



FCC 47 CFR § 2.1093  
IEEE Std 1528-2013

## SAR EVALUATION REPORT

FOR

WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax

MODEL NUMBER: SM-X518U

FCC ID: A3LSMX518U

REPORT NUMBER: 4790841154-S1V3

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**Testing Laboratory**

**TL-637**

**Revision History**

Rev.	Date	Revisions	Revised By
V1	7/19/2023	Initial Issue	--
V2	7/28/2023	Revised BLE Target in Sec 9.6 Revised n77 Repeated Measurement SAR result in Sec.11	Jeongyeon Won
V3	8/22/2023	Revised The Highest Reported SAR for LTE Band 41 & 66 in Sec.1 Revised LTE Band 41 SAR result in Sec.12.1 Revised LTE Band 66 SAR result in Sec.12.2	Jeongyeon Won

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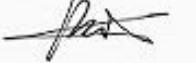
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## 1. Attestation of Test Results

Applicant Name	SAMSUNG ELECTRONICS CO.,LTD.			
FCC ID	A3LSMX518U			
Model Number	SM-X518U			
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)			
General population / Uncontrolled exposure	1.6			
RF Exposure Conditions	Equipment Class - The Highest Reported SAR (W/kg)			
	PCB	DTS	NII	DSS
Standalone	1.19	0.90	0.87	0.49
Simultaneous TX	1.59	1.59	1.59	1.59
Date Tested	6/2/2023 to 7/19/2023			
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	Jeongyeon Won Laboratory Engineer UL Korea, Ltd. Suwon Laboratory

## 1.1. The Highest Reported SAR for RF exposure conditions for each bands

Equipment Class	Band	Antenna	The Highest Reported SAR (W/kg)
			1g of tissue
			Standalone
PCB	WCDMA Band II	Main.1	0.878
	WCDMA Band IV	Main.1	0.744
	WCDMA Band V	Main.1	1.035
	LTE Band 7	Main.1	0.642
	LTE Band 7	Sub.2	0.617
	LTE Band 12	Main.1	0.556
	LTE Band 13	Main.1	0.772
	LTE Band 14	Main.1	0.737
	LTE Band 25/2	Main.1	0.770
	LTE Band 25/2	Sub.2	0.781
	LTE Band 26/5	Main.1	0.758
	LTE Band 30	Main.1	0.642
	LTE Band 41	Main.1	0.607
	LTE Band 66/4	Main.1	0.794
	LTE Band 66/4	Sub.2	0.748
	LTE Band 71	Main.1	0.530
	NR Band n5	Main.1	0.741
	NR Band n12	Main.1	0.478
	NR Band n25/n2	Main.1	0.717
	NR Band n30	Main.1	0.694
	NR Band n41	Main.1	0.811
		Sub.2	1.087
		Sub.4	0.582
		Sub.1	<b>1.190</b>
	NR Band n66	Main.1	0.799
	NR Band n71	Main.1	0.523
	NR Band n77	Main.2	0.794
		Sub.2	0.891
		Sub.4	0.929
		Sub.3	0.712
DTS	2.4GHz WLAN	WiFi/BT Ant.	<b>0.897</b>
UNII	5GHZ WLAN	WiFi/BT Ant.	<b>0.873</b>
DSS	Bluetooth	WiFi/BT Ant.	<b>0.494</b>

## 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
- 616217 D04 SAR for laptop and tablets v01r02
- 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
- 971168 D01 Power Meas License Digital System v03r01

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

- [TCB workshop](#) October, 2014; RF Exposure Procedures Update (Overlapping LTE Bands)
- [TCB workshop](#) October, 2014; RF Exposure Procedures Update (Other LTE Considerations)
- [TCB workshop](#) October, 2016; RF Exposure Procedures (Bluetooth Duty Factor)
- [TCB workshop](#) October, 2016; RF Exposure Procedures (DUT Holder Perturbations)
- [TCB workshop](#) May, 2017; RF Exposure Procedures (LTE Test Conditions)
- [TCB workshop](#) May, 2017; RF Exposure Procedures (LTE Band 41 Power Class 2)
- [TCB workshop](#) November, 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- [TCB workshop](#) April, 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion Update)
- [TCB workshop](#) April, 2019; RF Exposure Procedures (Tissue Simulating Liquids (TSL))
- [TCB workshop](#) November, 2019 Page 5, RF Exposure Procedures (SPLSR Hotspot Combination)
- [TCB workshop](#) April, 2022; RF Exposure Procedures (5G NR FR1 Measurement)
- [TCB workshop](#) April, 2022; RF Exposure Procedures (Sum-Peak Location Separation Ratio)

## 3. Facilities and Accreditation

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

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

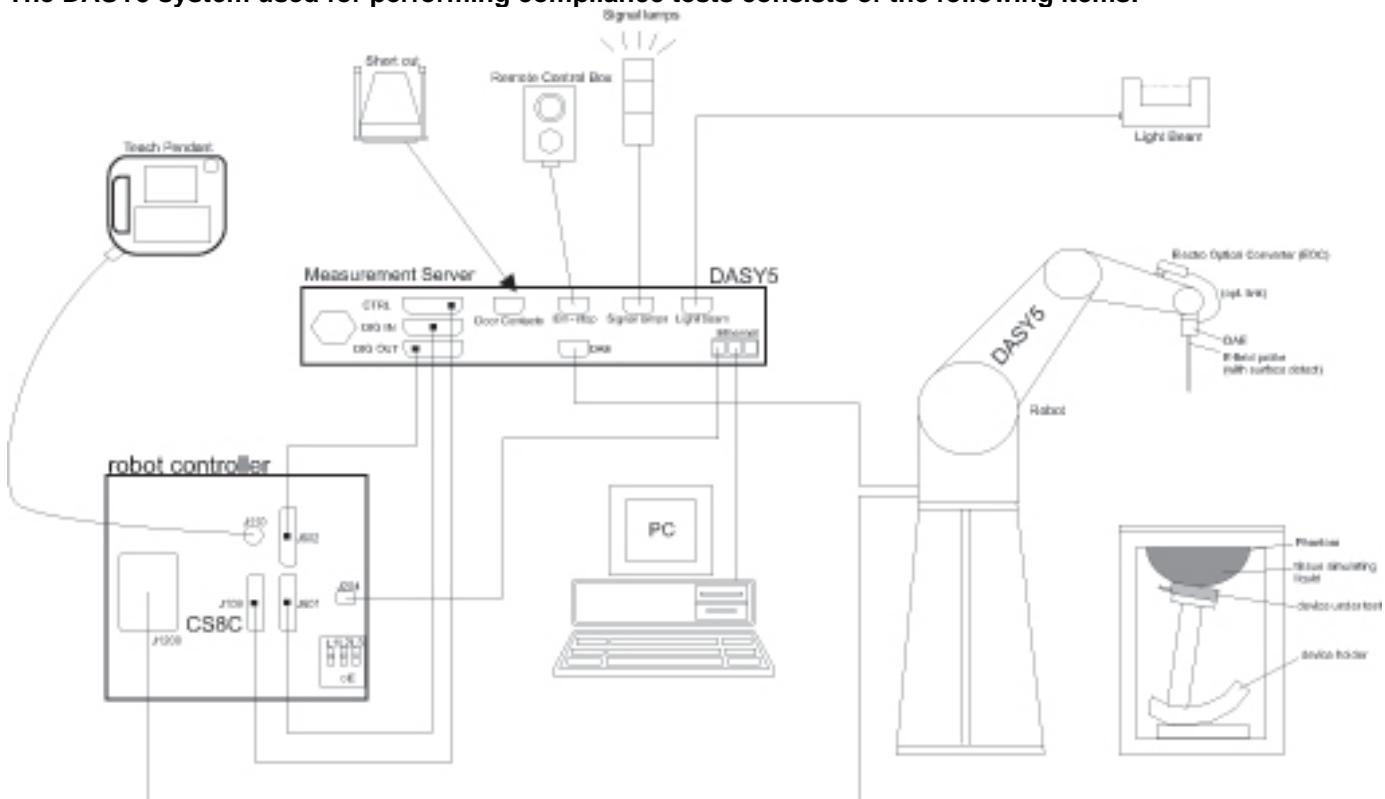
UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.

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

## 4. SAR Measurement System & Test Equipment

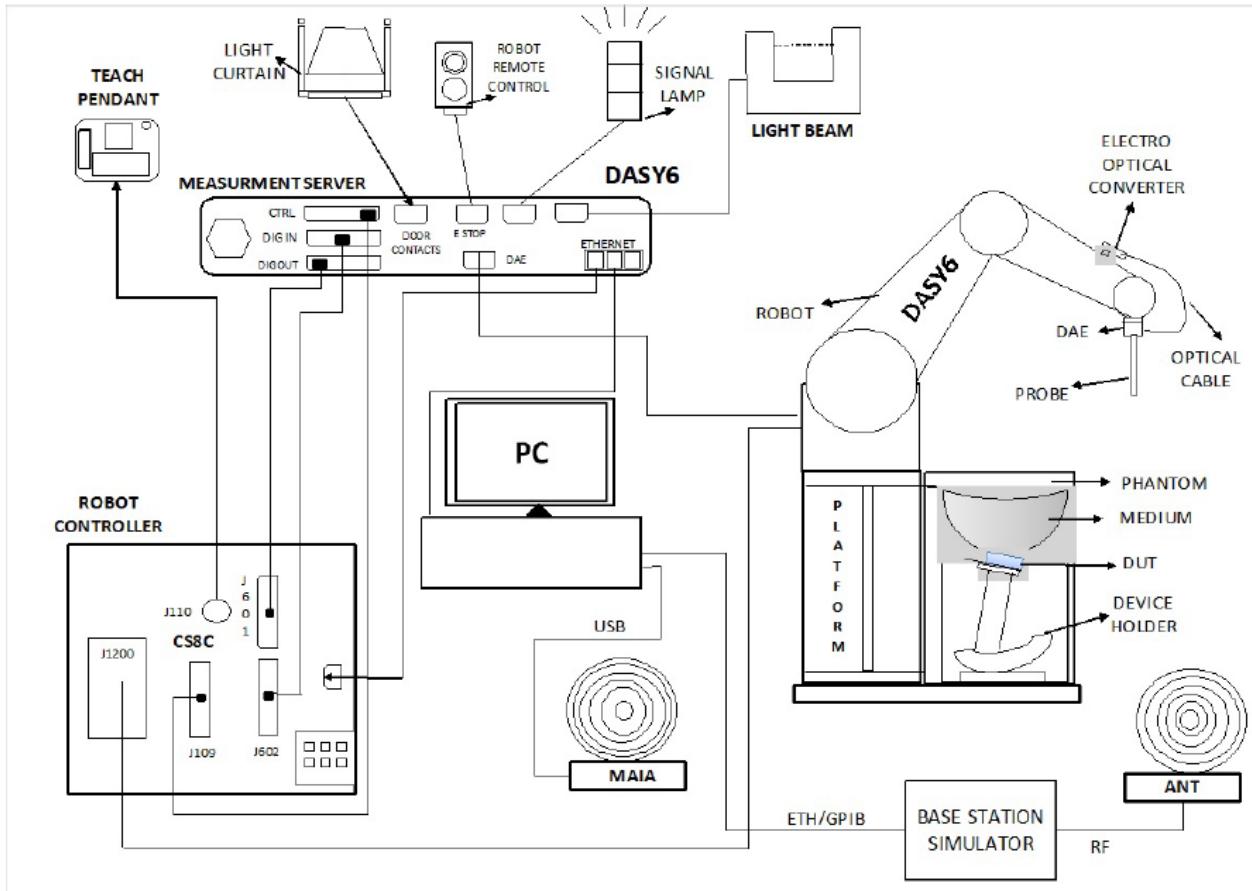
### 4.1. SAR Measurement System

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



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

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

	$\leq 3 \text{ GHz}$	$> 3 \text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	$5 \pm 1 \text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
	$\leq 2 \text{ GHz}: \leq 15 \text{ mm}$ $2 - 3 \text{ GHz}: \leq 12 \text{ mm}$	$3 - 4 \text{ GHz}: \leq 12 \text{ mm}$ $4 - 6 \text{ GHz}: \leq 10 \text{ mm}$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

### Step 3: Zoom Scan

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

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

		$\leq 3$ GHz	$> 3$ GHz
Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$ , $\Delta y_{Zoom}$		$\leq 2$ GHz: $\leq 8$ mm $2 - 3$ GHz: $\leq 5$ mm*	$3 - 4$ GHz: $\leq 5$ mm* $4 - 6$ GHz: $\leq 4$ mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$ graded grid	$\leq 5$ mm	$3 - 4$ GHz: $\leq 4$ mm $4 - 5$ GHz: $\leq 3$ mm $5 - 6$ GHz: $\leq 2$ mm
		$\leq 4$ mm	$3 - 4$ GHz: $\leq 3$ mm $4 - 5$ GHz: $\leq 2.5$ mm $5 - 6$ GHz: $\leq 2$ mm
Minimum zoom scan volume	x, y, z	$\geq 30$ mm	$3 - 4$ GHz: $\geq 28$ mm $4 - 5$ GHz: $\geq 25$ mm $5 - 6$ GHz: $\geq 22$ 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 *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is  $\leq 1.4$  W/kg,  $\leq 8$  mm,  $\leq 7$  mm and  $\leq 5$  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	8-5-2023
Network Analyzer	ROHDE & SCHWARZ	ZNB 20	102256	8-5-2023
Dielectric Assessment Kit	SPEAG	DAK-12	1158	11-17-2023
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-25-2023
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	LKM	DTM3000	3851	8-3-2023
Thermometer	LKM	DTM3000	3862	8-3-2023

#### System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Agilent	N5181A	MY50145882	8-4-2023
MXG Analog Signal Generator	Keysight	N5181B	MY59100587	8-4-2023
MXG Analog Signal Generator	Keysight	N5173B	MY59101083	8-4-2023
Power Sensor	KEYSIGHT	U2000A	MY60180020	8-3-2023
Power Sensor	KEYSIGHT	U2000A	MY60490008	8-3-2023
Power Sensor	KEYSIGHT	U2000A	MY60160004	8-3-2023
Power Sensor	KEYSIGHT	U2000A	MY61010010	8-3-2023
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	8-3-2023
Directional Coupler	H.P	778D	16133	8-3-2023
Directional Coupler	NARDA	4216-10	2836	8-3-2023
Directional Coupler	MINI-CIRCUITS	ZMDC-30-1+	SF569102123	8-3-2023
Low Pass Filter	FILTRON	L140012FL	1410003S	8-3-2023
Low Pass Filter	MICROLAB	LA-60N	3942	8-3-2023
Low Pass Filter	MINI-CIRCUITS	VLF-6000+	S0142	8-2-2023
Low Pass Filter	MINI-CIRCUITS	VLF-3000+	S0143	8-2-2023
Low Pass Filter	MINI-CIRCUITS	NLP-1200	VUU19301915	1-5-2024
Attenuator	KEYSIGHT	8491B/003	MY39272276	8-3-2023
Attenuator	KEYSIGHT	8491B/010	MY39271981	8-3-2023
Attenuator	KEYSIGHT	8491B/010	MY39272011	8-2-2023
Attenuator	KEYSIGHT	8491B/020	MY39272301	8-3-2023
Attenuator	KEYSIGHT	8491B/020	MY39272302	8-2-2023
Attenuator	KEYSIGHT	8491B/003	MY39272275	8-2-2023
E-Field Probe	SPEAG	EX3DV4	7313	3-24-2024
E-Field Probe	SPEAG	EX3DV4	7330	1-24-2024
E-Field Probe	SPEAG	EX3DV4	7376	7-27-2023
E-Field Probe	SPEAG	EX3DV4	7645	11-15-2023
E-Field Probe	SPEAG	EX3DV4	7651	5-30-2024
E-Field Probe	SPEAG	EX3DV4	7646	3-23-2024
E-Field Probe	SPEAG	EX3DV4	7314	5-23-2024
E-Field Probe	SPEAG	EX3DV4	3871	9-26-2023
Data Acquisition Electronics	SPEAG	DAE4	1591	3-22-2024
Data Acquisition Electronics	SPEAG	DAE4	1671	5-25-2024
Data Acquisition Electronics	SPEAG	DAE4	1667	4-24-2024
Data Acquisition Electronics	SPEAG	DAE4	1468	8-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1668	4-26-2024
Data Acquisition Electronics	SPEAG	DAE4	912	11-16-2023
Data Acquisition Electronics	SPEAG	DAE4	911	3-21-2024
Data Acquisition Electronics	SPEAG	DAE3	479	10-6-2023
System Validation Dipole	SPEAG	D750V3	1122	2-24-2024
System Validation Dipole	SPEAG	D835V2	4d174	9-21-2023
System Validation Dipole	SPEAG	D1750V2	1125	11-30-2023
System Validation Dipole	SPEAG	D1900V2	5d190	11-16-2023

**Test Equipment (Continued)**

System Validation Dipole	SPEAG	D1900V2	5d199	3-25-2024
System Validation Dipole	SPEAG	D2450V2	960	3-24-2024
System Validation Dipole	SPEAG	D5GHzV2	1209	2-28-2024
System Validation Dipole	SPEAG	D3700V2	1036	5-19-2024
System Validation Dipole	SPEAG	D3500V2	1075	5-19-2024
System Validation Dipole	SPEAG	D3500V2	1121	4-20-2024
System Validation Dipole	SPEAG	D3900V2	1069	4-21-2024
System Validation Dipole	SPEAG	D1750V2	1180	9-21-2023
System Validation Dipole	SPEAG	D2300V2	1115	4-25-2024
System Validation Dipole	SPEAG	D2600V2	1178	4-25-2024
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	8-9-2023
Thermometer	Lutron	MHB-382SD	AK.12102	8-9-2023
Thermometer	Lutron	MHB-382SD	AK.12103	8-9-2023
Thermometer	Lutron	MHB-382SD	AK.12121	8-9-2023
Thermometer	Lutron	MHB-382SD	AK.12123	1-9-2024
Thermometer	Lutron	MHB-382SD	AK.18789	8-9-2023

**Others**

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	150313	8-2-2023
Base Station Simulator	R & S	CMW500	150314	8-2-2023
Base Station Simulator	R & S	CMW500	162790	8-2-2023
Base Station Simulator	R & S	CMW500	169803	1-5-2024
Base Station Simulator	R & S	CMW500	169801	1-5-2024
Base Station Simulator	R & S	CMW500	169799	8-2-2023
Base Station Simulator	R & S	CMW500	169800	8-2-2023
Base Station Simulator	R & S	CMW500	169798	8-2-2023
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY57510596	8-5-2023
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY59150850	1-9-2024
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY58120110	1-10-2024
Radio Communication Test Station	Anritsu	MT8000A	6272466165	9-8-2023
Radio Communication Analyzer	Anritsu	MT8821C	6161094351	11-29-2023

**Note(s):**

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

## 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  $\leq 30\%$ , for a confidence interval of  $k = 2$ . If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

## 5.1. DECISION RULE

Decision rule for statement(s) of conformity is based on 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					
Accessory	Keyboard					
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	No.	S/N	Notes	No.	S/N	Notes
	1	R32W500QLRL	Conducted	13	R32W6007DFY	SAR
	2	R32W500QLPM	Conducted	14	R32W6007EHP	SAR
	3	R32W500QMVL	Conducted			
	4	R32W500QJWJ	Conducted			
	5	R32W5011SGE	Conducted			
	6	R32W6007EKK	Conducted			
	7	R32W6007D9W	Conducted			
	8	R32W500QT3B	SAR			
	9	R32W500QKPE	SAR			
	10	R32W500QT1V	SAR			
	11	R32W500QS8H	SAR			
	12	R32W5011TZB	SAR			

## 6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode	Duty Cycle used for SAR testing
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Category 24) HSUPA (Category 6) DC-HSDPA (Category 24) HSPA+ (DL only)	100%
LTE	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 7 FDD Band 12 FDD Band 13 FDD Band 14 FDD Band 25 FDD Band 26 FDD Band 30 TDD Band 41 – Power Class 2 TDD Band 41 – Power Class 3 FDD Band 66 FDD Band 71 <u>Uplink intra-band-contiguous</u> <u>Carrier Aggregation(2CC)</u> CA_5B/ 41C/ 66B/ 66C	QPSK 16QAM 64QAM 256QAM Rel. 16 Carrier Aggregation (2 Uplinks and 4 Downlinks)	100% (FDD) 63.3% (TDD) Power Class 3 43.3% (TDD) Power Class 2
Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
NR (Sub 6)	FDD Band n2 FDD Band n5 FDD Band n12 FDD Band n25 FDD Band n30 FDD Band n66 FDD Band n71 TDD Band n41 – Power Class 2 TDD Band n41 – Power Class 3 TDD Band n77 – Power Class 2 TDD Band n77 – Power Class 3 TDD Band n78	DFT-s-OFDM: ■ π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: ■ QPSK, 16QAM, 64QAM, 256QAM	100% (FDD Bands) 100% (TDD Bands)
Wi-Fi	2.4 GHz	802.11b, 802.11g 802.11n (HT20), 802.11ax	SISO : 98.7% (802.11b) MIMO : 98.9% (802.11b)
	5 GHz	802.11a 802.11n (HT20) & (HT40) 802.11ac (VHT20) & (VHT40) & (VHT80) 802.11ax (HE20) & (HE40) & (HE80)	SISO : 96.9% (802.11a), 94.9% (802.11ac (VHT80) MIMO 97.1% (802.11a) 91.1% (802.11ac (VHT80)
	Does this device support bands 5.60 ~ 5.65 GHz? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Does this device support Band gap channel(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Bluetooth	2.4 GHz	Version 5.3 LE	76.9% (BDR DH5) 77.1% (EDR DH5)

### Notes

- The Bluetooth protocol is considered source-based averaging. Bluetooth Max power GFSK (DH5) was verified to have the highest duty cycle of 76.9% and Reduce power EDR (DH5) was verified to have the highest duty cycle of 77.1% was considered and used for SAR Testing.
- Measured duty cycle plots are in Section 9.
- This device supports Power Class 2(HPUE) and Power Class 3 for LTE Band 41 & NR Band n41 & NR Band n77
- NR TDD Band n41 and n77/n78 has support SRS(0,1,2,3) modes.
- This device supports LTE UL CA intra-band Contiguous.

### 6.3. Time-Averaging feature

The equipment under test (EUT) contains the Samsung S.LSI chipset supporting 4G technologies and 5G NR bands Sub.6. this chipset is enabled with TAS (Time Average SAR) algorithm 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.

The TAS (Time Average SAR) 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.

TAS (Time Average SAR) algorithm 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  $P_{Limit}$  NV settings and maximum tune up output power  $P_{max}$  configured for this EUT for various transmit conditions (RSI=Radio SAR Index).

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

Exposure condition		Standalone with Sensor Off	Standalone with Sensor On	Pmax (dBm)	
Spatial-average		1g	1g		
Test distance (mm)		Refer to sec.6.3 in Part.0 report.			
RSI:		0	1		
RF Air Interface	Antenna	Plimit corresponding to 1.0 W/kg			
WCDMA 2	Main.1	25.91	13.50	23.50	
WCDMA 4	Main.1	26.29	12.50	24.00	
WCDMA 5	Main.1	24.99	16.50	23.50	
LTE B5	Main.1	26.05	14.00	24.00	
LTE B7	Main.1	28.00	12.00	24.00	
LTE B7	Sub.2	27.96	9.50	23.00	
LTE B12	Main.1	29.29	15.50	24.00	
LTE B13	Main.1	26.12	15.50	24.00	
LTE B14	Main.1	26.33	15.50	24.00	
LTE B25(2)	Main.1	26.48	12.50	24.00	
LTE B25(2)	Sub.2	27.64	10.00	23.00	
LTE B26	Main.1	26.20	14.00	24.00	
LTE B30	Main.1	28.10	12.50	22.00	
LTE B41(PC3)	Main.1	29.34	12.00	22.00	
LTE B41(PC2)	Main.1	33.13	10.40	22.40	
LTE B66(4)	Main.1	25.99	12.00	23.50	
LTE B66(4)	Sub.2	27.36	10.00	23.00	
LTE B71	Main.1	32.22	19.00	24.00	
NR Band n5	Main.1	26.37	14.00	24.00	
NR Band n12	Main.1	29.02	15.50	24.00	
NR Band n25(2)	Main.1	26.57	12.50	24.00	
NR Band n30	Main.1	28.55	12.50	22.50	
NR Band n66	Main.1	25.97	12.00	24.00	
NR Band n71	Main.1	30.48	19.00	24.00	
NR Band n41-(PC2/PC3)	Main.1	20.50 / 18.00	13.00	26.50 / 24.00	
NR Band n41 SRS1-(PC2/PC3)	Sub.2	19.00 / 16.50	13.00	25.00 / 22.50	
NR Band n41 SRS2-(PC2/PC3)	Sub.4	19.00 / 17.00	13.00	25.00 / 23.00	
NR Band n41 SRS3-(PC2/PC3)	Sub.1	16.50	13.00	21.00 / 21.00	
NR Band n77-(PC2/PC3)	Main.2	21.00 / 18.00	9.00	27.00 / 24.00	
NR Band n77 SRS1-(PC2/PC3)	Sub.2	21.00 / 17.50	9.00	27.00 / 23.50	
NR Band n77 SRS2-(PC2/PC3)	Sub.4	18.00	9.00	24.00 / 24.00	
NR Band n77 SRS3-(PC2/PC3)	Sub.3	17.00 / 16.50	7.00	21.50 / 21.00	
NR Band n78	Main.2	18.00	9.00	24.00	
NR Band n78 SRS1	Sub.2	17.00	9.00	23.00	
NR Band n78 SRS2	Sub.4	15.50	9.00	21.50	
NR Band n78 SRS3	Sub.3	13.50	7.00	19.50	

**Notes:**

1. If Plimit is higher than Pmax for some modes/bands, The modes/bands will operate at a power level up to Pmax.
2. Pmax (Maximum tune-up power) is specified in tune-up document. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty.
3. All Plimit NV and maximum tune up output Pmax levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of LTE TDD modulation schemes.
4. For NR FR1 TDD Bands, Plimit listed averaged power level, and Pmax listed burst power level.
5. For PC2/PC3 of NR Band n41/n77, PC2 Plimit is higher than PC3 Plimit in RSI=0. So Plimit calculation is based on PC2's Plimit. So PC3' Plimit is always within SAR design target.
6. NR Band n78's Plimit is same or lower than NR Band n77's Plimit in All RSI's scenarios. Therefore, NR Band n77 was tested as a representative.

## 6.4. Maximum Allowed Output Power

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

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)		
			Pmax	RSI = 0 (Proximity sensor Off)	RSI = 1 (Proximity sensor On)
W-CDMA Band V	Main.1 Ant.	R99	24.5	24.50	17.50
		HSDPA	24.0	24.00	17.00
		HSUPA	24.0	24.00	17.00
		DC-HSDPA	24.0	24.00	17.00
W-CDMA Band IV	Main.1 Ant.	R99	25.0	25.00	13.50
		HSDPA	24.5	24.50	13.00
		HSUPA	24.0	24.00	13.00
		DC-HSDPA	24.5	24.50	13.00
W-CDMA Band II	Main.1 Ant.	R99	24.5	24.50	14.50
		HSDPA	24.0	24.00	13.50
		HSUPA	24.0	24.00	13.50
		DC-HSDPA	24.0	24.00	13.50

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)		
			Pmax	RSI = 0 (Proximity sensor Off)	RSI = 1 (Proximity sensor On)
LTE Band 2	Main.1 Ant.	QPSK	25.00	25.00	13.50
LTE Band 2	Sub.2 Ant.	QPSK	24.00	24.00	11.00
LTE Band 4	Main.1 Ant.	QPSK	24.50	24.50	13.00
LTE Band 4	Sub.2 Ant.	QPSK	24.00	24.00	11.00
LTE Band 5	Main.1 Ant.	QPSK	25.00	25.00	15.00
LTE Band 7	Main.1 Ant.	QPSK	25.00	25.00	13.00
LTE Band 7	Sub.2 Ant.	QPSK	24.00	24.00	10.50
LTE Band 12	Main.1 Ant.	QPSK	25.00	25.00	16.50
LTE Band 13	Main.1 Ant.	QPSK	25.00	25.00	16.50
LTE Band 14	Main.1 Ant.	QPSK	25.00	25.00	16.50
LTE Band 25	Main.1 Ant.	QPSK	25.00	25.00	13.50
LTE Band 25	Sub.2 Ant.	QPSK	24.00	24.00	11.00
LTE Band 26	Main.1 Ant.	QPSK	25.00	25.00	15.00
LTE Band 30	Main.1 Ant.	QPSK	23.00	23.00	13.50
LTE Band 41 (Power Class 3)	Main.1 Ant.	QPSK	25.00	25.00	15.00
LTE Band 41 (Power Class 2)	Main.1 Ant.	QPSK	27.00	27.00	15.00
LTE Band 66	Main.1 Ant.	QPSK	24.50	24.50	13.00
LTE Band 66	Sub.2 Ant.	QPSK	24.00	24.00	11.00
LTE Band 71	Main.1 Ant.	QPSK	25.00	25.00	20.00

### Note(s):

- Detail of RSI(Radio SAR Index) conditions, please refer to Sec.6.5.

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)		
			Pmax	RSI = 0 (Proximity sensor Off)	RSI = 1 (Proximity sensor On)
NR Band n2	Main.1 Ant.	DFT-s-OFDM_QPSK	25.00	25.00	13.50
NR Band n5	Main.1 Ant.	DFT-s-OFDM_QPSK	25.00	25.00	15.00
NR Band n12	Main.1 Ant.	DFT-s-OFDM_QPSK	25.00	25.00	16.50
NR Band n25	Main.1 Ant.	DFT-s-OFDM_QPSK	25.00	25.00	13.50
NR Band n30	Main.1 Ant.	DFT-s-OFDM_QPSK	23.50	23.50	13.50
NR Band n66	Main.1 Ant.	DFT-s-OFDM_QPSK	25.00	25.00	13.00
NR Band n71	Main.1 Ant.	DFT-s-OFDM_QPSK	25.00	25.00	20.00
NR Band n41	Main.1 Ant.	DFT-s-OFDM_QPSK	25.00	19.00	14.00
NR Band n41-SRS1	Sub.2 Ant.	SRS CW	23.50	17.50	14.00
NR Band n41-SRS2	Sub.4 Ant.	SRS CW	24.00	18.00	14.00
NR Band n41-SRS3	Sub.1 Ant.	SRS CW	22.00	17.50	14.00
NR Band n41(PC2)	Main.1 Ant.	DFT-s-OFDM_QPSK	27.50	21.50	14.00
NR Band n41(PC2)-SRS1	Sub.2 Ant.	SRS CW	26.00	20.00	14.00
NR Band n41(PC2)-SRS2	Sub.4 Ant.	SRS CW	26.00	20.00	14.00
NR Band n41(PC2)-SRS3	Sub.1 Ant.	SRS CW	22.00	17.50	14.00
NR Band n77	Main.2 Ant.	DFT-s-OFDM_QPSK	25.00	19.00	10.00
NR Band n77-SRS1	Sub.2 Ant.	SRS CW	24.50	18.50	10.00
NR Band n77-SRS2	Sub.4 Ant.	SRS CW	25.00	19.00	10.00
NR Band n77-SRS3	Sub.3 Ant.	SRS CW	22.00	17.50	10.00
NR Band n77(PC2)	Main.2 Ant.	DFT-s-OFDM_QPSK	28.00	22.00	8.00
NR Band n77(PC2)-SRS1	Sub.2 Ant.	SRS CW	28.00	22.00	10.00
NR Band n77(PC2)-SRS2	Sub.4 Ant.	SRS CW	25.00	19.00	10.00
NR Band n77(PC2)-SRS3	Sub.3 Ant.	SRS CW	22.50	18.00	8.00
NR Band n78	Main.2 Ant.	DFT-s-OFDM_QPSK	25.00	19.00	10.00
NR Band n78-SRS1	Sub.2 Ant.	SRS CW	24.00	18.00	10.00
NR Band n78-SRS2	Sub.4 Ant.	SRS CW	22.50	16.50	10.00
NR Band n78-SRS3	Sub.3 Ant.	SRS CW	20.50	14.50	8.00

**Note(s):**

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

**WLAN output power**

RF Air interface	Band	Sensor State	RF Output Power (dBm)									
			802.11 mode									
			SISO : Antenna 1 or Antenna 2						MIMO : Antenna 1 + Antenna 2			
WiFi 2.4 GHz (Ant.1 only)	Ch.1	Active	12.0	12.0	12.0	12.0	12.0	15.0	15.0	15.0	15.0	15.0
		Inactive	20.0	18.0	17.0	16.0	16.0	23.0	21.0	20.0	19.0	19.0
	Ch.2-10 Except Ch.6	Active	12.0	12.0	12.0	12.0	12.0	15.0	15.0	15.0	15.0	15.0
		Inactive	20.0	18.0	17.0	16.0	16.0	23.0	21.0	20.0	19.0	19.0
	Ch.6	Active	12.0	12.0	12.0	12.0	12.0	15.0	15.0	15.0	15.0	15.0
		Inactive	20.0	18.0	17.0	15.0	15.0	23.0	21.0	20.0	18.0	18.0
	Ch.11	Active	12.0	12.0	12.0	12.0	12.0	15.0	15.0	15.0	15.0	15.0
		Inactive	20.0	18.0	17.0	16.0	16.0	23.0	21.0	20.0	19.0	19.0
WiFi 5 GHz (Ant.2 only) (BW : 20MHz)	UNII-1	Active	6.5	6.5	6.5	6.5	9.5	9.5	9.5	9.5	9.5	9.5
		Inactive	15.0	14.0	14.0	14.0	18.0	17.0	17.0	17.0	17.0	17.0
	UNII-2A	Active	6.5	6.5	6.5	6.5	9.5	9.5	9.5	9.5	9.5	9.5
		Inactive	15.0	14.0	14.0	14.0	18.0	17.0	17.0	17.0	17.0	17.0
	UNII-2C Except ch.140	Active	8.5	8.5	8.5	8.5	11.5	11.5	11.5	11.5	11.5	11.5
		Inactive	17.0	16.0	16.0	16.0	20.0	19.0	19.0	19.0	19.0	19.0
	UNII-2C ch.140	Active	10.0	10.0	10.0	10.0	13.0	13.0	13.0	13.0	13.0	13.0
		Inactive	17.0	16.0	16.0	16.0	20.0	19.0	19.0	19.0	19.0	19.0
	UNII-3 Except ch.157	Active	8.5	8.5	8.5	8.5	11.5	11.5	11.5	11.5	11.5	11.5
		Inactive	17.0	16.0	16.0	16.0	20.0	19.0	19.0	19.0	19.0	19.0
WiFi 5 GHz (Ant.2 only) (BW : 40MHz)	UNII-3	Active	9.5	9.5	9.5	9.5	12.5	12.5	12.5	12.5	12.5	12.5
		Inactive	17.0	16.0	16.0	16.0	20.0	19.0	19.0	19.0	19.0	19.0
	UNII-1	Active	6.5	6.5	6.5	6.5	9.5	9.5	9.5	9.5	9.5	9.5
		Inactive	12.0	12.0	12.0	12.0	15.0	15.0	15.0	15.0	15.0	15.0
	UNII-2A	Active	6.5	6.5	6.5	6.5	9.5	9.5	9.5	9.5	9.5	9.5
		Inactive	12.0	12.0	12.0	12.0	15.0	15.0	15.0	15.0	15.0	15.0
	UNII-2C	Active	8.5	8.5	8.5	8.5	11.5	11.5	11.5	11.5	11.5	11.5
		Inactive	14.0	14.0	14.0	14.0	17.0	17.0	17.0	17.0	17.0	17.0
WiFi 5 GHz (Ant.2 only) (BW : 80MHz)	UNII-3	Active	8.5	8.5	8.5	8.5	11.5	11.5	11.5	11.5	11.5	11.5
		Inactive	14.0	14.0	14.0	14.0	17.0	17.0	17.0	17.0	17.0	17.0
	UNII-1	Active	6.5	6.5	6.5	6.5	9.5	9.5	9.5	9.5	9.5	9.5
		Inactive	8.0	8.0	8.0	8.0	11.0	11.0	11.0	11.0	11.0	11.0
	UNII-2A	Active	6.5	6.5	6.5	6.5	9.5	9.5	9.5	9.5	9.5	9.5
		Inactive	8.0	8.0	8.0	8.0	11.0	11.0	11.0	11.0	11.0	11.0
	UNII-2C	Active	8.5	8.5	8.5	8.5	11.5	11.5	11.5	11.5	11.5	11.5
		Inactive	13.0	13.0	13.0	13.0	16.0	16.0	16.0	16.0	16.0	16.0
	UNII-3	Active	8.5	8.5	8.5	8.5	11.5	11.5	11.5	11.5	11.5	11.5
		Inactive	13.0	13.0	13.0	13.0	16.0	16.0	16.0	16.0	16.0	16.0

**Bluetooth max output power**

RF Air interface	Max. RF Output Power (dBm)	Reduced. RF Output Power (dBm)
Bluetooth-BR	15.0	10.0
Bluetooth-EDR	11.0	11.0
Bluetooth-LE Except ch.39	14.0	10.0
Bluetooth-LE ch.39	11.0	6.0

**Notes:**

- This device uses an independent fixed level power reduction mechanism for WLAN & Bluetooth operations during Proximity sensor active.

## 6.5. RSI (Radio SAR Index) Scenarios

This device supports multiple RSI Scenarios and Each RSIs operate to each RF exposure Conditions.

Please below table;

RF exposure Conditions	Technologies Supported	RSI conditions	Description
Standalone	All WWAN bands	RSI = 0	1. free 2. Hand use conditions for Handset and proximity sensor is not active.
Standalone	All WWAN bands	RSI = 1	1. Hand use conditions for Handset and proximity sensor is active.

