0.530	0.844	0.621	0.780
	Left	0.821	0.860	0.584	0.864	0.642	0.866	0.584	0.773	0.377	0.864	0.341	0.877	0.822	0.879	0.099	0.361	0.524	0.834	0.613	0.770
	Bottom	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Body-worn & Hotspot's ER	Rear	0.39	0.48	0.45	0.58	0.46	0.58	0.46	0.58	0.31	0.46	0.31	0.46	0.44	0.56	0.57	0.57	0.57	0.57	0.56	
	Front	0.34	0.43	0.38	0.45	0.31	0.38	0.45	0.31	0.31	0.31	0.31	0.34	0.34	0.27	0.44	0.44	0.44	0.44	0.43	
	Top	0.30	0.42	0.39	0.42	0.31	0.39	0.42	0.31	0.31	0.31	0.31	0.32	0.39	0.29	0.53	0.53	0.53	0.53	0.49	
	Left	0.54	0.54	0.54	0.54	0.48	0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.52	0.52	0.52	0.52	0.48	
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1			
Antenna		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E		Ant.E			
RF exposure	Test position	NR Bn26		NR Bn41-SRS		NR Bn71		UNII 5.3GHz		UNII 5.5GHz		UNII 5.8GHz		UNII 5.9GHz		UNII 6GHz		Highest Adjusted ER			
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)
		Plimit (dBm)		25.0	26.9	16.0	16.0	25.3	28.2	17.0	17.0	17.0	17.0	17.0	17.0	17.0	10.0	10.0			
Body-worn & Hotspot's SAR	Rear	0.570	0.883	0.026	0.026	0.195	0.381	0.461	0.461	0.254	0.254	0.204	0.204	0.201	0.201	0.023	0.023				
	Front	0.464	0.719	0.028	0.028	0.162	0.317	0.120	0.120	0.254	0.254	0.204	0.204	0.201	0.201	0.006	0.006				
	Top	0.486	0.723	0.025	0.025	0.164	0.321	0.000	0.000	0.204	0.204	0.000	0.000	0.000	0.000	0.000	0.000				
	Left	0.567	0.878	0.017	0.017	0.115	0.225	0.000	0.000	0.204	0.204	0.000	0.000	0.000	0.000	0.000	0.000				
	Bottom	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
Body-worn & Hotspot's ER	Rear	0.55	0.02	0.02	0.24	0.29	0.16	0.13	0.13	0.13	0.13	0.13	0.13	0.01	0.58						
	Front	0.45	0.02	0.20	0.08	0.16	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.45							
	Top	0.47	0.02	0.20	0.08	0.16	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.53							
	Left	0.55	0.01	0.14	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.55							
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1			
Antenna		Ant.F		Ant.F		Ant.F		Ant.F		Ant.F		Ant.F		Ant.F		Ant.F		Ant.F			
RF exposure	Test position	LTE B7		LTE B25		LTE B30		LTE B41		LTE B48		LTE B66		NR Bn7		NR Bn25		NR Bn30		NR Bn41	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)
		Plimit (dBm)		20.5	20.5	22.0	22.0	21.0	21.0	20.5	20.5	21.0	21.0	22.0	22.0	20.5	20.5	22.0	22.0	21.0	21.0
Body-worn & Hotspot's SAR	Rear	0.453	0.443	0.431	0.431	0.524	0.524	0.391	0.391	1.037	1.037	0.640	0.640	0.369	0.369	0.510	0.510	0.537	0.537	0.714	0.714
	Front	0.283	0.283	0.239	0.239	0.370	0.370	0.253	0.253	0.363	0.363	0.352	0.352	0.257	0.301	0.301	0.385	0.385	0.391	0.391	
	Top	0.607	0.607	0.472	0.472	0.670	0.670	0.643	0.643	0.569	0.569	0.954	0.954	0.744	0.744	0.538	0.538	0.705	0.705	0.888	0.888
	Left	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Bottom	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Body-worn & Hotspot's ER	Rear	0.051	0.051	0.149	0.149	0.143	0.143	0.084	0.084	0.104	0.104	0.218	0.218	0.064	0.117	0.117	0.146	0.146	0.077	0.077	
	Front	0.28	0.27	0.33	0.33	0.24	0.24	0.65	0.65	0.40	0.40	0.23	0.23	0.32	0.37	0.45					
	Top	0.18	0.15	0.23	0.23	0.16	0.16	0.23	0.23	0.22	0.22	0.19	0.19	0.24	0.24						
	Left	0.38	0.30	0.42	0.42	0.40	0.40	0.36	0.36	0.60	0.60	0.47	0.47	0.34	0.44	0.56					
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

Antenna Group		AG1		AG1		AG1_Ant.I	
Antenna		Ant.I		Ant.I		Ant.I	
RF exposure	Test position	NR Bn48-SRS		NR Bn77-SRS		Highest Adjusted ER	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)		
		Plimit (dBm)		19.0	19.0	20.0	20.0
Body-worn & Hotspot's SAR	Rear	0.480	0.480	0.307	0.307		
	Front	0.518	0.518	0.378	0.378		
	Top	0.000	0.000	0.000	0.000		
	Left	0.000	0.000	0.000	0.000		
	Bottom	0.000	0.000	0.000	0.000		
Body-worn & Hotspot's ER	Rear	0.155	0.155	0.116	0.116		
	Front	0.30	0.30	0.32	0.32		
	Top	0.00	0.00	0.00	0.00		
	Left	0.00	0.00	0.00	0.00		
	Bottom	0.00	0.00	0.00	0.00		

Antenna Group		AG1		AG1		AG1		AG1		AG1		AG1		AG1		AG1	
Antenna		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H		Ant.H	
RF exposure	Test position	DTS 2.4GHz		UNII 5.3GHz		UNII 5.5GHz		UNII 5.8GHz		UNII 5.9GHz		UNII 6GHz		Bluetooth		Highest Adjusted ER	
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)
		Plimit (dBm)		19.0	21.7	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	10.0	10.0	21.0	21.7
Body-worn & Hotspot's SAR	Rear	0.227	0.423	0.582	0.582	0.477	0.477	0.679	0.679	0.722	0.722	0.078	0.078	0.370	0.430		
	Front	0.357	0.665	0.190	0.190	0.076	0.076	0.679	0.679	0.257	0.257	0.012	0.012	0.302	0.351		
	Top	0.357	0.665	0.000	0.000	0.000	0.000	0.679	0.679	0.000	0.000	0.000	0.000	0.165	0.192		
	Left	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Bottom	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Body-worn & Hotspot's ER	Rear	0.42	0.12	0.36	0.30	0.05	0.05	0.42	0.45	0.05	0.05	0.27	0.45				
	Front	0.42	0.12	0.36	0.30	0.05	0.05	0.42	0.45	0.05	0.05	0.27	0.45				
	Top	0.42	0.00	0.00	0.00	0.42	0.42	0.16	0.16	0.01	0.01	0.22	0.42				
	Left	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.42				
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

**Note(s):**  
Green value mean is highest reported SAR of initial SAR test procedure.

**Antenna Group 1 : Ant.J, Ant.H+J, Ant.H+E**

Antenna Group		AG1		AG1		AG1_Ant.J
Antenna		Ant.J		Ant.J		
RF exposure	Test position	DTS 2.4GHz		Bluetooth		
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	
	Plimit (dBm)	19.0	22.6	18.0	21.1	Highest Adjusted ER
Body-worn & Hotspot's SAR	Rear	0.125	0.287	0.196	0.402	
	Front	0.156	0.358	0.205	0.420	
	Top	0.156	0.358	0.005	0.010	
	Left	0.156	0.358	0.089	0.183	
	Bottom	0.000	0.000	0.000	0.000	
Body-worn & Hotspot's ER	Rear		0.18		0.25	
	Front		0.22		0.26	
	Top		0.22		0.01	
	Left		0.22		0.11	
	Bottom		0.00		0.00	
	Right		0.00		0.00	

Antenna Group		AG1		AG1		AG1_Ant.H+J
Antenna		Ant.H+J		Ant.H+J		
RF exposure	Test position	DTS 2.4GHz		Bluetooth		
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	
	Plimit (dBm)	19.0	21.5	14.5	22.2	Highest Adjusted ER
Body-worn & Hotspot's SAR	Rear	0.271	0.481	0.060	0.353	
	Front	0.351	0.676	0.054	0.318	
	Top	0.381	0.676	0.054	0.318	
	Left	0.381	0.676	0.009	0.053	
	Bottom	0.000	0.000	0.000	0.000	
Body-worn & Hotspot's ER	Rear		0.30		0.22	
	Front		0.42		0.20	
	Top		0.42		0.20	
	Left		0.42		0.03	
	Bottom		0.00		0.00	
	Right		0.42		0.60	

Antenna Group		AG1		AG1		AG1		AG1		AG1_Ant.H+E
Antenna		Ant.H+E		Ant.H+E		Ant.H+E		Ant.H+E		
RF exposure	Test position	UNII 5.3GHz		UNII 5.5GHz		UNII 5.8GHz		UNII 5.9GHz		
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	
	Plimit (dBm)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	10.0	Highest Adjusted ER
Body-worn & Hotspot's SAR	Rear	0.878	0.878	0.484	0.484	0.566	0.566	0.488	0.488	
	Front	0.210	0.210	0.079	0.079	0.566	0.566	0.179	0.179	
	Top	0.000	0.000	0.000	0.000	0.566	0.566	0.000	0.000	
	Left	0.000	0.000	0.000	0.566	0.566	0.000	0.000	0.000	
	Bottom	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Body-worn & Hotspot's ER	Rear		0.55		0.30		0.35		0.31	
	Front		0.13		0.05		0.35		0.11	
	Top		0.00		0.00		0.35		0.00	
	Left		0.00		0.00		0.35		0.00	
	Bottom		0.00		0.00		0.00		0.00	
	Right		0.00		0.00		0.35		0.00	