### Note(s):

RSI Scenarios priority: RSI=1 → RSI=0

## 6.6. General LTE SAR Test and Reporting Considerations

Item	Description					
<b>Frequency range, Channel Bandwidth, Numbers and Frequencies</b>	Band 2	Frequency range: 1850 - 1910 MHz				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low	18700/ 1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5
		Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
		High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5
	Band 4	Frequency range: 1710 - 1755 MHz				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5
	Band 5	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
		High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5
		Frequency range: 824 - 849 MHz				
	Band 7	Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low			20450/ 829	20425/ 826.5
		Mid			20525/ 836.5	20525/ 836.5
	Band 12	High			20600/ 844	20625/ 846.5
		Frequency range: 2500 - 2570 MHz				
		Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low	20850/ 2510	20825/ 2507.5	20800/ 2505	20775/ 2502.5
Band 13	Mid	21100/ 2535	21100/ 2535	21100/ 2535	21100/ 2535	
	High	21350/ 2560	21375/ 2562.5	21400/ 2565	21425/ 2567.5	
	Frequency range: 699 - 716 MHz					
Band 14	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	
	Low			23060/ 704	23035/ 701.5	
	Band 13	Mid			23095/ 707.5	23095/ 707.5
		High			23130/ 711	23155/ 713.5
		Frequency range: 777 - 787 MHz				
	Band 25	Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low			23205/ 779.5	
	Band 14	Mid			23230/ 782	23230/ 782
		High			23255/ 784.5	
		Frequency range: 788 - 798 MHz				
	Band 25	Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low			23305/ 790.5	
	Band 26	Mid			23330/ 793	23330/ 793
		High			23355/ 795.5	
		Frequency range: 1850 - 1915 MHz				
	Band 25	Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low	26140/ 1860	26115/ 1857.5	26090/ 1855	26065/ 1852.5
	Band 26	Mid	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5
		High	26590/ 1905	26615/ 1907.5	26640/ 1910	26665/ 1912.5
		Frequency range: 814 - 849 MHz				
	Band 26	Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low		26765/ 821.5	26740/ 819	26715/ 816.5
	Band 26	Mid		26865/ 831.5	26865/ 831.5	26865/ 831.5
		High		26965/ 841.5	26990/ 844	27015/ 846.5
		Frequency range: 849 - 871 MHz				
	Band 26	Channel Bandwidth				
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz
		Low			26995/ 847.5	27015/ 846.5

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

Item	Description																																																																			
<b>Frequency range, Channel Bandwidth, Numbers and Frequencies</b>	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																																																															
	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																																																																	
	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																																																													
		Mid	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745																																																													
	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																																																														
	LTE transmitter and antenna implementation	Refer to Appendix A.																																																																		
		<b>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</b>																																																																		
		<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>							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	
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																																																													
MPR Built-in by design The manufacturer MPR values are always within the 3GPP maximum MPR allowance but may not follow the default MPR values. A-MPR (additional MPR) was disabled during SAR testing																																																																				
Power reduction	Yes.																																																																			
	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	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$			-		

### Calculated Duty Cycle

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

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

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

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

where

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

#### Note(s):

This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% duty cycle.

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

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

Item	Description														
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n71	Frequency range: 663 - 698 MHz													
		Channel Bandwidth													
		100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 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(n78) -DoD-	Frequency range: 3450 - 3550 MHz													
		Channel Bandwidth													
		100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 MHz	30 MHz	25 MHz	20 MHz	15 MHz	10 MHz	5 MHz	
		Low					631668/ 3475.02	631334/ 3470.01	631000/ 3465	630868/ 3462.99	630668/ 3460.02	630500/ 3457.5	630334/ 3455.01		
	Band n77(n78) -DoD-	Mid	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		
		Frequency range: 3700 - 3980 MHz													
SCS	Channel Bandwidth														
	100 MHz	90 MHz	80 MHz	70 MHz	60 MHz	50 MHz	40 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			656000 /3840	654400 /3816	654334/ 3815.01	654300/ 3814.5	654266 /3813.99	654234/ 3813.51	654200/ 3813		
	Mid-B							657600 /3864	657666/ 3864	657700/ 3864.99	657734 3814.5	657766/ 3866.01	657800/ 3866.49		
	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 FDD Bands : 15 kHz, NR TDD Bands : 30kHz														
	Modulations Supported in UL														
DFT-s-OFDM: π/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 5/12/13/14/71														
LTE Anchor Bands for NR Band n5	LTE Band 2/7/30/66														
LTE Anchor Bands for NR Band n12	LTE Band 2/66														
LTE Anchor Bands for NR Band n25	LTE Band 12														
LTE Anchor Bands for NR Band n30	LTE Band 5/12/14														
LTE Anchor Bands for NR Band n41	LTE Band 2/4/12/25/66/71														
LTE Anchor Bands for NR Band n66	LTE Band 5/7/12/13/14/71														
LTE Anchor Bands for NR Band n71	LTE Band 2/7/66														
LTE Anchor Bands for NR Band n77	LTE Band 2/5/7/12/13/14/30/66														
LTE Anchor Bands for NR Band n78	LTE Band 2/4/5/7/12/13/66/71														

**Notes:**

1. 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.
2. NR configurations of SAR test were determined according to Section 5.2 of KDB 941225 D05.

## 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.

### 7.1. Standalone SAR Test Exclusion Considerations

Tablet device's each positions (Rear/Edge1/Edge2/Edge3/Edge4) consider SAR test exclusion according to Appendix B.4 of KDB 447498 D04 Interim General RF exposure guide.

If Each antenna operate to between 0.3GHz to 6GHz, and Antenna to DUT surface's distance are within 0.5 cm to 40cm, then below Formula can use for SAR test exclusion;

$$P_{\text{th}} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$P_{\text{th}} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}}(d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and  $f$  is in GHz,  $d$  is the separation distance (cm), and  $ERP_{20\text{cm}}$  is per Formula (B.1).

The example values shown in Table B.2 are for illustration only.

### 7.2. Estimated SAR

When an antenna qualifies for test exemption in single transmitter/antenna mode of each test positions, its actual SAR value may not be available, because it was not required to be measured. In this case, the SAR contribution of that antenna to simultaneous transmission must be estimated relative to the SAR based exemption criteria, by multiplying the corresponding ratio by the SAR limit of 1.6 W/kg for 1-g SAR. This is referred to as estimated SAR.

For instance, a given antenna may qualify for a SAR-based exemption according to Appendix B.4 of KDB 447498 D04, with  $P_{\text{ant}} < P_{\text{th}}$ , where  $P_{\text{ant}}$  is maximum time-averaged power, and  $P_{\text{th}}$  is defined in Section 7.1. Then, per the preceding paragraph, the estimated SAR is computed as  $\text{SAR}_{\text{est}} = 1.6 * P_{\text{ant}} / P_{\text{th}}$  [W/kg].

## SAR Test Exclusion Calculation for WWAN (Proximity Sensor Off)

Antenna	Tx Interface	Frequency (MHz)	Output Power		Separation Distances (mm)					Estimated 1-g SAR Value (W/kg)				
			dBm	mW	Rear	Top	R_Left	Bottom	R_Right	Rear	Top	R_Left	Bottom	R_Right
Full Power, Proximity Sensor Off. A sensor triggering of 20 mm is included for Rear, Left, Right and Bottom. 23mm is included for Top.														
Main 1	W-CDMA 2	1910	24.50	282	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.097	-Measure-
Main 1	W-CDMA 4	1755	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.110	-Measure-
Main 1	W-CDMA 5	849	24.50	282	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.189	-Measure-
Main 1	LTE Band 2	1910	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.109	-Measure-
Sub 2	LTE Band 2	1910	24.00	251	19	250.33	0	19	0	-Measure-	0.087	-Measure-	-Measure-	-Measure-
Main 1	LTE Band 4	1755	24.50	282	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.098	-Measure-
Sub 2	LTE Band 4	1755	24.00	251	19	250.33	0	19	0	-Measure-	0.087	-Measure-	-Measure-	-Measure-
Main 1	LTE Band 5	849	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.212	-Measure-
Main 1	LTE Band 7	2570	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.108	-Measure-
Sub 2	LTE Band 7	2570	24.00	251	19	250.33	0	19	0	-Measure-	0.085	-Measure-	-Measure-	-Measure-
Main 1	LTE Band 12	716	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.258	-Measure-
Main 1	LTE Band 13	787	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.231	-Measure-
Main 1	LTE Band 14	798	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.228	-Measure-
Main 1	LTE Band 25	1915	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.109	-Measure-
Sub 2	LTE Band 25	1915	24.00	251	19	250.33	0	19	0	-Measure-	0.087	-Measure-	-Measure-	-Measure-
Main 1	LTE Band 26	849	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.212	-Measure-
Main 1	LTE Band 30	2315	23.00	200	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.068	-Measure-
Main 1	LTE Band 66	1780	24.50	282	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.098	-Measure-
Sub 2	LTE Band 66	1780	24.00	251	19	250.33	0	19	0	-Measure-	0.087	-Measure-	-Measure-	-Measure-
Main 1	LTE Band 71	698	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.265	-Measure-
Main 1	LTE Band 41	2690	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.107	-Measure-
Main 1	LTE Band 41 PC2	2690	27.00	501	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.170	-Measure-
Main 1	NR Band n2	1910	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.109	-Measure-
Main 1	NR Band n5	849	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.212	-Measure-
Main 1	NR Band n12	716	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.258	-Measure-
Main 1	NR Band n25	1915	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.109	-Measure-
Main 1	NR Band n30	2315	23.50	224	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.077	-Measure-
Main 1	NR Band n66	1780	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.110	-Measure-
Main 1	NR Band n71	698	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.265	-Measure-
Main 1	NR Band n41	2690	25.00	316	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.107	-Measure-
Sub 2	NR Band n41 SRS1	2690	23.50	224	19	250.33	0	19	0	-Measure-	0.076	-Measure-	-Measure-	-Measure-
Sub 4	NR Band n41 SRS2	2690	24.00	251	19	250.33	0	19	0	-Measure-	0.085	-Measure-	-Measure-	-Measure-
Sub 1	NR Band n41 SRS3	2690	22.00	158	19	241.63	117.86	19	19	-Measure-	0.057	0.228	-Measure-	-Measure-
Main 1	NR Band n41 (PC2)	2690	27.50	562	19	22	19	250.33	19	-Measure-	-Measure-	-Measure-	0.191	-Measure-
Sub 2	NR Band n41 (PC2) SRS1	2690	26.00	398	19	250.33	0	19	0	-Measure-	0.135	-Measure-	-Measure-	-Measure-
Sub 4	NR Band n41 (PC2) SRS2	2690	26.00	398	19	250.33	0	19	0	-Measure-	0.135	-Measure-	-Measure-	-Measure-
Sub 1	NR Band n41 (PC2) SRS3	2690	22.00	158	19	241.63	117.86	19	19	-Measure-	0.057	0.228	-Measure-	-Measure-
Main 2	NR Band n77	3980	25.00	316	19	241.63	19	19	117.86	-Measure-	0.113	-Measure-	-Measure-	0.478
Sub 2	NR Band n77 SRS1	3980	24.50	282	19	250.33	0	19	0	-Measure-	0.094	-Measure-	-Measure-	-Measure-
Sub 4	NR Band n77 SRS2	3980	25.00	316	19	250.33	0	19	0	-Measure-	0.105	-Measure-	-Measure-	-Measure-
Sub3	NR Band n77 SRS3	3980	22.00	158	19	22	117.86	241.63	19	-Measure-	-Measure-	-Measure-	0.239	0.057
Main 2	NR Band n77 (PC2)	3980	28.00	631	19	241.63	19	19	117.86	-Measure-	0.226	-Measure-	-Measure-	0.954
Sub 2	NR Band n77(PC2) SRS1	3980	28.00	631	19	250.33	0	19	0	-Measure-	0.210	-Measure-	-Measure-	-Measure-
Sub 4	NR Band n77(PC2) SRS2	3980	25.00	316	19	250.33	0	19	0	-Measure-	0.105	-Measure-	-Measure-	-Measure-
Sub3	NR Band n77(PC2) SRS3	3980	22.50	178	19	22	117.86	241.63	19	-Measure-	-Measure-	-Measure-	0.269	0.064
Main 2	NR Band n78	3980	28.00	631	19	241.63	19	19	117.86	-Measure-	0.226	-Measure-	-Measure-	0.954
Sub 2	NR Band n78 SRS1	3980	28.00	631	19	250.33	0	19	0	-Measure-	0.210	-Measure-	-Measure-	-Measure-
Sub 4	NR Band n78 SRS2	3980	25.00	316	19	250.33	0	19	0	-Measure-	0.105	-Measure-	-Measure-	-Measure-
Sub3	NR Band n78 SRS3	3980	22.50	178	19	22	117.86	241.63	19	-Measure-	-Measure-	-Measure-	0.269	0.064

**Note(s):**

When some device surfaces has Standalone SAR test Exclusion according to Section 7.1, Estimated SAR were calculated to the surfaces according to Section 7.2.

**SAR Test Exclusion Calculation for WWAN (Proximity Sensor On)**

Antenna	Tx Interface	Frequency (MHz)	Output Power		Separation Distances (mm)					Estimated 1-g SAR Value (W/kg)						
			dBm	mW	Rear	Top	R_Left	Bottom	R_Right	Rear	Top	R_Left	Bottom	R_Right		
Power Back-off, Proximity Sensor On																
Main 1	W-CDMA 2	1910	14.50	28	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	W-CDMA 4	1755	13.50	22	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	W-CDMA 5	849	17.50	56	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 2	1910	13.50	22	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Sub 2	LTE Band 2	1910	11.00	13	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Main 1	LTE Band 4	1755	13.00	20	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Sub 2	LTE Band 4	1755	11.00	13	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Main 1	LTE Band 5	849	15.00	32	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 7	2570	13.00	20	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Sub 2	LTE Band 7	2570	10.50	11	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Main 1	LTE Band 12	716	16.50	45	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 13	787	16.50	45	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 14	798	16.50	45	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 25	1915	13.50	22	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Sub 2	LTE Band 25	1915	11.00	13	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Main 1	LTE Band 26	849	15.00	32	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 30	2315	13.50	22	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 66	1780	13.00	20	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Sub 2	LTE Band 66	1780	11.00	13	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Main 1	LTE Band 71	698	20.00	100	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 41	2690	15.00	32	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	LTE Band 41 PC2	2690	15.00	32	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n2	1910	13.50	22	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n5	849	15.00	32	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n12	716	16.50	45	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n25	1915	13.50	22	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n30	2315	13.50	22	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n66	1780	13.00	20	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n71	698	20.00	100	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Main 1	NR Band n41	2690	14.00	25	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Sub 2	NR Band n41 SRS1	2690	14.00	25	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub 4	NR Band n41 SRS2	2690	14.00	25	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub 1	NR Band n41 SRS3	2690	14.00	25	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Main 1	NR Band n41 (PC2)	2690	14.00	25	0	0	0		0	-Measure-	-Measure-	-Measure-			-Measure-	
Sub 2	NR Band n41 (PC2) SRS1	2690	14.00	25	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub 4	NR Band n41 (PC2) SRS2	2690	14.00	25	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub 1	NR Band n41 (PC2) SRS3	2690	14.00	25	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Main 2	NR Band n77	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	
Sub 2	NR Band n77 SRS1	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub 4	NR Band n77 SRS2	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub3	NR Band n77 SRS3	3980	10.00	10	0	0		0	0	-Measure-	-Measure-				-Measure-	
Main 2	NR Band n77(PC2)	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	
Sub 2	NR Band n77(PC2) SRS1	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub 4	NR Band n77(PC2) SRS2	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub3	NR Band n77(PC2) SRS3	3980	10.00	10	0	0		0	0	-Measure-	-Measure-				-Measure-	
Main 2	NR Band n78	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	
Sub 2	NR Band n78 SRS1	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub 4	NR Band n78 SRS2	3980	10.00	10	0		0	0	0	-Measure-		-Measure-	-Measure-		-Measure-	-Measure-
Sub3	NR Band n78 SRS3	3980	10.00	10	0	0		0	0	-Measure-	-Measure-				-Measure-	

**SAR Test Exclusion Calculation for WLAN/BT (Proximity Sensor Off/On)**

Antenna	Tx Interface	Frequency (MHz)	Output Power		Separation Distances (mm)						Estimated 1-g SAR Value (W/kg)				
			dBm	mW	Rear	Top	R_Left	Bottom	R_Right	Rear	Top	R_Left	Bottom	R_Right	
Full Power, Proximity Sensor Off. A sensor triggering of 20 mm is included for Rear, Left, Right and Bottom. 23mm is included for Top.															
WiFi 1	Bluetooth	2480	15.00	32	19	22	19	241.63	117.86	-Measure-	-Measure-	-Measure-	0.009	0.036	
WiFi 1	Wi-Fi 2.4 GHz	2462	20.00	100	19	22	19	241.63	117.86	-Measure-	-Measure-	-Measure-	0.036	0.143	
WiFi 2	Wi-Fi 5.2 GHz	5240	15.00	32	19	22	117.86	241.63	19	-Measure-	-Measure-	0.078	0.018	-Measure-	
WiFi 2	Wi-Fi 5.3 GHz	5320	15.00	32	19	22	117.86	241.63	19	-Measure-	-Measure-	0.078	0.018	-Measure-	
WiFi 2	Wi-Fi 5.6 GHz	5720	17.00	50	19	22	117.86	241.63	19	-Measure-	-Measure-	0.079	0.018	-Measure-	
WiFi 2	Wi-Fi 5.8 GHz	5825	17.00	50	19	22	117.86	241.63	19	-Measure-	-Measure-	0.079	0.018	-Measure-	
MIMO	Wi-Fi 2.4 GHz	2462	23.00	200	19	22	19	241.63	19	-Measure-	-Measure-	-Measure-	0.073	-Measure-	
MIMO	Wi-Fi 5.2 GHz	5240	18.00	63	19	22	19	241.63	19	-Measure-	-Measure-	-Measure-	0.035	-Measure-	
MIMO	Wi-Fi 5.3 GHz	5320	18.00	63	19	22	19	241.63	19	-Measure-	-Measure-	-Measure-	0.035	-Measure-	
MIMO	Wi-Fi 5.6 GHz	5720	20.00	100	19	22	19	241.63	19	-Measure-	-Measure-	-Measure-	0.035	-Measure-	
MIMO	Wi-Fi 5.8 GHz	5825	20.00	100	19	22	19	241.63	19	-Measure-	-Measure-	-Measure-	0.035	-Measure-	
Power Back-off, Proximity Sensor On															
WiFi 1	Bluetooth	2480	11.00	13	0	0	0			-Measure-	-Measure-	-Measure-			
WiFi 1	Wi-Fi 2.4 GHz	2462	12.00	16	0	0	0			-Measure-	-Measure-	-Measure-			
WiFi 2	Wi-Fi 5.2 GHz	5240	6.50	4	0	0			0	-Measure-	-Measure-			-Measure-	
WiFi 2	Wi-Fi 5.3 GHz	5320	6.50	4	0	0			0	-Measure-	-Measure-			-Measure-	
WiFi 2	Wi-Fi 5.6 GHz	5720	10.00	10	0	0			0	-Measure-	-Measure-			-Measure-	
WiFi 2	Wi-Fi 5.8 GHz	5825	9.50	9	0	0			0	-Measure-	-Measure-			-Measure-	
MIMO	Wi-Fi 2.4 GHz	2462	15.00	32	0	0	0		0	-Measure-	-Measure-	-Measure-		-Measure-	
MIMO	Wi-Fi 5.2 GHz	5240	9.50	9	0	0	0		0	-Measure-	-Measure-	-Measure-		-Measure-	
MIMO	Wi-Fi 5.3 GHz	5320	9.50	9	0	0	0		0	-Measure-	-Measure-	-Measure-		-Measure-	
MIMO	Wi-Fi 5.6 GHz	5720	13.00	20	0	0	0		0	-Measure-	-Measure-	-Measure-		-Measure-	
MIMO	Wi-Fi 5.8 GHz	5825	12.50	18	0	0	0		0	-Measure-	-Measure-	-Measure-		-Measure-	

**Note(s):**

- When some device surfaces has Standalone SAR test Exclusion according to Section 7.1, Estimated SAR were calculated to the surfaces according to Section 7.2.

### 7.3. Required Test configurations

The table below identifies the standalone test configurations required for this device accordant to the findings in SAR Test Exclusion Calculation table.

Antenna	Tx Interface	Proximity sensor (On/Off)	Rear	Top	R/Left	Bottom	R/Right
Main 1	WWAN Bands	OFF	Yes	Yes	Yes	No	Yes
		ON	Yes	Yes	Yes	N/A	Yes
Main.2	WWAN Bands	OFF	Yes	No	Yes	Yes	No
		ON	Yes	N/A	Yes	Yes	N/A
Sub.1	SRS mode	OFF	Yes	No	Yes	Yes	Yes
		ON	Yes	N/A	N/A	Yes	Yes
Sub.2	WWAN Bands/ SRS mode	OFF	Yes	No	Yes	Yes	Yes
		ON	Yes	N/A	N/A	Yes	N/A
Sub.3	SRS mode	OFF	Yes	Yes	No	No	Yes
		ON	Yes	Yes	N/A	N/A	Yes
Sub.4	SRS mode	OFF	Yes	No	Yes	Yes	Yes
		ON	Yes	N/A	N/A	Yes	N/A
WiFi Ant.1	BT/WiFi 2.4GHz	OFF	Yes	Yes	Yes	No	No
		ON	Yes	Yes	Yes	N/A	N/A
WiFi Ant.2	WiFi 5GHz	OFF	Yes	Yes	No	No	Yes
		ON	Yes	Yes	N/A	N/A	Yes
WiFi MIMO	WiFi 2.4GHz/5Ghz	OFF	Yes	Yes	Yes	No	Yes
		ON	Yes	Yes	Yes	N/A	Yes

#### Note(s):

1. Yes = Testing is required. No = Testing is not required.
2. N/A = Power back-off is not implemented in certain position using proximity sensor active.
3. The laptop configuration with the accessory keyboard connected was not evaluated as this was considered to be covered by the R/Right tests.

## 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		Body	
	$\epsilon_r$	$\sigma$ (S/m)	$\epsilon_r$	$\sigma$ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5000	36.2	4.45	49.3	5.07
5100	36.1	4.55	49.1	5.18
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5400	35.8	4.86	48.7	5.53
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5700	35.4	5.17	48.3	5.88
5800	35.3	5.27	48.2	6.00

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

#### IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

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

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-06-05	Head 750	e'	41.4600	Relative Permittivity ( $\epsilon_r$ ):	41.46	41.96	-1.20	5
		e''	21.4500	Conductivity ( $\sigma$ ):	0.89	0.89	0.16	5
	Head 680	e'	41.6600	Relative Permittivity ( $\epsilon_r$ ):	41.66	42.32	-1.56	5
		e''	23.0500	Conductivity ( $\sigma$ ):	0.87	0.89	-1.82	5
	Head 790	e'	41.2800	Relative Permittivity ( $\epsilon_r$ ):	41.28	41.76	-1.14	5
		e''	20.6300	Conductivity ( $\sigma$ ):	0.91	0.90	1.12	5
2023-06-05	Head 835	e'	41.1900	Relative Permittivity ( $\epsilon_r$ ):	41.19	41.50	-0.75	5
		e''	19.8800	Conductivity ( $\sigma$ ):	0.92	0.90	2.56	5
	Head 820	e'	41.2100	Relative Permittivity ( $\epsilon_r$ ):	41.21	41.60	-0.94	5
		e''	20.1100	Conductivity ( $\sigma$ ):	0.92	0.90	2.05	5
	Head 850	e'	41.1700	Relative Permittivity ( $\epsilon_r$ ):	41.17	41.50	-0.80	5
		e''	19.5800	Conductivity ( $\sigma$ ):	0.93	0.92	1.14	5
2023-06-09	Head 750	e'	43.3700	Relative Permittivity ( $\epsilon_r$ ):	43.37	41.96	3.36	5
		e''	21.5100	Conductivity ( $\sigma$ ):	0.90	0.89	0.44	5
	Head 680	e'	43.5000	Relative Permittivity ( $\epsilon_r$ ):	43.50	42.32	2.79	5
		e''	23.2300	Conductivity ( $\sigma$ ):	0.88	0.89	-1.05	5
	Head 790	e'	43.1300	Relative Permittivity ( $\epsilon_r$ ):	43.13	41.76	3.29	5
		e''	20.6100	Conductivity ( $\sigma$ ):	0.91	0.90	1.02	5
2023-06-09	Head 835	e'	43.0300	Relative Permittivity ( $\epsilon_r$ ):	43.03	41.50	3.69	5
		e''	19.9400	Conductivity ( $\sigma$ ):	0.93	0.90	2.87	5
	Head 820	e'	43.0300	Relative Permittivity ( $\epsilon_r$ ):	43.03	41.60	3.43	5
		e''	20.1400	Conductivity ( $\sigma$ ):	0.92	0.90	2.21	5
	Head 850	e'	43.0400	Relative Permittivity ( $\epsilon_r$ ):	43.04	41.50	3.71	5
		e''	19.7400	Conductivity ( $\sigma$ ):	0.93	0.92	1.96	5
2023-06-28	Head 5250	e'	35.3600	Relative Permittivity ( $\epsilon_r$ ):	35.36	35.95	-1.64	5
		e''	15.6800	Conductivity ( $\sigma$ ):	4.58	4.71	-2.82	5
	Head 5260	e'	35.3400	Relative Permittivity ( $\epsilon_r$ ):	35.34	35.94	-1.67	5
		e''	15.6800	Conductivity ( $\sigma$ ):	4.59	4.72	-2.84	5
	Head 5600	e'	34.7500	Relative Permittivity ( $\epsilon_r$ ):	34.75	35.50	-2.11	5
		e''	15.9000	Conductivity ( $\sigma$ ):	4.95	5.07	-2.35	5
	Head 5800	e'	34.4200	Relative Permittivity ( $\epsilon_r$ ):	34.42	35.30	-2.49	5
		e''	16.0200	Conductivity ( $\sigma$ ):	5.17	5.27	-1.97	5
	Head 5925	e'	34.2100	Relative Permittivity ( $\epsilon_r$ ):	34.21	35.18	-2.74	5
		e''	16.0900	Conductivity ( $\sigma$ ):	5.30	5.40	-1.86	5
2023-07-03	Head 5250	e'	35.0500	Relative Permittivity ( $\epsilon_r$ ):	35.05	35.95	-2.50	5
		e''	15.7800	Conductivity ( $\sigma$ ):	4.61	4.71	-2.20	5
	Head 5260	e'	35.0300	Relative Permittivity ( $\epsilon_r$ ):	35.03	35.94	-2.53	5
		e''	15.7800	Conductivity ( $\sigma$ ):	4.62	4.72	-2.22	5
	Head 5600	e'	34.4100	Relative Permittivity ( $\epsilon_r$ ):	34.41	35.50	-3.07	5
		e''	16.0300	Conductivity ( $\sigma$ ):	4.99	5.07	-1.55	5
	Head 5800	e'	34.0700	Relative Permittivity ( $\epsilon_r$ ):	34.07	35.30	-3.48	5
		e''	16.1900	Conductivity ( $\sigma$ ):	5.22	5.27	-0.93	5
	Head 5925	e'	33.8500	Relative Permittivity ( $\epsilon_r$ ):	33.85	35.18	-3.77	5
		e''	16.2800	Conductivity ( $\sigma$ ):	5.36	5.40	-0.70	5

**SAR 2 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-06-07	Head 1750	e'	41.3500	Relative Permittivity ( $\epsilon_r$ ):	41.35	40.08	3.16	5
		e''	13.7500	Conductivity ( $\sigma$ ):	1.34	1.37	-2.27	5
	Head 1710	e'	41.4500	Relative Permittivity ( $\epsilon_r$ ):	41.45	40.15	3.25	5
		e''	13.7200	Conductivity ( $\sigma$ ):	1.30	1.35	-3.11	5
	Head 1755	e'	41.3400	Relative Permittivity ( $\epsilon_r$ ):	41.34	40.08	3.15	5
		e''	13.7500	Conductivity ( $\sigma$ ):	1.34	1.37	-2.19	5
2023-06-07	Head 1900	e'	41.0300	Relative Permittivity ( $\epsilon_r$ ):	41.03	40.00	2.58	5
		e''	13.4100	Conductivity ( $\sigma$ ):	1.42	1.40	1.19	5
	Head 1850	e'	41.1400	Relative Permittivity ( $\epsilon_r$ ):	41.14	40.00	2.85	5
		e''	13.4600	Conductivity ( $\sigma$ ):	1.38	1.40	-1.10	5
	Head 1910	e'	41.0100	Relative Permittivity ( $\epsilon_r$ ):	41.01	40.00	2.53	5
		e''	13.3800	Conductivity ( $\sigma$ ):	1.42	1.40	1.50	5
2023-06-13	Head 2600	e'	40.3000	Relative Permittivity ( $\epsilon_r$ ):	40.30	39.01	3.30	5
		e''	13.6600	Conductivity ( $\sigma$ ):	1.97	1.96	0.64	5
	Head 2500	e'	40.4200	Relative Permittivity ( $\epsilon_r$ ):	40.42	39.14	3.28	5
		e''	13.7800	Conductivity ( $\sigma$ ):	1.92	1.85	3.32	5
	Head 2700	e'	39.9200	Relative Permittivity ( $\epsilon_r$ ):	39.92	38.88	2.66	5
		e''	13.6900	Conductivity ( $\sigma$ ):	2.06	2.07	-0.73	5
2023-06-16	Head 2600	e'	39.4700	Relative Permittivity ( $\epsilon_r$ ):	39.47	39.01	1.18	5
		e''	13.1700	Conductivity ( $\sigma$ ):	1.90	1.96	-2.97	5
	Head 2495	e'	39.5400	Relative Permittivity ( $\epsilon_r$ ):	39.54	39.14	1.01	5
		e''	13.0800	Conductivity ( $\sigma$ ):	1.81	1.85	-1.84	5
	Head 2700	e'	39.2800	Relative Permittivity ( $\epsilon_r$ ):	39.28	38.88	1.02	5
		e''	13.2500	Conductivity ( $\sigma$ ):	1.99	2.07	-3.92	5
2023-06-20	Head 2600	e'	37.8300	Relative Permittivity ( $\epsilon_r$ ):	37.83	39.00	-3.00	5
		e''	13.9100	Conductivity ( $\sigma$ ):	2.01	1.96	2.60	5
	Head 2495	e'	37.8700	Relative Permittivity ( $\epsilon_r$ ):	37.87	39.14	-3.24	5
		e''	13.9200	Conductivity ( $\sigma$ ):	1.93	1.85	4.50	5
	Head 2700	e'	37.7200	Relative Permittivity ( $\epsilon_r$ ):	37.72	38.88	-2.97	5
		e''	13.9700	Conductivity ( $\sigma$ ):	2.10	2.07	1.32	5
2023-06-21	Head 2250	e'	38.5200	Relative Permittivity ( $\epsilon_r$ ):	38.52	39.54	-2.59	5
		e''	13.1300	Conductivity ( $\sigma$ ):	1.64	1.62	1.22	5
	Head 2300	e'	38.3800	Relative Permittivity ( $\epsilon_r$ ):	38.38	39.46	-2.73	5
		e''	13.1600	Conductivity ( $\sigma$ ):	1.68	1.67	0.95	5
	Head 2350	e'	38.3200	Relative Permittivity ( $\epsilon_r$ ):	38.32	39.37	-2.67	5
		e''	13.1600	Conductivity ( $\sigma$ ):	1.72	1.71	0.48	5
2023-06-26	Head 2600	e'	38.3900	Relative Permittivity ( $\epsilon_r$ ):	38.39	39.00	-1.56	5
		e''	13.3800	Conductivity ( $\sigma$ ):	1.93	1.96	-1.31	5
	Head 2495	e'	38.5800	Relative Permittivity ( $\epsilon_r$ ):	38.58	39.14	-1.43	5
		e''	13.2900	Conductivity ( $\sigma$ ):	1.84	1.85	-0.23	5
	Head 2700	e'	38.2000	Relative Permittivity ( $\epsilon_r$ ):	38.20	38.88	-1.74	5
		e''	13.4000	Conductivity ( $\sigma$ ):	2.01	2.07	-2.82	5
2023-06-27	Head 5250	e'	35.7100	Relative Permittivity ( $\epsilon_r$ ):	35.71	35.93	-0.62	5
		e''	16.0900	Conductivity ( $\sigma$ ):	4.70	4.70	-0.11	5
	Head 5260	e'	35.6900	Relative Permittivity ( $\epsilon_r$ ):	35.69	35.92	-0.65	5
		e''	16.1000	Conductivity ( $\sigma$ ):	4.71	4.71	-0.08	5
	Head 5600	e'	35.0800	Relative Permittivity ( $\epsilon_r$ ):	35.08	35.53	-1.28	5
		e''	16.3100	Conductivity ( $\sigma$ ):	5.08	5.06	0.36	5
2023-07-03	Head 5800	e'	34.7400	Relative Permittivity ( $\epsilon_r$ ):	34.74	35.30	-1.59	5
		e''	16.4600	Conductivity ( $\sigma$ ):	5.31	5.27	0.73	5
	Head 5925	e'	34.5200	Relative Permittivity ( $\epsilon_r$ ):	34.52	35.20	-1.93	5
		e''	16.5400	Conductivity ( $\sigma$ ):	5.45	5.40	0.91	5
	Head 2450	e'	37.9900	Relative Permittivity ( $\epsilon_r$ ):	37.99	39.20	-3.09	5
		e''	13.5600	Conductivity ( $\sigma$ ):	1.85	1.80	2.62	5
	Head 2400	e'	38.0900	Relative Permittivity ( $\epsilon_r$ ):	38.09	39.29	-3.04	5
		e''	13.5400	Conductivity ( $\sigma$ ):	1.81	1.76	2.91	5
	Head 2500	e'	37.8700	Relative Permittivity ( $\epsilon_r$ ):	37.87	39.13	-3.23	5
		e''	13.5400	Conductivity ( $\sigma$ ):	1.88	1.85	1.56	5

**SAR 2 Room (Continued)**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-07-03	Head 2600	e'	37.7400	Relative Permittivity ( $\epsilon_r$ ):	37.74	39.00	-3.23	5
		e"	13.5300	Conductivity ( $\sigma$ ):	1.96	1.96	-0.20	5
	Head 2495	e'	37.8800	Relative Permittivity ( $\epsilon_r$ ):	37.88	39.14	-3.22	5
		e"	13.5500	Conductivity ( $\sigma$ ):	1.88	1.85	1.72	5
07-05-2023	Head 2700	e'	37.6000	Relative Permittivity ( $\epsilon_r$ ):	37.60	38.88	-3.28	5
		e"	13.6200	Conductivity ( $\sigma$ ):	2.04	2.07	-1.22	5
	head 2250	e'	38.3100	Relative Permittivity ( $\epsilon_r$ ):	38.31	39.56	-3.16	5
		e"	13.4600	Conductivity ( $\sigma$ ):	1.68	1.62	3.96	5
	head 2300	e'	38.3100	Relative Permittivity ( $\epsilon_r$ ):	38.31	39.47	-2.95	5
		e"	13.5000	Conductivity ( $\sigma$ ):	1.73	1.66	3.77	5
2023-07-07	head 2350	e'	38.2200	Relative Permittivity ( $\epsilon_r$ ):	38.22	39.38	-2.96	5
		e"	13.5300	Conductivity ( $\sigma$ ):	1.77	1.71	3.53	5
	Head 2450	e'	38.2500	Relative Permittivity ( $\epsilon_r$ ):	38.25	39.20	-2.42	5
		e"	12.9800	Conductivity ( $\sigma$ ):	1.77	1.80	-1.76	5
	Head 2400	e'	38.3400	Relative Permittivity ( $\epsilon_r$ ):	38.34	39.30	-2.43	5
		e"	13.0100	Conductivity ( $\sigma$ ):	1.74	1.75	-0.88	5
2023-07-10	Head 2500	e'	38.1800	Relative Permittivity ( $\epsilon_r$ ):	38.18	39.14	-2.45	5
		e"	12.9400	Conductivity ( $\sigma$ ):	1.80	1.85	-2.98	5
	Head 3500	e'	37.9200	Relative Permittivity ( $\epsilon_r$ ):	37.92	37.93	-0.03	5
		e"	14.5700	Conductivity ( $\sigma$ ):	2.84	2.91	-2.61	5
	Head 3600	e'	37.7200	Relative Permittivity ( $\epsilon_r$ ):	37.72	37.82	-0.25	5
		e"	14.6700	Conductivity ( $\sigma$ ):	2.94	3.01	-2.57	5
2023-07-14	Head 3700	e'	37.5300	Relative Permittivity ( $\epsilon_r$ ):	37.53	37.70	-0.45	5
		e"	14.7500	Conductivity ( $\sigma$ ):	3.03	3.12	-2.62	5
	Head 3800	e'	37.3400	Relative Permittivity ( $\epsilon_r$ ):	37.34	37.59	-0.66	5
		e"	14.8400	Conductivity ( $\sigma$ ):	3.14	3.22	-2.58	5
	Head 3900	e'	37.1600	Relative Permittivity ( $\epsilon_r$ ):	37.16	37.47	-0.84	5
		e"	14.9300	Conductivity ( $\sigma$ ):	3.24	3.32	-2.51	5
2023-07-19	Head 3980	e'	37.0200	Relative Permittivity ( $\epsilon_r$ ):	37.02	37.38	-0.97	5
		e"	15.0100	Conductivity ( $\sigma$ ):	3.32	3.40	-2.38	5
	Head 3500	e'	38.0300	Relative Permittivity ( $\epsilon_r$ ):	38.03	37.93	0.26	5
		e"	14.5400	Conductivity ( $\sigma$ ):	2.83	2.91	-2.81	5
	Head 3600	e'	37.8300	Relative Permittivity ( $\epsilon_r$ ):	37.83	37.82	0.04	5
		e"	14.6000	Conductivity ( $\sigma$ ):	2.92	3.01	-3.03	5
	Head 3700	e'	37.6500	Relative Permittivity ( $\epsilon_r$ ):	37.65	37.70	-0.14	5
		e"	14.6700	Conductivity ( $\sigma$ ):	3.02	3.12	-3.15	5
	Head 3800	e'	37.4800	Relative Permittivity ( $\epsilon_r$ ):	37.48	37.59	-0.29	5
		e"	14.7400	Conductivity ( $\sigma$ ):	3.11	3.22	-3.23	5
	Head 3900	e'	37.3300	Relative Permittivity ( $\epsilon_r$ ):	37.33	37.47	-0.38	5
		e"	14.8300	Conductivity ( $\sigma$ ):	3.22	3.32	-3.16	5
	Head 3980	e'	37.2100	Relative Permittivity ( $\epsilon_r$ ):	37.21	37.38	-0.46	5
		e"	14.9200	Conductivity ( $\sigma$ ):	3.30	3.40	-2.97	5
2023-07-19	Head 3500	e'	39.2700	Relative Permittivity ( $\epsilon_r$ ):	39.27	37.93	3.53	5
		e"	14.2600	Conductivity ( $\sigma$ ):	2.78	2.91	-4.69	5
	Head 3600	e'	39.0800	Relative Permittivity ( $\epsilon_r$ ):	39.08	37.82	3.34	5
		e"	14.3700	Conductivity ( $\sigma$ ):	2.88	3.01	-4.56	5
	Head 3700	e'	38.8800	Relative Permittivity ( $\epsilon_r$ ):	38.88	37.70	3.13	5
		e"	14.4800	Conductivity ( $\sigma$ ):	2.98	3.12	-4.40	5
	Head 3800	e'	38.6600	Relative Permittivity ( $\epsilon_r$ ):	38.66	37.59	2.85	5
		e"	14.6100	Conductivity ( $\sigma$ ):	3.09	3.22	-4.09	5
	Head 3900	e'	38.4400	Relative Permittivity ( $\epsilon_r$ ):	38.44	37.47	2.58	5
		e"	14.7600	Conductivity ( $\sigma$ ):	3.20	3.32	-3.62	5
	Head 3980	e'	38.2600	Relative Permittivity ( $\epsilon_r$ ):	38.26	37.38	2.35	5
		e"	14.8100	Conductivity ( $\sigma$ ):	3.28	3.40	-3.68	5

## SAR 3 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-06-19	Head 1750	e'	40.1100	Relative Permittivity ( $\epsilon_r$ ):	40.11	40.08	0.06	5
		e"	13.8000	Conductivity ( $\sigma$ ):	1.34	1.37	-1.91	5
	Head 1710	e'	40.2300	Relative Permittivity ( $\epsilon_r$ ):	40.23	40.15	0.21	5
		e"	13.8500	Conductivity ( $\sigma$ ):	1.32	1.35	-2.19	5
2023-06-19	Head 1780	e'	40.0300	Relative Permittivity ( $\epsilon_r$ ):	40.03	40.04	-0.02	5
		e"	13.7300	Conductivity ( $\sigma$ ):	1.36	1.39	-1.95	5
	Head 1900	e'	39.9100	Relative Permittivity ( $\epsilon_r$ ):	39.91	40.00	-0.23	5
		e"	13.4500	Conductivity ( $\sigma$ ):	1.42	1.40	1.50	5
2023-06-19	Head 1850	e'	39.9200	Relative Permittivity ( $\epsilon_r$ ):	39.92	40.00	-0.20	5
		e"	13.5300	Conductivity ( $\sigma$ ):	1.39	1.40	-0.59	5
	Head 1915	e'	39.9200	Relative Permittivity ( $\epsilon_r$ ):	39.92	40.00	-0.20	5
		e"	13.4400	Conductivity ( $\sigma$ ):	1.43	1.40	2.22	5
2023-06-23	Head 1750	e'	39.4300	Relative Permittivity ( $\epsilon_r$ ):	39.43	40.08	-1.63	5
		e"	13.5900	Conductivity ( $\sigma$ ):	1.32	1.37	-3.40	5
	Head 1710	e'	39.5700	Relative Permittivity ( $\epsilon_r$ ):	39.57	40.15	-1.44	5
		e"	13.6400	Conductivity ( $\sigma$ ):	1.30	1.35	-3.68	5
2023-06-23	Head 1780	e'	39.3400	Relative Permittivity ( $\epsilon_r$ ):	39.34	40.04	-1.74	5
		e"	13.5100	Conductivity ( $\sigma$ ):	1.34	1.39	-3.52	5
	Head 1900	e'	39.2600	Relative Permittivity ( $\epsilon_r$ ):	39.26	40.00	-1.85	5
		e"	13.3400	Conductivity ( $\sigma$ ):	1.41	1.40	0.67	5
2023-06-23	Head 1850	e'	39.2800	Relative Permittivity ( $\epsilon_r$ ):	39.28	40.00	-1.80	5
		e"	13.3400	Conductivity ( $\sigma$ ):	1.37	1.40	-1.98	5
	Head 1915	e'	39.2300	Relative Permittivity ( $\epsilon_r$ ):	39.23	40.00	-1.93	5
		e"	13.3500	Conductivity ( $\sigma$ ):	1.42	1.40	1.54	5
2023-06-27	Head 1750	e'	39.8000	Relative Permittivity ( $\epsilon_r$ ):	39.80	40.08	-0.71	5
		e"	13.6600	Conductivity ( $\sigma$ ):	1.33	1.37	-2.91	5
	Head 1710	e'	39.8400	Relative Permittivity ( $\epsilon_r$ ):	39.84	40.15	-0.76	5
		e"	13.6900	Conductivity ( $\sigma$ ):	1.30	1.35	-3.32	5
2023-06-27	Head 1780	e'	39.7200	Relative Permittivity ( $\epsilon_r$ ):	39.72	40.04	-0.80	5
		e"	13.6300	Conductivity ( $\sigma$ ):	1.35	1.39	-2.66	5
	Head 1900	e'	39.3900	Relative Permittivity ( $\epsilon_r$ ):	39.39	40.00	-1.53	5
		e"	13.3300	Conductivity ( $\sigma$ ):	1.41	1.40	0.59	5
2023-06-27	Head 1850	e'	39.4900	Relative Permittivity ( $\epsilon_r$ ):	39.49	40.00	-1.28	5
		e"	13.4900	Conductivity ( $\sigma$ ):	1.39	1.40	-0.88	5
	Head 1915	e'	39.3700	Relative Permittivity ( $\epsilon_r$ ):	39.37	40.00	-1.58	5
		e"	13.2900	Conductivity ( $\sigma$ ):	1.42	1.40	1.08	5
2023-07-03	Head 1750	e'	39.8900	Relative Permittivity ( $\epsilon_r$ ):	39.89	40.08	-0.49	5
		e"	13.6700	Conductivity ( $\sigma$ ):	1.33	1.37	-2.83	5
	Head 1710	e'	39.9800	Relative Permittivity ( $\epsilon_r$ ):	39.98	40.15	-0.41	5
		e"	13.6900	Conductivity ( $\sigma$ ):	1.30	1.35	-3.32	5
2023-07-03	Head 1755	e'	39.8800	Relative Permittivity ( $\epsilon_r$ ):	39.88	40.08	-0.49	5
		e"	13.6700	Conductivity ( $\sigma$ ):	1.33	1.37	-2.76	5
	Head 1900	e'	39.5400	Relative Permittivity ( $\epsilon_r$ ):	39.54	40.00	-1.15	5
		e"	13.2900	Conductivity ( $\sigma$ ):	1.40	1.40	0.29	5
2023-07-03	Head 1850	e'	39.6000	Relative Permittivity ( $\epsilon_r$ ):	39.60	40.00	-1.00	5
		e"	13.4400	Conductivity ( $\sigma$ ):	1.38	1.40	-1.25	5
	Head 1910	e'	39.5300	Relative Permittivity ( $\epsilon_r$ ):	39.53	40.00	-1.18	5
		e"	13.2600	Conductivity ( $\sigma$ ):	1.41	1.40	0.59	5
2023-07-03	Head 2600	e'	39.0300	Relative Permittivity ( $\epsilon_r$ ):	39.03	39.01	0.05	5
		e"	13.1900	Conductivity ( $\sigma$ ):	1.91	1.96	-2.82	5
	Head 2500	e'	39.1700	Relative Permittivity ( $\epsilon_r$ ):	39.17	39.14	0.08	5
		e"	13.0800	Conductivity ( $\sigma$ ):	1.82	1.85	-1.93	5
2023-07-03	Head 2700	e'	38.8300	Relative Permittivity ( $\epsilon_r$ ):	38.83	38.88	-0.14	5
		e"	13.3100	Conductivity ( $\sigma$ ):	2.00	2.07	-3.48	5
	Head 2600	e'	39.3100	Relative Permittivity ( $\epsilon_r$ ):	39.31	39.01	0.77	5
		e"	13.2700	Conductivity ( $\sigma$ ):	1.92	1.96	-2.23	5
2023-07-07	Head 2495	e'	39.5000	Relative Permittivity ( $\epsilon_r$ ):	39.50	39.14	0.91	5
		e"	13.2700	Conductivity ( $\sigma$ ):	1.84	1.85	-0.42	5
	Head 2700	e'	39.1100	Relative Permittivity ( $\epsilon_r$ ):	39.11	38.88	0.58	5
		e"	13.2500	Conductivity ( $\sigma$ ):	1.99	2.07	-3.92	5
2023-07-11	Head 2600	e'	40.3200	Relative Permittivity ( $\epsilon_r$ ):	40.32	39.01	3.36	5
		e"	13.1600	Conductivity ( $\sigma$ ):	1.90	1.96	-3.04	5
	Head 2495	e'	40.4000	Relative Permittivity ( $\epsilon_r$ ):	40.40	39.14	3.21	5
		e"	13.1000	Conductivity ( $\sigma$ ):	1.82	1.85	-1.69	5
	Head 2700	e'	40.1500	Relative Permittivity ( $\epsilon_r$ ):	40.15	38.88	3.25	5
		e"	13.2900	Conductivity ( $\sigma$ ):	2.00	2.07	-3.63	5

**SAR 3 Room (Continued)**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-07-13	Head 5200	e'	36.7300	Relative Permittivity ( $\epsilon_r$ ):	36.73	35.99	2.06	5
		e"	15.8700	Conductivity ( $\sigma$ ):	4.59	4.65	-1.34	5
	Head 5250	e'	36.6200	Relative Permittivity ( $\epsilon_r$ ):	36.62	35.93	1.91	5
		e"	15.9200	Conductivity ( $\sigma$ ):	4.65	4.70	-1.17	5
	Head 5600	e'	35.9200	Relative Permittivity ( $\epsilon_r$ ):	35.92	35.53	1.09	5
		e"	16.2300	Conductivity ( $\sigma$ ):	5.05	5.06	-0.13	5
	Head 5750	e'	35.6400	Relative Permittivity ( $\epsilon_r$ ):	35.64	35.36	0.78	5
		e"	16.3800	Conductivity ( $\sigma$ ):	5.24	5.21	0.45	5
2023-07-17	Head 5800	e'	35.5500	Relative Permittivity ( $\epsilon_r$ ):	35.55	35.30	0.71	5
		e"	16.4100	Conductivity ( $\sigma$ ):	5.29	5.27	0.42	5
	Head 5925	e'	35.3200	Relative Permittivity ( $\epsilon_r$ ):	35.32	35.20	0.34	5
		e"	16.4900	Conductivity ( $\sigma$ ):	5.43	5.40	0.60	5
	Head 5200	e'	36.4200	Relative Permittivity ( $\epsilon_r$ ):	36.42	35.99	1.19	5
		e"	15.6800	Conductivity ( $\sigma$ ):	4.53	4.65	-2.52	5
	Head 5250	e'	36.3500	Relative Permittivity ( $\epsilon_r$ ):	36.35	35.93	1.16	5
		e"	15.7300	Conductivity ( $\sigma$ ):	4.59	4.70	-2.35	5
	Head 5600	e'	35.7000	Relative Permittivity ( $\epsilon_r$ ):	35.70	35.53	0.47	5
		e"	16.0000	Conductivity ( $\sigma$ ):	4.98	5.06	-1.55	5
	Head 5750	e'	35.4400	Relative Permittivity ( $\epsilon_r$ ):	35.44	35.36	0.22	5
		e"	16.1700	Conductivity ( $\sigma$ ):	5.17	5.21	-0.84	5
	Head 5800	e'	35.3600	Relative Permittivity ( $\epsilon_r$ ):	35.36	35.30	0.17	5
		e"	16.1700	Conductivity ( $\sigma$ ):	5.21	5.27	-1.05	5
	Head 5925	e'	35.1300	Relative Permittivity ( $\epsilon_r$ ):	35.13	35.20	-0.20	5
		e"	16.2600	Conductivity ( $\sigma$ ):	5.36	5.40	-0.80	5

**SAR 4 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-06-20	Head 750	e'	40.6700	Relative Permittivity (εᵣ):	40.67	41.96	-3.08	5
		e"	21.7900	Conductivity (σ):	0.91	0.89	1.75	5
	Head 660	e'	40.8300	Relative Permittivity (εᵣ):	40.83	42.42	-3.76	5
		e"	23.9500	Conductivity (σ):	0.88	0.89	-0.82	5
2023-06-26	Head 800	e'	40.4300	Relative Permittivity (εᵣ):	40.43	41.71	-3.06	5
		e"	20.7500	Conductivity (σ):	0.92	0.90	2.91	5
	Head 750	e'	41.5800	Relative Permittivity (εᵣ):	41.58	41.96	-0.91	5
		e"	21.8800	Conductivity (σ):	0.91	0.89	2.17	5
2023-06-30	Head 660	e'	41.7300	Relative Permittivity (εᵣ):	41.73	42.42	-1.63	5
		e"	23.9800	Conductivity (σ):	0.88	0.89	-0.69	5
	Head 800	e'	41.3200	Relative Permittivity (εᵣ):	41.32	41.71	-0.92	5
		e"	20.8100	Conductivity (σ):	0.93	0.90	3.21	5
2023-07-04	Head 750	e'	40.6400	Relative Permittivity (εᵣ):	40.64	41.96	-3.15	5
		e"	21.6500	Conductivity (σ):	0.90	0.89	1.09	5
	Head 660	e'	40.9000	Relative Permittivity (εᵣ):	40.90	42.42	-3.59	5
		e"	23.8500	Conductivity (σ):	0.88	0.89	-1.23	5
2023-07-06	Head 800	e'	40.5100	Relative Permittivity (εᵣ):	40.51	41.71	-2.87	5
		e"	20.6700	Conductivity (σ):	0.92	0.90	2.51	5
	Head 835	e'	40.3600	Relative Permittivity (εᵣ):	40.36	41.50	-2.75	5
		e"	20.0500	Conductivity (σ):	0.93	0.90	3.43	5
2023-07-10	Head 810	e'	40.4300	Relative Permittivity (εᵣ):	40.43	41.65	-2.94	5
		e"	20.4800	Conductivity (σ):	0.92	0.90	2.75	5
	Head 850	e'	40.3000	Relative Permittivity (εᵣ):	40.30	41.50	-2.89	5
		e"	19.7300	Conductivity (σ):	0.93	0.92	1.91	5
2023-07-10	Head 2250	e'	37.9400	Relative Permittivity (εᵣ):	37.94	39.56	-4.10	5
		e"	13.4500	Conductivity (σ):	1.68	1.62	3.88	5
	Head 2300	e'	37.8600	Relative Permittivity (εᵣ):	37.86	39.47	-4.09	5
		e"	13.4300	Conductivity (σ):	1.72	1.66	3.23	5
2023-07-14	Head 2350	e'	37.7300	Relative Permittivity (εᵣ):	37.73	39.38	-4.20	5
		e"	13.4000	Conductivity (σ):	1.75	1.71	2.53	5
	Head 835	e'	40.6600	Relative Permittivity (εᵣ):	40.66	41.50	-2.02	5
		e"	19.3200	Conductivity (σ):	0.90	0.90	-0.33	5
2023-07-17	Head 810	e'	40.7100	Relative Permittivity (εᵣ):	40.71	41.65	-2.27	5
		e"	19.7700	Conductivity (σ):	0.89	0.90	-0.81	5
	Head 850	e'	40.6400	Relative Permittivity (εᵣ):	40.64	41.50	-2.07	5
		e"	19.1500	Conductivity (σ):	0.91	0.92	-1.08	5
2023-07-17	Head 2250	e'	37.9400	Relative Permittivity (εᵣ):	37.94	39.56	-4.10	5
		e"	13.4500	Conductivity (σ):	1.68	1.62	3.88	5
	Head 2300	e'	37.8600	Relative Permittivity (εᵣ):	37.86	39.47	-4.09	5
		e"	13.4300	Conductivity (σ):	1.72	1.66	3.23	5
2023-07-17	Head 2350	e'	37.7900	Relative Permittivity (εᵣ):	37.79	39.38	-4.05	5
		e"	13.4000	Conductivity (σ):	1.75	1.71	2.53	5
	Head 2450	e'	40.3400	Relative Permittivity (εᵣ):	40.34	39.20	2.91	5
		e"	13.0000	Conductivity (σ):	1.77	1.80	-1.61	5
2023-07-17	Head 2400	e'	40.4400	Relative Permittivity (εᵣ):	40.44	39.30	2.91	5
		e"	12.9800	Conductivity (σ):	1.73	1.75	-1.11	5
	Head 2500	e'	40.2500	Relative Permittivity (εᵣ):	40.25	39.14	2.84	5
		e"	13.0100	Conductivity (σ):	1.81	1.85	-2.46	5
2023-07-17	Head 2450	e'	38.7600	Relative Permittivity (εᵣ):	38.76	39.20	-1.12	5
		e"	13.0000	Conductivity (σ):	1.77	1.80	-1.61	5
	Head 2400	e'	38.8000	Relative Permittivity (εᵣ):	38.80	39.30	-1.26	5
		e"	12.9800	Conductivity (σ):	1.73	1.75	-1.11	5
2023-07-17	Head 2500	e'	38.6800	Relative Permittivity (εᵣ):	38.68	39.14	-1.17	5
		e"	12.9800	Conductivity (σ):	1.80	1.85	-2.68	5

**SAR 5 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-06-19	Head 835	e'	41.4200	Relative Permittivity ( $\epsilon_r$ ):	41.42	41.50	-0.19	5
		e"	20.0900	Conductivity ( $\sigma$ ):	0.93	0.90	3.64	5
	Head 810	e'	41.9100	Relative Permittivity ( $\epsilon_r$ ):	41.91	41.65	0.61	5
		e"	20.9000	Conductivity ( $\sigma$ ):	0.94	0.90	4.86	5
	Head 850	e'	41.1600	Relative Permittivity ( $\epsilon_r$ ):	41.16	41.50	-0.82	5
		e"	19.7400	Conductivity ( $\sigma$ ):	0.93	0.92	1.96	5
2023-06-23	Head 835	e'	40.5200	Relative Permittivity ( $\epsilon_r$ ):	40.52	41.50	-2.36	5
		e"	19.2300	Conductivity ( $\sigma$ ):	0.89	0.90	-0.80	5
	Head 810	e'	40.8700	Relative Permittivity ( $\epsilon_r$ ):	40.87	41.65	-1.88	5
		e"	19.8500	Conductivity ( $\sigma$ ):	0.89	0.90	-0.41	5
	Head 850	e'	40.3700	Relative Permittivity ( $\epsilon_r$ ):	40.37	41.50	-2.72	5
		e"	18.9900	Conductivity ( $\sigma$ ):	0.90	0.92	-1.91	5
2023-06-27	Head 835	e'	41.8600	Relative Permittivity ( $\epsilon_r$ ):	41.86	41.50	0.87	5
		e"	18.7800	Conductivity ( $\sigma$ ):	0.87	0.90	-3.12	5
	Head 810	e'	41.9500	Relative Permittivity ( $\epsilon_r$ ):	41.95	41.65	0.71	5
		e"	19.1800	Conductivity ( $\sigma$ ):	0.86	0.90	-3.77	5
	Head 850	e'	41.8200	Relative Permittivity ( $\epsilon_r$ ):	41.82	41.50	0.77	5
		e"	18.5500	Conductivity ( $\sigma$ ):	0.88	0.92	-4.18	5
2023-06-28	Head 3500	e'	39.4000	Relative Permittivity ( $\epsilon_r$ ):	39.40	37.93	3.88	5
		e"	14.9900	Conductivity ( $\sigma$ ):	2.92	2.91	0.19	5
	Head 3600	e'	39.3300	Relative Permittivity ( $\epsilon_r$ ):	39.33	37.82	4.00	5
		e"	15.1800	Conductivity ( $\sigma$ ):	3.04	3.01	0.82	5
	Head 3700	e'	39.2200	Relative Permittivity ( $\epsilon_r$ ):	39.22	37.70	4.03	5
		e"	15.3600	Conductivity ( $\sigma$ ):	3.16	3.12	1.41	5
	Head 3800	e'	38.9800	Relative Permittivity ( $\epsilon_r$ ):	38.98	37.59	3.71	5
		e"	15.5100	Conductivity ( $\sigma$ ):	3.28	3.22	1.82	5
	Head 3900	e'	38.8100	Relative Permittivity ( $\epsilon_r$ ):	38.81	37.47	3.57	5
		e"	15.6800	Conductivity ( $\sigma$ ):	3.40	3.32	2.39	5
2023-07-03	Head 3980	e'	38.4800	Relative Permittivity ( $\epsilon_r$ ):	38.48	37.38	2.94	5
		e"	15.7500	Conductivity ( $\sigma$ ):	3.49	3.40	2.43	5
	Head 3500	e'	38.3000	Relative Permittivity ( $\epsilon_r$ ):	38.30	37.93	0.98	5
		e"	14.4000	Conductivity ( $\sigma$ ):	2.80	2.91	-3.75	5
	Head 3600	e'	38.0600	Relative Permittivity ( $\epsilon_r$ ):	38.06	37.82	0.65	5
		e"	14.4900	Conductivity ( $\sigma$ ):	2.90	3.01	-3.76	5
	Head 3700	e'	37.9200	Relative Permittivity ( $\epsilon_r$ ):	37.92	37.70	0.58	5
		e"	14.6000	Conductivity ( $\sigma$ ):	3.00	3.12	-3.61	5
	Head 3800	e'	37.7700	Relative Permittivity ( $\epsilon_r$ ):	37.77	37.59	0.49	5
		e"	14.7200	Conductivity ( $\sigma$ ):	3.11	3.22	-3.37	5
2023-07-10	Head 3900	e'	37.6000	Relative Permittivity ( $\epsilon_r$ ):	37.60	37.47	0.34	5
		e"	14.8300	Conductivity ( $\sigma$ ):	3.22	3.32	-3.16	5
	Head 3980	e'	37.3900	Relative Permittivity ( $\epsilon_r$ ):	37.39	37.38	0.02	5
		e"	14.9100	Conductivity ( $\sigma$ ):	3.30	3.40	-3.03	5
	Head 3500	e'	38.5700	Relative Permittivity ( $\epsilon_r$ ):	38.57	37.93	1.69	5
		e"	14.3500	Conductivity ( $\sigma$ ):	2.79	2.91	-4.08	5
	Head 3600	e'	38.3700	Relative Permittivity ( $\epsilon_r$ ):	38.37	37.82	1.47	5
		e"	14.4800	Conductivity ( $\sigma$ ):	2.90	3.01	-3.83	5
	Head 3700	e'	38.1900	Relative Permittivity ( $\epsilon_r$ ):	38.19	37.70	1.30	5
		e"	14.6200	Conductivity ( $\sigma$ ):	3.01	3.12	-3.48	5
	Head 3800	e'	37.9900	Relative Permittivity ( $\epsilon_r$ ):	37.99	37.59	1.07	5
		e"	14.7700	Conductivity ( $\sigma$ ):	3.12	3.22	-3.04	5
	Head 3900	e'	37.7900	Relative Permittivity ( $\epsilon_r$ ):	37.79	37.47	0.85	5
		e"	14.9100	Conductivity ( $\sigma$ ):	3.23	3.32	-2.64	5
	Head 3980	e'	37.6000	Relative Permittivity ( $\epsilon_r$ ):	37.60	37.38	0.58	5
		e"	15.0000	Conductivity ( $\sigma$ ):	3.32	3.40	-2.45	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	Target SAR Values (W/kg)	
				1g/10g	Head
D750V3	1122	2-24-2022	2-24-2024	1g	8.58
				10g	5.65
D835V2	4d174	9-21-2022	9-21-2024	1g	9.63
				10g	6.29
D1750V2	1180	9-21-2022	9-21-2024	1g	35.60
				10g	18.90
D1750V2	1125	11-30-2022	11-30-2024	1g	37.40
				10g	19.70
D1900V2	5d190	11-16-2022	11-16-2024	1g	39.70
				10g	20.70
D1900V2	5d199	3-25-2022	3-25-2024	1g	39.40
				10g	20.50
D2300V2	1115	4-25-2023	4-25-2025	1g	48.50
				10g	23.50
D2450V2	960	3-24-2022	3-24-2024	1g	51.90
				10g	24.00
D2600V2	1178	4-23-2023	4-23-2025	1g	57.40
				10g	25.70
D3500V2	1075	5-19-2023	5-19-2025	1g	65.50
				10g	24.70
D3700V2	1036	5-19-2023	5-19-2025	1g	67.80
				10g	24.50
D3900V2	1069	4-21-2023	4-21-2025	1g	69.40
				10g	24.00
D5GHzV2	1209	2-28-2023	2-28-2025	1g	80.40
				10g	22.90
				1g	83.10
				10g	23.60
				1g	81.20
				10g	22.90

#### 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 for Extended SAR Dipole Calibrations.
4. All equipments were used until Cal.Due date.

## System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

### SAR 1 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W			
6-5-2023	D750V3	1122	Head	1g	0.85	8.5	8.58	-0.47
				10g	0.58	5.8	5.65	3.01
6-5-2023	D835V2	4d174	Head	1g	1.02	10.2	9.63	5.92
				10g	0.65	6.5	6.29	3.34
6-9-2023	D750V3	1122	Head	1g	0.88	8.8	8.58	2.68
				10g	0.59	5.9	5.65	4.96
6-9-2023	D835V2	4d174	Head	1g	1.04	10.4	9.63	8.00
				10g	0.65	6.5	6.29	3.66
6-28-2023	D5GHzV2 (5250)	1209	Head	1g	8.05	80.5	80.40	0.12
				10g	2.35	23.5	22.90	2.62
6-28-2023	D5GHzV2 (5800)	1209	Head	1g	8.64	86.4	81.20	6.40
				10g	2.48	24.8	22.90	8.30
7-3-2023	D5GHzV2 (5250)	1209	Head	1g	8.64	86.4	80.40	7.46
				10g	2.47	24.7	22.90	7.86
7-3-2023	D5GHzV2 (5600)	1209	Head	1g	9.00	90.0	83.10	8.30
				10g	2.56	25.6	23.60	8.47
7-3-2023	D5GHzV2 (5800)	1209	Head	1g	8.41	84.1	81.20	3.57
				10g	2.38	23.8	22.90	3.93

### 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			
6-7-2023	D1750V2	1125	Head	1g	3.62	36.2	37.40	-3.21
				10g	1.95	19.5	19.70	-1.02
6-7-2023	D1900V2	5d190	Head	1g	4.03	40.3	39.70	1.51
				10g	2.10	21.0	20.70	1.45
6-13-2023	D2600V2	1178	Head	1g	5.85	58.5	57.40	1.92
				10g	2.64	26.4	25.70	2.72
6-16-2023	D2600V2	1178	Head	1g	5.22	52.2	57.40	-9.06
				10g	2.35	23.5	25.70	-8.56
6-20-2023	D2600V2	1178	Head	1g	5.30	53.0	57.40	-7.67
				10g	2.39	23.9	25.70	-7.00
6-21-2023	D2300V2	1115	Head	1g	4.57	45.7	48.50	-5.77
				10g	2.19	21.9	23.50	-6.81
6-26-2023	D2600V2	1178	Head	1g	5.60	56.0	57.40	-2.44
				10g	2.53	25.3	25.70	-1.56
6-27-2023	D5GHzV2	1209	Head	1g	8.14	81.4	80.40	1.24
				10g	2.33	23.3	22.90	1.75
6-27-2023	D5GHzV2	1209	Head	1g	9.04	90.4	83.10	8.78
				10g	2.54	25.4	23.60	7.63
6-27-2023	D5GHzV2 (5800)	1209	Head	1g	8.47	84.7	81.20	4.31
				10g	2.39	23.9	22.90	4.37
7-3-2023	D2450V2	960	Head	1g	5.13	51.3	51.90	-1.16
				10g	2.40	24.0	24.00	0.00
7-3-2023	D2600V2	1178	Head	1g	5.52	55.2	57.40	-3.83
				10g	2.49	24.9	25.70	-3.11
7-5-2023	D2300V2	1115	Head	1g	4.73	47.3	48.50	-2.47
				10g	2.28	22.8	23.50	-2.98
7-7-2023	D2450V2	960	Head	1g	4.99	49.9	51.90	-3.85
				10g	2.33	23.3	24.00	-2.92
7-10-2023	D3500V2	1075	Head	1g	6.39	63.9	65.50	-2.44
				10g	2.46	24.6	24.70	-0.40
7-10-2023	D3700V2	1036	Head	1g	6.18	61.8	67.90	-8.98
				10g	2.30	23.0	24.30	-5.35
7-10-2023	D3900V2	1069	Head	1g	6.55	65.5	69.40	-5.62
				10g	2.36	23.6	24.00	-1.67
7-14-2023	D3500V2	1075	Head	1g	6.57	65.7	65.50	0.31
				10g	2.53	25.3	24.70	2.43
7-14-2023	D3700V2	1036	Head	1g	6.95	69.5	67.90	2.36
				10g	2.59	25.9	24.30	6.58
7-14-2023	D3900V2	1069	Head	1g	6.83	68.3	69.40	-1.59
				10g	2.47	24.7	24.00	2.92
7-19-2023	D3900V2	1069	Head	1g	7.14	71.4	69.40	2.88
				10g	2.55	25.5	24.00	6.25

**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			
6-19-2023	D1750V2	1125	Head	1g	3.62	36.2	37.40	-3.21	9
				10g	2.01	20.1	19.70	2.03	
6-19-2023	D1900V2	5d190	Head	1g	3.86	38.6	39.70	-2.77	
				10g	2.11	21.1	20.70	1.93	
6-23-2023	D1750V2	1180	Head	1g	3.57	35.7	35.60	0.28	
				10g	2.00	20.0	18.90	5.82	
6-23-2023	D1900V2	5d199	Head	1g	3.97	39.7	39.40	0.76	
				10g	2.16	21.6	20.50	5.37	
6-27-2023	D1750V2	1180	Head	1g	3.58	35.8	35.60	0.56	
				10g	2.00	20.0	18.90	5.82	
6-27-2023	D1900V2	5d199	Head	1g	3.83	38.3	39.40	-2.79	
				10g	2.08	20.8	20.50	1.46	
7-3-2023	D1750V2	1125	Head	1g	3.70	37.0	37.40	-1.07	
				10g	2.05	20.5	19.70	4.06	
7-3-2023	D1900V2	5d190	Head	1g	3.85	38.5	39.70	-3.02	10
				10g	2.09	20.9	20.70	0.97	
7-3-2023	D2600V2	1178	Head	1g	5.77	57.7	57.40	0.52	
				10g	2.71	27.1	25.70	5.45	
7-7-2023	D2600V2	1178	Head	1g	5.47	54.7	57.40	-4.70	
				10g	2.58	25.8	25.70	0.39	
7-11-2023	D2600V2	1178	Head	1g	5.67	56.7	57.40	-1.22	
				10g	2.58	25.8	25.70	0.39	
7-13-2023	D5GHzV2	1209	Head	1g	8.27	82.7	83.10	-0.48	
				10g	2.32	23.2	23.60	-1.69	
7-13-2023	D5GHzV2 (5800)	1209	Head	1g	8.14	81.4	81.20	0.25	
				10g	2.30	23.0	22.90	0.44	
7-17-2023	D5GHzV2 (5600)	1209	Head	1g	8.23	82.3	83.10	-0.96	
				10g	2.39	23.9	23.60	1.27	
7-17-2023	D5GHzV2 (5800)	1209	Head	1g	7.93	79.3	81.20	-2.34	
				10g	2.30	23.0	22.90	0.44	

**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			
6-20-2023	D750V3	1122	Head	1g	0.80	8.0	8.58	-6.64	11
				10g	0.54	5.4	5.65	-4.25	
6-26-2023	D750V3	1122	Head	1g	0.81	8.1	8.58	-5.36	
				10g	0.54	5.4	5.65	-3.89	
6-30-2023	D750V3	1122	Head	1g	0.89	8.9	8.58	3.85	
				10g	0.59	5.9	5.65	3.89	
7-4-2023	D750V3	1122	Head	1g	0.84	8.4	8.58	-2.68	
				10g	0.56	5.6	5.65	-0.88	
7-4-2023	D835V2	4d174	Head	1g	0.91	9.1	9.63	-5.92	
				10g	0.61	6.1	6.29	-3.66	
7-6-2023	D2300V2	1115	Head	1g	4.41	44.1	48.50	-9.07	12
				10g	2.16	21.6	23.50	-8.09	
7-10-2023	D835V2	4d174	Head	1g	0.88	8.8	9.63	-8.31	
				10g	0.58	5.8	6.29	-7.31	
7-10-2023	D2300V2	1115	Head	1g	4.76	47.6	48.50	-1.86	
				10g	2.36	23.6	23.50	0.43	
7-13-2023	D750V3	1122	Head	1g	0.82	8.2	8.58	-3.96	
				10g	0.56	5.6	5.65	-1.06	
7-13-2023	D2600V2	1178	Head	1g	5.63	56.3	57.40	-1.92	
				10g	2.66	26.6	25.70	3.50	
7-14-2023	D2450V2	960	Head	1g	5.11	51.1	51.90	-1.54	
				10g	2.49	24.9	24.00	3.75	
7-17-2023	D2450V2	960	Head	1g	5.25	52.5	51.90	1.16	
				10g	2.54	25.4	24.00	5.83	

**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			
6-19-2023	D835V2	4d174	Head	1g	1.00	10.0	9.63	3.84
				10g	0.69	6.9	6.29	9.86
6-23-2023	D835V2	4d174	Head	1g	0.94	9.4	9.63	-2.49
				10g	0.65	6.5	6.29	2.86
6-27-2023	D835V2	4d174	Head	1g	0.93	9.3	9.63	-3.12
				10g	0.64	6.4	6.29	1.91
6-28-2023	D3500V2	1075	Head	1g	6.03	60.3	65.50	-7.94
				10g	2.48	24.8	24.70	0.40
6-28-2023	D3700V2	1036	Head	1g	6.50	65.0	67.90	-4.27
				10g	2.56	25.6	24.30	5.35
6-28-2023	D3900V2	1069	Head	1g	6.62	66.2	69.40	-4.61
				10g	2.52	25.2	24.00	5.00
7-3-2023	D3500V2	1075	Head	1g	6.36	63.6	65.50	-2.90
				10g	2.64	26.4	24.70	6.88
7-3-2023	D3700V2	1036	Head	1g	6.32	63.2	67.90	-6.92
				10g	2.53	25.3	24.30	4.12
7-3-2023	D3900V2	1069	Head	1g	6.72	67.2	69.40	-3.17
				10g	2.60	26.0	24.00	8.33
7-10-2023	D3500V2	1075	Head	1g	6.17	61.7	65.50	-5.80
				10g	2.51	25.1	24.70	1.62
7-10-2023	D3700V2	1036	Head	1g	6.74	67.4	67.90	-0.74
				10g	2.64	26.4	24.30	8.64
7-10-2023	D3900V2	1069	Head	1g	6.71	67.1	69.40	-3.31
				10g	2.52	25.2	24.00	5.00

## 9. Conducted Output Power Measurements

### 9.1. 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 <sub>ACK</sub>	8			
	D <sub>NAK</sub>	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	Ahs= $\beta_{hs}/\beta_c$	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	-	
HSDPA Specific Settings	$\beta_{hs}$	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	
	DACK	8					0
HSUPA Specific Settings	DNAK	8					0
	DCQI	8					0
	Ack-Nack repetition factor	3					
	CQI Feedback (Table 5.2B.4)	4ms					
	CQI Repetition Factor (Table 5.2B.4)	2					
	Ahs = $\beta_{hs}/\beta_c$	30/15					
	E-DPDCH	6	8	8	5	0	
	DHARQ	0	0	0	0	0	
	AG Index	20	12	15	17	12	
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	67	
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9	
	Reference E-TFCIs	5	5	2	5	1	
	Reference E-TFCI	11	11	11	11	67	
	Reference E-TFCI PO	4	4	4	4	18	
	Reference E-TFCI	67	67	92	67	67	
	Reference E-TFCI PO	18	18	18	18	18	
	Reference E-TFCI	71	71	71	71	71	
	Reference E-TFCI PO	23	23	23	23	23	
	Reference E-TFCI	75	75	75	75	75	
	Reference E-TFCI PO	26	26	26	26	26	
	Reference E-TFCI	81	81	81	81	81	
	Reference E-TFCI PO	27	27	27	27	27	
	Maximum Channelization Codes	2xSF2					SF4

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

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

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

Table E.5.0: Levels for HSDPA connection setup

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

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

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

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

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

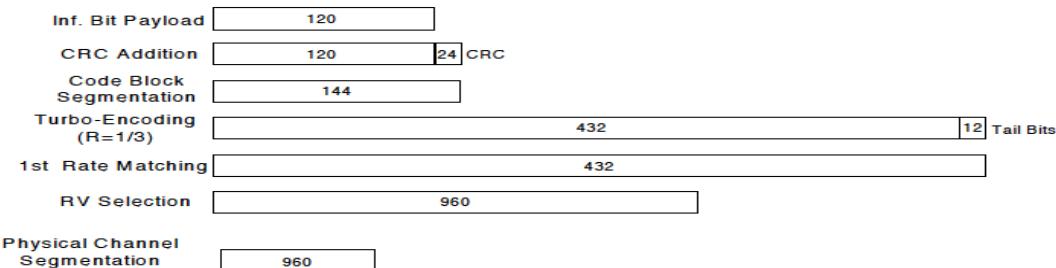


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

Mode	HSDPA	HSDPA	HSDPA	HSDPA	
Subtest	1	2	3	4	
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 12			
	Power Control Algorithm	Algorithm2			
	$\beta_c$	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
HSDPA Specific Settings	MPR (dB)	0	0	0.5	0.5
	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs = $\beta_{hs}/\beta_c$	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 = 0			DSI = 1		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	23.02	N/A	24.50	13.24	N/A	14.50
		9400	1880.0	23.42			13.44		
		9538	1907.6	23.10			13.49		
HSDPA	Subtest 1	9262	1852.4	23.04	0	24.00	13.21	0	13.50
		9400	1880.0	23.34			13.42		
		9538	1907.6	22.93			13.46		
	Subtest 2	9262	1852.4	22.70	0	24.00	13.23	0	13.50
		9400	1880.0	22.92			13.41		
		9538	1907.6	22.58			13.43		
	Subtest 3	9262	1852.4	22.24	0.5	23.50	13.32	0.0	13.50
		9400	1880.0	22.54			13.48		
		9538	1907.6	22.30			13.46		
	Subtest 4	9262	1852.4	21.85	0.5	23.50	13.36	0.0	13.50
		9400	1880.0	22.20			13.46		
		9538	1907.6	21.96			13.47		
HSUPA	Subtest 1	9262	1852.4	22.44	0	24.00	12.26	0	13.50
		9400	1880.0	22.49			12.44		
		9538	1907.6	22.67			12.43		
	Subtest 2	9262	1852.4	19.81	2	22.00	12.38	0	13.50
		9400	1880.0	19.94			12.54		
		9538	1907.6	20.17			12.55		
	Subtest 3	9262	1852.4	22.39	1	23.00	12.25	0	13.50
		9400	1880.0	22.46			12.43		
		9538	1907.6	22.64			12.46		
	Subtest 4	9262	1852.4	20.32	2	22.00	12.39	0	13.50
		9400	1880.0	20.40			12.57		
		9538	1907.6	20.60			12.54		
	Subtest 5	9262	1852.4	22.95	0	24.00	13.38	0	13.50
		9400	1880.0	23.57			13.42		
		9538	1907.6	23.27			13.41		
DC-HSDPA	Subtest 1	9262	1852.4	23.00	0	24.00	13.25	0	13.50
		9400	1880.0	23.42			13.33		
		9538	1907.6	22.77			13.38		
	Subtest 2	9262	1852.4	22.65	0	24.00	13.19	0	13.50
		9400	1880.0	22.89			13.34		
		9538	1907.6	22.30			13.37		
	Subtest 3	9262	1852.4	21.83	0.5	23.50	13.20	0.0	13.50
		9400	1880.0	22.19			13.32		
		9538	1907.6	21.71			13.36		
	Subtest 4	9262	1852.4	21.99	0.5	23.50	13.21	0.0	13.50
		9400	1880.0	22.20			13.36		
		9538	1907.6	21.79			13.40		