**Summation of AG0 and AG1**

Antenna Group		AG0_Ant.A	AG0_Ant.B	AG0_Ant.C	AG0_Ant.D	AG0_Ant.N	AG0	
Antenna		Highest SAR ER	Highest SAR ER	Highest SAR ER	Highest SAR ER	Highest PD ER	Highest ER	
Body-worn & Hotspot's ER	Rear	0.63	0.47	0.04	0.29	0.41	0.63	
	Front	0.39	0.36	0.02	0.02	0.27	0.39	
	Top	0.00	0.00	0.00	0.00	0.02	0.02	
	Left	0.38	0.00	0.00	0.04	0.57	0.57	
	Bottom	0.71	0.56	0.02	0.05	0.07	0.71	
		Right	0.30	0.41	0.20	0.00	0.04	0.41

Antenna Group		AG1_Ant.E	AG1_Ant.F	AG1_Ant.I	AG1_Ant.H	AG1
Antenna		Highest SAR ER	Highest SAR ER	Highest SAR ER	Highest SAR ER	Highest ER
Body-worn & Hotspot's ER	Rear	0.58	0.69	0.30	0.45	0.69
	Front	0.45	0.24	0.32	0.42	0.45
	Top	0.53	0.60	0.00	0.42	0.60
	Left	0.55	0.00	0.00	0.00	0.55
	Bottom	0.00	0.00	0.00	0.00	0.04
		Right	0.00	0.14	0.10	0.42

Antenna Group		AG1_Ant.J	AG1_Ant.H+J	AG1_Ant.H+E	AG1_Ant.M
Antenna		Highest SAR ER	Highest SAR ER	Highest SAR ER	Highest PD ER
Body-worn & Hotspot's ER	Rear	0.25	0.30	0.55	0.53
	Front	0.26	0.42	0.35	0.06
	Top	0.22	0.42	0.35	0.14
	Left	0.22	0.42	0.35	0.04
	Bottom	0.00	0.00	0.00	0.04
		Right	0.00	0.60	0.35

Antenna Group		AG0	AG1	AG0 + AG1	FCC TER Limit
Antenna		Highest ER	Highest ER		
Body-worn & Hotspot's ER	Rear	0.63	0.69	1.31	1.0
	Front	0.39	0.45	0.84	
	Top	0.02	0.60	0.62	
	Left	0.57	0.55	1.12	
	Bottom	0.71	0.04	0.75	
		Right	0.41	0.60	

**Note(s):**

For Rear/Left/Right positions, additional TER calculation is required for each Bands/antennas.

**Summation of AG0 and AG1 (Continued)**

Position	AG0		AG1		AG0+AG1	Note.	Position	AG0		AG1		AG0+AG1	Note.
Rear	Ant.A	0.63	Ant.E	0.58	1.21	1	Left	Ant.A	0.38	Ant.E	0.55	0.93	
		0.63	Ant.F	0.69	1.31	1			0.38	Ant.F	0.00	0.38	
		0.63	Ant.I	0.30	0.93				0.38	Ant.I	0.00	0.38	
		0.63	Ant.H	0.45	1.08	1			0.38	Ant.H	0.00	0.38	
		0.63	Ant.J	0.25	0.88				0.38	Ant.J	0.22	0.60	
		0.63	Ant.H+J	0.30	0.93				0.38	Ant.H+J	0.42	0.80	
		0.63	Ant.H+E	0.55	1.17	1			0.38	Ant.H+E	0.35	0.73	
		0.63	Ant.M	0.53	1.15	2			0.38	Ant.M	0.04	0.42	
	Ant.B	0.47	Ant.E	0.58	1.05	1		Ant.B	0.00	AG1	0.66	0.66	
		0.47	Ant.F	0.69	1.16	1		Ant.C	0.00	AG1	0.66	0.66	
		0.47	Ant.I	0.30	0.77			Ant.D	0.04	AG1	0.66	0.70	
		0.47	Ant.H	0.45	0.92			Ant.N	0.57	Ant.E	0.55	1.12	2
		0.47	Ant.J	0.25	0.73				0.57	Ant.F	0.00	0.57	
		0.47	Ant.H+J	0.30	0.77				0.57	Ant.I	0.00	0.57	
		0.47	Ant.H+E	0.55	1.02	1			0.57	Ant.H	0.00	0.57	
	0.47	Ant.M	0.53	1.00	2	0.57			Ant.J	0.22	0.79		
	Ant.C	0.04	AG1	0.69	0.72		0.57	Ant.H+J	0.42	0.99			
	Ant.D	0.29	AG1	0.69	0.98		0.57	Ant.H+E	0.35	0.92			
	Ant.N	0.41	Ant.E	0.58	0.99		0.57	Ant.M	0.04	0.60			
		0.41	Ant.F	0.69	1.09	2	Ant.A	0.30	AG1	0.63	0.93		
		0.41	Ant.I	0.30	0.71		Ant.C	0.20	AG1	0.63	0.83		
		0.41	Ant.H	0.45	0.86		Ant.D	0.00	AG1	0.63	0.63		
		0.41	Ant.J	0.25	0.66		Ant.N	0.04	AG1	0.63	0.67		
		0.41	Ant.H+J	0.30	0.71		Ant.B	0.41	Ant.E	0.00	0.41		
		0.41	Ant.H+E	0.55	0.95			0.41	Ant.F	0.14	0.55		
	0.41	Ant.M	0.53	0.93		0.41		Ant.I	0.10	0.51			
						0.41		Ant.H	0.42	0.83			
						0.41		Ant.J	0.00	0.41			
						0.41		Ant.H+J	0.60	1.01	1		
						0.41		Ant.H+E	0.35	0.76			
						0.41	Ant.M	0.29	0.70				