## W-CDMA Band IV 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 (RMC, 12.2 kbps)	Rel 99	1312	1712.4	23.61	N/A	25.00	12.69	N/A	13.50
		1413	1732.6	23.76			12.92		
		1513	1752.6	23.57			12.74		
HSDPA	Subtest 1	1312	1712.4	23.05	0	24.50	12.69	0	13.00
		1413	1732.6	23.15			12.86		
		1513	1752.6	23.14			12.73		
	Subtest 2	1312	1712.4	22.71	1	24.00	12.70	0	13.00
		1413	1732.6	22.73			12.88		
		1513	1752.6	22.77			12.74		
	Subtest 3	1312	1712.4	22.28	0.5	24.00	12.67	0.0	13.00
		1413	1732.6	22.43			12.86		
		1513	1752.6	22.55			12.72		
	Subtest 4	1312	1712.4	22.33	0.5	24.00	12.67	0.0	13.00
		1413	1732.6	22.46			12.88		
		1513	1752.6	22.57			12.74		
HSUPA	Subtest 1	1312	1712.4	22.30	0	24.00	11.65	0	13.00
		1413	1732.6	22.27			11.82		
		1513	1752.6	22.31			11.67		
	Subtest 2	1312	1712.4	22.35	0	24.00	11.64	0	13.00
		1413	1732.6	22.89			11.80		
		1513	1752.6	22.74			11.67		
	Subtest 3	1312	1712.4	22.20	0	24.00	11.62	0	13.00
		1413	1732.6	22.19			11.82		
		1513	1752.6	22.24			11.67		
	Subtest 4	1312	1712.4	20.05	2	22.00	11.63	0	13.00
		1413	1732.6	20.02			11.80		
		1513	1752.6	20.12			11.65		
	Subtest 5	1312	1712.4	23.51	0	24.00	12.75	0	13.00
		1413	1732.6	23.47			12.94		
		1513	1752.6	23.57			12.81		
DC-HSDPA	Subtest 1	1312	1712.4	23.27	0	24.50	12.65	0	13.00
		1413	1732.6	23.50			12.84		
		1513	1752.6	23.66			12.81		
	Subtest 2	1312	1712.4	22.75	1	24.00	12.64	0	13.00
		1413	1732.6	22.99			12.85		
		1513	1752.6	23.21			12.80		
	Subtest 3	1312	1712.4	21.77	1.0	23.50	12.63	0.0	13.00
		1413	1732.6	21.93			12.87		
		1513	1752.6	22.11			12.80		
	Subtest 4	1312	1712.4	22.24	1.0	23.50	12.63	0.0	13.00
		1413	1732.6	22.39			12.82		
		1513	1752.6	22.57			12.80		

**W-CDMA Band V 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 (RMC, 12.2 kbps)	Rel 99	4132	826.4	24.26	N/A	24.50	16.61	N/A	17.50
		4183	836.6	23.95			16.32		
		4233	846.6	24.06			16.33		
HSDPA	Subtest 1	4132	826.4	23.63	0	24.00	16.56	0	17.00
		4183	836.6	23.54			16.30		
		4233	846.6	23.66			16.32		
	Subtest 2	4132	826.4	23.25	0	24.00	16.57	0	17.00
		4183	836.6	23.11			16.30		
		4233	846.6	23.20			16.31		
	Subtest 3	4132	826.4	22.75	0.5	23.50	16.41	0.5	16.50
		4183	836.6	22.62			16.30		
		4233	846.6	22.73			16.33		
	Subtest 4	4132	826.4	22.21	0.5	23.50	16.34	0.5	16.50
		4183	836.6	22.07			16.29		
		4233	846.6	22.20			16.32		
HSUPA	Subtest 1	4132	826.4	22.75	0	24.00	15.51	0	17.00
		4183	836.6	22.52			15.22		
		4233	846.6	22.62			15.23		
	Subtest 2	4132	826.4	20.61	2	22.00	15.47	1	16.00
		4183	836.6	20.41			15.20		
		4233	846.6	20.50			15.20		
	Subtest 3	4132	826.4	21.62	1	23.00	15.48	1	16.00
		4183	836.6	21.43			15.20		
		4233	846.6	21.52			15.21		
	Subtest 4	4132	826.4	20.61	2	22.00	15.49	1	16.00
		4183	836.6	20.41			15.22		
		4233	846.6	20.51			15.21		
	Subtest 5	4132	826.4	23.79	0	24.00	16.71	0	17.00
		4183	836.6	23.59			16.39		
		4233	846.6	23.68			16.39		
DC-HSDPA	Subtest 1	4132	826.4	23.79	0	24.00	16.59	0	17.00
		4183	836.6	23.64			16.21		
		4233	846.6	23.56			16.09		
	Subtest 2	4132	826.4	23.25	0	24.00	16.55	0	17.00
		4183	836.6	23.19			16.18		
		4233	846.6	23.12			16.13		
	Subtest 3	4132	826.4	21.69	0.5	23.50	16.34	0.5	16.50
		4183	836.6	21.63			16.21		
		4233	846.6	21.55			16.11		
	Subtest 4	4132	826.4	22.21	0.5	23.50	16.41	0.5	16.50
		4183	836.6	22.19			16.19		
		4233	846.6	22.10			16.11		

## 9.2. LTE

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

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

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

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

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS\_01”.

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

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

### Maximum Output Power (Tune-up Limit) for LTE

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

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

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

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

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

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

**LTE Band 7 (Main.1) 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	21100	21350			20850	21100	21350				
20 MHz	QPSK	1	0	24.47	24.54	24.71	0.0	25.0	12.12	12.23	12.44	0.0	13.0		
		1	49	24.57	24.44	24.49	0.0	25.0	12.33	12.02	12.43	0.0	13.0		
		1	99	24.68	24.49	24.70	0.0	25.0	12.29	12.12	12.34	0.0	13.0		
		50	0	23.56	23.60	23.72	1.0	24.0	12.21	12.25	12.38	0.0	13.0		
		50	24	23.59	23.58	23.70	1.0	24.0	12.28	12.22	12.37	0.0	13.0		
		50	50	23.62	23.56	23.68	1.0	24.0	12.30	12.18	12.36	0.0	13.0		
		100	0	23.59	23.59	23.71	1.0	24.0	12.26	12.21	12.37	0.0	13.0		
	16QAM	1	0	23.73	23.62	23.88	1.0	24.0	12.46	12.67	12.75	0.0	13.0		
		1	49	23.87	23.66	24.00	1.0	24.0	12.47	12.64	12.68	0.0	13.0		
		1	99	23.84	23.99	24.00	1.0	24.0	12.62	12.52	12.70	0.0	13.0		
		50	0	22.48	22.58	22.68	2.0	23.0	12.25	12.24	12.38	0.0	13.0		
		50	24	22.51	22.53	22.62	2.0	23.0	12.30	12.21	12.35	0.0	13.0		
		50	50	22.52	22.50	22.60	2.0	23.0	12.31	12.17	12.34	0.0	13.0		
		100	0	22.50	22.53	22.62	2.0	23.0	12.30	12.21	12.39	0.0	13.0		
	64QAM	1	0	22.46	22.49	22.70	2.0	23.0	12.30	12.49	12.63	0.0	13.0		
		1	49	22.54	22.45	22.68	2.0	23.0	12.46	12.62	12.65	0.0	13.0		
		1	99	22.56	22.39	22.65	2.0	23.0	12.45	12.35	12.61	0.0	13.0		
		50	0	21.49	21.56	21.64	3.0	22.0	12.29	12.25	12.41	0.0	13.0		
		50	24	21.52	21.54	21.59	3.0	22.0	12.35	12.25	12.41	0.0	13.0		
		50	50	21.55	21.51	21.58	3.0	22.0	12.36	12.21	12.38	0.0	13.0		
		100	0	21.47	21.50	21.58	3.0	22.0	12.31	12.21	12.41	0.0	13.0		
	256QAM	1	0	19.37	19.59	19.62	5.0	20.0	12.28	12.39	12.67	0.0	13.0		
		1	49	19.32	19.40	19.41	5.0	20.0	12.53	12.42	12.72	0.0	13.0		
		1	99	19.48	19.47	19.52	5.0	20.0	12.45	12.27	12.62	0.0	13.0		
		50	0	19.40	19.48	19.55	5.0	20.0	12.27	12.24	12.39	0.0	13.0		
		50	24	19.43	19.47	19.51	5.0	20.0	12.31	12.23	12.37	0.0	13.0		
		50	50	19.45	19.45	19.49	5.0	20.0	12.34	12.18	12.34	0.0	13.0		
		100	0	19.42	19.47	19.52	5.0	20.0	12.31	12.22	12.36	0.0	13.0		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				20825	21100	21375			20825	21100	21375				
15 MHz	QPSK	1	0	23.79	24.21	24.34	0.0	25.0	12.16	12.16	12.29	0.0	13.0		
		1	37	24.48	24.30	24.47	0.0	25.0	12.10	11.98	12.22	0.0	13.0		
		1	74	24.45	24.16	23.73	0.0	25.0	12.27	12.09	12.23	0.0	13.0		
		36	0	23.46	23.33	23.41	1.0	24.0	12.24	12.20	12.28	0.0	13.0		
		36	20	23.49	23.31	23.41	1.0	24.0	12.28	12.18	12.28	0.0	13.0		
		36	39	23.53	23.29	23.44	1.0	24.0	12.34	12.17	12.30	0.0	13.0		
		75	0	23.51	23.33	23.43	1.0	24.0	12.31	12.18	12.28	0.0	13.0		
	16QAM	1	0	23.31	23.57	23.60	1.0	24.0	12.45	12.58	12.63	0.0	13.0		
		1	37	23.74	23.62	23.59	1.0	24.0	12.45	12.47	12.56	0.0	13.0		
		1	74	23.64	23.44	23.30	1.0	24.0	12.56	12.45	12.59	0.0	13.0		
		36	0	22.37	22.27	22.39	2.0	23.0	12.27	12.23	12.33	0.0	13.0		
		36	20	22.38	22.24	22.35	2.0	23.0	12.31	12.21	12.33	0.0	13.0		
		36	39	22.41	22.21	22.34	2.0	23.0	12.33	12.20	12.31	0.0	13.0		
		75	0	22.37	22.20	22.31	2.0	23.0	12.29	12.17	12.28	0.0	13.0		
	64QAM	1	0	22.24	22.25	22.21	2.0	23.0	12.50	12.32	12.37	0.0	13.0		
		1	37	21.93	22.30	22.34	2.0	23.0	12.46	12.04	12.26	0.0	13.0		
		1	74	22.29	22.19	22.35	2.0	23.0	12.67	12.17	12.30	0.0	13.0		
		36	0	21.15	21.14	21.25	3.0	22.0	12.26	12.30	12.35	0.0	13.0		
		36	20	21.14	21.11	21.30	3.0	22.0	12.32	12.27	12.33	0.0	13.0		
		36	39	21.13	21.11	21.31	3.0	22.0	12.34	12.24	12.34	0.0	13.0		
		75	0	21.15	21.07	21.22	3.0	22.0	12.35	12.20	12.29	0.0	13.0		
	256QAM	1	0	19.13	19.24	19.15	5.0	20.0	12.31	12.57	12.39	0.0	13.0		
		1	37	19.06	18.97	19.24	5.0	20.0	12.32	12.29	12.30	0.0	13.0		
		1	74	19.06	19.17	19.25	5.0	20.0	12.44	12.49	12.33	0.0	13.0		
		36	0	19.08	19.05	19.11	5.0	20.0	12.28	12.29	12.28	0.0	13.0		
		36	20	19.05	19.04	19.13	5.0	20.0	12.31	12.27	12.26	0.0	13.0		
		36	39	19.05	19.00	19.16	5.0	20.0	12.34	12.22	12.27	0.0	13.0		
		75	0	19.07	19.02	19.12	5.0	20.0	12.33	12.23	12.27	0.0	13.0		

**LTE Band 7 (Main.1) 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	24.18	24.23	24.23	0.0	25.0	12.20	12.21	12.20	0.0	13.0
		1	25	24.27	24.34	24.27	0.0	25.0	12.22	12.21	12.10	0.0	13.0
		1	49	24.37	24.18	24.53	0.0	25.0	12.36	12.11	12.23	0.0	13.0
		25	0	23.24	23.18	23.24	1.0	24.0	12.28	12.17	12.20	0.0	13.0
		25	12	23.28	23.18	23.23	1.0	24.0	12.30	12.17	12.21	0.0	13.0
		25	25	23.28	23.13	23.23	1.0	24.0	12.30	12.14	12.20	0.0	13.0
		50	0	23.28	23.16	23.22	1.0	24.0	12.30	12.18	12.20	0.0	13.0
	16QAM	1	0	23.40	23.44	23.51	1.0	24.0	12.47	12.46	12.62	0.0	13.0
		1	25	23.57	23.55	23.50	1.0	24.0	12.62	12.52	12.63	0.0	13.0
		1	49	23.45	23.22	23.34	1.0	24.0	12.52	12.42	12.59	0.0	13.0
		25	0	22.28	22.16	22.14	2.0	23.0	12.28	12.23	12.21	0.0	13.0
		25	12	22.30	22.14	22.11	2.0	23.0	12.32	12.23	12.20	0.0	13.0
	64QAM	25	25	22.29	22.12	22.13	2.0	23.0	12.33	12.21	12.21	0.0	13.0
		50	0	22.24	22.14	22.16	2.0	23.0	12.31	12.18	12.22	0.0	13.0
		1	0	22.17	22.04	22.32	2.0	23.0	12.34	12.36	12.23	0.0	13.0
		1	25	22.18	22.13	22.57	2.0	23.0	12.43	12.36	12.30	0.0	13.0
		1	49	22.24	22.06	22.42	2.0	23.0	12.39	12.35	12.29	0.0	13.0
	256QAM	25	0	21.05	21.09	21.20	3.0	22.0	12.35	12.23	12.23	0.0	13.0
		25	12	21.03	21.08	21.21	3.0	22.0	12.37	12.20	12.25	0.0	13.0
		25	25	21.04	21.04	21.23	3.0	22.0	12.40	12.20	12.23	0.0	13.0
		50	0	21.03	21.04	21.18	3.0	22.0	12.36	12.19	12.26	0.0	13.0
		1	0	19.47	19.16	19.14	5.0	20.0	12.31	12.45	12.19	0.0	13.0
		1	25	19.57	19.22	19.22	5.0	20.0	12.46	12.40	12.08	0.0	13.0
		1	49	19.46	19.02	19.20	5.0	20.0	12.39	12.42	12.14	0.0	13.0
5 MHz	QPSK	25	0	19.03	19.02	19.18	5.0	20.0	12.38	12.25	12.25	0.0	13.0
		25	12	19.02	19.00	19.20	5.0	20.0	12.42	12.24	12.25	0.0	13.0
		25	25	19.00	18.96	19.20	5.0	20.0	12.41	12.21	12.23	0.0	13.0
		50	0	19.00	18.97	19.11	5.0	20.0	12.35	12.21	12.21	0.0	13.0
		1	0	24.16	24.22	24.19	0.0	25.0	12.15	12.09	12.11	0.0	13.0
		1	12	24.23	24.35	24.26	0.0	25.0	12.15	11.92	12.10	0.0	13.0
		1	24	24.32	24.25	23.82	0.0	25.0	12.25	12.15	12.17	0.0	13.0
	16QAM	12	0	23.25	23.24	23.22	1.0	24.0	12.24	12.17	12.20	0.0	13.0
		12	7	23.25	23.24	23.23	1.0	24.0	12.25	12.15	12.20	0.0	13.0
		12	13	23.29	23.21	23.24	1.0	24.0	12.30	12.15	12.19	0.0	13.0
		25	0	23.29	23.23	23.22	1.0	24.0	12.29	12.17	12.22	0.0	13.0
		1	0	23.56	23.52	23.36	1.0	24.0	12.52	12.68	12.43	0.0	13.0
	64QAM	1	12	23.57	23.61	23.46	1.0	24.0	12.42	12.36	12.37	0.0	13.0
		1	24	23.60	23.46	23.30	1.0	24.0	12.55	12.61	12.49	0.0	13.0
		12	0	22.30	22.25	22.15	2.0	23.0	12.33	12.32	12.22	0.0	13.0
		12	7	22.29	22.19	22.14	2.0	23.0	12.35	12.32	12.21	0.0	13.0
		12	13	22.30	22.21	22.12	2.0	23.0	12.40	12.31	12.21	0.0	13.0
	256QAM	25	0	22.21	22.14	22.14	2.0	23.0	12.32	12.20	12.22	0.0	13.0
		1	0	22.79	22.89	22.07	2.0	23.0	12.35	12.45	12.44	0.0	13.0
		1	12	22.25	22.22	22.13	2.0	23.0	12.40	12.26	12.39	0.0	13.0
		1	24	22.33	22.24	22.19	2.0	23.0	12.49	12.36	12.48	0.0	13.0
		12	0	21.98	21.87	21.00	3.0	22.0	12.25	12.19	12.23	0.0	13.0
		12	7	21.97	21.81	21.02	3.0	22.0	12.26	12.18	12.22	0.0	13.0
		12	13	21.81	21.92	21.01	3.0	22.0	12.28	12.16	12.23	0.0	13.0
		25	0	21.07	21.07	21.00	3.0	22.0	12.30	12.19	12.23	0.0	13.0
		1	0	18.93	19.04	18.91	5.0	20.0	12.24	12.46	12.13	0.0	13.0
		1	12	18.96	19.06	18.86	5.0	20.0	12.16	12.39	12.11	0.0	13.0
		1	24	19.04	19.05	18.90	5.0	20.0	12.30	12.46	12.18	0.0	13.0
		12	0	18.96	19.10	18.96	5.0	20.0	12.28	12.26	12.27	0.0	13.0
		12	7	18.98	19.07	18.98	5.0	20.0	12.30	12.26	12.27	0.0	13.0
		12	13	19.00	19.07	18.95	5.0	20.0	12.30	12.23	12.28	0.0	13.0
		25	0	18.95	18.99	18.96	5.0	20.0	12.31	12.18	12.23	0.0	13.0

**LTE Band 7 (Sub.2) 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	21100	21350			20850	21100	21350				
20 MHz	QPSK	1	0	23.50	23.30	23.13	0.0	24.0	10.00	9.63	9.27	0.0	10.5		
		1	49	23.07	23.40	22.64	0.0	24.0	9.94	9.51	9.20	0.0	10.5		
		1	99	22.93	23.28	23.11	0.0	24.0	9.90	9.62	9.31	0.0	10.5		
		50	0	22.52	22.30	22.17	1.0	23.0	9.99	9.64	9.27	0.0	10.5		
		50	24	22.49	22.32	22.16	1.0	23.0	9.89	9.64	9.29	0.0	10.5		
		50	50	22.47	22.30	22.16	1.0	23.0	9.96	9.62	9.29	0.0	10.5		
		100	0	22.49	22.31	22.17	1.0	23.0	9.97	9.65	9.28	0.0	10.5		
	16QAM	1	0	22.69	22.63	22.43	1.0	23.0	10.34	9.91	9.67	0.0	10.5		
		1	49	22.86	22.67	22.50	1.0	23.0	10.37	9.88	9.76	0.0	10.5		
		1	99	22.66	22.55	22.36	1.0	23.0	10.33	9.85	9.67	0.0	10.5		
		50	0	21.47	21.34	21.22	2.0	22.0	9.99	9.63	9.29	0.0	10.5		
		50	24	21.45	21.32	21.21	2.0	22.0	10.00	9.61	9.31	0.0	10.5		
		50	50	21.45	21.29	21.18	2.0	22.0	9.98	9.58	9.30	0.0	10.5		
		100	0	21.47	21.35	21.22	2.0	22.0	10.00	9.65	9.31	0.0	10.5		
	64QAM	1	0	21.47	21.52	21.46	2.0	22.0	10.45	9.82	9.70	0.0	10.5		
		1	49	21.48	21.46	21.45	2.0	22.0	10.43	9.77	9.70	0.0	10.5		
		1	99	21.50	21.43	21.41	2.0	22.0	10.49	9.80	9.76	0.0	10.5		
		50	0	20.47	20.38	20.27	3.0	21.0	10.05	9.65	9.37	0.0	10.5		
		50	24	20.47	20.36	20.26	3.0	21.0	10.06	9.63	9.39	0.0	10.5		
		50	50	20.47	20.35	20.28	3.0	21.0	10.05	9.61	9.37	0.0	10.5		
		100	0	20.44	20.33	20.25	3.0	21.0	10.03	9.63	9.38	0.0	10.5		
	256QAM	1	0	18.67	18.47	18.30	5.0	19.0	10.34	9.86	9.43	0.0	10.5		
		1	49	18.69	18.49	18.48	5.0	19.0	10.27	9.80	9.49	0.0	10.5		
		1	99	18.63	18.40	18.32	5.0	19.0	10.30	9.82	9.46	0.0	10.5		
		50	0	18.45	18.36	18.26	5.0	19.0	10.03	9.63	9.31	0.0	10.5		
		50	24	18.45	18.35	18.25	5.0	19.0	10.02	9.61	9.33	0.0	10.5		
		50	50	18.42	18.34	18.26	5.0	19.0	10.03	9.60	9.32	0.0	10.5		
		100	0	18.42	18.36	18.27	5.0	19.0	9.98	9.60	9.30	0.0	10.5		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				20825	21100	21375			20825	21100	21375				
15 MHz	QPSK	1	0	23.41	22.98	22.43	0.0	24.0	9.86	9.44	9.21	0.0	10.5		
		1	37	23.23	22.95	22.72	0.0	24.0	9.64	9.34	9.15	0.0	10.5		
		1	74	23.33	22.99	22.69	0.0	24.0	9.77	9.44	9.17	0.0	10.5		
		36	0	22.47	22.06	21.79	1.0	23.0	9.86	9.47	9.20	0.0	10.5		
		36	20	22.43	22.05	21.77	1.0	23.0	9.85	9.47	9.19	0.0	10.5		
		36	39	22.42	22.05	21.77	1.0	23.0	9.83	9.46	9.18	0.0	10.5		
		75	0	22.46	22.07	21.78	1.0	23.0	9.85	9.46	9.18	0.0	10.5		
	16QAM	1	0	22.51	22.19	21.99	1.0	23.0	10.09	9.81	9.59	0.0	10.5		
		1	37	22.45	22.15	21.99	1.0	23.0	9.95	9.77	9.57	0.0	10.5		
		1	74	22.51	22.15	22.00	1.0	23.0	10.03	9.75	9.62	0.0	10.5		
		36	0	21.44	21.06	20.80	2.0	22.0	9.88	9.50	9.22	0.0	10.5		
		36	20	21.41	21.06	20.79	2.0	22.0	9.85	9.48	9.21	0.0	10.5		
		36	39	21.39	21.06	20.79	2.0	22.0	9.85	9.48	9.23	0.0	10.5		
		75	0	21.42	21.05	20.79	2.0	22.0	9.86	9.47	9.21	0.0	10.5		
	64QAM	1	0	21.64	21.38	21.02	2.0	22.0	9.91	9.65	9.28	0.0	10.5		
		1	37	21.74	21.38	20.63	2.0	22.0	9.73	9.53	9.09	0.0	10.5		
		1	74	21.64	21.32	21.03	2.0	22.0	9.83	9.59	9.31	0.0	10.5		
		36	0	20.70	20.27	19.97	3.0	21.0	9.92	9.53	9.20	0.0	10.5		
		36	20	20.71	20.28	19.98	3.0	21.0	9.91	9.53	9.20	0.0	10.5		
		36	39	20.70	20.27	19.96	3.0	21.0	9.89	9.51	9.21	0.0	10.5		
		75	0	20.64	20.27	19.99	3.0	21.0	9.86	9.49	9.20	0.0	10.5		
	256QAM	1	0	18.63	18.49	18.05	5.0	19.0	9.81	9.88	9.36	0.0	10.5		
		1	37	18.69	18.47	18.19	5.0	19.0	9.76	9.79	9.27	0.0	10.5		
		1	74	18.67	18.46	18.05	5.0	19.0	9.81	9.86	9.35	0.0	10.5		
		36	0	18.63	18.31	17.97	5.0	19.0	9.84	9.52	9.21	0.0	10.5		
		36	20	18.60	18.33	17.97	5.0	19.0	9.82	9.52	9.19	0.0	10.5		
		36	39	18.58	18.30	17.95	5.0	19.0	9.81	9.51	9.19	0.0	10.5		
		75	0	18.64	18.31	17.99	5.0	19.0	9.84	9.51	9.20	0.0	10.5		

**LTE Band 7 (Sub.2) Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
				20800	21100	21400			20800	21100	21400						
				2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz						
10 MHz	QPSK	1	0	23.37	23.02	22.24	0.0	24.0	9.80	9.46	9.16	0.0	10.5				
		1	25	23.37	23.10	22.53	0.0	24.0	9.78	9.55	9.03	0.0	10.5				
		1	49	23.36	22.99	22.73	0.0	24.0	9.78	9.41	9.19	0.0	10.5				
		25	0	22.36	21.99	21.75	1.0	23.0	9.84	9.46	9.21	0.0	10.5				
		25	12	22.34	21.99	21.73	1.0	23.0	9.82	9.43	9.20	0.0	10.5				
		25	25	22.33	21.98	21.73	1.0	23.0	9.81	9.45	9.19	0.0	10.5				
		50	0	22.36	22.00	21.74	1.0	23.0	9.83	9.45	9.20	0.0	10.5				
	16QAM	1	0	22.40	22.18	22.02	1.0	23.0	10.17	9.66	9.75	0.0	10.5				
		1	25	22.49	22.21	21.91	1.0	23.0	10.23	9.74	9.75	0.0	10.5				
		1	49	22.35	22.20	21.96	1.0	23.0	10.08	9.65	9.71	0.0	10.5				
		25	0	21.33	21.02	20.82	2.0	22.0	9.87	9.46	9.30	0.0	10.5				
		25	12	21.33	21.00	20.81	2.0	22.0	9.87	9.44	9.30	0.0	10.5				
		25	25	21.34	21.00	20.81	2.0	22.0	9.87	9.45	9.30	0.0	10.5				
		50	0	21.35	20.99	20.76	2.0	22.0	9.86	9.46	9.23	0.0	10.5				
	64QAM	1	0	21.55	21.49	21.17	2.0	22.0	10.12	9.38	9.41	0.0	10.5				
		1	25	21.40	21.46	21.34	2.0	22.0	10.08	9.47	9.51	0.0	10.5				
		1	49	21.61	21.50	21.09	2.0	22.0	10.02	9.41	9.44	0.0	10.5				
		25	0	20.56	20.21	20.02	3.0	21.0	9.89	9.47	9.25	0.0	10.5				
		25	12	20.58	20.19	20.01	3.0	21.0	9.85	9.46	9.24	0.0	10.5				
		25	25	20.56	20.20	19.99	3.0	21.0	9.86	9.45	9.24	0.0	10.5				
		50	0	20.57	20.22	19.99	3.0	21.0	9.83	9.48	9.24	0.0	10.5				
	256QAM	1	0	18.53	18.48	18.01	5.0	19.0	9.90	9.46	9.59	0.0	10.5				
		1	25	18.76	18.68	18.23	5.0	19.0	9.83	9.48	9.59	0.0	10.5				
		1	49	18.57	18.41	18.06	5.0	19.0	9.92	9.46	9.54	0.0	10.5				
		25	0	18.59	18.29	18.10	5.0	19.0	9.93	9.49	9.30	0.0	10.5				
		25	12	18.61	18.27	18.09	5.0	19.0	9.92	9.46	9.28	0.0	10.5				
		25	25	18.58	18.27	18.07	5.0	19.0	9.90	9.46	9.27	0.0	10.5				
		50	0	18.58	18.26	18.02	5.0	19.0	9.84	9.46	9.25	0.0	10.5				
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
				20775	21100	21425			20775	21100	21425						
				2502.5 MHz	2535 MHz	2567.5 MHz			2502.5 MHz	2535 MHz	2567.5 MHz						
		16QAM	1	0	23.33	22.88	22.69	0.0	24.0	9.73	9.36	9.13	0.0	10.5			
			1	12	23.30	22.75	22.69	0.0	24.0	9.70	9.19	9.11	0.0	10.5			
			1	24	23.34	22.93	22.71	0.0	24.0	9.76	9.40	9.16	0.0	10.5			
			12	0	22.29	21.94	21.74	1.0	23.0	9.77	9.43	9.21	0.0	10.5			
			12	7	22.28	21.94	21.74	1.0	23.0	9.75	9.43	9.20	0.0	10.5			
			12	13	22.28	21.94	21.72	1.0	23.0	9.77	9.42	9.19	0.0	10.5			
			25	0	22.28	21.95	21.72	1.0	23.0	9.77	9.44	9.21	0.0	10.5			
	64QAM	RB Allocation	RB offset	1	0	22.52	22.44	21.93	1.0	23.0	10.06	9.89	9.44	0.0	10.5		
				1	12	22.44	22.18	21.91	1.0	23.0	9.96	9.64	9.39	0.0	10.5		
				1	24	22.49	22.42	21.95	1.0	23.0	10.02	9.84	9.48	0.0	10.5		
				12	0	21.31	21.05	20.74	2.0	22.0	9.81	9.54	9.30	0.0	10.5		
				12	7	21.31	21.06	20.75	2.0	22.0	9.80	9.53	9.30	0.0	10.5		
				12	13	21.30	21.04	20.71	2.0	22.0	9.82	9.53	9.29	0.0	10.5		
				25	0	21.25	21.01	20.77	2.0	22.0	9.80	9.48	9.27	0.0	10.5		
	256QAM			1	0	21.74	21.43	21.12	2.0	22.0	9.99	9.67	9.28	0.0	10.5		
				1	12	21.82	21.38	21.32	2.0	22.0	9.93	9.56	9.30	0.0	10.5		
				1	24	21.80	21.37	21.15	2.0	22.0	10.03	9.59	9.32	0.0	10.5		
				12	0	20.51	20.23	20.04	3.0	21.0	9.83	9.48	9.28	0.0	10.5		
				12	7	20.50	20.22	20.05	3.0	21.0	9.81	9.49	9.28	0.0	10.5		
				12	13	20.51	20.23	20.01	3.0	21.0	9.82	9.46	9.26	0.0	10.5		
				25	0	20.56	20.24	20.04	3.0	21.0	9.81	9.44	9.25	0.0	10.5		

**LTE Band 12 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		
10 MHz	QPSK	1	0	23.56	23.45	23.45			23.060	23.095	23.130				
		1	25	23.45	23.45	23.45			704 MHz	707.5 MHz	711 MHz				
		1	49	23.45	22.55	22.55			1.0	24.0	22.50				
		25	0	22.55	22.50	22.50			1.0	24.0	22.45				
		25	12	22.50	22.50	22.50			1.0	24.0	22.51				
		25	25	22.45	22.45	22.45			1.0	24.0	22.51				
		50	0	22.51	22.51	22.51			1.0	24.0	22.51				
	16QAM	1	0	22.84	22.81	22.81			1.0	24.0	22.84				
		1	25	22.81	22.81	22.81			1.0	24.0	22.81				
		1	49	22.81	22.56	22.56			1.0	24.0	22.56				
		25	0	21.58	21.54	21.54			2.0	23.0	21.58				
		25	12	21.54	21.48	21.48			2.0	23.0	21.54				
		25	25	21.48	21.48	21.48			2.0	23.0	21.48				
		50	0	21.55	21.55	21.55			2.0	23.0	21.55				
	64QAM	1	0	21.78	21.79	21.79			2.0	23.0	21.78				
		1	25	21.79	21.67	21.67			2.0	23.0	21.79				
		1	49	21.67	20.55	20.55			2.0	23.0	21.67				
		25	0	20.55	20.46	20.46			3.0	22.0	20.55				
		25	12	20.46	20.43	20.43			3.0	22.0	20.46				
		25	25	20.43	20.43	20.43			3.0	22.0	20.43				
		50	0	20.50	20.50	20.50			3.0	22.0	20.50				
	256QAM	1	0	18.89	18.81	18.81			5.0	20.0	18.89				
		1	25	18.81	18.71	18.71			5.0	20.0	18.81				
		1	49	18.71	18.57	18.57			5.0	20.0	18.71				
		25	0	18.57	18.52	18.52			5.0	20.0	18.57				
		25	12	18.52	18.47	18.47			5.0	20.0	18.52				
		25	25	18.47	18.47	18.47			5.0	20.0	18.47				
		50	0	18.47	18.47	18.47			5.0	20.0	18.47				
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)						Measured Pwr (dBm)					

**LTE Band 12 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	23.99	23.73	23.80	0.0	25.0	16.13	15.84	15.89	0.0	16.5		
		1	8	23.76	23.62	23.73	0.0	25.0	15.90	15.66	15.81	0.0	16.5		
		1	14	24.02	23.69	23.79	0.0	25.0	16.12	15.76	15.87	0.0	16.5		
		8	0	22.96	22.76	22.80	1.0	24.0	16.04	15.83	15.84	0.0	16.5		
		8	4	22.92	22.79	22.79	1.0	24.0	16.01	15.86	15.81	0.0	16.5		
		8	7	22.92	22.76	22.72	1.0	24.0	16.03	15.83	15.80	0.0	16.5		
		15	0	22.95	22.82	22.74	1.0	24.0	16.04	15.89	15.81	0.0	16.5		
	16QAM	1	0	22.99	23.27	23.20	1.0	24.0	16.22	16.23	16.07	0.0	16.5		
		1	8	22.87	23.12	23.13	1.0	24.0	16.11	16.06	15.97	0.0	16.5		
		1	14	22.92	23.24	23.16	1.0	24.0	16.11	16.22	15.98	0.0	16.5		
		8	0	21.96	21.91	21.80	2.0	23.0	15.98	15.97	15.93	0.0	16.5		
		8	4	21.98	21.89	21.76	2.0	23.0	16.03	15.95	15.92	0.0	16.5		
		8	7	21.91	21.86	21.75	2.0	23.0	15.99	15.93	15.88	0.0	16.5		
		15	0	21.91	21.84	21.77	2.0	23.0	15.98	15.93	15.86	0.0	16.5		
	64QAM	1	0	21.97	21.99	21.80	2.0	23.0	16.11	16.23	16.15	0.0	16.5		
		1	8	21.90	21.83	21.74	2.0	23.0	16.07	16.10	16.03	0.0	16.5		
		1	14	22.08	22.02	21.74	2.0	23.0	16.03	16.23	16.20	0.0	16.5		
		8	0	21.02	20.83	20.68	3.0	22.0	15.91	15.97	16.04	0.0	16.5		
		8	4	20.92	20.75	20.69	3.0	22.0	15.85	15.97	15.99	0.0	16.5		
		8	7	20.97	20.81	20.72	3.0	22.0	15.90	15.96	16.06	0.0	16.5		
		15	0	20.99	20.67	20.74	3.0	22.0	15.87	15.84	16.10	0.0	16.5		
	256QAM	1	0	19.04	19.07	18.70	5.0	20.0	15.88	16.13	16.14	0.0	16.5		
		1	8	18.92	18.96	18.62	5.0	20.0	15.76	16.06	16.08	0.0	16.5		
		1	14	19.00	18.99	18.69	5.0	20.0	15.85	16.11	16.08	0.0	16.5		
		8	0	18.98	18.87	18.73	5.0	20.0	15.88	15.96	16.11	0.0	16.5		
		8	4	18.91	18.83	18.75	5.0	20.0	15.88	15.92	16.04	0.0	16.5		
		8	7	18.94	18.87	18.63	5.0	20.0	15.81	15.94	16.08	0.0	16.5		
		15	0	18.95	18.80	18.72	5.0	20.0	15.90	15.91	16.07	0.0	16.5		
1.4 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				23017	23095	23173			23017	23095	23173				
				699.7 MHz	707.5 MHz	715.3 MHz			699.7 MHz	707.5 MHz	715.3 MHz				
		16QAM	1	0	23.85	23.80	23.73	0.0	25.0	16.10	15.93	15.84	0.0	16.5	
			1	3	23.83	23.53	23.57	0.0	25.0	15.93	15.72	15.79	0.0	16.5	
			1	5	23.88	23.82	23.75	0.0	25.0	16.09	15.89	15.82	0.0	16.5	
			3	0	23.86	23.81	23.73	0.0	25.0	16.11	15.87	15.86	0.0	16.5	
			3	1	23.85	23.81	23.68	0.0	25.0	16.13	15.87	15.80	0.0	16.5	
			3	3	23.87	23.66	23.65	0.0	25.0	16.02	15.88	15.82	0.0	16.5	
			6	0	22.93	22.79	22.76	1.0	24.0	16.08	15.79	15.78	0.0	16.5	
	64QAM	RB Allocation	RB offset	1	0	22.92	23.17	22.80	1.0	24.0	16.45	15.89	15.96	0.0	16.5
				1	3	22.94	23.22	22.96	1.0	24.0	16.49	16.07	15.98	0.0	16.5
				1	5	22.97	23.18	22.86	1.0	24.0	16.47	15.92	16.00	0.0	16.5
				3	0	23.03	22.79	22.98	1.0	24.0	16.11	16.06	15.88	0.0	16.5
				3	1	22.94	22.86	22.88	1.0	24.0	16.16	16.04	15.80	0.0	16.5
				3	3	22.98	22.76	22.80	1.0	24.0	16.14	15.97	15.89	0.0	16.5
				6	0	21.99	21.71	21.77	2.0	23.0	16.08	15.90	15.91	0.0	16.5
	256QAM	RB Allocation	RB offset	1	0	22.06	21.92	21.85	2.0	23.0	16.11	16.06	16.04	0.0	16.5
				1	3	21.97	21.93	21.82	2.0	23.0	16.04	16.04	16.03	0.0	16.5
				1	5	22.02	21.88	21.82	2.0	23.0	16.07	15.96	16.10	0.0	16.5
				3	0	22.01	21.80	21.76	2.0	23.0	15.99	15.96	16.04	0.0	16.5
				3	1	21.96	21.77	21.71	2.0	23.0	15.95	16.02	16.00	0.0	16.5
				3	3	22.02	21.77	21.67	2.0	23.0	15.94	15.97	15.96	0.0	16.5
				6	0	20.91	20.79	20.72	3.0	22.0	15.84	16.03	16.03	0.0	16.5
	QPSK	RB Allocation	RB offset	1	0	18.81	18.78	18.63	5.0	20.0	15.80	15.99	16.12	0.0	16.5
				1	3	18.88	18.85	18.58	5.0	20.0	15.75	15.93	16.06	0.0	16.5
				1	5	18.80	18.78	18.57	5.0	20.0	15.78	15.99	16.13	0.0	16.5
				3	0	18.86	18.76	18.56	5.0	20.0	15.73	15.81	16.15	0.0	16.5
				3	1	18.80	18.68	18.52	5.0	20.0	15.67	15.82	16.19	0.0	16.5
				3	3	18.77	18.67	18.52	5.0	20.0	15.56	15.76	16.13	0.0	16.5
				6	0	18.87	18.70	18.54	5.0	20.0	15.83	15.88	16.01	0.0	16.5