**AG0(Sub6) & AG1(Sub6) SPLSR combinations (Rear)**

Positions	Antenna Group	Antenna	Bands	Adjusted ER	Adjusted SAR (W/kg)	Y-axis(mm) from ERP point	SPLSR (Y/N)	Antenna Group	Antenna	Bands	Adjusted ER	Adjusted SAR (W/kg)	Y-axis(mm) from ERP point	SPLSR (Y/N)
Rear -10mm	AG0	Ant.A	GSM 850	0.45	0.724	-65.6	Y	AG1	E	GSM 850	0.39	0.662	80.1	Y
			GSM 1900	0.21	0.339		N			WCDMA B5	0.48	0.768	63.1	Y
			WCDMA B2	0.35	0.554	-77.4	Y			LTE B5	0.45	0.724	61.6	Y
			WCDMA B4	0.39	0.625	-73.4	Y			LTE B12	0.58	0.932	75.9	Y
			WCDMA B5	0.46	0.732	-64.9	Y			LTE B13	0.46	0.731	76.4	Y
			LTE B5	0.53	0.848	-63.9	Y			LTE B14	0.46	0.730	76.4	Y
			LTE B12	0.45	0.722	-71.1	Y			LTE B26	0.44	0.706	75.9	Y
			LTE B13	0.63	1.000	-66.3	Y			LTE B71	0.56	0.894	74.6	Y
			LTE B14	0.63	1.000	-66.3	Y			NR Bn5	0.57	0.908	68.5	Y
			LTE B25	0.45	0.713	-77.9	Y			NR Bn12	0.56	0.892	62.6	Y
			LTE B26	0.51	0.815	-65.1	Y			NR Bn26	0.55	0.883	68.7	Y
			LTE B30	0.32	0.513	-74.0	Y			NR Bn41-SRS	0.02	0.026		N
			LTE B66	0.40	0.645	-75.8	Y			NR Bn71	0.24	0.381		N
			LTE B71	0.40	0.636	-63.1	Y			UNII 5GHzBands	0.29	0.461		N
			NR Bn5	0.63	1.000	-67.6	Y			UNII 6GHz Bands	0.01	0.023		N
			NR Bn12	0.43	0.683	-65.1	Y			Worst configuration		0.932	61.6	
			NR Bn25	0.29	0.460		N			LTE B7	0.39	0.617	74.0	Y
			NR Bn26	0.63	1.000	-67.6	Y			LTEB25	0.27	0.431		N
			NR Bn30	0.33	0.528	-75.5	Y			LTE B30	0.33	0.524		N
			NR Bn66	0.38	0.605	-71.9	Y			LTE B41	0.24	0.391		N
			NR Bn70	0.42	0.666	-74.4	Y			LTE B48	0.65	1.037	62.0	Y
	NR Bn71	0.36	0.580	-63.6	Y	LTE B66	0.40	0.64	67.6	Y				
	Worst configuration		1.000	-63.1		NR Bn7	0.23	0.368		N				
	Ant.B	LTE B7	0.47	0.759	-41.5	N	NR Bn25	0.32	0.51		N			
		LTE B41	0.35	0.564	-42.5	Y	NR Bn30	0.37	0.597	71.0	Y			
		NR Bn7	0.33	0.528	-52.5	Y	NR Bn41	0.45	0.714	60.6	Y			
		NR Bn41	0.24	0.388		N	NR Bn48	0.69	1.097	62.5	Y			
		Worst configuration		0.759	-41.5		NR Bn66	0.28	0.454		N			
							NR Bn70	0.33	0.531		N			
							NR Bn77	0.54	0.864	64.5	Y			
						Worst configuration		1.097	60.6					
	AG1	H	DTS 2.4GHz	0.26	0.423									
			Bluetooth	0.27	0.430									
			UNII 5GHzBands	0.45	0.722	68.6	Y							
			UNII 6GHz Bands	0.05	0.078									
	Worst configuration		0.782	68.6										
	AG1	H+E	UNII 5GHzBands	0.55	0.878	60.9	Y							
			UNII 6GHz Bands	0.04	0.066		N							
			Worst configuration		0.878	60.9								