**LTE Band 13 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			
				23230	782 MHz			23230	782 MHz					
10 MHz	QPSK	1	0	23.52		0.0	25.0	15.26		0.0	16.5			
		1	25	23.48		0.0	25.0	15.17		0.0	16.5			
		1	49	23.35		0.0	25.0	15.18		0.0	16.5			
		25	0	22.43		1.0	24.0	15.24		0.0	16.5			
		25	12	22.40		1.0	24.0	15.21		0.0	16.5			
		25	25	22.36		1.0	24.0	15.15		0.0	16.5			
		50	0	22.41		1.0	24.0	15.20		0.0	16.5			
	16QAM	1	0	22.62		1.0	24.0	15.44		0.0	16.5			
		1	25	22.68		1.0	24.0	15.50		0.0	16.5			
		1	49	22.59		1.0	24.0	15.28		0.0	16.5			
		25	0	21.49		2.0	23.0	15.25		0.0	16.5			
		25	12	21.46		2.0	23.0	15.21		0.0	16.5			
		25	25	21.43		2.0	23.0	15.18		0.0	16.5			
		50	0	21.40		2.0	23.0	15.23		0.0	16.5			
	64QAM	1	0	21.78		2.0	23.0	15.50		0.0	16.5			
		1	25	21.86		2.0	23.0	15.50		0.0	16.5			
		1	49	21.79		2.0	23.0	15.43		0.0	16.5			
		25	0	20.55		3.0	22.0	15.26		0.0	16.5			
		25	12	20.50		3.0	22.0	15.23		0.0	16.5			
		25	25	20.50		3.0	22.0	15.20		0.0	16.5			
		50	0	20.49		3.0	22.0	15.21		0.0	16.5			
	256QAM	1	0	18.75		5.0	20.0	15.56		0.0	16.5			
		1	25	18.82		5.0	20.0	15.57		0.0	16.5			
		1	49	18.65		5.0	20.0	15.47		0.0	16.5			
		25	0	18.52		5.0	20.0	15.29		0.0	16.5			
		25	12	18.46		5.0	20.0	15.25		0.0	16.5			
		25	25	18.44		5.0	20.0	15.21		0.0	16.5			
		50	0	18.44		5.0	20.0	15.23		0.0	16.5			
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)				Measured Pwr (dBm)						
				23205	23230	23255		23205	23230	23255				
				779.5 MHz	782 MHz	784.5 MHz		779.5 MHz	782 MHz	784.5 MHz				
				23.26			0.0	25.0	15.14		0.0	16.5		
				23.22			0.0	25.0	15.09		0.0	16.5		
				23.30			0.0	25.0	15.14		0.0	16.5		
				22.32			1.0	24.0	15.20		0.0	16.5		
	16QAM			22.31			1.0	24.0	15.19		0.0	16.5		
				22.30			1.0	24.0	15.16		0.0	16.5		
				22.33			1.0	24.0	15.19		0.0	16.5		
				22.72			1.0	24.0	15.45		0.0	16.5		
				22.66			1.0	24.0	15.34		0.0	16.5		
				22.77			1.0	24.0	15.45		0.0	16.5		
				21.38			2.0	23.0	15.26		0.0	16.5		
	64QAM			21.35			2.0	23.0	15.23		0.0	16.5		
				21.35			2.0	23.0	15.23		0.0	16.5		
				21.32			2.0	23.0	15.23		0.0	16.5		
				21.41			2.0	23.0	15.20		0.0	16.5		
				21.36			2.0	23.0	15.14		0.0	16.5		
				21.44			2.0	23.0	15.20		0.0	16.5		
				20.27			3.0	22.0	15.16		0.0	16.5		
	256QAM			20.25			3.0	22.0	15.14		0.0	16.5		
				20.25			3.0	22.0	15.12		0.0	16.5		
				20.25			3.0	22.0	15.20		0.0	16.5		
				18.35			5.0	20.0	15.26		0.0	16.5		
				18.08			5.0	20.0	15.05		0.0	16.5		
				18.25			5.0	20.0	15.18		0.0	16.5		
				18.25			5.0	20.0	15.18		0.0	16.5		

**LTE Band 14 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			
				23230	782 MHz			23230	782 MHz					
10 MHz	QPSK	1	0	24.15		0.0	25.0	15.16		0.0	16.5			
		1	25	24.14		0.0	25.0	15.15		0.0	16.5			
		1	49	24.01		0.0	25.0	15.02		0.0	16.5			
		25	0	23.15		1.0	24.0	15.13		0.0	16.5			
		25	12	23.13		1.0	24.0	15.10		0.0	16.5			
		25	25	23.08		1.0	24.0	15.07		0.0	16.5			
		50	0	23.14		1.0	24.0	15.10		0.0	16.5			
	16QAM	1	0	23.39		1.0	24.0	15.43		0.0	16.5			
		1	25	23.44		1.0	24.0	15.43		0.0	16.5			
		1	49	23.27		1.0	24.0	15.33		0.0	16.5			
		25	0	22.14		2.0	23.0	15.19		0.0	16.5			
		25	12	22.13		2.0	23.0	15.15		0.0	16.5			
		25	25	22.11		2.0	23.0	15.14		0.0	16.5			
		50	0	22.12		2.0	23.0	15.11		0.0	16.5			
	64QAM	1	0	22.27		2.0	23.0	15.23		0.0	16.5			
		1	25	22.27		2.0	23.0	15.24		0.0	16.5			
		1	49	22.22		2.0	23.0	15.16		0.0	16.5			
		25	0	21.12		3.0	22.0	15.18		0.0	16.5			
		25	12	21.08		3.0	22.0	15.15		0.0	16.5			
		25	25	21.07		3.0	22.0	15.12		0.0	16.5			
		50	0	21.11		3.0	22.0	15.13		0.0	16.5			
	256QAM	1	0	19.51		5.0	20.0	15.54		0.0	16.5			
		1	25	19.43		5.0	20.0	15.54		0.0	16.5			
		1	49	19.36		5.0	20.0	15.41		0.0	16.5			
		25	0	19.17		5.0	20.0	15.21		0.0	16.5			
		25	12	19.14		5.0	20.0	15.18		0.0	16.5			
		25	25	19.10		5.0	20.0	15.14		0.0	16.5			
		50	0	19.13		5.0	20.0	15.15		0.0	16.5			
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			MPR	Tune-up Limit		
				23305	23330	23365		23305	23330	23365				
				790.5 MHz	793 MHz	796.5 MHz		790.5 MHz	793 MHz	796.5 MHz				
				23.36			0.0	25.0	15.07		0.0	16.5		
				23.32			0.0	25.0	15.02		0.0	16.5		
				23.33			0.0	25.0	15.06		0.0	16.5		
				22.38			1.0	24.0	15.11		0.0	16.5		
	16QAM			22.35			1.0	24.0	15.09		0.0	16.5		
				22.34			1.0	24.0	15.04		0.0	16.5		
				22.36			1.0	24.0	15.08		0.0	16.5		
				22.61			1.0	24.0	15.41		0.0	16.5		
				22.50			1.0	24.0	15.32		0.0	16.5		
				22.56			1.0	24.0	15.40		0.0	16.5		
				21.38			2.0	23.0	15.10		0.0	16.5		
	64QAM			21.36			2.0	23.0	15.06		0.0	16.5		
				21.38			2.0	23.0	15.06		0.0	16.5		
				21.34			2.0	23.0	15.12		0.0	16.5		
				21.64			2.0	23.0	15.35		0.0	16.5		
				21.49			2.0	23.0	15.28		0.0	16.5		
				21.58			2.0	23.0	15.33		0.0	16.5		
				20.33			3.0	22.0	15.10		0.0	16.5		
	256QAM			20.31			3.0	22.0	15.08		0.0	16.5		
				20.29			3.0	22.0	15.04		0.0	16.5		
				20.33			3.0	22.0	15.14		0.0	16.5		
				18.77			5.0	20.0	15.04		0.0	16.5		
				18.61			5.0	20.0	14.87		0.0	16.5		
				18.70			5.0	20.0	14.95		0.0	16.5		
				18.39			5.0	20.0	15.12		0.0	16.5		

**LTE Band 25 (Main.1) 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	26365	26590			26140	26365	26590				
20 MHz	QPSK	1	0	23.31	23.98	23.96	0.0	25.0	12.57	12.63	12.62	0.0	13.5		
		1	49	23.63	23.85	23.36	0.0	25.0	12.64	12.43	12.62	0.0	13.5		
		1	99	24.05	23.61	23.23	0.0	25.0	12.65	12.56	12.54	0.0	13.5		
		50	0	22.54	23.14	22.84	1.0	24.0	12.55	12.50	12.60	0.0	13.5		
		50	24	22.92	23.13	22.57	1.0	24.0	12.53	12.60	12.58	0.0	13.5		
		50	50	23.20	23.02	22.40	1.0	24.0	12.63	12.59	12.57	0.0	13.5		
		100	0	22.90	23.09	22.23	1.0	24.0	12.54	12.60	12.58	0.0	13.5		
		1	0	22.49	23.47	22.86	1.0	24.0	13.01	13.00	12.91	0.0	13.5		
	16QAM	1	49	23.18	23.43	22.42	1.0	24.0	12.80	12.72	12.82	0.0	13.5		
		1	99	23.58	23.24	21.88	1.0	24.0	12.90	12.96	12.78	0.0	13.5		
		50	0	22.01	22.59	21.83	2.0	23.0	12.54	12.64	12.60	0.0	13.5		
		50	24	22.40	22.61	21.66	2.0	23.0	12.52	12.60	12.57	0.0	13.5		
		50	50	22.66	22.52	21.58	2.0	23.0	12.49	12.58	12.55	0.0	13.5		
		100	0	22.39	22.56	21.81	2.0	23.0	12.57	12.61	12.57	0.0	13.5		
		1	0	22.44	22.43	22.38	2.0	23.0	12.90	12.84	12.69	0.0	13.5		
		1	49	22.80	22.99	21.82	2.0	23.0	13.10	13.03	12.71	0.0	13.5		
	64QAM	1	99	22.89	22.69	21.18	2.0	23.0	12.87	12.74	12.59	0.0	13.5		
		50	0	21.67	21.91	21.39	3.0	22.0	12.54	12.53	12.50	0.0	13.5		
		50	24	21.69	21.91	21.22	3.0	22.0	12.53	12.51	12.46	0.0	13.5		
		50	50	21.69	21.90	21.11	3.0	22.0	12.50	12.52	12.46	0.0	13.5		
		100	0	21.69	21.89	21.26	3.0	22.0	12.52	12.47	12.46	0.0	13.5		
		1	0	19.93	19.48	19.94	5.0	20.0	12.91	12.94	12.64	0.0	13.5		
		1	49	19.28	19.29	19.77	5.0	20.0	12.93	13.14	12.84	0.0	13.5		
		1	99	19.92	19.43	19.25	5.0	20.0	12.85	12.88	12.58	0.0	13.5		
	256QAM	50	0	19.64	19.86	19.95	5.0	20.0	12.52	12.54	12.48	0.0	13.5		
		50	24	19.63	19.84	19.86	5.0	20.0	12.49	12.50	12.44	0.0	13.5		
		50	50	19.61	19.82	19.76	5.0	20.0	12.48	12.49	12.44	0.0	13.5		
		100	0	19.59	19.84	19.90	5.0	20.0	12.52	12.50	12.46	0.0	13.5		
		1	0	22.11	26365	26615	MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		1	37	1857.5 MHz	1882.5 MHz	1907.5 MHz			26115	26365	26615				
15 MHz	QPSK	1	0	23.07	24.03	23.63	0.0	25.0	12.65	12.63	12.64	0.0	13.5		
		1	37	23.86	23.93	23.34	0.0	25.0	12.50	12.47	12.55	0.0	13.5		
		1	74	23.88	24.00	23.27	0.0	25.0	12.58	12.58	12.57	0.0	13.5		
		36	0	22.91	23.09	22.81	1.0	24.0	12.66	12.64	12.61	0.0	13.5		
		36	20	23.09	23.06	22.78	1.0	24.0	12.64	12.61	12.60	0.0	13.5		
		36	39	23.08	23.05	22.80	1.0	24.0	12.63	12.62	12.61	0.0	13.5		
		75	0	23.09	23.07	22.78	1.0	24.0	12.62	12.61	12.61	0.0	13.5		
		1	0	22.63	23.29	23.15	1.0	24.0	12.99	12.97	12.99	0.0	13.5		
	16QAM	1	37	23.16	23.19	23.00	1.0	24.0	12.85	12.75	12.88	0.0	13.5		
		1	74	23.17	23.23	22.92	1.0	24.0	12.93	12.89	12.95	0.0	13.5		
		36	0	22.05	22.07	22.09	2.0	23.0	12.66	12.64	12.65	0.0	13.5		
		36	20	22.02	22.02	22.06	2.0	23.0	12.63	12.62	12.63	0.0	13.5		
		36	39	21.98	22.02	22.04	2.0	23.0	12.62	12.61	12.63	0.0	13.5		
		75	0	22.01	21.98	22.03	2.0	23.0	12.60	12.60	12.61	0.0	13.5		
		1	0	22.03	22.15	22.50	2.0	23.0	12.89	13.02	12.82	0.0	13.5		
		1	37	22.15	22.26	22.32	2.0	23.0	12.77	12.87	12.73	0.0	13.5		
	64QAM	1	74	22.15	22.16	21.70	2.0	23.0	12.89	12.91	12.72	0.0	13.5		
		36	0	21.23	21.29	21.41	3.0	22.0	12.77	12.80	12.82	0.0	13.5		
		36	20	21.24	21.28	21.39	3.0	22.0	12.74	12.77	12.82	0.0	13.5		
		36	39	21.23	21.28	21.38	3.0	22.0	12.74	12.77	12.81	0.0	13.5		
		75	0	21.24	21.24	21.44	3.0	22.0	12.79	12.73	12.74	0.0	13.5		
		1	0	19.49	19.26	19.52	5.0	20.0	12.95	13.08	12.65	0.0	13.5		
		1	37	19.50	19.24	19.56	5.0	20.0	12.87	12.98	12.61	0.0	13.5		
		1	74	19.45	19.21	19.43	5.0	20.0	12.92	13.02	12.58	0.0	13.5		
	256QAM	36	0	19.20	19.15	19.36	5.0	20.0	12.77	12.78	12.73	0.0	13.5		
		36	20	19.20	19.12	19.34	5.0	20.0	12.73	12.77	12.70	0.0	13.5		
		36	39	19.18	19.11	19.32	5.0	20.0	12.72	12.74	12.69	0.0	13.5		
		75	0	19.17	19.12	19.34	5.0	20.0	12.76	12.76	12.72	0.0	13.5		

**LTE Band 25 (Main.1) 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	23.57	24.03	23.48	0.0	25.0	12.68	12.67	12.61	0.0	13.5
		1	25	23.86	24.08	23.53	0.0	25.0	12.58	12.67	12.49	0.0	13.5
		1	49	24.06	24.02	23.61	0.0	25.0	12.67	12.60	12.59	0.0	13.5
		25	0	23.08	23.03	22.81	1.0	24.0	12.67	12.60	12.61	0.0	13.5
		25	12	23.04	22.99	22.95	1.0	24.0	12.64	12.58	12.58	0.0	13.5
		25	25	23.03	22.98	23.04	1.0	24.0	12.65	12.58	12.58	0.0	13.5
		50	0	23.05	23.00	22.97	1.0	24.0	12.66	12.60	12.59	0.0	13.5
	16QAM	1	0	23.09	23.21	23.02	1.0	24.0	12.82	12.82	13.12	0.0	13.5
		1	25	23.25	23.26	23.19	1.0	24.0	12.80	12.85	13.11	0.0	13.5
		1	49	23.17	23.22	23.27	1.0	24.0	12.73	12.82	13.02	0.0	13.5
		25	0	22.04	22.05	22.09	2.0	23.0	12.70	12.65	12.62	0.0	13.5
		25	12	22.00	22.01	22.05	2.0	23.0	12.69	12.62	12.60	0.0	13.5
		25	25	22.01	22.00	22.03	2.0	23.0	12.69	12.62	12.61	0.0	13.5
		50	0	22.01	21.96	22.00	2.0	23.0	12.64	12.57	12.58	0.0	13.5
	64QAM	1	0	22.23	21.95	22.10	2.0	23.0	13.12	12.94	13.01	0.0	13.5
		1	25	22.18	22.09	22.08	2.0	23.0	13.11	12.96	13.07	0.0	13.5
		1	49	22.21	22.00	22.00	2.0	23.0	13.03	12.92	13.00	0.0	13.5
		25	0	20.89	20.94	20.98	3.0	22.0	12.83	12.76	12.76	0.0	13.5
		25	12	20.89	20.92	20.95	3.0	22.0	12.80	12.73	12.76	0.0	13.5
		25	25	20.79	20.90	20.92	3.0	22.0	12.80	12.74	12.72	0.0	13.5
		50	0	20.87	20.89	20.94	3.0	22.0	12.79	12.74	12.74	0.0	13.5
	256QAM	1	0	19.32	19.30	19.03	5.0	20.0	12.75	13.07	12.74	0.0	13.5
		1	25	19.24	19.30	18.79	5.0	20.0	12.64	12.99	12.76	0.0	13.5
		1	49	19.21	19.22	18.88	5.0	20.0	12.66	13.01	12.69	0.0	13.5
		25	0	18.78	18.86	18.95	5.0	20.0	12.90	12.79	12.77	0.0	13.5
		25	12	18.69	18.86	18.93	5.0	20.0	12.87	12.77	12.76	0.0	13.5
		25	25	18.90	18.89	18.87	5.0	20.0	12.84	12.75	12.73	0.0	13.5
		50	0	18.79	18.91	18.85	5.0	20.0	12.80	12.73	12.72	0.0	13.5
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26065	26365	26665			26065	26365	26665		
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
		1	0	23.47	23.84	23.23	0.0	25.0	12.68	12.58	12.58	0.0	13.5
		1	12	23.46	23.70	23.46	0.0	25.0	12.61	12.45	12.48	0.0	13.5
		1	24	23.48	23.91	23.33	0.0	25.0	12.69	12.59	12.58	0.0	13.5
		12	0	22.75	22.86	22.73	1.0	24.0	12.67	12.60	12.59	0.0	13.5
	16QAM	12	7	22.81	22.86	22.88	1.0	24.0	12.65	12.59	12.59	0.0	13.5
		12	13	22.84	22.86	22.88	1.0	24.0	12.66	12.59	12.56	0.0	13.5
		25	0	22.81	22.87	22.86	1.0	24.0	12.67	12.61	12.58	0.0	13.5
		1	0	22.80	23.33	22.75	1.0	24.0	12.84	13.11	12.96	0.0	13.5
		1	12	22.94	22.94	22.95	1.0	24.0	12.69	12.79	12.83	0.0	13.5
		1	24	23.03	23.27	22.96	1.0	24.0	12.78	13.05	12.97	0.0	13.5
		12	0	21.90	21.96	21.92	2.0	23.0	12.71	12.74	12.59	0.0	13.5
	64QAM	12	7	21.86	21.94	21.88	2.0	23.0	12.70	12.73	12.56	0.0	13.5
		12	13	21.89	21.93	21.86	2.0	23.0	12.72	12.73	12.55	0.0	13.5
		25	0	21.87	21.85	21.84	2.0	23.0	12.70	12.63	12.61	0.0	13.5
		1	0	21.81	22.12	22.23	2.0	23.0	12.73	12.97	12.90	0.0	13.5
		1	12	21.75	22.10	22.18	2.0	23.0	12.66	12.88	12.84	0.0	13.5
		1	24	21.90	22.21	22.16	2.0	23.0	12.76	12.91	12.92	0.0	13.5
		12	0	20.93	20.94	20.91	3.0	22.0	12.61	12.61	12.64	0.0	13.5
	256QAM	12	7	20.92	20.91	20.89	3.0	22.0	12.61	12.60	12.64	0.0	13.5
		12	13	20.93	20.93	20.87	3.0	22.0	12.59	12.59	12.64	0.0	13.5
		25	0	20.93	20.89	20.90	3.0	22.0	12.67	12.65	12.60	0.0	13.5
		1	0	18.78	18.98	19.26	5.0	20.0	12.71	12.90	12.69	0.0	13.5
		1	12	18.44	18.91	19.15	5.0	20.0	12.49	12.86	12.62	0.0	13.5
		1	24	18.68	18.97	19.16	5.0	20.0	12.70	12.88	12.68	0.0	13.5
		12	0	18.83	18.87	18.87	5.0	20.0	12.66	12.69	12.67	0.0	13.5

**LTE Band 25 (Main.1) 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	23.58	23.96	23.81	0.0	25.0	12.75	12.54	12.69	0.0	13.5	
		1	8	23.65	23.82	23.79	0.0	25.0	12.67	12.43	12.49	0.0	13.5	
		1	14	23.61	23.95	23.54	0.0	25.0	12.76	12.51	12.70	0.0	13.5	
		8	0	22.99	22.97	23.08	1.0	24.0	12.72	12.60	12.67	0.0	13.5	
		8	4	23.04	23.03	23.02	1.0	24.0	12.63	12.57	12.59	0.0	13.5	
		8	7	23.06	22.98	23.04	1.0	24.0	12.64	12.58	12.60	0.0	13.5	
		15	0	23.05	23.02	22.95	1.0	24.0	12.64	12.62	12.63	0.0	13.5	
	16QAM	1	0	23.05	23.31	23.31	1.0	24.0	13.16	12.93	12.68	0.0	13.5	
		1	8	23.06	23.23	23.24	1.0	24.0	13.10	12.80	12.53	0.0	13.5	
		1	14	23.07	23.34	23.21	1.0	24.0	13.09	12.96	12.58	0.0	13.5	
		8	0	22.08	21.99	22.04	2.0	23.0	12.78	12.66	12.62	0.0	13.5	
		8	4	22.12	21.98	21.99	2.0	23.0	12.76	12.68	12.65	0.0	13.5	
		8	7	22.04	21.95	21.94	2.0	23.0	12.78	12.67	12.64	0.0	13.5	
		15	0	22.00	21.96	21.94	2.0	23.0	12.73	12.61	12.60	0.0	13.5	
	64QAM	1	0	22.09	22.13	21.97	2.0	23.0	12.84	13.04	12.77	0.0	13.5	
		1	8	22.07	21.92	21.95	2.0	23.0	12.79	12.95	12.60	0.0	13.5	
		1	14	22.25	22.23	21.94	2.0	23.0	12.74	13.08	12.82	0.0	13.5	
		8	0	21.05	20.99	20.89	3.0	22.0	12.80	12.76	12.77	0.0	13.5	
		8	4	21.03	20.95	20.89	3.0	22.0	12.83	12.77	12.73	0.0	13.5	
		8	7	21.06	20.93	20.89	3.0	22.0	12.84	12.79	12.78	0.0	13.5	
		15	0	21.00	20.83	20.93	3.0	22.0	12.80	12.70	12.73	0.0	13.5	
	256QAM	1	0	18.95	19.13	18.92	5.0	20.0	12.89	13.10	12.67	0.0	13.5	
		1	8	18.88	18.94	18.80	5.0	20.0	12.89	13.03	12.51	0.0	13.5	
		1	14	18.88	19.06	18.88	5.0	20.0	12.89	13.07	12.62	0.0	13.5	
		8	0	18.95	18.93	18.91	5.0	20.0	12.88	12.85	12.81	0.0	13.5	
		8	4	18.90	18.88	18.91	5.0	20.0	12.87	12.80	12.75	0.0	13.5	
		8	7	18.93	18.90	18.84	5.0	20.0	12.79	12.83	12.81	0.0	13.5	
		15	0	18.96	18.89	18.91	5.0	20.0	12.89	12.74	12.73	0.0	13.5	
1.4 MHz	QPSK	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			
		16QAM	1	0	23.49	24.01	23.73	0.0	25.0	12.75	12.70	12.72	0.0	13.5
			1	3	23.46	23.89	23.57	0.0	25.0	12.56	12.68	12.59	0.0	13.5
			1	5	23.49	24.02	23.45	0.0	25.0	12.74	12.68	12.68	0.0	13.5
			3	0	23.39	23.95	23.56	0.0	25.0	12.71	12.64	12.60	0.0	13.5
			3	1	23.41	23.95	23.55	0.0	25.0	12.70	12.58	12.57	0.0	13.5
			3	3	23.41	23.93	23.52	0.0	25.0	12.59	12.55	12.60	0.0	13.5
		64QAM	6	0	22.80	22.93	22.92	1.0	24.0	12.72	12.62	12.63	0.0	13.5
			1	0	23.16	22.82	23.00	1.0	24.0	12.94	12.79	12.62	0.0	13.5
			1	3	23.21	23.00	22.97	1.0	24.0	13.07	12.84	12.76	0.0	13.5
			1	5	23.26	22.85	23.01	1.0	24.0	12.98	12.83	12.68	0.0	13.5
			3	0	22.87	23.10	22.97	1.0	24.0	12.71	12.52	12.78	0.0	13.5
			3	1	22.89	22.98	22.92	1.0	24.0	12.77	12.49	12.67	0.0	13.5
		256QAM	3	3	22.90	23.01	22.96	1.0	24.0	12.73	12.51	12.68	0.0	13.5
			6	0	22.01	21.92	22.05	2.0	23.0	12.64	12.72	12.64	0.0	13.5
			1	0	22.00	22.01	22.03	2.0	23.0	12.90	12.96	12.80	0.0	13.5
			1	3	22.23	22.03	22.12	2.0	23.0	13.01	12.92	12.77	0.0	13.5
			1	5	22.14	21.98	22.12	2.0	23.0	13.02	12.90	12.72	0.0	13.5
			3	0	21.94	21.95	21.98	2.0	23.0	12.71	12.84	12.80	0.0	13.5
		256QAM	3	1	21.93	21.95	21.94	2.0	23.0	12.68	12.78	12.73	0.0	13.5
			3	3	21.88	21.90	21.96	2.0	23.0	12.67	12.76	12.71	0.0	13.5
			6	0	20.99	20.94	20.97	3.0	22.0	12.78	12.90	12.79	0.0	13.5
			1	0	19.03	18.92	18.88	5.0	20.0	12.95	12.79	12.80	0.0	13.5
			1	3	18.81	18.86	18.94	5.0	20.0	12.92	12.91	12.70	0.0	13.5
			1	5	18.97	18.85	18.80	5.0	20.0	12.97	12.75	12.80	0.0	13.5
		256QAM	3	0	18.90	18.73	18.85	5.0	20.0	12.83	12.72	12.61	0.0	13.5
			3	1	18.87	18.70	18.81	5.0	20.0	12.83	12.65	12.56	0.0	13.5
			3	3	18.83	18.67	18.74	5.0	20.0	12.75	12.54	12.52	0.0	13.5
			6	0	18.82	18.77	18.74	5.0	20.0	12.80	12.74	12.72	0.0	13.5

**LTE Band 25 (Sub.2) 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		
20 MHz	QPSK	1	0	23.22	23.71	23.70			9.78	10.18	10.17				
		1	49	23.15	23.68	23.55	0.0	24.0	9.95	10.12	9.97	0.0	11.0		
		1	99	23.42	23.64	22.67	0.0	24.0	10.04	10.07	10.16	0.0	11.0		
		50	0	22.34	22.78	22.68	1.0	23.0	9.85	10.09	10.08	0.0	11.0		
		50	24	22.40	22.77	22.61	1.0	23.0	9.89	10.08	10.03	0.0	11.0		
		50	50	22.44	22.73	22.59	1.0	23.0	9.94	10.06	10.04	0.0	11.0		
		100	0	22.40	22.74	22.64	1.0	23.0	9.90	10.08	10.08	0.0	11.0		
	16QAM	1	0	22.57	22.87	22.82	1.0	23.0	10.08	10.45	10.41	0.0	11.0		
		1	49	22.69	22.91	22.86	1.0	23.0	10.16	10.41	10.14	0.0	11.0		
		1	99	22.80	22.97	22.47	1.0	23.0	10.29	10.31	10.30	0.0	11.0		
		50	0	21.41	21.80	21.66	2.0	22.0	9.81	10.09	10.08	0.0	11.0		
		50	24	21.46	21.79	21.57	2.0	22.0	9.87	10.06	10.01	0.0	11.0		
		50	50	21.49	21.75	21.54	2.0	22.0	9.92	10.04	9.99	0.0	11.0		
		100	0	21.43	21.73	21.63	2.0	22.0	9.91	10.08	10.06	0.0	11.0		
	64QAM	1	0	21.49	21.84	21.83	2.0	22.0	10.02	10.35	10.40	0.0	11.0		
		1	49	21.53	21.81	21.67	2.0	22.0	10.30	10.52	10.33	0.0	11.0		
		1	99	21.73	21.76	21.68	2.0	22.0	10.29	10.30	10.36	0.0	11.0		
		50	0	20.36	20.72	20.64	3.0	21.0	9.86	10.12	10.08	0.0	11.0		
		50	24	20.42	20.71	20.59	3.0	21.0	9.92	10.10	10.04	0.0	11.0		
		50	50	20.47	20.68	20.58	3.0	21.0	9.98	10.07	10.02	0.0	11.0		
		100	0	20.40	20.65	20.57	3.0	21.0	9.93	10.10	10.08	0.0	11.0		
	256QAM	1	0	18.57	18.77	18.76	5.0	19.0	10.08	10.40	10.40	0.0	11.0		
		1	49	18.68	18.63	18.37	5.0	19.0	10.17	10.43	10.28	0.0	11.0		
		1	99	18.72	18.73	18.62	5.0	19.0	10.29	10.29	10.31	0.0	11.0		
		50	0	18.31	18.70	18.60	5.0	19.0	9.83	10.10	10.06	0.0	11.0		
		50	24	18.36	18.69	18.54	5.0	19.0	9.88	10.08	9.98	0.0	11.0		
		50	50	18.40	18.64	18.54	5.0	19.0	9.94	10.03	9.99	0.0	11.0		
		100	0	18.32	18.65	18.58	5.0	19.0	9.88	10.04	10.01	0.0	11.0		
15 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)					
				26115	26365	26615	26115			26365	26615	MPR	Tune-up Limit		
				1857.5 MHz	1882.5 MHz	1907.5 MHz	1857.5 MHz			1882.5 MHz	1907.5 MHz				
		1	0	23.23	23.37	23.50	0.0	24.0	10.05	10.00	9.87	0.0	11.0		
		1	37	23.15	23.52	23.52	0.0	24.0	9.77	9.85	9.91	0.0	11.0		
		1	74	23.37	23.35	23.15	0.0	24.0	10.04	9.96	10.02	0.0	11.0		
		36	0	22.28	22.42	22.50	1.0	23.0	10.05	10.03	9.88	0.0	11.0		
	16QAM	36	20	22.30	22.41	22.44	1.0	23.0	10.01	10.01	9.92	0.0	11.0		
		36	39	22.36	22.38	22.46	1.0	23.0	10.01	9.98	9.96	0.0	11.0		
		75	0	22.34	22.43	22.50	1.0	23.0	10.04	10.01	9.92	0.0	11.0		
		1	0	22.36	22.80	22.70	1.0	23.0	10.35	10.33	10.15	0.0	11.0		
		1	37	22.44	22.87	22.67	1.0	23.0	10.13	10.27	10.20	0.0	11.0		
		1	74	22.48	22.71	22.65	1.0	23.0	10.30	10.23	10.33	0.0	11.0		
		36	0	21.27	21.48	21.52	2.0	22.0	10.03	10.02	9.88	0.0	11.0		
	64QAM	36	20	21.30	21.46	21.47	2.0	22.0	9.99	10.00	9.91	0.0	11.0		
		36	39	21.33	21.43	21.47	2.0	22.0	9.99	9.98	9.96	0.0	11.0		
		75	0	21.32	21.41	21.49	2.0	22.0	10.01	9.98	9.91	0.0	11.0		
		1	0	21.03	21.38	21.50	2.0	22.0	9.89	10.19	10.10	0.0	11.0		
		1	37	21.07	21.19	21.35	2.0	22.0	9.84	10.05	9.94	0.0	11.0		
		1	74	21.15	21.38	21.38	2.0	22.0	10.08	10.08	10.08	0.0	11.0		
		36	0	20.13	20.19	20.21	3.0	21.0	9.84	10.05	10.07	0.0	11.0		
	256QAM	36	20	20.18	20.18	20.17	3.0	21.0	9.88	10.02	10.02	0.0	11.0		
		36	39	20.19	20.13	20.20	3.0	21.0	9.90	10.01	10.03	0.0	11.0		
		75	0	20.10	20.16	20.19	3.0	21.0	9.93	9.99	10.02	0.0	11.0		
		1	0	18.06	18.26	18.48	5.0	19.0	9.99	10.38	10.00	0.0	11.0		
		1	37	18.10	18.20	18.33	5.0	19.0	10.02	10.33	9.85	0.0	11.0		
		1	74	18.21	18.18	18.46	5.0	19.0	10.15	10.33	10.00	0.0	11.0		
		36	0	18.02	18.13	18.20	5.0	19.0	9.85	10.04	10.01	0.0	11.0		

**LTE Band 25 (Sub.2) Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				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	23.24	23.39	22.94	0.0	24.0	10.08	10.01	9.88	0.0	11.0	
		1	25	23.03	23.46	22.45	0.0	24.0	10.17	9.87	9.90	0.0	11.0	
		1	49	23.38	23.40	22.20	0.0	24.0	10.15	9.99	10.02	0.0	11.0	
		25	0	22.31	22.43	21.92	1.0	23.0	10.00	10.00	9.91	0.0	11.0	
		25	12	22.32	22.40	21.82	1.0	23.0	10.01	9.97	9.92	0.0	11.0	
		25	25	22.35	22.36	21.76	1.0	23.0	10.04	9.98	9.95	0.0	11.0	
		50	0	22.34	22.41	21.85	1.0	23.0	10.03	9.98	9.92	0.0	11.0	
	16QAM	1	0	22.60	22.44	22.45	1.0	23.0	10.20	10.29	10.06	0.0	11.0	
		1	25	22.57	22.54	22.11	1.0	23.0	10.26	10.23	10.19	0.0	11.0	
		1	49	22.66	22.33	21.86	1.0	23.0	10.32	10.21	10.09	0.0	11.0	
		25	0	21.39	21.46	21.31	2.0	22.0	10.01	10.02	9.92	0.0	11.0	
		25	12	21.41	21.44	21.24	2.0	22.0	10.01	9.99	9.94	0.0	11.0	
		25	25	21.43	21.40	21.21	2.0	22.0	10.04	9.98	9.98	0.0	11.0	
		50	0	21.35	21.44	21.28	2.0	22.0	9.98	9.97	9.92	0.0	11.0	
	64QAM	1	0	21.24	21.46	21.21	2.0	22.0	10.02	10.21	9.98	0.0	11.0	
		1	25	21.40	21.56	21.22	2.0	22.0	10.03	10.32	10.10	0.0	11.0	
		1	49	21.27	21.47	21.34	2.0	22.0	10.05	10.22	10.12	0.0	11.0	
		25	0	20.19	20.24	20.21	3.0	21.0	9.93	9.99	9.98	0.0	11.0	
		25	12	20.21	20.23	20.25	3.0	21.0	9.95	9.99	10.01	0.0	11.0	
		25	25	20.23	20.22	20.26	3.0	21.0	9.97	9.96	10.01	0.0	11.0	
		50	0	20.19	20.23	20.26	3.0	21.0	9.92	9.97	10.01	0.0	11.0	
	256QAM	1	0	18.18	18.49	18.17	5.0	19.0	9.99	10.34	10.01	0.0	11.0	
		1	25	18.23	18.56	18.31	5.0	19.0	10.07	10.21	9.96	0.0	11.0	
		1	49	18.29	18.42	18.24	5.0	19.0	10.09	10.28	10.06	0.0	11.0	
		25	0	18.19	18.25	18.22	5.0	19.0	9.98	10.02	9.98	0.0	11.0	
		25	12	18.22	18.24	18.23	5.0	19.0	9.99	10.00	9.99	0.0	11.0	
		25	25	18.22	18.20	18.23	5.0	19.0	10.00	9.96	10.00	0.0	11.0	
		50	0	18.16	18.22	18.21	5.0	19.0	9.90	9.97	9.98	0.0	11.0	
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				26065	26365	26665			26065	26365	26665			
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz			
		16QAM	1	0	23.27	23.34	22.68	0.0	24.0	10.05	9.97	9.88	0.0	11.0
			1	12	23.42	23.40	22.62	0.0	24.0	10.13	9.76	9.92	0.0	11.0
			1	24	23.37	23.38	22.39	0.0	24.0	10.18	9.97	9.98	0.0	11.0
			12	0	22.34	22.39	21.95	1.0	23.0	10.04	10.00	9.96	0.0	11.0
			12	7	22.36	22.39	21.97	1.0	23.0	10.07	10.00	9.97	0.0	11.0
			12	13	22.35	22.38	21.96	1.0	23.0	10.09	9.98	9.97	0.0	11.0
			25	0	22.34	22.40	21.97	1.0	23.0	10.08	9.99	9.97	0.0	11.0
	64QAM	RB Allocation	RB offset	22.66	22.97	22.22	1.0	23.0	10.34	10.32	10.11	0.0	11.0	
				22.72	22.91	22.27	1.0	23.0	10.32	10.17	10.09	0.0	11.0	
				22.68	22.97	22.04	1.0	23.0	10.40	10.25	10.21	0.0	11.0	
		256QAM	12	0	21.40	21.50	21.36	2.0	22.0	10.07	10.08	9.98	0.0	11.0
			12	7	21.39	21.50	21.42	2.0	22.0	10.08	10.10	9.99	0.0	11.0
			12	13	21.40	21.48	21.41	2.0	22.0	10.10	10.08	10.01	0.0	11.0
			25	0	21.40	21.44	21.42	2.0	22.0	10.03	9.98	9.96	0.0	11.0
			1	0	21.28	21.59	21.38	2.0	22.0	9.95	10.36	10.07	0.0	11.0
			1	12	21.37	21.55	21.37	2.0	22.0	9.97	10.24	9.98	0.0	11.0
			1	24	21.36	21.55	21.50	2.0	22.0	10.04	10.30	10.20	0.0	11.0
	256QAM	RB Allocation	RB offset	20.18	20.24	20.22	3.0	21.0	9.92	9.97	9.92	0.0	11.0	
				20.21	20.25	20.24	3.0	21.0	9.94	9.94	9.93	0.0	11.0	
				20.20	20.23	20.27	3.0	21.0	9.92	9.94	9.96	0.0	11.0	
		256QAM	25	0	20.22	20.24	20.25	3.0	21.0	9.93	9.97	9.96	0.0	11.0
			1	0	18.27	18.43	18.19	5.0	19.0	9.97	10.20	10.04	0.0	11.0
			1	12	18.09	18.45	18.22	5.0	19.0	9.88	10.09	9.96	0.0	11.0
			1	24	18.31	18.45	18.34	5.0	19.0	10.02	10.19	10.12	0.0	11.0
			12	0	18.19	18.26	18.17	5.0	19.0	9.91	9.99	9.96	0.0	11.0
			12	7	18.21	18.26	18.20	5.0	19.0	9.92	9.99	9.98	0.0	11.0
			25	0	18.20	18.18	18.27	5.0	19.0	9.93	9.93	10.03	0.0	11.0