**Note(s):**

- Need to SPLSR criteria
- Need to SDOTER criteria

**AG0(Sub6) & AG1(Sub6) SPLSR combinations (Right)**

Positions	Antenna Group	Antenna	Bands	Adjusted ER	Adjusted SAR (W/kg)	Y-axis(mm) from ERP point	SPLSR (Y/N)	Antenna Group	Antenna	Bands	Adjusted ER	Adjusted SAR (W/kg)	Y-axis(mm) from ERP point	SPLSR (Y/N)
Right -10mm	AG0	Ant.B	LTE B7	0.41	0.661	-41.5	Y	AG0	Ant.H+J	DTS 2.4GHz	0.42	0.676		N
			LTE B41	0.23	0.362		N			Bluetooth	0.60	0.954	41.2	Y
			NR Bn7	0.33	0.521		N			Worst configuration			0.954	41.2
			NR Bn41	0.23	0.370		N							
		Worst configuration				0.661	-41.5							

**AG0(Sub6) & AG1(Sub6) SPLSR calculation results**

Test position	No.	Antenna pairs		AG0		AG1		AG0+AG1 SUM SAR (W/kg)	SPLSR Results
		AG0	AG1	SAR (W/kg)	Y-axis location (mm)	SAR (W/kg)	Y-axis location (mm)		
Rear	1	Ant. A	Ant. E	1.000	-63.1	0.932	61.6	1.932	0.02
	2	Ant. A	Ant. F	1.000	-63.1	1.097	60.6	2.097	0.02
	3	Ant. A	Ant. H	1.000	-63.1	0.782	68.6	1.782	0.02
	4	Ant. A	Ant. H+E	1.000	-63.1	0.878	60.9	1.878	0.02
	5	Ant. B	Ant. E	0.759	-41.5	0.932	61.6	1.691	0.02
	6	Ant. B	Ant. F	0.759	-41.5	1.097	60.6	1.856	0.02
	7	Ant. B	Ant. H+E	0.759	-41.5	0.878	60.9	1.637	0.02
Right	9	Ant. B	Ant. H+J	0.661	-41.5	0.954	41.2	1.615	0.02

**Note(s):**

1. Worst combinations SPLSR criteria results is not over 0.04 (1-g SAR) in Sub6 antenna configurations. So additional test is not required.
2. Worst Simultaneous transmission results are below;

Simultaneous transmission for PD : Maximum TER is 0.99 (Ant.N(mmW))+Ant.H+J(Sub6)) in Left of Body & Hotspot exposure condition.  
 Simultaneous transmission for Sub6 : Maximum TER is 0.98 (Ant.D(Sub6))+Ant.F(Sub6)) in Rear of Body & Hotspot exposure condition.

So PD's maximum TER is 0.99, and SAR's simultaneous transmission value is 0.471 W/kg(ER:0.29)+1.097 W/kg(ER:0.69) = 1.568 W/kg.

**AG0(Sub6/mmW) & AG1(mmW/Sub6) SDOTER combinations (Rear)**

Positions	Antenna Group	Antenna	Bands	Adjusted SAR ER	Figure	Antenna	Adjusted PD ER	Figure	TER (SAR ER + PD ER)	fast volume scan (Y/N)	SDOTER results	Figure
Rear -10mm	AG0	Ant.A	GSM 850	0.45		AG1 Ant.M	0.53		0.98	N	N	
			GSM 1900	0.21			0.53		0.74	N	N	
			WCDMA B2	0.35			0.53		0.87	N	N	
			WCDMA B4	0.39			0.53		0.92	N	N	
			WCDMA B5	0.46			0.53		0.99	N	N	
			LTE B5	0.53	1		0.53	7	1.06	Y	0.67	8
			LTE B12	0.45			0.53		0.98	N	N	
			LTE B13	0.63	2		0.53	7	1.15	Y	0.67	8
			LTE B14	0.63	3		0.53	7	1.15	Y	0.67	
			LTE B25	0.45			0.53		0.97	N	N	
			LTE B26	0.51	4		0.53	7	1.04	Y	0.67	8
			LTE B30	0.32			0.53		0.85	N	N	
			LTE B66	0.40			0.53		0.93	N	N	
			LTE B71	0.40			0.53		0.93	N	N	
			NR Bn5	0.63	5		0.53	7	1.15	Y	0.67	8
			NR Bn12	0.43			0.53		0.95	N	N	
			NR Bn25	0.29			0.53		0.82	N	N	
			NR Bn26	0.63	6		0.53	7	1.15	Y	0.67	8
			NR Bn30	0.33			0.53		0.86	N	N	
			NR Bn66	0.38			0.53		0.91	N	N	
NR Bn70	0.42		0.53		0.94	N	N					
NR Bn71	0.36		0.53		0.89	N	N					