**LTE Band 25 (Sub.2) Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
				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	23.40	23.32	22.75	0.0	24.0	10.16	9.96	10.03	0.0	11.0				
		1	8	23.21	23.42	22.66	0.0	24.0	9.95	9.83	9.99	0.0	11.0				
		1	14	23.47	23.31	22.42	0.0	24.0	10.27	9.92	10.11	0.0	11.0				
		8	0	22.37	22.39	21.92	1.0	23.0	10.10	10.00	10.01	0.0	11.0				
		8	4	22.35	22.36	21.94	1.0	23.0	10.10	9.99	10.00	0.0	11.0				
		8	7	22.37	22.38	21.91	1.0	23.0	10.14	9.98	10.04	0.0	11.0				
		15	0	22.39	22.39	21.93	1.0	23.0	10.13	10.01	9.98	0.0	11.0				
	16QAM	1	0	22.39	22.71	22.36	1.0	23.0	10.11	10.34	10.27	0.0	11.0				
		1	8	22.45	22.78	22.38	1.0	23.0	10.08	10.31	10.26	0.0	11.0				
		1	14	22.34	22.74	22.16	1.0	23.0	10.11	10.36	10.27	0.0	11.0				
		8	0	21.42	21.44	21.36	2.0	22.0	10.13	10.07	10.06	0.0	11.0				
		8	4	21.44	21.39	21.39	2.0	22.0	10.16	10.02	10.09	0.0	11.0				
		8	7	21.42	21.37	21.38	2.0	22.0	10.15	10.03	10.06	0.0	11.0				
		15	0	21.42	21.41	21.38	2.0	22.0	10.05	9.98	10.00	0.0	11.0				
	64QAM	1	0	21.25	21.44	21.28	2.0	22.0	10.09	9.96	10.14	0.0	11.0				
		1	8	21.35	21.40	21.35	2.0	22.0	10.02	9.86	10.15	0.0	11.0				
		1	14	21.21	21.48	21.42	2.0	22.0	10.19	10.04	10.16	0.0	11.0				
		8	0	20.31	20.28	20.26	3.0	21.0	10.03	10.03	10.09	0.0	11.0				
		8	4	20.29	20.24	20.31	3.0	21.0	10.03	9.99	10.04	0.0	11.0				
		8	7	20.29	20.26	20.32	3.0	21.0	10.04	10.00	10.12	0.0	11.0				
		15	0	20.27	20.26	20.25	3.0	21.0	9.99	9.92	10.01	0.0	11.0				
	256QAM	1	0	18.31	18.49	18.36	5.0	19.0	10.22	9.99	10.17	0.0	11.0				
		1	8	18.33	18.41	18.39	5.0	19.0	10.12	9.92	10.18	0.0	11.0				
		1	14	18.33	18.40	18.42	5.0	19.0	10.28	9.94	10.24	0.0	11.0				
		8	0	18.25	18.23	18.34	5.0	19.0	10.04	10.03	10.07	0.0	11.0				
		8	4	18.27	18.24	18.34	5.0	19.0	10.01	9.94	10.03	0.0	11.0				
		8	7	18.23	18.21	18.37	5.0	19.0	10.03	9.99	10.01	0.0	11.0				
		15	0	18.31	18.27	18.37	5.0	19.0	9.99	10.03	10.04	0.0	11.0				
1.4 MHz	QPSK	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	0	23.24	23.35	22.82	0.0	24.0	10.26	10.09	10.09	0.0	11.0		
				1	3	23.35	23.10	22.68	0.0	24.0	10.15	10.13	9.87	0.0	11.0		
				1	5	23.26	23.38	22.56	0.0	24.0	10.27	10.07	10.10	0.0	11.0		
				3	0	23.36	23.44	22.63	0.0	24.0	10.15	10.03	10.06	0.0	11.0		
	16QAM			3	1	23.33	23.41	22.62	0.0	24.0	10.13	10.01	10.08	0.0	11.0		
				3	3	23.28	23.25	22.57	0.0	24.0	10.13	9.99	9.94	0.0	11.0		
				6	0	22.28	22.37	21.91	1.0	23.0	10.19	10.02	10.09	0.0	11.0		
				1	0	22.37	22.72	22.14	1.0	23.0	10.08	10.08	10.26	0.0	11.0		
				1	3	22.34	22.74	22.10	1.0	23.0	10.32	10.03	10.28	0.0	11.0		
				1	5	22.44	22.76	22.02	1.0	23.0	10.17	10.12	10.30	0.0	11.0		
				3	0	22.46	22.49	22.01	1.0	23.0	10.27	10.05	9.93	0.0	11.0		
	64QAM			3	1	22.37	22.47	22.03	1.0	23.0	10.21	9.96	10.04	0.0	11.0		
				3	3	22.45	22.40	21.99	1.0	23.0	10.15	10.00	9.98	0.0	11.0		
				6	0	21.40	21.33	21.38	2.0	22.0	10.20	10.09	10.12	0.0	11.0		
				1	0	21.66	21.52	21.45	2.0	22.0	10.28	9.97	10.02	0.0	11.0		
				1	3	21.78	21.36	21.54	2.0	22.0	10.30	9.98	10.11	0.0	11.0		
				1	5	21.62	21.47	21.44	2.0	22.0	10.23	9.90	10.11	0.0	11.0		
				3	0	21.62	21.62	21.46	2.0	22.0	10.14	9.99	10.06	0.0	11.0		
	256QAM			3	1	21.52	21.57	21.45	2.0	22.0	10.08	9.95	10.03	0.0	11.0		
				3	3	21.60	21.52	21.41	2.0	22.0	10.09	9.91	9.99	0.0	11.0		
				6	0	20.42	20.54	20.49	3.0	21.0	10.08	10.08	10.18	0.0	11.0		
				1	0	18.44	18.42	18.40	5.0	19.0	9.94	10.17	10.18	0.0	11.0		
				1	3	18.61	18.64	18.56	5.0	19.0	10.05	10.12	10.21	0.0	11.0		
				1	5	18.40	18.39	18.39	5.0	19.0	9.94	10.23	10.23	0.0	11.0		
				3	0	18.38	18.37	18.43	5.0	19.0	10.01	9.99	10.05	0.0	11.0		
				3	1	18.33	18.32	18.35	5.0	19.0	9.96	9.86	9.99	0.0	11.0		
				3	3	18.29	18.35	18.33	5.0	19.0	9.93	9.88	9.95	0.0	11.0		
				6	0	18.38	18.37	18.42	5.0	19.0	10.07	9.88	10.09	0.0	11.0		

**LTE Band 26 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
15 MHz	QPSK	1	0	26765 821.5 MHz	26865 831.5 MHz	26965 841.5 MHz			26765 821.5 MHz	26865 831.5 MHz	26965 841.5 MHz		
		1	37	24.17		0.0	25.0		14.20		0.0	15.0	
		1	74	23.96		0.0	25.0		14.12		0.0	15.0	
		36	0	24.04		0.0	25.0		14.05		0.0	15.0	
		36	20	23.30		1.0	24.0		14.18		0.0	15.0	
		36	39	23.26		1.0	24.0		14.16		0.0	15.0	
		75	0	23.23		1.0	24.0		14.12		0.0	15.0	
	16QAM	1	0	23.26		1.0	24.0		14.16		0.0	15.0	
		1	37	23.50		1.0	24.0		14.40		0.0	15.0	
		1	74	23.32		1.0	24.0		14.34		0.0	15.0	
		36	0	23.33		1.0	24.0		14.29		0.0	15.0	
		36	20	22.24		2.0	23.0		14.19		0.0	15.0	
		36	39	22.19		2.0	23.0		14.17		0.0	15.0	
		75	0	22.13		2.0	23.0		14.12		0.0	15.0	
	64QAM	1	0	22.22		2.0	23.0		14.16		0.0	15.0	
		1	37	21.94		2.0	23.0		14.49		0.0	15.0	
		1	74	22.08		2.0	23.0		14.40		0.0	15.0	
		36	0	21.28		3.0	22.0		14.31		0.0	15.0	
		36	20	21.23		3.0	22.0		14.25		0.0	15.0	
		36	39	21.20		3.0	22.0		14.22		0.0	15.0	
		75	0	21.19		3.0	22.0		14.16		0.0	15.0	
	256QAM	1	0	19.50		5.0	20.0		14.15		0.0	15.0	
		1	37	19.25		5.0	20.0		13.98		0.0	15.0	
		1	74	19.31		5.0	20.0		14.03		0.0	15.0	
		36	0	19.22		5.0	20.0		14.20		0.0	15.0	
		36	20	19.17		5.0	20.0		14.14		0.0	15.0	
		36	39	19.14		5.0	20.0		14.13		0.0	15.0	
		75	0	19.19		5.0	20.0		14.13		0.0	15.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26740 819 MHz	26865 831.5 MHz	26990 844 MHz			26740 819 MHz	26865 831.5 MHz	26990 844 MHz		
10 MHz	QPSK	1	0	24.36	24.45	24.09	0.0	25.0	14.18	14.20	14.09	0.0	15.0
		1	25	24.32	24.47	24.01	0.0	25.0	14.12	14.19	13.94	0.0	15.0
		1	49	24.29	24.36	24.04	0.0	25.0	14.11	14.11	14.06	0.0	15.0
		25	0	23.39	23.43	23.09	1.0	24.0	14.14	14.14	14.08	0.0	15.0
		25	12	23.36	23.41	23.06	1.0	24.0	14.14	14.13	14.07	0.0	15.0
		25	25	23.32	23.38	23.04	1.0	24.0	14.09	14.09	14.03	0.0	15.0
		50	0	23.36	23.42	23.07	1.0	24.0	14.15	14.12	14.07	0.0	15.0
	16QAM	1	0	23.57	23.64	23.41	1.0	24.0	14.42	14.51	14.51	0.0	15.0
		1	25	23.69	23.69	23.40	1.0	24.0	14.44	14.55	14.47	0.0	15.0
		1	49	23.46	23.61	23.33	1.0	24.0	14.25	14.45	14.38	0.0	15.0
		25	0	22.36	22.41	22.10	2.0	23.0	14.20	14.17	14.12	0.0	15.0
		25	12	22.36	22.39	22.06	2.0	23.0	14.21	14.15	14.10	0.0	15.0
		25	25	22.34	22.38	22.04	2.0	23.0	14.17	14.12	14.05	0.0	15.0
		50	0	22.33	22.37	22.02	2.0	23.0	14.18	14.11	14.06	0.0	15.0
	64QAM	1	0	22.22	22.51	22.04	2.0	23.0	14.17	14.21	14.30	0.0	15.0
		1	25	22.30	22.54	21.95	2.0	23.0	14.14	14.19	14.22	0.0	15.0
		1	49	22.23	22.51	21.92	2.0	23.0	14.14	14.16	14.16	0.0	15.0
		25	0	21.26	21.27	21.01	3.0	22.0	14.23	14.16	14.14	0.0	15.0
		25	12	21.26	21.25	20.97	3.0	22.0	14.21	14.11	14.11	0.0	15.0
		25	25	21.22	21.22	20.95	3.0	22.0	14.18	14.10	14.08	0.0	15.0
		50	0	21.23	21.25	20.96	3.0	22.0	14.19	14.11	14.08	0.0	15.0
	256QAM	1	0	19.24	19.61	19.10	5.0	20.0	14.17	14.42	14.25	0.0	15.0
		1	25	19.07	19.35	19.12	5.0	20.0	14.09	14.25	14.22	0.0	15.0
		1	49	19.15	19.50	19.01	5.0	20.0	14.05	14.31	14.16	0.0	15.0
		25	0	19.21	19.29	19.01	5.0	20.0	14.23	14.20	14.18	0.0	15.0
		25	12	19.19	19.28	19.00	5.0	20.0	14.21	14.18	14.15	0.0	15.0
		25	25	19.15	19.24	18.94	5.0	20.0	14.17	14.14	14.11	0.0	15.0
		50	0	19.17	19.24	18.92	5.0	20.0	14.18	14.13	14.09	0.0	15.0

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	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	24.35	24.54	24.07	0.0	25.0	14.07	14.05	14.03	0.0	15.0
		1	12	24.37	24.56	23.96	0.0	25.0	14.03	13.91	14.00	0.0	15.0
		1	24	24.35	24.53	24.03	0.0	25.0	14.06	14.05	14.05	0.0	15.0
		12	0	23.43	23.54	23.12	1.0	24.0	14.09	14.11	14.05	0.0	15.0
		12	7	23.43	23.52	23.11	1.0	24.0	14.06	14.10	14.04	0.0	15.0
		12	13	23.39	23.50	23.08	1.0	24.0	14.04	14.09	14.02	0.0	15.0
		25	0	23.40	23.52	23.10	1.0	24.0	14.06	14.09	14.06	0.0	15.0
	16QAM	1	0	23.72	23.80	23.44	1.0	24.0	14.45	14.43	14.37	0.0	15.0
		1	12	23.71	23.74	23.28	1.0	24.0	14.27	14.13	14.28	0.0	15.0
		1	24	23.75	23.75	23.43	1.0	24.0	14.35	14.33	14.38	0.0	15.0
		12	0	22.43	22.58	22.17	2.0	23.0	14.11	14.18	14.06	0.0	15.0
		12	7	22.41	22.56	22.17	2.0	23.0	14.08	14.16	14.04	0.0	15.0
		12	13	22.39	22.57	22.17	2.0	23.0	14.10	14.15	14.02	0.0	15.0
		25	0	22.36	22.50	22.06	2.0	23.0	14.09	14.11	14.04	0.0	15.0
	64QAM	1	0	22.34	22.47	21.92	2.0	23.0	14.28	14.34	14.41	0.0	15.0
		1	12	22.33	22.37	21.87	2.0	23.0	14.19	14.30	14.25	0.0	15.0
		1	24	22.38	22.41	21.98	2.0	23.0	14.28	14.32	14.32	0.0	15.0
		12	0	21.15	21.21	20.90	3.0	22.0	14.11	14.12	14.05	0.0	15.0
		12	7	21.12	21.19	20.88	3.0	22.0	14.09	14.09	14.03	0.0	15.0
		12	13	21.14	21.19	20.88	3.0	22.0	14.08	14.11	14.02	0.0	15.0
		25	0	21.11	21.25	20.89	3.0	22.0	14.10	14.12	14.06	0.0	15.0
	256QAM	1	0	19.17	19.53	18.82	5.0	20.0	14.21	14.12	14.43	0.0	15.0
		1	12	19.12	19.45	18.62	5.0	20.0	14.03	14.04	14.32	0.0	15.0
		1	24	19.16	19.52	18.79	5.0	20.0	14.13	14.12	14.40	0.0	15.0
		12	0	19.12	19.28	18.84	5.0	20.0	14.11	14.13	14.10	0.0	15.0
		12	7	19.11	19.29	18.84	5.0	20.0	14.09	14.11	14.10	0.0	15.0
		12	13	19.11	19.25	18.81	5.0	20.0	14.08	14.11	14.07	0.0	15.0
		25	0	19.10	19.20	18.88	5.0	20.0	14.11	14.18	14.03	0.0	15.0
3 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26705	26865	27025			26705	26865	27025		
				815.5 MHz	831.5 MHz	847.5 MHz			815.5 MHz	831.5 MHz	847.5 MHz		
		1	0	24.39	24.46	24.18	0.0	25.0	14.12	14.03	14.11	0.0	15.0
		1	8	24.17	24.42	24.13	0.0	25.0	13.92	13.87	14.00	0.0	15.0
		1	14	24.46	24.41	24.21	0.0	25.0	14.13	13.96	14.10	0.0	15.0
		8	0	23.37	23.55	23.18	1.0	24.0	14.09	14.10	14.06	0.0	15.0
	16QAM	8	4	23.39	23.52	23.15	1.0	24.0	14.02	14.10	14.02	0.0	15.0
		8	7	23.37	23.50	23.19	1.0	24.0	14.04	14.06	14.03	0.0	15.0
		15	0	23.39	23.54	23.14	1.0	24.0	14.05	14.12	14.02	0.0	15.0
		1	0	23.45	23.71	23.40	1.0	24.0	14.19	14.47	14.45	0.0	15.0
		1	8	23.45	23.69	23.42	1.0	24.0	14.02	14.36	14.40	0.0	15.0
		1	14	23.37	23.75	23.36	1.0	24.0	14.09	14.49	14.38	0.0	15.0
		8	0	22.34	22.60	22.21	2.0	23.0	14.06	14.18	14.17	0.0	15.0
	64QAM	8	4	22.35	22.57	22.17	2.0	23.0	14.06	14.17	14.15	0.0	15.0
		8	7	22.35	22.58	22.17	2.0	23.0	14.07	14.17	14.17	0.0	15.0
		15	0	22.29	22.44	22.14	2.0	23.0	14.05	14.14	14.13	0.0	15.0
		1	0	22.33	22.28	21.98	2.0	23.0	14.33	14.26	14.06	0.0	15.0
		1	8	22.18	22.25	21.90	2.0	23.0	14.15	14.18	14.02	0.0	15.0
		1	14	22.39	22.21	22.08	2.0	23.0	14.36	14.14	14.13	0.0	15.0
		8	0	21.21	21.32	20.94	3.0	22.0	14.06	14.13	14.12	0.0	15.0
	256QAM	8	4	21.18	21.30	20.94	3.0	22.0	14.04	14.15	14.05	0.0	15.0
		8	7	21.21	21.30	20.95	3.0	22.0	14.06	14.16	14.10	0.0	15.0
		15	0	21.06	21.28	20.97	3.0	22.0	14.06	14.12	14.01	0.0	15.0
		1	0	19.58	19.35	19.09	5.0	20.0	14.33	14.28	14.20	0.0	15.0
		1	8	19.35	19.29	18.99	5.0	20.0	14.23	14.15	13.99	0.0	15.0
		1	14	19.46	19.33	19.03	5.0	20.0	14.27	14.23	14.11	0.0	15.0
		8	0	19.23	19.34	19.02	5.0	20.0	14.20	14.13	14.14	0.0	15.0

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26697	26865	27033			26697	26865	27033		
				814.7 MHz	831.5 MHz	848.3 MHz			814.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.30	24.52	24.17	0.0	25.0	14.02	14.11	14.06	0.0	15.0
		1	3	24.15	24.58	23.98	0.0	25.0	13.99	13.87	13.86	0.0	15.0
		1	5	24.31	24.51	24.17	0.0	25.0	13.99	14.09	14.03	0.0	15.0
		3	0	24.33	24.54	24.25	0.0	25.0	13.99	14.06	13.98	0.0	15.0
		3	1	24.30	24.55	24.20	0.0	25.0	13.94	14.10	13.93	0.0	15.0
		3	3	24.30	24.47	24.06	0.0	25.0	13.93	13.93	13.94	0.0	15.0
		6	0	23.33	23.50	23.17	1.0	24.0	13.98	14.09	13.97	0.0	15.0
	16QAM	1	0	23.36	23.58	23.52	1.0	24.0	14.14	14.28	14.19	0.0	15.0
		1	3	23.56	23.56	23.56	1.0	24.0	14.19	14.40	14.33	0.0	15.0
		1	5	23.42	23.62	23.57	1.0	24.0	14.20	14.32	14.25	0.0	15.0
		3	0	23.48	23.60	23.31	1.0	24.0	14.13	14.11	14.21	0.0	15.0
		3	1	23.33	23.45	23.39	1.0	24.0	14.03	14.14	14.12	0.0	15.0
		3	3	23.35	23.54	23.32	1.0	24.0	14.14	14.12	14.08	0.0	15.0
		6	0	22.46	22.66	22.17	2.0	23.0	14.13	14.10	14.10	0.0	15.0
	64QAM	1	0	22.15	22.51	22.12	2.0	23.0	14.43	14.29	14.16	0.0	15.0
		1	3	22.10	22.55	22.27	2.0	23.0	14.37	14.34	14.12	0.0	15.0
		1	5	22.11	22.45	22.19	2.0	23.0	14.35	14.34	14.09	0.0	15.0
		3	0	22.24	22.48	21.96	2.0	23.0	14.25	14.10	14.19	0.0	15.0
		3	1	22.25	22.44	21.94	2.0	23.0	14.18	14.02	14.11	0.0	15.0
		3	3	22.21	22.37	21.89	2.0	23.0	14.13	14.10	14.09	0.0	15.0
		6	0	21.29	21.39	21.01	3.0	22.0	14.10	14.13	14.17	0.0	15.0
	256QAM	1	0	19.15	19.45	18.96	5.0	20.0	14.07	14.18	13.99	0.0	15.0
		1	3	19.05	19.56	19.12	5.0	20.0	14.09	14.22	13.88	0.0	15.0
		1	5	19.13	19.39	18.91	5.0	20.0	14.05	14.19	14.00	0.0	15.0
		3	0	19.05	19.34	19.09	5.0	20.0	13.98	14.15	14.00	0.0	15.0
		3	1	18.99	19.25	19.04	5.0	20.0	13.95	14.13	14.00	0.0	15.0
		3	3	19.00	19.20	18.98	5.0	20.0	13.91	14.09	13.97	0.0	15.0
		6	0	19.11	19.34	18.91	5.0	20.0	14.00	14.12	14.00	0.0	15.0

**LTE Band 30 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
10 MHz	QPSK	1	0	27710	2310 MHz			27710	2310 MHz		
		1	25	22.43		0.0	23.0	12.18		0.0	13.5
		1	49	22.62		0.0	23.0	12.32		0.0	13.5
		25	0	22.52		0.0	23.0	12.23		0.0	13.5
		25	12	22.64		0.0	23.0	12.33		0.0	13.5
		25	25	22.74		0.0	23.0	12.40		0.0	13.5
		50	0	22.85		0.0	23.0	12.50		0.0	13.5
	16QAM	1	0	22.75		0.0	23.0	12.42		0.0	13.5
		1	25	22.74		0.0	23.0	12.41		0.0	13.5
		1	49	22.82		0.0	23.0	12.56		0.0	13.5
		25	0	22.17		0.0	23.0	12.66		0.0	13.5
		25	12	21.66		1.0	22.0	12.29		0.0	13.5
		25	25	21.71		1.0	22.0	12.35		0.0	13.5
		50	0	21.74		1.0	22.0	12.42		0.0	13.5
	64QAM	1	0	21.68		1.0	22.0	12.41		0.0	13.5
		1	25	21.55		1.0	22.0	12.29		0.0	13.5
		1	49	21.55		1.0	22.0	12.41		0.0	13.5
		25	0	21.68		1.0	22.0	12.55		0.0	13.5
		25	12	20.65		2.0	21.0	12.35		0.0	13.5
		25	25	20.72		2.0	21.0	12.43		0.0	13.5
		50	0	20.76		2.0	21.0	12.48		0.0	13.5
	256QAM	1	0	20.69		2.0	21.0	12.40		0.0	13.5
		1	25	18.75		4.0	19.0	12.33		0.0	13.5
		1	49	18.82		4.0	19.0	12.50		0.0	13.5
		25	0	19.05		4.0	19.0	12.63		0.0	13.5
		25	12	18.65		4.0	19.0	12.39		0.0	13.5
		25	25	18.72		4.0	19.0	12.46		0.0	13.5
		50	0	18.74		4.0	19.0	12.49		0.0	13.5
		50	0	18.65		4.0	19.0	12.38		0.0	13.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				Measured Pwr (dBm)			
				277685	27710	27735	MPR	Tune-up Limit	277685	27710	27735
5 MHz	QPSK	1	0	2307.5 MHz	2310 MHz	2312.5 MHz		2307.5 MHz	2310 MHz	2312.5 MHz	2307.5 MHz

**LTE Band 41 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				
20 MHz	QPSK	1	0	24.01	24.16	24.72	23.99	24.54	0.0	25.0	13.05	13.73	14.25	13.64	13.73	0.0	15.0		
		1	49	24.11	24.11	24.67	23.92	24.55	0.0	25.0	13.17	13.78	14.24	13.67	13.90	0.0	15.0		
		1	99	24.12	24.17	24.64	24.01	24.57	0.0	25.0	13.18	13.63	14.23	13.53	13.81	0.0	15.0		
		50	0	23.03	23.17	23.66	23.06	23.52	1.0	24.0	13.10	13.71	14.28	13.66	13.82	0.0	15.0		
		50	24	23.06	23.16	23.64	23.07	23.52	1.0	24.0	13.14	13.68	14.25	13.66	13.83	0.0	15.0		
		50	50	23.07	23.13	23.61	23.04	23.51	1.0	24.0	13.15	13.67	14.22	13.63	13.82	0.0	15.0		
		100	0	23.07	23.11	23.65	23.02	23.51	1.0	24.0	13.11	13.68	14.27	13.65	13.83	0.0	15.0		
	16QAM	1	0	22.93	23.01	23.76	22.71	23.33	1.0	24.0	13.40	13.52	14.10	13.62	13.67	0.0	15.0		
		1	49	23.34	23.21	23.70	22.50	23.46	1.0	24.0	13.48	13.86	14.17	13.77	14.12	0.0	15.0		
		1	99	23.47	23.01	23.75	22.73	23.37	1.0	24.0	13.21	13.70	14.36	13.52	13.73	0.0	15.0		
		50	0	21.97	22.69	22.62	21.48	22.44	2.0	23.0	13.11	13.75	14.26	13.64	13.82	0.0	15.0		
		50	24	21.99	22.12	22.59	21.45	22.48	2.0	23.0	13.13	13.71	14.24	13.65	13.85	0.0	15.0		
		50	50	22.00	22.09	22.54	21.44	22.46	2.0	23.0	13.14	13.69	14.29	13.67	13.81	0.0	15.0		
		100	0	21.99	22.10	22.59	21.48	22.45	2.0	23.0	13.10	13.71	14.24	13.65	13.83	0.0	15.0		
	64QAM	1	0	22.00	22.75	22.29	21.47	22.28	2.0	23.0	12.76	13.78	14.45	13.81	14.14	0.0	15.0		
		1	49	22.32	22.25	22.30	21.43	22.06	2.0	23.0	13.02	13.28	14.03	13.34	13.72	0.0	15.0		
		1	99	21.94	22.56	22.37	21.42	22.04	2.0	23.0	13.19	13.93	14.44	13.57	14.16	0.0	15.0		
		50	0	21.04	21.78	21.58	20.49	21.45	3.0	22.0	13.09	13.76	14.31	13.63	13.81	0.0	15.0		
		50	24	21.03	21.77	21.57	20.46	21.43	3.0	22.0	13.12	13.73	14.29	13.66	13.83	0.0	15.0		
		50	50	21.07	21.77	21.54	20.46	21.43	3.0	22.0	13.15	13.72	14.28	13.61	13.87	0.0	15.0		
		100	0	20.98	21.77	21.54	20.41	21.45	3.0	22.0	13.10	13.73	14.30	13.63	13.83	0.0	15.0		
	256QAM	1	0	19.01	19.61	19.89	18.43	19.46	5.0	20.0	13.14	13.59	14.19	13.77	14.08	0.0	15.0		
		1	49	19.31	19.59	19.50	18.38	19.38	5.0	20.0	13.22	13.58	14.28	13.93	14.25	0.0	15.0		
		1	99	18.94	19.58	19.40	18.32	19.45	5.0	20.0	13.27	13.76	14.40	13.81	14.06	0.0	15.0		
		50	0	18.99	19.77	19.52	18.45	19.44	5.0	20.0	13.13	13.74	14.31	13.63	13.86	0.0	15.0		
		50	24	19.01	19.75	19.50	18.44	19.44	5.0	20.0	13.17	13.73	14.30	13.66	13.87	0.0	15.0		
		50	50	19.03	19.76	19.48	18.44	19.42	5.0	20.0	13.16	13.72	14.26	13.62	13.85	0.0	15.0		
		100	0	18.99	19.76	19.51	18.44	19.41	5.0	20.0	13.14	13.74	14.28	13.66	13.83	0.0	15.0		
15 MHz	QPSK	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				
		1	0	24.39	24.40	24.47	22.82	23.01	0.0	25.0	12.75	13.31	14.27	13.29	13.85	0.0	15.0		
		1	37	24.53	24.50	24.05	22.90	23.00	0.0	25.0	12.84	13.11	14.36	13.23	13.57	0.0	15.0		
		1	74	24.55	24.41	23.89	22.94	23.00	0.0	25.0	12.85	13.25	14.21	13.29	13.74	0.0	15.0		
		36	0	23.54	23.47	22.94	21.96	21.96	1.0	24.0	12.81	13.27	14.22	13.33	13.82	0.0	15.0		
		36	20	23.57	23.44	22.92	21.94	21.99	1.0	24.0	12.80	13.28	14.21	13.33	13.82	0.0	15.0		
		36	39	23.57	23.41	22.91	21.94	21.96	1.0	24.0	12.84	13.29	14.19	13.31	13.82	0.0	15.0		
		75	0	23.57	23.43	22.90	21.95	21.98	1.0	24.0	12.81	13.28	14.19	13.32	13.82	0.0	15.0		
	16QAM	1	0	23.46	23.13	22.69	22.03	21.59	1.0	24.0	12.61	13.41	14.20	13.37	13.60	0.0	15.0		
		1	37	23.37	22.78	22.48	21.68	21.67	1.0	24.0	12.87	13.23	14.20	13.55	13.77	0.0	15.0		
		1	74	23.64	23.20	22.76	21.94	22.00	1.0	24.0	12.90	13.46	14.16	13.31	13.73	0.0	15.0		
		36	0	22.43	22.31	21.85	20.96	20.89	2.0	23.0	12.88	13.32	14.19	13.36	13.79	0.0	15.0		
		36	20	22.46	22.33	21.83	20.90	20.91	2.0	23.0	12.84	13.31	14.21	13.35	13.79	0.0	15.0		
		36	39	22.50	22.34	21.81	20.94	20.89	2.0	23.0	12.89	13.29	14.17	13.34	13.82	0.0	15.0		
		75	0	22.44	22.34	21.87	20.87	20.85	2.0	23.0	12.79	13.26	14.21	13.30	13.81	0.0	15.0		
	64QAM	1	0	20.77	20.77	21.83	22.11	22.41	2.0	23.0	12.62	13.19	14.25	13.28	13.86	0.0	15.0		
		1	37	20.85	20.65	21.36	22.12	22.17	2.0	23.0	12.66	13.35	14.29	13.27	13.52	0.0	15.0		
		1	74	20.57	20.68	21.73	22.05	22.42	2.0	23.0	12.93	13.22	14.23	13.05	13.84	0.0	15.0		
		36	0	19.61	19.82	20.80	21.26	21.58	3.0	22.0	12.84	13.25	14.22	13.35	13.74	0.0	15.0		
		36	20	19.61	19.81	20.75	21.17	21.62	3.0	22.0	12.84	13.22	14.19	13.28	13.69	0.0	15.0		
		36	39	19.64	19.85	20.76	21.27	21.66	3.0	22.0	12.87	13.19	14.15	13.30	13.76	0.0	15.0		
		75	0	19.65	19.81	20.76	21.26	21.57	3.0	22.0	12.81	13.26	14.17	13.26	13.76	0.0	15.0		
	256QAM	1	0	17.89	17.77	18.63	19.31	19.66	5.0	20.0	12.65	13.19	13.91	13.05	13.91	0.0	15.0		
		1	37	17.57	17.96	18.51	19.20	19.73	5.0	20.0	12.70	13.43	13.58	13.36	14.18	0.0	15.0		
		1	74	17.93	17.76	18.54	19.49	19.78	5.0	20.0	12.51	13.27	13.55	13.35	14.05	0.0	15.0		
		36	0	17.56	17.80	18.70	19.23	19.52	5.0	20.0	12.82	13.24	14.18	13.33	13.77	0.0	15.0		
		36	20	17.54	17.80	18.69	19.19	19.55	5.0	20.0	12.84	13.26	14.15	13.31	13.75	0.0	15.0		
		36	39	17.58	17.76	18.67	19.20	19.58	5.0	20.0	12.83	13.23	14.15	13.29	13.75	0.0	15.0		
		75	0	17.60	17.79	18.68	19.22	19.53	5.0	20.0	12.82	13.26	14.15	13.28	13.80	0.0	15.0		

**LTE Band 41 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	24.46	24.33	24.47	22.88	22.90	0.0	25.0	12.82	13.32	14.18	13.33	13.84	0.0	15.0
		1	25	24.41	24.46	23.98	22.88	23.03	0.0	25.0	12.88	13.34	14.17	13.28	13.75	0.0	15.0
		1	49	24.53	24.36	23.82	22.87	22.99	0.0	25.0	12.82	13.25	14.10	13.32	13.78	0.0	15.0
		25	0	23.44	23.30	22.82	21.85	21.90	1.0	24.0	12.81	13.30	14.17	13.31	13.79	0.0	15.0
		25	12	23.47	23.30	22.81	21.85	21.91	1.0	24.0	12.84	13.30	14.17	13.31	13.79	0.0	15.0
		25	25	23.45	23.27	22.79	21.84	21.89	1.0	24.0	12.84	13.31	14.15	13.29	13.75	0.0	15.0
		50	0	23.43	23.28	22.80	21.84	21.90	1.0	24.0	12.83	13.30	14.16	13.30	13.79	0.0	15.0
	16QAM	1	0	23.38	23.22	22.59	21.96	21.83	1.0	24.0	12.91	13.36	14.29	13.34	13.56	0.0	15.0
		1	25	23.60	23.31	22.81	22.19	22.00	1.0	24.0	12.84	13.30	14.26	13.29	13.36	0.0	15.0
		1	49	23.51	23.16	22.58	22.00	21.83	1.0	24.0	12.99	13.38	14.28	13.29	13.56	0.0	15.0
		25	0	22.33	22.24	21.70	20.81	20.86	2.0	23.0	12.81	13.31	14.17	13.29	13.73	0.0	15.0
		25	12	22.35	22.22	21.68	20.80	20.86	2.0	23.0	12.84	13.30	14.16	13.27	13.73	0.0	15.0
		25	25	22.35	22.23	21.64	20.77	20.85	2.0	23.0	12.82	13.29	14.13	13.27	13.72	0.0	15.0
		50	0	22.37	22.25	21.75	20.83	20.86	2.0	23.0	12.86	13.31	14.18	13.29	13.72	0.0	15.0
	64QAM	1	0	20.65	20.81	21.71	22.16	22.49	2.0	23.0	12.70	13.11	14.29	13.27	13.69	0.0	15.0
		1	25	20.83	20.99	21.53	22.31	22.71	2.0	23.0	12.73	13.16	14.21	13.17	13.74	0.0	15.0
		1	49	20.70	20.82	21.76	22.15	22.59	2.0	23.0	12.76	13.14	14.22	13.22	13.71	0.0	15.0
		25	0	19.65	19.78	20.70	21.25	21.49	3.0	22.0	12.82	13.20	14.17	13.29	13.69	0.0	15.0
		25	12	19.64	19.78	20.64	21.22	21.52	3.0	22.0	12.84	13.20	14.16	13.28	13.69	0.0	15.0
		25	25	19.65	19.79	20.65	21.23	21.54	3.0	22.0	12.85	13.19	14.14	13.27	13.68	0.0	15.0
		50	0	19.64	19.78	20.70	21.21	21.53	3.0	22.0	12.78	13.25	14.14	13.22	13.71	0.0	15.0
	256QAM	1	0	17.63	17.69	18.63	19.30	19.47	5.0	20.0	12.76	13.20	13.99	13.18	13.63	0.0	15.0
		1	25	17.50	17.64	18.72	19.17	19.38	5.0	20.0	12.84	13.08	13.97	13.18	13.49	0.0	15.0
		1	49	17.64	17.66	18.53	19.24	19.53	5.0	20.0	12.80	13.16	13.96	13.18	13.58	0.0	15.0
		25	0	17.62	17.77	18.72	19.24	19.51	5.0	20.0	12.79	13.23	14.20	13.29	13.73	0.0	15.0
		25	12	17.61	17.76	18.70	19.21	19.53	5.0	20.0	12.82	13.24	14.19	13.28	13.72	0.0	15.0
		25	25	17.62	17.76	18.68	19.20	19.55	5.0	20.0	12.81	13.25	14.16	13.26	13.72	0.0	15.0
		50	0	17.63	17.73	18.69	19.22	19.50	5.0	20.0	12.82	13.26	14.14	13.30	13.73	0.0	15.0
5 MHz	QPSK	1	0	24.32	24.33	24.47	22.85	22.92	0.0	25.0	12.76	13.26	14.18	13.32	13.77	0.0	15.0
		1	12	24.31	24.23	23.88	22.87	22.81	0.0	25.0	12.82	13.30	14.18	13.29	13.71	0.0	15.0
		1	24	24.43	24.32	23.83	22.86	22.93	0.0	25.0	12.79	13.21	14.13	13.27	13.72	0.0	15.0
		12	0	23.38	23.31	22.82	21.84	21.90	1.0	24.0	12.77	13.25	14.15	13.28	13.76	0.0	15.0
		12	7	23.41	23.30	22.83	21.84	21.91	1.0	24.0	12.77	13.24	14.14	13.26	13.76	0.0	15.0
		12	13	23.38	23.28	22.77	21.82	21.90	1.0	24.0	12.80	13.25	14.14	13.28	13.76	0.0	15.0
		25	0	23.39	23.28	22.79	21.83	21.87	1.0	24.0	12.80	13.26	14.15	13.29	13.77	0.0	15.0
	16QAM	1	0	23.33	23.17	22.84	21.84	21.72	1.0	24.0	12.58	13.41	14.18	13.13	13.80	0.0	15.0
		1	12	23.23	22.95	22.65	21.76	21.55	1.0	24.0	12.84	13.64	14.33	13.23	14.01	0.0	15.0
		1	24	23.36	23.20	22.86	21.80	21.76	1.0	24.0	12.67	13.46	14.14	13.17	13.83	0.0	15.0
		12	0	22.39	22.21	21.73	20.84	20.85	2.0	23.0	12.75	13.23	14.20	13.25	13.73	0.0	15.0
		12	7	22.39	22.18	21.71	20.84	20.82	2.0	23.0	12.75	13.22	14.18	13.23	13.72	0.0	15.0
		12	13	22.39	22.19	21.70	20.81	20.82	2.0	23.0	12.78	13.23	14.17	13.26	13.72	0.0	15.0
		25	0	22.33	22.21	21.73	20.79	20.84	2.0	23.0	12.79	13.27	14.16	13.27	13.75	0.0	15.0
	64QAM	1	0	20.57	20.81	21.78	22.16	22.61	2.0	23.0	12.80	13.43	14.22	13.28	13.74	0.0	15.0
		1	12	20.59	20.87	21.67	22.08	22.75	2.0	23.0	12.98	13.41	13.94	13.48	13.68	0.0	15.0
		1	24	20.59	20.92	21.75	22.08	22.76	2.0	23.0	12.86	13.34	14.14	13.32	13.68	0.0	15.0
		12	0	19.54	19.80	20.75	21.25	21.59	3.0	22.0	12.76	13.23	14.17	13.26	13.70	0.0	15.0
		12	7	19.56	19.80	20.72	21.24	21.59	3.0	22.0	12.76	13.21	14.16	13.25	13.70	0.0	15.0
		12	13	19.57	19.79	20.73	21.22	21.59	3.0	22.0	12.79	13.23	14.16	13.25	13.70	0.0	15.0
		25	0	19.59	19.74	20.62	21.24	21.50	3.0	22.0	12.78	13.27	14.07	13.24	13.72	0.0	15.0
	256QAM	1	0	17.61	17.74	18.86	19.37	19.46	5.0	20.0	12.74	13.33	14.28	13.10	13.75	0.0	15.0
		1	12	17.54	17.55	18.79	19.26	19.33	5.0	20.0	12.62	13.24	14.25	12.94	13.54	0.0	15.0
		1	24	17.65	17.72	18.81	19.30	19.49	5.0	20.0	12.79	13.33	14.28	13.07	13.73	0.0	15.0
		12	0	17.55	17.73	18.72	19.20	19.52	5.0	20.0	12.79	13.22	14.14	13.26	13.68	0.0	15.0
		12	7	17.54	17.72	18.73	19.22	19.50	5.0	20.0	12.77	13.22	14.12	13.23	13.67	0.0	15.0
		12	13	17.50	17.71	18.70	19.18	19.48	5.0	20.0	12.81	13.22	14.13	13.26	13.67	0.0	15.0
		25	0	17.53	17.70	18.64	19.16	19.45	5.0	20.0	12.76	13.20	14.11	13.21	13.66	0.0	15.0

**LTE Band 66 (Main.1) 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	132322	132572			132072	132322	132572				
20 MHz	QPSK	1	0	22.59	23.31	23.15	0.0	24.5	12.09	12.35	12.18	0.0	13		
		1	49	22.37	23.20	23.17	0.0	24.5	11.79	12.13	12.31	0.0	13		
		1	99	23.28	23.23	23.03	0.0	24.5	11.98	12.00	12.12	0.0	13		
		50	0	21.07	22.36	22.43	1.0	23.5	12.06	12.05	12.14	0.0	13		
		50	24	21.56	22.51	22.50	1.0	23.5	12.04	12.21	12.11	0.0	13		
		50	50	22.03	22.41	22.34	1.0	23.5	12.03	11.99	12.08	0.0	13		
	16QAM	100	0	21.57	22.38	22.44	1.0	23.5	12.05	12.04	12.12	0.0	13		
		1	0	22.51	22.37	22.58	1.0	23.5	12.44	12.25	12.52	0.0	13		
		1	49	21.81	22.51	22.80	1.0	23.5	12.08	12.17	12.18	0.0	13		
		1	99	22.73	22.55	22.59	1.0	23.5	12.41	12.12	12.40	0.0	13		
		50	0	20.37	21.68	21.82	2.0	22.5	12.07	12.05	12.12	0.0	13		
		50	24	20.90	21.67	21.80	2.0	22.5	12.05	12.01	12.09	0.0	13		
	64QAM	50	50	21.39	21.66	21.80	2.0	22.5	12.03	11.99	12.07	0.0	13		
		100	0	20.98	21.66	21.83	2.0	22.5	12.06	12.02	12.12	0.0	13		
		1	0	20.70	21.49	21.82	2.0	22.5	12.20	11.85	11.63	0.0	13		
		1	49	21.45	21.73	21.81	2.0	22.5	12.41	12.03	11.49	0.0	13		
		1	99	21.74	21.54	21.87	2.0	22.5	12.20	11.79	11.56	0.0	13		
		50	0	20.00	20.56	20.68	3.0	21.5	11.93	11.74	11.73	0.0	13		
	256QAM	50	24	20.50	20.59	20.65	3.0	21.5	11.91	11.73	11.72	0.0	13		
		50	50	20.51	20.59	20.67	3.0	21.5	11.90	11.71	11.69	0.0	13		
		100	0	20.48	20.54	20.63	3.0	21.5	11.91	11.71	11.72	0.0	13		
		1	0	18.05	18.58	18.90	5.0	19.5	12.05	12.00	11.76	0.0	13		
		1	49	18.73	18.61	18.76	5.0	19.5	12.11	12.22	11.99	0.0	13		
		1	99	18.57	18.57	18.87	5.0	19.5	12.02	11.98	11.69	0.0	13		
15 MHz	QPSK	50	0	18.40	18.46	18.60	5.0	19.5	11.89	11.72	11.69	0.0	13		
		50	24	18.39	18.45	18.58	5.0	19.5	11.87	11.73	11.66	0.0	13		
		50	50	18.37	18.46	18.57	5.0	19.5	11.86	11.69	11.66	0.0	13		
		100	0	18.35	18.47	18.55	5.0	19.5	11.86	11.71	11.69	0.0	13		
	16QAM	1	0	23.42	23.04	23.35	0.0	24.5	12.73	12.63	12.57	0.0	13		
		1	37	22.05	23.20	23.24	0.0	24.5	12.51	12.57	12.52	0.0	13		
		1	74	22.51	22.87	22.91	0.0	24.5	12.65	12.59	12.49	0.0	13		
		36	0	21.05	22.53	22.63	1.0	23.5	12.70	12.70	12.58	0.0	13		
		36	20	21.47	22.53	22.60	1.0	23.5	12.69	12.68	12.56	0.0	13		
		36	39	21.76	22.53	22.50	1.0	23.5	12.68	12.66	12.54	0.0	13		
	64QAM	75	0	21.46	22.53	22.60	1.0	23.5	12.69	12.67	12.57	0.0	13		
		1	0	21.10	22.66	22.85	1.0	23.5	12.74	12.78	12.82	0.0	13		
		1	37	21.72	22.67	22.75	1.0	23.5	12.82	12.77	12.77	0.0	13		
		1	74	22.19	22.65	22.68	1.0	23.5	12.82	12.81	12.82	0.0	13		
		36	0	20.32	21.54	21.60	2.0	22.5	12.72	12.71	12.60	0.0	13		
		36	20	20.78	21.51	21.56	2.0	22.5	12.68	12.66	12.58	0.0	13		
	256QAM	36	39	21.09	21.47	21.54	2.0	22.5	12.66	12.67	12.58	0.0	13		
		75	0	20.79	21.47	21.56	2.0	22.5	12.68	12.68	12.55	0.0	13		
		1	0	20.21	21.59	21.48	2.0	22.5	12.67	12.81	12.64	0.0	13		
		1	37	21.00	21.24	21.38	2.0	22.5	12.46	12.73	12.51	0.0	13		
		1	74	21.40	21.54	21.45	2.0	22.5	12.67	12.78	12.54	0.0	13		
		36	0	19.77	20.47	20.53	3.0	21.5	12.60	12.78	12.62	0.0	13		

**LTE Band 66 (Main.1) 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	22.45	23.39	23.37	0.0	24.5	12.68	12.73	12.66	0.0	13
		1	25	22.31	23.30	23.19	0.0	24.5	12.72	12.81	12.47	0.0	13
		1	49	22.36	23.25	23.33	0.0	24.5	12.66	12.64	12.65	0.0	13
		25	0	21.18	22.50	22.52	1.0	23.5	12.69	12.65	12.61	0.0	13
		25	12	21.40	22.50	22.50	1.0	23.5	12.67	12.64	12.59	0.0	13
		25	25	21.61	22.48	22.47	1.0	23.5	12.66	12.62	12.58	0.0	13
		50	0	21.44	22.50	22.49	1.0	23.5	12.67	12.64	12.57	0.0	13
	16QAM	1	0	21.25	22.74	22.84	1.0	23.5	12.83	12.71	12.72	0.0	13
		1	25	21.56	22.77	22.85	1.0	23.5	12.77	12.78	12.46	0.0	13
		1	49	21.97	22.76	22.76	1.0	23.5	12.73	12.69	12.81	0.0	13
		25	0	20.51	21.51	21.53	2.0	22.5	12.68	12.67	12.62	0.0	13
		25	12	20.75	21.49	21.50	2.0	22.5	12.64	12.65	12.60	0.0	13
		25	25	20.99	21.47	21.48	2.0	22.5	12.65	12.64	12.58	0.0	13
		50	0	20.79	21.43	21.44	2.0	22.5	12.68	12.63	12.56	0.0	13
5 MHz	64QAM	1	0	20.25	21.32	21.12	2.0	22.5	12.79	12.57	12.82	0.0	13
		1	25	20.54	21.41	21.28	2.0	22.5	12.81	12.63	12.71	0.0	13
		1	49	20.92	21.41	21.22	2.0	22.5	12.69	12.55	12.82	0.0	13
		25	0	19.59	20.13	20.16	3.0	21.5	12.63	12.28	12.63	0.0	13
		25	12	19.83	20.11	20.15	3.0	21.5	12.61	12.24	12.62	0.0	13
		25	25	19.97	20.13	20.13	3.0	21.5	12.61	12.25	12.59	0.0	13
		50	0	19.84	20.09	20.14	3.0	21.5	12.59	12.26	12.60	0.0	13
	256QAM	1	0	17.88	18.37	18.12	5.0	19.5	12.58	12.56	12.52	0.0	13
		1	25	17.95	18.31	17.99	5.0	19.5	12.66	12.52	12.49	0.0	13
		1	49	17.91	18.33	18.02	5.0	19.5	12.58	12.53	12.44	0.0	13
		25	0	17.95	18.08	18.06	5.0	19.5	12.68	12.32	12.63	0.0	13
		25	12	17.95	18.07	18.05	5.0	19.5	12.66	12.29	12.60	0.0	13
		25	25	17.91	18.04	18.04	5.0	19.5	12.63	12.26	12.59	0.0	13
		50	0	17.87	18.02	18.03	5.0	19.5	12.59	12.25	12.57	0.0	13
1 MHz	QPSK	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		
	16QAM	1	0	22.93	23.50	23.40	0.0	24.5	12.72	12.56	12.56	0.0	13
		1	12	22.98	23.52	23.29	0.0	24.5	12.74	12.37	12.57	0.0	13
		1	24	22.99	23.54	23.45	0.0	24.5	12.73	12.58	12.57	0.0	13
		12	0	22.27	22.54	22.48	1.0	23.5	12.73	12.64	12.64	0.0	13
		12	7	22.35	22.52	22.47	1.0	23.5	12.73	12.64	12.64	0.0	13
		12	13	22.36	22.49	22.44	1.0	23.5	12.72	12.63	12.62	0.0	13
		25	0	22.33	22.52	22.48	1.0	23.5	12.72	12.64	12.65	0.0	13
	64QAM	1	0	22.46	22.70	22.86	1.0	23.5	12.67	12.64	12.57	0.0	13
		1	12	22.60	22.61	22.70	1.0	23.5	12.78	12.71	12.67	0.0	13
		1	24	22.68	22.66	22.79	1.0	23.5	12.77	12.78	12.77	0.0	13
		12	0	21.50	21.54	21.50	2.0	22.5	12.73	12.73	12.62	0.0	13
		12	7	21.47	21.52	21.46	2.0	22.5	12.71	12.73	12.62	0.0	13
		12	13	21.48	21.53	21.47	2.0	22.5	12.74	12.71	12.60	0.0	13
		25	0	21.48	21.48	21.45	2.0	22.5	12.69	12.67	12.61	0.0	13
	256QAM	1	0	21.02	21.33	21.33	2.0	22.5	12.71	12.61	12.69	0.0	13
		1	12	21.03	21.25	21.37	2.0	22.5	12.61	12.49	12.65	0.0	13
		1	24	21.10	21.35	21.43	2.0	22.5	12.70	12.54	12.71	0.0	13
		12	0	20.01	20.10	20.16	3.0	21.5	12.62	12.23	12.68	0.0	13
		12	7	20.00	20.09	20.15	3.0	21.5	12.62	12.22	12.66	0.0	13
		12	13	19.99	20.10	20.14	3.0	21.5	12.60	12.22	12.68	0.0	13
		25	0	20.03	20.11	20.10	3.0	21.5	12.61	12.23	12.66	0.0	13

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				131987	132322	132657			131987	132322	132657			
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz			
3 MHz	QPSK	1	0	22.98	23.19	23.06	0.0	24.5	12.81	12.57	12.71	0.0	13	
		1	8	22.45	23.13	23.14	0.0	24.5	12.48	12.50	12.66	0.0	13	
		1	14	22.41	23.10	23.21	0.0	24.5	12.82	12.53	12.72	0.0	13	
		8	0	21.14	22.49	22.36	1.0	23.5	12.75	12.63	12.68	0.0	13	
		8	4	21.20	22.51	22.44	1.0	23.5	12.74	12.64	12.66	0.0	13	
		8	7	21.23	22.51	22.48	1.0	23.5	12.77	12.65	12.70	0.0	13	
		15	0	21.23	22.52	22.44	1.0	23.5	12.73	12.65	12.61	0.0	13	
	16QAM	1	0	21.30	22.78	22.55	1.0	23.5	12.71	12.78	12.83	0.0	13	
		1	8	21.40	22.77	22.65	1.0	23.5	12.82	12.84	12.81	0.0	13	
		1	14	21.40	22.81	22.62	1.0	23.5	12.85	12.77	12.79	0.0	13	
		8	0	20.45	21.57	21.53	2.0	22.5	12.71	12.70	12.76	0.0	13	
		8	4	20.54	21.58	21.46	2.0	22.5	12.78	12.70	12.72	0.0	13	
		8	7	20.57	21.53	21.45	2.0	22.5	12.78	12.71	12.73	0.0	13	
		15	0	20.55	21.52	21.41	2.0	22.5	12.73	12.72	12.66	0.0	13	
	64QAM	1	0	21.70	21.50	21.36	2.0	22.5	12.79	12.54	12.55	0.0	13	
		1	8	21.54	21.46	21.34	2.0	22.5	12.77	12.44	12.54	0.0	13	
		1	14	21.83	21.62	21.33	2.0	22.5	12.73	12.56	12.60	0.0	13	
		8	0	20.49	20.51	20.34	3.0	21.5	12.74	12.36	12.48	0.0	13	
		8	4	20.51	20.45	20.33	3.0	21.5	12.71	12.34	12.42	0.0	13	
		8	7	20.50	20.49	20.35	3.0	21.5	12.71	12.36	12.46	0.0	13	
		15	0	20.42	20.48	20.34	3.0	21.5	12.68	12.31	12.35	0.0	13	
	256QAM	1	0	18.88	18.41	18.49	5.0	19.5	12.69	12.56	12.55	0.0	13	
		1	8	18.73	18.32	18.34	5.0	19.5	12.64	12.45	12.48	0.0	13	
		1	14	18.81	18.36	18.44	5.0	19.5	12.67	12.57	12.50	0.0	13	
		8	0	18.52	18.49	18.29	5.0	19.5	12.64	12.36	12.45	0.0	13	
		8	4	18.46	18.41	18.26	5.0	19.5	12.64	12.29	12.46	0.0	13	
		8	7	18.50	18.45	18.18	5.0	19.5	12.61	12.34	12.47	0.0	13	
		15	0	18.40	18.40	18.31	5.0	19.5	12.68	12.33	12.45	0.0	13	
1.4 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				131979	132322	132665			131979	132322	132665			
				1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz			
		16QAM	1	0	22.16	23.52	23.46	0.0	24.5	12.75	12.67	12.65	0.0	13
			1	3	22.14	23.41	23.26	0.0	24.5	12.47	12.50	12.69	0.0	13
			1	5	22.16	23.42	23.46	0.0	24.5	12.75	12.65	12.62	0.0	13
			3	0	22.08	23.33	23.31	0.0	24.5	12.71	12.59	12.61	0.0	13
			3	1	22.09	23.34	23.33	0.0	24.5	12.71	12.55	12.57	0.0	13
			3	3	22.09	23.34	23.34	0.0	24.5	12.65	12.57	12.44	0.0	13
		64QAM	6	0	21.50	22.56	22.53	1.0	23.5	12.77	12.57	12.61	0.0	13
			1	0	21.58	22.61	22.70	1.0	23.5	12.73	12.63	12.61	0.0	13
			1	3	21.59	22.51	22.81	1.0	23.5	12.74	12.83	12.46	0.0	13
			1	5	21.64	22.65	22.71	1.0	23.5	12.73	12.69	12.65	0.0	13
			3	0	21.55	22.53	22.36	1.0	23.5	12.77	12.81	12.76	0.0	13
			3	1	21.59	22.40	22.43	1.0	23.5	12.82	12.74	12.64	0.0	13
		256QAM	3	3	21.57	22.51	22.36	1.0	23.5	12.75	12.71	12.72	0.0	13
			6	0	20.79	21.63	21.46	2.0	22.5	12.77	12.64	12.75	0.0	13
			1	0	21.69	21.57	21.32	2.0	22.5	12.57	12.43	12.43	0.0	13
			1	3	21.63	21.61	21.46	2.0	22.5	12.52	12.41	12.53	0.0	13
			1	5	21.69	21.56	21.44	2.0	22.5	12.51	12.37	12.50	0.0	13
			3	0	21.51	21.45	21.30	2.0	22.5	12.47	12.38	12.38	0.0	13
		256QAM	3	1	21.51	21.45	21.28	2.0	22.5	12.44	12.36	12.38	0.0	13
			3	3	21.53	21.42	21.35	2.0	22.5	12.44	12.31	12.36	0.0	13
			6	0	20.55	20.50	20.38	3.0	21.5	12.22	12.27	12.39	0.0	13
			1	0	18.53	18.36	18.40	5.0	19.5	12.40	12.34	12.41	0.0	13
			1	3	18.50	18.23	18.38	5.0	19.5	12.48	12.40	12.51	0.0	13
			1	5	18.48	18.31	18.30	5.0	19.5	12.43	12.33	12.40	0.0	13
		256QAM	3	0	18.30	18.28	18.34	5.0	19.5	12.25	12.34	12.42	0.0	13
			3	1	18.24	18.20	18.26	5.0	19.5	12.24	12.33	12.40	0.0	13
			3	3	18.16	18.17	18.21	5.0	19.5	12.23	12.30	12.34	0.0	13
			6	0	18.39	18.25	18.23	5.0	19.5	12.24	12.32	12.36	0.0	13

**LTE Band 66 (Sub.2) 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	132322	132572			132072	132322	132572				
20 MHz	QPSK	1	0	23.31	23.49	23.59	0.0	24	10.17	10.27	10.30	0.0	11		
		1	49	23.22	23.45	23.58	0.0	24	9.91	10.00	10.05	0.0	11		
		1	99	23.34	23.50	23.57	0.0	24	10.19	10.28	10.29	0.0	11		
		50	0	22.40	22.56	22.64	1.0	23	10.19	10.31	10.33	0.0	11		
		50	24	22.41	22.55	22.61	1.0	23	10.20	10.32	10.26	0.0	11		
		50	50	22.42	22.54	22.59	1.0	23	10.20	10.31	10.32	0.0	11		
		100	0	22.41	22.54	22.61	1.0	23	10.20	10.30	10.33	0.0	11		
	16QAM	1	0	22.80	22.75	22.88	1.0	23	10.64	10.70	10.67	0.0	11		
		1	49	22.85	22.80	22.90	1.0	23	10.61	10.81	10.74	0.0	11		
		1	99	22.85	22.73	22.79	1.0	23	10.68	10.76	10.68	0.0	11		
		50	0	21.44	21.55	21.64	2.0	22	10.22	10.33	10.35	0.0	11		
		50	24	21.44	21.54	21.60	2.0	22	10.22	10.34	10.35	0.0	11		
		50	50	21.44	21.54	21.58	2.0	22	10.22	10.36	10.34	0.0	11		
		100	0	21.42	21.54	21.62	2.0	22	10.22	10.32	10.36	0.0	11		
15 MHz	64QAM	1	0	21.72	21.75	21.89	2.0	22	10.54	10.57	10.65	0.0	11		
		1	49	21.73	21.68	21.88	2.0	22	10.51	10.52	10.63	0.0	11		
		1	99	21.79	21.74	21.79	2.0	22	10.61	10.61	10.67	0.0	11		
		50	0	20.42	20.53	20.61	3.0	21	10.23	10.33	10.30	0.0	11		
		50	24	20.45	20.54	20.60	3.0	21	10.23	10.33	10.31	0.0	11		
		50	50	20.43	20.53	20.57	3.0	21	10.23	10.34	10.31	0.0	11		
		100	0	20.43	20.48	20.58	3.0	21	10.23	10.32	10.28	0.0	11		
	256QAM	1	0	18.52	18.64	18.59	5.0	19	10.37	10.52	10.47	0.0	11		
		1	49	18.54	18.50	18.42	5.0	19	10.52	10.56	10.33	0.0	11		
		1	99	18.53	18.65	18.52	5.0	19	10.43	10.49	10.54	0.0	11		
		50	0	18.36	18.49	18.58	5.0	19	10.19	10.30	10.30	0.0	11		
		50	24	18.37	18.49	18.58	5.0	19	10.20	10.29	10.31	0.0	11		
		50	50	18.37	18.49	18.56	5.0	19	10.21	10.28	10.30	0.0	11		
		100	0	18.35	18.48	18.57	5.0	19	10.19	10.28	10.28	0.0	11		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				132047	132322	132597			132047	132322	132597				
15 MHz	QPSK	1	0	21.83	21.92	22.13	0.0	24	10.00	10.08	10.19	0.0	11		
		1	37	22.03	21.99	22.20	0.0	24	10.09	10.22	10.13	0.0	11		
		1	74	21.82	21.95	22.07	0.0	24	10.03	10.14	10.15	0.0	11		
		36	0	21.84	21.98	22.13	1.0	23	9.99	10.13	10.20	0.0	11		
		36	20	21.84	21.97	22.10	1.0	23	10.01	10.11	10.22	0.0	11		
		36	39	21.85	21.98	22.09	1.0	23	10.00	10.13	10.22	0.0	11		
		75	0	21.85	21.99	22.12	1.0	23	9.99	10.13	10.23	0.0	11		
	16QAM	1	0	22.07	22.31	22.53	1.0	23	10.35	10.41	10.48	0.0	11		
		1	37	22.28	22.43	22.77	1.0	23	10.45	10.47	10.54	0.0	11		
		1	74	22.05	22.29	22.49	1.0	23	10.42	10.42	10.42	0.0	11		
		36	0	21.36	21.54	21.68	2.0	22	10.00	10.14	10.21	0.0	11		
		36	20	21.37	21.54	21.67	2.0	22	10.01	10.14	10.20	0.0	11		
		36	39	21.38	21.56	21.66	2.0	22	10.02	10.12	10.21	0.0	11		
		75	0	21.38	21.49	21.64	2.0	22	10.02	10.12	10.22	0.0	11		
15 MHz	64QAM	1	0	21.33	21.50	21.39	2.0	22	10.13	10.33	10.40	0.0	11		
		1	37	21.11	21.60	21.52	2.0	22	9.93	10.42	10.46	0.0	11		
		1	74	21.45	21.54	21.37	2.0	22	10.21	10.34	10.37	0.0	11		
		36	0	20.15	20.33	20.43	3.0	21	10.00	10.20	10.28	0.0	11		
		36	20	20.15	20.33	20.43	3.0	21	10.01	10.20	10.28	0.0	11		
		36	39	20.15	20.33	20.44	3.0	21	10.02	10.19	10.29	0.0	11		
		75	0	20.15	20.27	20.40	3.0	21	10.05	10.16	10.23	0.0	11		
15 MHz	256QAM	1	0	18.23	18.67	18.32	5.0	19	10.13	10.48	10.18	0.0	11		
		1	37	18.37	18.73	18.31	5.0	19	10.25	10.49	10.14	0.0	11		
		1	74	18.24	18.69	18.32	5.0	19	10.17	10.53	10.18	0.0	11		
		36	0	18.10	18.27	18.34	5.0	19	10.02	10.18	10.25	0.0	11		
		36	20	18.11	18.26	18.32	5.0	19	10.02	10.19	10.24	0.0	11		
		36	39	18.12	18.26	18.33	5.0	19	10.03	10.19	10.22	0.0	11		
		75	0	18.10	18.28	18.34	5.0	19	10.03	10.18	10.22	0.0	11		

**LTE Band 66 (Sub.2) Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622			132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	21.82	21.97	22.09	0.0	24	9.98	10.15	10.26	0.0	11
		1	25	21.86	22.03	22.26	0.0	24	9.94	10.26	10.27	0.0	11
		1	49	21.88	21.95	22.09	0.0	24	10.04	10.13	10.28	0.0	11
		25	0	21.85	21.98	22.11	1.0	23	9.99	10.12	10.24	0.0	11
		25	12	21.84	21.97	22.09	1.0	23	9.98	10.11	10.23	0.0	11
		25	25	21.83	21.97	22.10	1.0	23	9.99	10.12	10.23	0.0	11
		50	0	21.88	21.99	22.13	1.0	23	9.98	10.13	10.24	0.0	11
	16QAM	1	0	22.08	22.23	22.60	1.0	23	10.46	10.42	10.41	0.0	11
		1	25	21.92	22.11	22.48	1.0	23	10.34	10.53	10.52	0.0	11
		1	49	22.03	22.27	22.54	1.0	23	10.46	10.49	10.34	0.0	11
		25	0	21.44	21.51	21.71	2.0	22	10.03	10.15	10.27	0.0	11
		25	12	21.42	21.52	21.69	2.0	22	10.02	10.13	10.25	0.0	11
	64QAM	25	25	21.42	21.52	21.70	2.0	22	10.04	10.16	10.24	0.0	11
		50	0	21.41	21.50	21.66	2.0	22	10.03	10.11	10.26	0.0	11
		1	0	21.36	21.56	21.41	2.0	22	10.17	10.42	10.27	0.0	11
		1	25	21.58	21.71	21.42	2.0	22	10.42	10.40	10.14	0.0	11
		1	49	21.34	21.65	21.47	2.0	22	10.15	10.49	10.33	0.0	11
	256QAM	25	0	20.24	20.35	20.48	3.0	21	10.06	10.17	10.29	0.0	11
		25	12	20.22	20.32	20.47	3.0	21	10.07	10.16	10.30	0.0	11
		25	25	20.22	20.35	20.45	3.0	21	10.07	10.18	10.29	0.0	11
		50	0	20.20	20.33	20.47	3.0	21	10.03	10.17	10.30	0.0	11
		1	0	18.21	18.66	18.32	5.0	19	10.02	10.47	10.20	0.0	11
	256QAM	1	25	18.23	18.76	18.51	5.0	19	10.06	10.46	10.40	0.0	11
		1	49	18.23	18.70	18.30	5.0	19	10.04	10.47	10.22	0.0	11
		25	0	18.25	18.35	18.43	5.0	19	10.12	10.21	10.29	0.0	11
		25	12	18.24	18.32	18.43	5.0	19	10.11	10.21	10.29	0.0	11
		25	25	18.23	18.35	18.43	5.0	19	10.10	10.21	10.28	0.0	11
	5 MHz	50	0	18.16	18.33	18.40	5.0	19	10.03	10.18	10.26	0.0	11
	QPSK	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		
	16QAM	1	0	21.72	21.91	22.01	0.0	24	9.92	10.10	10.20	0.0	11
		1	12	21.73	22.02	22.23	0.0	24	10.00	10.22	10.30	0.0	11
		1	24	21.77	21.92	22.04	0.0	24	9.95	10.14	10.23	0.0	11
		12	0	21.82	21.95	22.06	1.0	23	9.94	10.11	10.21	0.0	11
		12	7	21.84	21.95	22.05	1.0	23	9.95	10.13	10.22	0.0	11
		12	13	21.85	21.94	22.06	1.0	23	9.96	10.12	10.19	0.0	11
		25	0	21.83	21.95	22.06	1.0	23	9.96	10.13	10.20	0.0	11
	64QAM	1	0	22.34	22.30	22.53	1.0	23	10.43	10.57	10.59	0.0	11
		1	12	22.46	22.46	22.13	1.0	23	10.60	10.61	10.66	0.0	11
		1	24	22.38	22.28	22.47	1.0	23	10.47	10.54	10.55	0.0	11
		12	0	21.38	21.52	21.72	2.0	22	10.02	10.20	10.25	0.0	11
		12	7	21.39	21.52	21.72	2.0	22	10.02	10.22	10.24	0.0	11
		12	13	21.34	21.53	21.72	2.0	22	10.01	10.19	10.25	0.0	11
		25	0	21.36	21.49	21.63	2.0	22	9.99	10.15	10.23	0.0	11
	256QAM	1	0	21.05	21.68	21.50	2.0	22	10.42	10.41	10.28	0.0	11
		1	12	21.26	21.67	21.61	2.0	22	10.42	10.44	10.44	0.0	11
		1	24	21.14	21.68	21.57	2.0	22	10.39	10.47	10.32	0.0	11
		12	0	20.03	20.35	20.35	3.0	21	10.00	10.16	10.19	0.0	11
		12	7	20.05	20.36	20.35	3.0	21	10.02	10.16	10.20	0.0	11
		12	13	20.04	20.35	20.34	3.0	21	10.01	10.16	10.20	0.0	11
		25	0	20.12	20.28	20.35	3.0	21	9.99	10.12	10.21	0.0	11
	256QAM	1	0	18.08	18.54	18.20	5.0	19	10.29	9.99	10.17	0.0	11
		1	12	18.00	18.70	18.36	5.0	19	10.45	10.14	10.03	0.0	11
		1	24	18.07	18.54	18.22	5.0	19	10.34	10.02	10.14	0.0	11
		12	0	18.08	18.35	18.39	5.0	19	10.04	10.14	10.19	0.0	11
		12	7	18.09	18.34	18.40	5.0	19	10.03	10.15	10.20	0.0	11
		12	13	18.08	18.33	18.39	5.0	19	10.01	10.15	10.20	0.0	11
		25	0	18.08	18.25	18.37	5.0	19	9.97	10.15	10.22	0.0	11

**LTE Band 66 (Sub.2) Measured Results (Continued)**

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				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	21.88	21.90	22.12	0.0	24	9.98	10.08	10.28	0.0	11	
		1	8	22.08	22.00	22.25	0.0	24	10.08	10.20	10.15	0.0	11	
		1	14	21.91	21.87	22.13	0.0	24	10.02	10.06	10.32	0.0	11	
		8	0	21.87	22.00	22.08	1.0	23	9.99	10.17	10.23	0.0	11	
		8	4	21.78	21.96	22.00	1.0	23	9.94	10.12	10.16	0.0	11	
		8	7	21.82	21.98	22.03	1.0	23	9.99	10.13	10.22	0.0	11	
		15	0	21.85	21.98	22.08	1.0	23	9.97	10.12	10.19	0.0	11	
	16QAM	1	0	21.96	22.24	22.37	1.0	23	10.26	10.38	10.42	0.0	11	
		1	8	22.12	22.41	22.63	1.0	23	10.34	10.49	10.50	0.0	11	
		1	14	21.88	22.28	22.32	1.0	23	10.23	10.43	10.35	0.0	11	
		8	0	21.39	21.61	21.63	2.0	22	10.06	10.21	10.24	0.0	11	
		8	4	21.39	21.58	21.58	2.0	22	10.02	10.19	10.25	0.0	11	
		8	7	21.37	21.55	21.61	2.0	22	10.01	10.20	10.21	0.0	11	
		15	0	21.43	21.54	21.62	2.0	22	10.02	10.15	10.17	0.0	11	
	64QAM	1	0	21.13	21.59	21.55	2.0	22	10.18	10.38	10.41	0.0	11	
		1	8	21.23	21.69	21.68	2.0	22	10.23	10.42	10.53	0.0	11	
		1	14	21.10	21.66	21.64	2.0	22	10.13	10.32	10.44	0.0	11	
		8	0	20.19	20.32	20.39	3.0	21	10.07	10.24	10.26	0.0	11	
		8	4	20.18	20.25	20.41	3.0	21	10.06	10.22	10.22	0.0	11	
		8	7	20.14	20.26	20.42	3.0	21	10.07	10.19	10.24	0.0	11	
		15	0	20.13	20.28	20.41	3.0	21	9.98	10.13	10.13	0.0	11	
1.4 MHz	256QAM	1	0	18.21	18.58	18.39	5.0	19	10.05	10.13	10.37	0.0	11	
		1	8	18.37	18.63	18.45	5.0	19	10.08	10.26	10.37	0.0	11	
		1	14	18.24	18.61	18.39	5.0	19	10.04	10.16	10.35	0.0	11	
		8	0	18.12	18.34	18.39	5.0	19	10.04	10.12	10.24	0.0	11	
		8	4	18.14	18.39	18.36	5.0	19	10.04	10.13	10.26	0.0	11	
		8	7	18.17	18.36	18.38	5.0	19	10.04	10.16	10.23	0.0	11	
		15	0	18.21	18.32	18.44	5.0	19	10.08	10.21	10.21	0.0	11	
UL Korea, Ltd. Suwon Laboratory This report shall not be reproduced except in full, without the written approval of UL Korea, Ltd.	BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					131979	132322	132665			131979	132322	132665		
					1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz		
	QPSK	1	0	21.90	21.96	21.83	0.0	24	10.03	10.15	10.22	0.0	11	
		1	3	21.97	22.08	21.87	0.0	24	9.91	10.12	10.11	0.0	11	
		1	5	21.91	21.95	21.80	0.0	24	10.05	10.13	10.21	0.0	11	
		3	0	22.00	22.05	21.71	0.0	24	10.02	10.18	10.14	0.0	11	
		3	1	21.99	21.89	21.81	0.0	24	9.96	10.13	10.11	0.0	11	
		3	3	21.87	21.91	21.86	0.0	24	9.87	10.03	10.12	0.0	11	
		6	0	21.93	21.91	21.80	1.0	23	9.99	10.12	10.14	0.0	11	
	16QAM	1	0	22.13	22.25	21.87	1.0	23	10.32	10.22	10.23	0.0	11	
		1	3	22.38	22.33	21.74	1.0	23	10.24	10.16	10.46	0.0	11	
		1	5	22.19	22.30	21.95	1.0	23	10.35	10.26	10.32	0.0	11	
		3	0	21.93	22.10	21.86	1.0	23	10.06	10.19	10.43	0.0	11	
		3	1	22.03	22.01	21.91	1.0	23	10.06	10.15	10.34	0.0	11	
		3	3	22.06	22.07	21.90	1.0	23	10.04	10.25	10.30	0.0	11	
		6	0	21.60	21.37	21.39	2.0	22	9.97	10.18	10.24	0.0	11	
	64QAM	1	0	21.42	21.37	21.40	2.0	22	10.13	10.24	10.32	0.0	11	
		1	3	21.45	21.38	21.66	2.0	22	10.22	10.01	10.66	0.0	11	
		1	5	21.38	21.33	21.50	2.0	22	10.08	10.17	10.38	0.0	11	
		3	0	21.42	21.49	21.45	2.0	22	10.10	10.27	10.29	0.0	11	
		3	1	21.30	21.46	21.45	2.0	22	10.05	10.20	10.28	0.0	11	
		3	3	21.35	21.43	21.34	2.0	22	10.06	10.15	10.26	0.0	11	
		6	0	20.13	20.41	20.35	3.0	21	10.04	10.23	10.19	0.0	11	
	256QAM	1	0	18.13	18.42	18.48	5.0	19	10.02	10.25	10.24	0.0	11	
		1	3	18.40	18.59	18.52	5.0	19	10.29	10.48	10.36	0.0	11	
		1	5	18.10	18.44	18.48	5.0	19	10.02	10.29	10.24	0.0	11	
		3	0	18.08	18.21	18.53	5.0	19	9.96	10.26	10.22	0.0	11	
		3	1	18.06	18.16	18.48	5.0	19	9.89	10.25	10.19	0.0	11	
		3	3	18.05	18.16	18.43	5.0	19	9.87	10.22	10.13	0.0	11	
		6	0	18.06	18.29	18.29	5.0	19	9.91	10.24	10.13	0.0	11	