Positions	Antenna Group	Antenna	Bands	Adjusted ER	Figure	Antenna	Adjusted PD ER	Figure	TER (SAR ER + PD ER)	fast volume scan (Y/N)	SDOTER results	Figure
Rear -10mm	AG1	Ant.E	GSM 850	0.39		AG0 Ant.N	0.41		0.80	N	N	
			WCDMA B5	0.48			0.41		0.89	N	N	
			LTE B5	0.45			0.41		0.86	N	N	
			LTE B12	0.58			0.41		0.99	N	N	
			LTE B13	0.46			0.41		0.87	N	N	
			LTE B14	0.46			0.41		0.87	N	N	
			LTE B26	0.44			0.41		0.85	N	N	
			LTE B71	0.56			0.41		0.97	N	N	
			NR Bn5	0.57			0.41		0.98	N	N	
			NR Bn12	0.56			0.41		0.97	N	N	
			NR Bn26	0.55			0.41		0.96	N	N	
			NR Bn41-SRS	0.02			0.41		0.43	N	N	
			NR Bn71	0.24			0.41		0.65	N	N	
	UNII 5GHzBands	0.29		0.41			0.70	N	N			
	UNII 6GHz Bands	0.01		0.41			0.42	N	N			
	AG1	Ant.F	LTE B7	0.39			0.41		0.80	N	N	
			LTEB25	0.27			0.41		0.68	N	N	
			LTE B30	0.33			0.41		0.74	N	N	
			LTE B41	0.24			0.41		0.65	N	N	
			LTE B48	0.65	9		0.41	11	1.06	Y	0.70	12
			LTE B66	0.40			0.41		0.81	N	N	
			NR Bn7	0.23			0.41		0.64	N	N	
			NR Bn25	0.32			0.41		0.73	N	N	
			NR Bn30	0.37			0.41		0.78	N	N	
			NR Bn41	0.45			0.41		0.86	N	N	
NR Bn48			0.69	10	0.41	11	1.10	Y	0.70	12		
NR Bn66			0.28		0.41		0.69	N	N			
NR Bn70	0.33		0.41		0.74	N	N					
NR Bn77	0.54		0.41		0.95	N	N					

**Note(s):**

SDOTER result refer to Appendix I.

**AG0(mmW) & AG1(Sub6) SDOTER combinations (Left)**

Positions	Antenna Group	Antenna	Bands	Adjusted ER	Figure	Antenna	Adjusted PD ER	Figure	TER (SAR ER + PD ER)	fast volume scan (Y/N)	SDOTER results	Figure
Left -10mm	AG1	Ant.E	GSM 850	0.55	13	AG0 Ant.N	0.57	23	1.12	Y	0.98	24
			WCDMA B5	0.55	14		0.57	23	1.12	Y	0.98	24
			LTE B5	0.55	15		0.57	23	1.12	Y	0.98	24
			LTE B12	0.48	16		0.57	23	1.05	Y	0.98	24
			LTE B13	0.55	17		0.57	23	1.12	Y	0.98	24
			LTE B14	0.55	18		0.57	23	1.12	Y	0.98	24
			LTE B26	0.55	19		0.57	23	1.12	Y	0.98	24
			LTE B71	0.23			0.57		0.80	N	N	
			NR Bn5	0.52	20		0.57	23	1.09	Y	0.98	24
			NR Bn12	0.48	21		0.57	23	1.05	Y	0.98	24
			NR Bn26	0.55	22		0.57	23	1.12	Y	0.98	24
			NR Bn41-SRS	0.01			0.57		0.58	N	N	
			NR Bn71	0.14			0.57		0.71	N	N	
			UNII 5GHzBands	0.13			0.57		0.70	N	N	
			UNII 6GHz Bands	0.00			0.57		0.57	N	N	

**Note(s):**

SDOTER result refer to Appendix I.

**Conclusion:**

All Antennas (Sub6/mmW) is satisfy FCC TER limit according to TER sum or SPLSR criteria(sub6 combinations) or SDOTER guide (Sub6/mmW combinations).



### 12.1.3 Product Specific 10-g (DSI=0) exposure Antenna group analysis

#### Condition#1

#### Antenna Group 0 : Ant.A, Ant.B, Ant.C, Ant.D

All Reported SAR is not over 1.2 W/kg for all techs in AG0's antennas. So Product Specific 10-g SAR is not required.

#### Antenna Group 1 : Ant.E, Ant.H, Ant.H+E

Antenna Group		AG1		AG1		AG1		AG1		AG1_Ant.E
Antenna		Ant.E		Ant.E		Ant.E		Ant.E		
RF exposure	Test position	UNII_5.3GHz		UNII_5.5GHz		UNII_5.9GHz		UNII_6GHz		Highest Adjusted ER
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	
	Plimit (dBm)	17.0	17.0	17.0	17.0	17.0	17.0	10.0	10.0	
Product Specific 10-g SAR	Rear	2.028	2.028	0.906	0.906	0.726	0.726	0.109	0.109	
	Front	0.550	0.550	0.906	0.906	0.726	0.726	0.038	0.038	
	Top	2.028	2.028	0.906	0.906	0.726	0.726	0.012	0.012	
	Left	2.028	2.028	0.906	0.906	0.726	0.726	0.002	0.002	
	Bottom		0.000		0.000		0.000		0.000	
	Right		0.000		0.000		0.000		0.000	
Product Specific 10-g ER	Rear		0.51		0.23		0.18		0.03	0.51
	Front		0.14		0.23		0.18		0.01	0.23
	Top		0.51		0.23		0.18		0.00	0.51
	Left		0.51		0.23		0.18		0.00	0.51
	Bottom		0.00		0.00		0.00		0.00	0.00
	Right		0.00		0.00		0.00		0.00	0.00

Antenna Group		AG1		AG1		AG1		AG1		AG1_Ant.H
Antenna		Ant.H		Ant.H		Ant.H		Ant.H		
RF exposure	Test position	UNII_5.3GHz		UNII_5.5GHz		UNII_5.9GHz		UNII_6GHz		Highest Adjusted ER
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	
	Plimit (dBm)	17.0	17.0	17.0	17.0	17.0	17.0	10.0	10.0	
Product Specific 10-g SAR	Rear	1.993	1.993	1.091	1.091	2.117	2.117	0.152	0.152	
	Front	0.798	0.798	0.550	0.550	0.568	0.568	0.031	0.031	
	Top	3.080	3.080	1.457	1.457	2.117	2.117	0.047	0.047	
	Left		0.000		0.000		0.000		0.000	
	Bottom		0.000		0.000		0.000		0.000	
	Right	3.080	3.080	1.457	1.457	1.868	1.868	0.513	0.513	
Product Specific 10-g ER	Rear		0.50		0.27		0.53		0.04	0.53
	Front		0.20		0.14		0.14		0.01	0.20
	Top		0.77		0.36		0.53		0.01	0.77
	Left		0.00		0.00		0.00		0.00	0.00
	Bottom		0.00		0.00		0.00		0.00	0.00
	Right		0.77		0.36		0.47		0.13	0.77

Antenna Group		AG1		AG1		AG1		AG1		AG1_Ant.H+E
Antenna		Ant.H+E		Ant.H+E		Ant.H+E		Ant.H+E		
RF exposure	Test position	UNII_5.3GHz		UNII_5.5GHz		UNII_5.9GHz		UNII_6GHz		Highest Adjusted ER
		Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	Reported SAR (W/kg)	Adjusted SAR (W/kg)	
	Plimit (dBm)	17.0	17.0	17.0	17.0	17.0	17.0	10.0	10.0	
Product Specific 10-g SAR	Rear	2.847	2.847	1.084	1.084	1.602	1.602	0.138	0.138	
	Front	1.212	1.212	0.532	0.532	0.564	0.564	0.074	0.074	
	Top	3.047	3.047	2.350	2.350	1.602	1.602	0.023	0.023	
	Left	3.047	3.047	2.350	2.350	1.602	1.602	0.033	0.033	
	Bottom		0.000		0.000		0.000		0.000	
	Right	3.047	3.047	2.350	2.350	1.565	1.565	0.377	0.377	
Product Specific 10-g ER	Rear		0.71		0.27		0.40		0.03	0.71
	Front		0.30		0.13		0.14		0.02	0.30
	Top		0.76		0.59		0.40		0.01	0.76
	Left		0.76		0.59		0.40		0.01	0.76
	Bottom		0.00		0.00		0.00		0.00	0.00
	Right		0.76		0.59		0.39		0.09	0.76

#### Note(s):

Green value mean is highest reported SAR of initial SAR test procedure.

**Summation of AG0 and AG1**

Antenna Group		AG0_Ant.N	AG0
Antenna		Highest PD ER	Highest ER
RF exposure	Test position		
Product Specific 10-g ER	Rear	0.76	0.76
	Front	0.56	0.56
	Top	0.03	0.03
	Left	0.76	0.76
	Bottom	0.10	0.10
	Right	0.05	0.05

Antenna Group		AG1_Ant.E	AG1_Ant.H	AG1_Ant.H+E	AG1_Ant.M	AG1
Antenna		Highest SAR ER	Highest SAR ER	Highest SAR ER	Highest PD ER	Highest ER
RF exposure	Test position					
Product Specific 10-g ER	Rear	0.51	0.53	0.71	0.76	0.76
	Front	0.23	0.20	0.30	0.30	0.30
	Top	0.51	0.77	0.76	0.20	0.77
	Left	0.51	0.00	0.76	0.05	0.76
	Bottom	0.00	0.00	0.00	0.04	0.04
	Right	0.00	0.77	0.76	0.60	0.77

Antenna Group		AG0	AG1	AG0 + AG1	FCC TER Limit
Antenna		Highest ER	Highest ER		
RF exposure	Test position				
Product Specific 10-g ER	Rear	0.76	0.76	1.52	1.0
	Front	0.56	0.30	0.86	
	Top	0.03	0.77	0.80	
	Left	0.76	0.76	1.52	
	Bottom	0.10	0.04	0.14	
	Right	0.05	0.77	0.82	

**Note(s):**

For Rear/Left positions, additional TER calculation is required for each Bands/antennas.

**Summation of AG0 and AG1 (Continued)**

Position	AG0	AG1	AG0+AG1	Note.	
Rear	Ant.N	0.759	Ant.E 0.51	1.27	2
		0.759	Ant.H 0.53	1.29	2
		0.759	Ant.H+E 0.71	1.47	2
		0.759	Ant.M 0.76	1.52	2
Left	Ant.N	0.759	Ant.E 0.51	1.27	2
		0.759	Ant.H 0.00	0.76	
		0.759	Ant.H+E 0.76	1.52	2
		0.759	Ant.M 0.05	0.81	

**AG0(mmW) & AG1(mmW/Sub6) SDOTER combinations**

Positions	Antenna Group	Antenna	Adjusted PD ER	Figure	Antenna Group	Antenna	Adjusted SAR ER	Figure	Adjusted PD ER	Figure	TER (SAR ER + PD ER)	fast volume scan (Y/N)	SDOTER results	Figure	
Rear Omm	AG0	Ant.N	0.76	25	AG1	Ant.E	0.51	26				1.27	Y	0.76	27
			0.76	25		Ant.H	0.53	28				1.29	Y	0.76	29
			0.76	25		Ant.H+E	0.71	30				1.47	Y	0.76	31
			0.76	25		Ant.M			0.76	32		1.52	Y	0.83	33
Left Omm	AG0	Ant.N	0.76	35	AG1	Ant.E	0.51	34				1.27	Y	0.76	36
			0.76	35		Ant.H	0.76	37				1.52	Y	0.83	38
			0.76			Ant.H+E	0.05					0.81	N		
			0.76			Ant.M			0.05			0.81	N		

**Note(s):**

- SDOTER result refer to Appendix I.
- Need to SDOTER criteria
- Worst Simultaneous transmission results are below;  
 Simultaneous transmission for PD : Maximum TER is 0.86 (Ant.N(mmW)+Ant.M(mmW)) in Product Specific 10-g exposure condition.  
 Simultaneous transmission for Sub6 : Maximum TER is 0.77 (Ant.H) in Product Specific 10-g exposure condition.

So PD's maximum TER is 0.99, and Ant.H's Reported SAR used for Simultaneous transmission with NFC in Product Specific 10-g exposure condition.

**Conclusion:**

All Antennas (Sub6/mmW) is satisfy FCC TER limit according to TER sum or SDOTER guide (Sub6/mmW combinations).

## 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.

## 12.2 Simultaneous transmission analysis

ER(External Radio-NFC) only evaluated at Product Specific 10-g.

### 12.2.1 Product Specific 10-g exposure condition

RF Exposure	Test Position	Highest SAR of each groups (W/kg)		SUM SAR (W/kg)
		AG1(Ant.H)	ER-NFC	
Product Specific 10-g	All positions	3.080	0.016	3.096

#### Conclusion:

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

## **Appendixes**

**Refer to separated files for the following appendixes.**

**4790976523-S1 FCC Report SAR\_App A\_Photos & Ant. Locations**

**4790976523-S1 FCC Report SAR\_App B\_Highest SAR Test Plots**

**4790976523-S1 FCC Report SAR\_App C\_System Check Plots**

**4790976523-S1 FCC Report SAR\_App D\_SAR Tissue Ingredients**

**4790976523-S1 FCC Report SAR\_App E\_Probe Cal. Certificates**

**4790976523-S1 FCC Report SAR\_App F\_Dipole Cal. Certificates**

**4790976523-S1 FCC Report SAR\_App G\_LTE Carrier Aggregation**

**4790976523-S1 FCC Report SAR\_App H\_Dynamic Antenna tuner testing**

**4790976523-S1 FCC Report SAR\_App I\_SDOTER results**

**END OF REPORT**