**LTE Band 71 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
				133222	133297	133372			133222	133297	133372		
20 MHz	QPSK	1	0	24.15			0.0	25	19.74			0.0	20
		1	49	24.08			0.0	25	19.47			0.0	20
		1	99	23.89			0.0	25	19.23			0.0	20
		50	0	23.10			1.0	24	19.65			0.0	20
		50	24	23.03			1.0	24	19.41			0.0	20
		50	50	22.97			1.0	24	19.33			0.0	20
		100	0	23.04			1.0	24	19.41			0.0	20
	16QAM	1	0	23.52			1.0	24	19.88			0.0	20
		1	49	23.55			1.0	24	19.88			0.0	20
		1	99	23.28			1.0	24	19.55			0.0	20
		50	0	22.06			2.0	23	19.50			0.0	20
		50	24	21.99			2.0	23	19.44			0.0	20
		50	50	21.92			2.0	23	19.37			0.0	20
		100	0	22.01			2.0	23	19.42			0.0	20
	64QAM	1	0	22.98			2.0	23	19.94			0.0	20
		1	49	22.98			2.0	23	19.90			0.0	20
		1	99	22.98			2.0	23	19.66			0.0	20
		50	0	21.93			3.0	22	19.59			0.0	20
		50	24	21.90			3.0	22	19.54			0.0	20
		50	50	21.85			3.0	22	19.45			0.0	20
		100	0	21.91			3.0	22	19.46			0.0	20
	256QAM	1	0	18.94			5.0	20	19.15			0.0	20
		1	49	18.83			5.0	20	19.04			0.0	20
		1	99	18.74			5.0	20	18.87			0.0	20
		50	0	18.94			5.0	20	18.85			0.0	20
		50	24	18.88			5.0	20	18.78			0.0	20
		50	50	18.86			5.0	20	18.70			0.0	20
		100	0	18.89			5.0	20	18.80			0.0	20
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				133197	133297	133397			133197	133297	133397		
15 MHz	QPSK	1	0	23.94			0.0	25	19.48			0.0	20
		1	37	23.67			0.0	25	19.41			0.0	20
		1	74	23.71			0.0	25	19.29			0.0	20
		36	0	22.96			1.0	24	19.53			0.0	20
		36	20	22.89			1.0	24	19.46			0.0	20
		36	39	22.84			1.0	24	19.42			0.0	20
		75	0	22.89			1.0	24	19.48			0.0	20
	16QAM	1	0	23.10			1.0	24	19.92			0.0	20
		1	37	22.87			1.0	24	19.83			0.0	20
		1	74	22.87			1.0	24	19.73			0.0	20
		36	0	21.94			2.0	23	19.54			0.0	20
		36	20	21.87			2.0	23	19.50			0.0	20
		36	39	21.83			2.0	23	19.45			0.0	20
		75	0	21.86			2.0	23	19.49			0.0	20
	64QAM	1	0	21.88			2.0	23	19.69			0.0	20
		1	37	21.70			2.0	23	19.58			0.0	20
		1	74	21.75			2.0	23	19.49			0.0	20
		36	0	20.66			3.0	22	19.60			0.0	20
		36	20	20.61			3.0	22	19.55			0.0	20
		36	39	20.56			3.0	22	19.50			0.0	20
		75	0	20.64			3.0	22	19.52			0.0	20
	256QAM	1	0	18.77			5.0	20	19.15			0.0	20
		1	37	18.61			5.0	20	18.87			0.0	20
		1	74	18.59			5.0	20	18.98			0.0	20
		36	0	18.61			5.0	20	18.86			0.0	20
		36	20	18.52			5.0	20	18.81			0.0	20
		36	39	18.49			5.0	20	18.76			0.0	20
		75	0	18.58			5.0	20	18.82			0.0	20

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				133172	133297	133422			133172	133297	133422				
				668 MHz	680.5 MHz	693 MHz			668 MHz	680.5 MHz	693 MHz				
10 MHz	QPSK	1	0	23.44	23.98	24.16	0.0	25	18.86	19.64	19.86	0.0	20		
		1	25	23.37	23.95	24.03	0.0	25	18.84	19.69	19.63	0.0	20		
		1	49	23.34	23.83	24.09	0.0	25	18.76	19.48	19.74	0.0	20		
		25	0	22.44	22.94	23.14	1.0	24	18.88	19.59	19.83	0.0	20		
		25	12	22.39	22.90	23.09	1.0	24	18.85	19.57	19.79	0.0	20		
		25	25	22.34	22.85	23.08	1.0	24	18.80	19.51	19.77	0.0	20		
		50	0	22.38	22.91	23.10	1.0	24	18.84	19.58	19.81	0.0	20		
	16QAM	1	0	22.48	23.20	23.61	1.0	24	19.10	19.99	19.95	0.0	20		
		1	25	22.50	23.18	23.50	1.0	24	19.20	19.95	19.96	0.0	20		
		1	49	22.29	23.10	23.47	1.0	24	18.94	19.93	19.91	0.0	20		
		25	0	21.39	21.93	22.20	2.0	23	18.89	19.61	19.88	0.0	20		
		25	12	21.36	21.86	22.13	2.0	23	18.89	19.59	19.85	0.0	20		
		25	25	21.30	21.85	22.10	2.0	23	18.84	19.55	19.81	0.0	20		
		50	0	21.36	21.89	22.07	2.0	23	18.88	19.58	19.85	0.0	20		
	64QAM	1	0	21.36	21.79	22.01	2.0	23	19.20	19.81	19.87	0.0	20		
		1	25	21.46	21.90	21.93	2.0	23	19.27	19.83	19.91	0.0	20		
		1	49	21.32	21.73	21.90	2.0	23	19.06	19.74	19.80	0.0	20		
		25	0	20.23	20.69	20.94	3.0	22	18.94	19.65	19.89	0.0	20		
		25	12	20.20	20.63	20.88	3.0	22	18.91	19.63	19.87	0.0	20		
		25	25	20.16	20.62	20.88	3.0	22	18.89	19.60	19.81	0.0	20		
		50	0	20.20	20.64	20.88	3.0	22	18.88	19.63	19.87	0.0	20		
	256QAM	1	0	18.17	18.99	19.07	5.0	20	18.39	19.33	19.04	0.0	20		
		1	25	18.01	18.78	19.05	5.0	20	18.33	19.37	19.05	0.0	20		
		1	49	18.00	18.87	18.96	5.0	20	18.31	19.19	18.91	0.0	20		
		25	0	18.22	18.69	18.97	5.0	20	18.27	18.96	19.16	0.0	20		
		25	12	18.16	18.65	18.93	5.0	20	18.24	18.92	19.13	0.0	20		
		25	25	18.12	18.61	18.89	5.0	20	18.20	18.88	19.08	0.0	20		
		50	0	18.12	18.63	18.85	5.0	20	18.16	18.92	19.11	0.0	20		
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				133147	133297	133447			133147	133297	133447				
				665.5 MHz	680.5 MHz	695.5 MHz			665.5 MHz	680.5 MHz	695.5 MHz				
		16QAM	1	0	23.15	23.84	24.03	0.0	25	18.51	19.23	19.60	0.0	20	
			1	12	23.12	23.81	23.80	0.0	25	18.55	19.12	19.63	0.0	20	
			1	24	23.19	23.81	24.03	0.0	25	18.47	19.22	19.59	0.0	20	
			12	0	22.25	22.82	23.07	1.0	24	18.54	19.29	19.66	0.0	20	
			12	7	22.25	22.80	23.05	1.0	24	18.52	19.30	19.65	0.0	20	
			12	13	22.21	22.79	23.03	1.0	24	18.50	19.27	19.62	0.0	20	
			25	0	22.22	22.80	23.07	1.0	24	18.53	19.26	19.65	0.0	20	
	64QAM	RB Allocation	RB offset	1	0	22.69	23.09	23.53	1.0	24	18.90	19.72	19.97	0.0	20
				1	12	22.58	22.99	23.23	1.0	24	18.84	19.64	19.95	0.0	20
				1	24	22.72	23.01	23.48	1.0	24	18.83	19.65	19.93	0.0	20
		256QAM	12	0	21.27	21.85	22.18	2.0	23	18.62	19.42	19.72	0.0	20	
			12	7	21.25	21.80	22.16	2.0	23	18.60	19.41	19.70	0.0	20	
			12	13	21.23	21.82	22.15	2.0	23	18.62	19.41	19.69	0.0	20	
			25	0	21.26	21.78	22.06	2.0	23	18.55	19.31	19.65	0.0	20	
			1	0	21.31	22.05	22.00	2.0	23	18.68	19.47	19.84	0.0	20	
			1	12	21.32	21.94	21.92	2.0	23	18.70	19.41	19.80	0.0	20	
			1	24	21.36	21.96	22.00	2.0	23	18.69	19.38	19.84	0.0	20	
	256QAM	RB Allocation	RB offset	12	0	20.21	20.72	20.92	3.0	22	18.50	19.25	19.67	0.0	20
				12	7	20.18	20.70	20.91	3.0	22	18.50	19.24	19.67	0.0	20
				12	13	20.19	20.68	20.89	3.0	22	18.49	19.21	19.66	0.0	20
		16QAM	25	0	20.20	20.76	20.93	3.0	22	18.53	19.27	19.68	0.0	20	
			1	0	18.19	19.07	18.95	5.0	20	17.71	18.95	18.83	0.0	20	
			1	12	18.08	18.86	18.83	5.0	20	17.53	18.86	18.84	0.0	20	
			1	24	18.12	18.97	18.87	5.0	20	17.67	18.89	18.79	0.0	20	
			12	0	18.19	18.81	18.95	5.0	20	17.85	18.61	18.96	0.0	20	
			12	7	18.18	18.80	18.92	5.0	20	17.84	18.60	18.94	0.0	20	
			12	13	18.18	18.75	18.89	5.0	20	17.81	18.56	18.93	0.0	20	
		QPSK	RB offset	25	0	18.22	18.70	18.94	5.0	20	17.83	18.54	18.95	0.0	20

### 9.3. NR (Sub 6GHz)

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

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS138.521-1.

Table 6.2.2.3-1: Maximum Power Reduction (MPR) for Power 3

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

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

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

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS\_01"

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network Signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources Blocks (NRB)	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

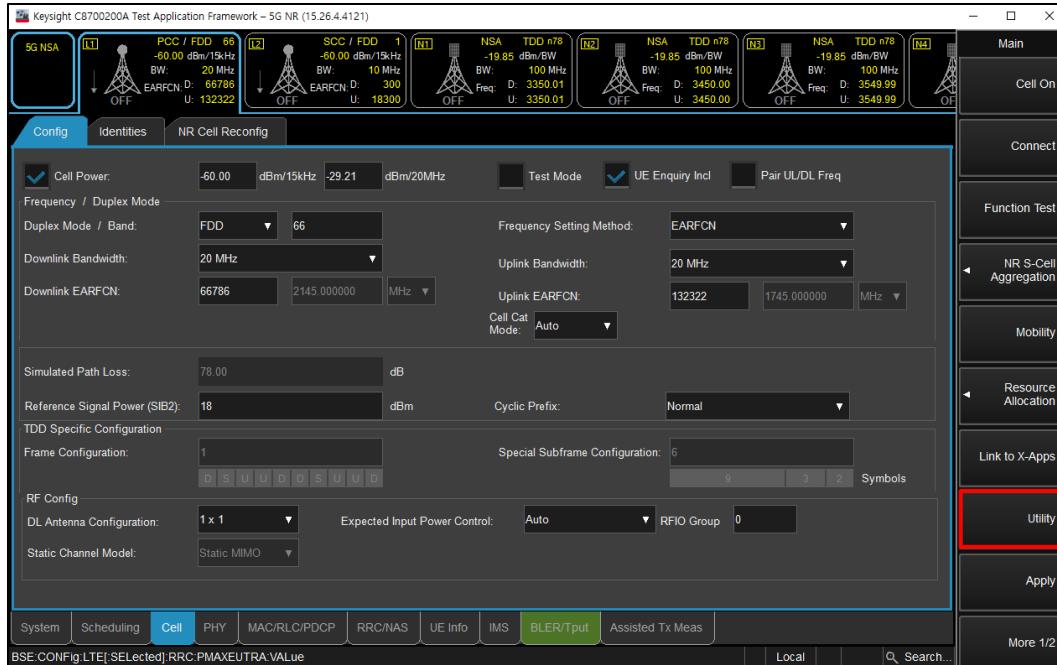
Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1.

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	36@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@36	1@0	1@37	36@0	18@9	1@1	1@36	
		CP	2@0	2@36	1@0	1@37	38@0	19@9	1@1	1@36	
	60	DFT-s	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16	
		CP	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16	
20MHz	15	DFT-s	2@0	2@104	1@0	1@105	100@0	50@25	1@1	1@104	
		CP	2@0	2@104	1@0	1@105	108@0	53@26	1@1	1@104	
	30	DFT-s	2@0	2@49	1@0	1@50	50@0	25@12 <sup>1</sup>	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	

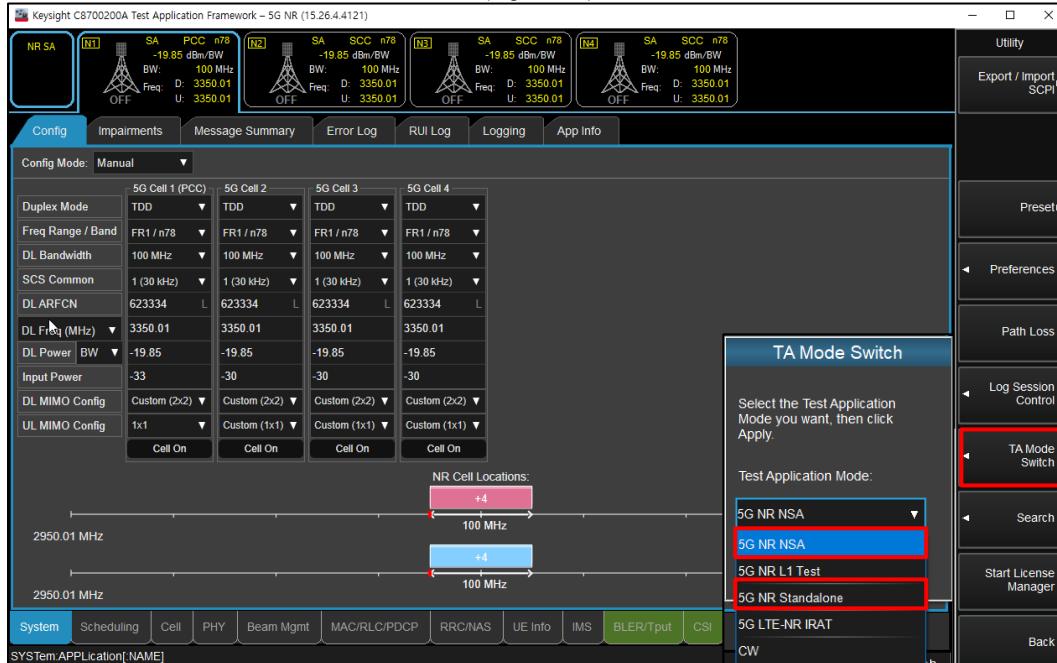
## Procedures used to establish power measurement for NR Bands

### Switching to NSA mode or SA mode

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



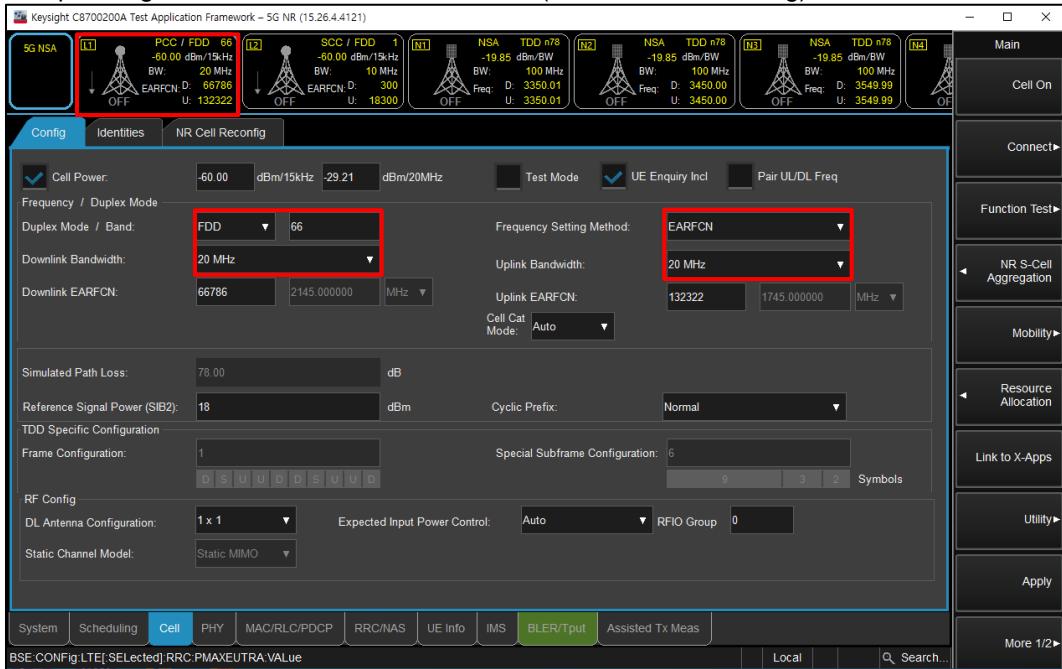
(Figure 1-1)



(Figure 1-2)

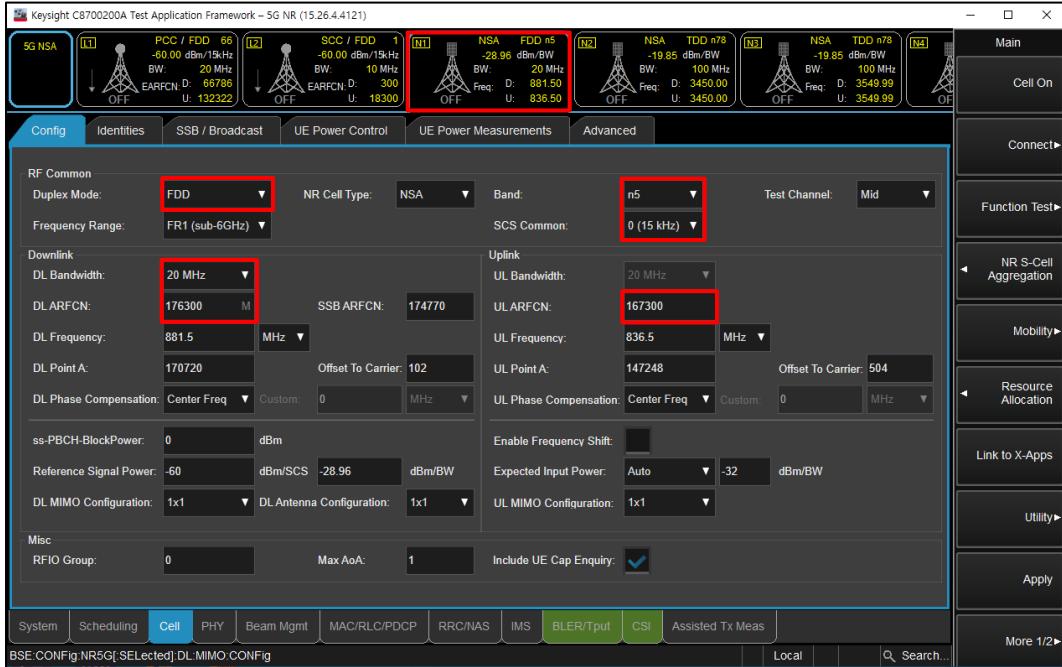
## NSA Mode

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



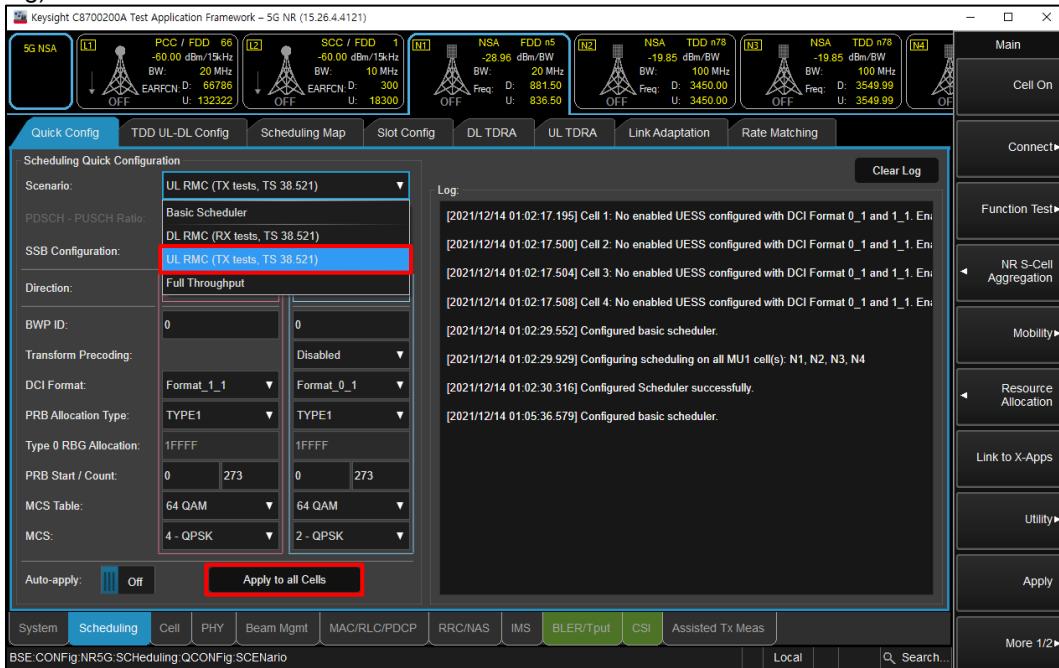
(Figure 2-1)

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



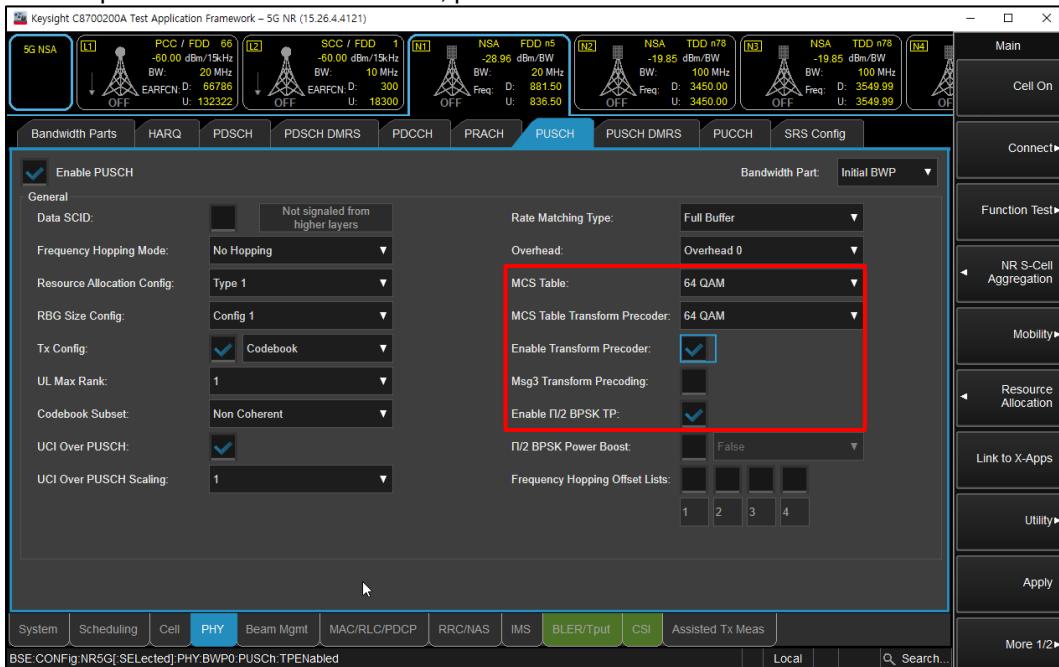
(Figure 2-2)

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



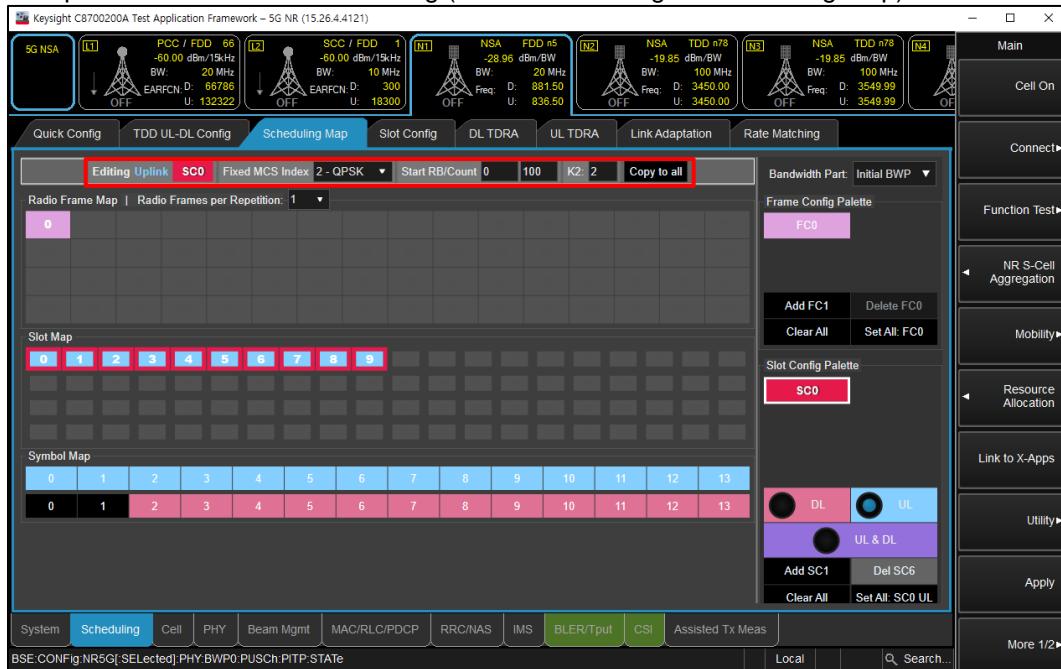
(Figure 2-3)

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



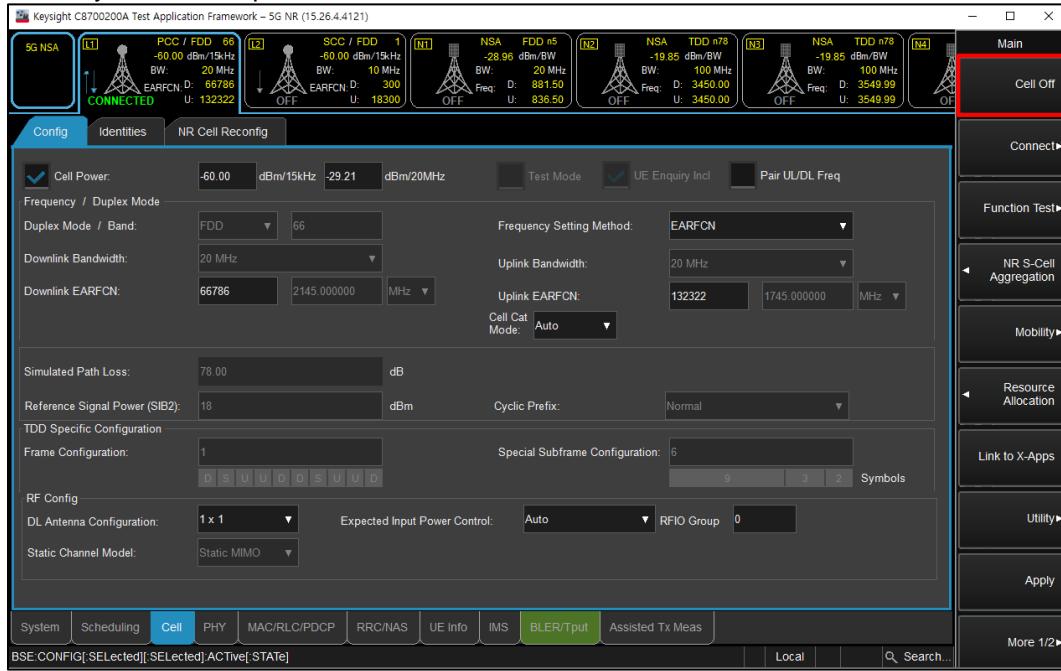
(Figure 2-4)

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



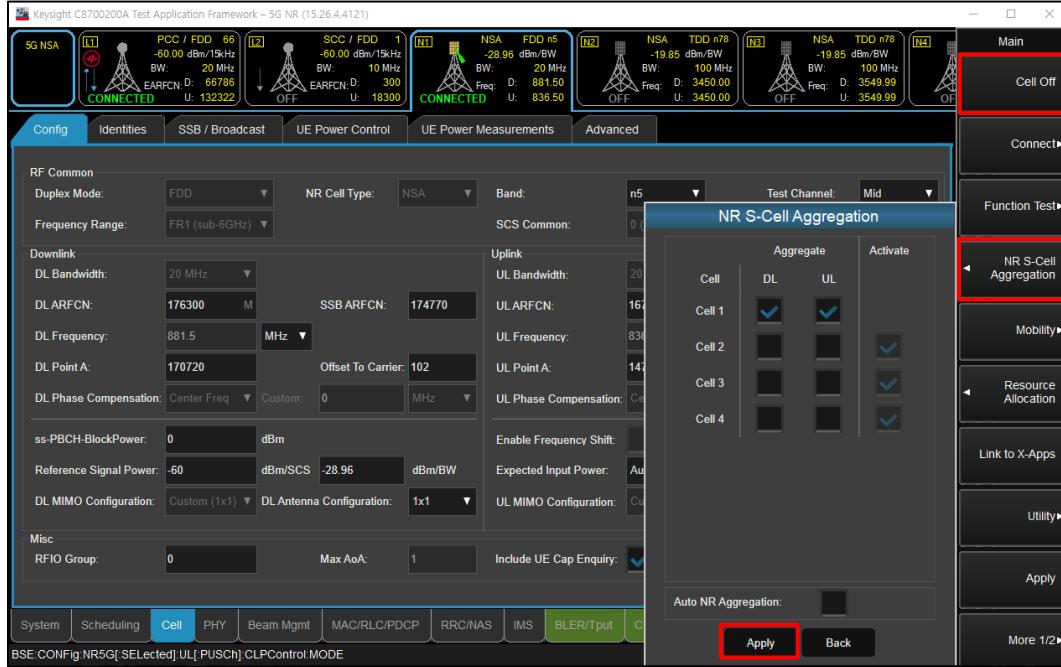
(Figure 2-5)

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



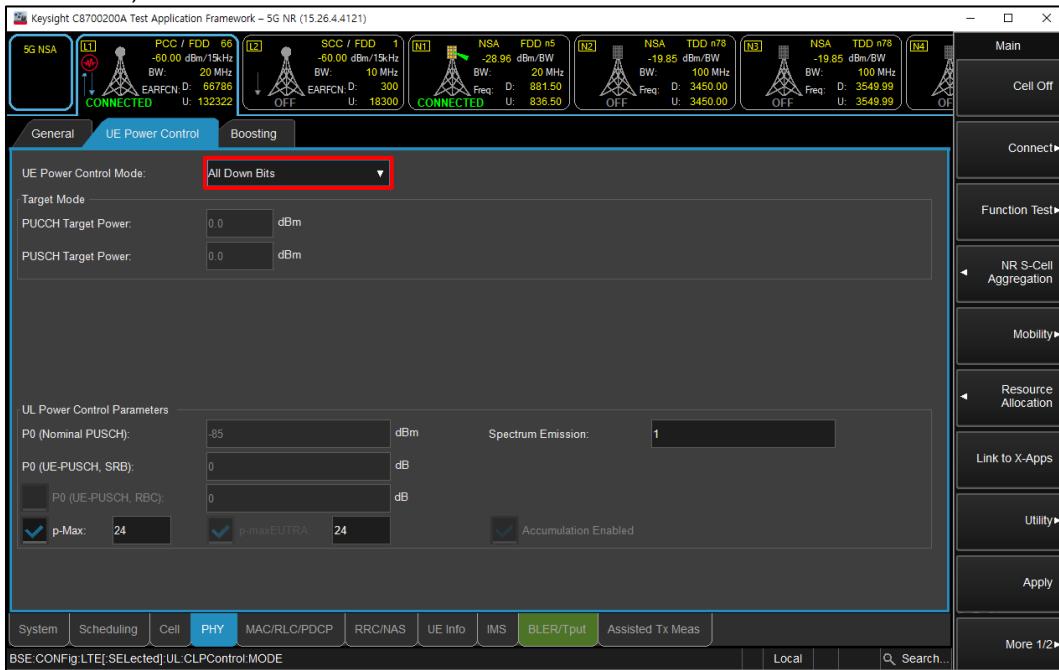
(Figure 2-6)

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



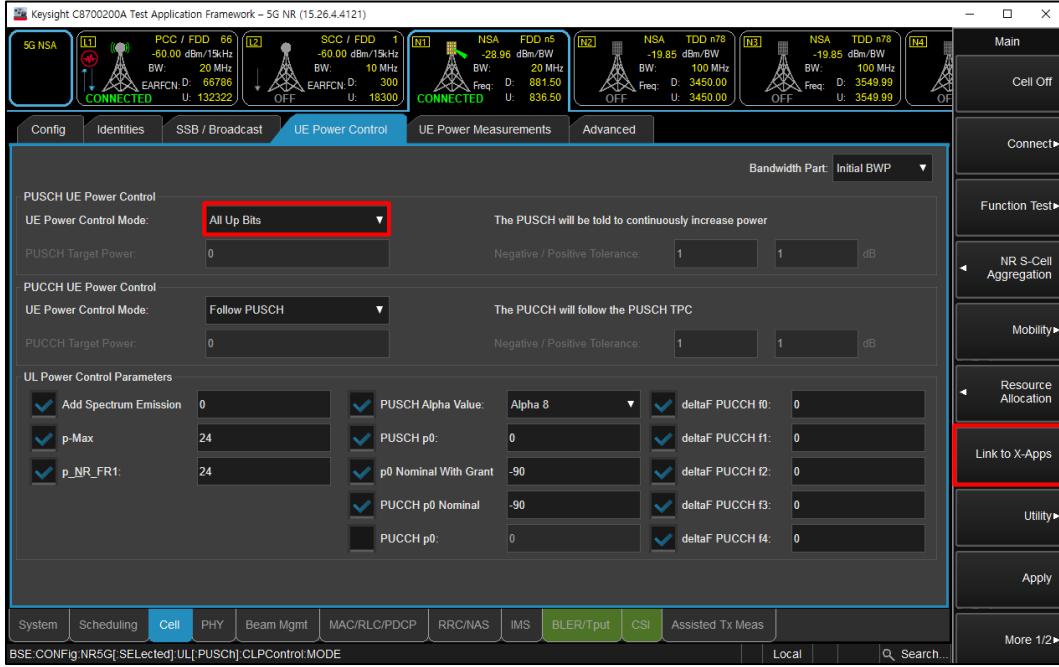
(Figure 2-7)

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



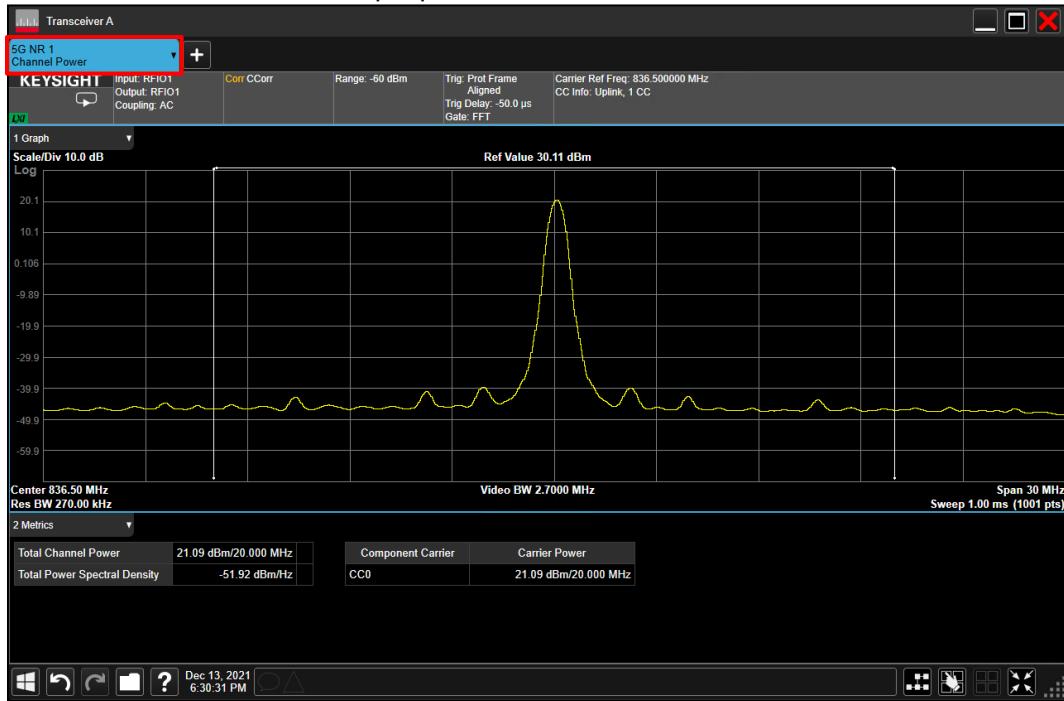
(Figure 2-8)

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



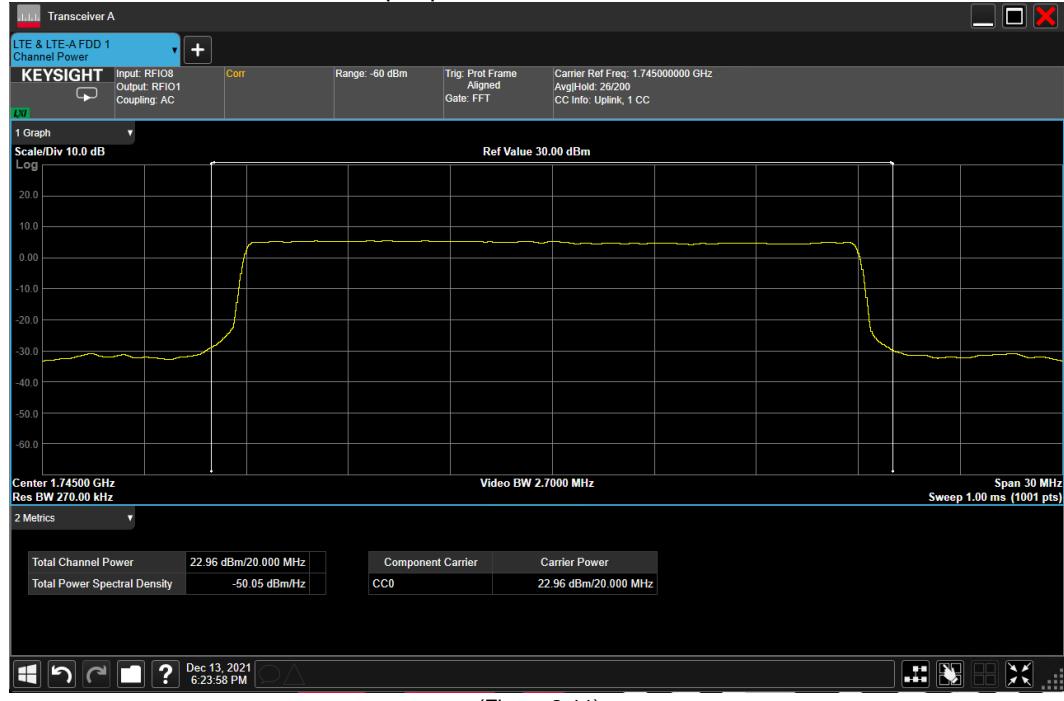
(Figure 2-9)

- Select “Channel Power” for NR output power



(Figure 2-10)

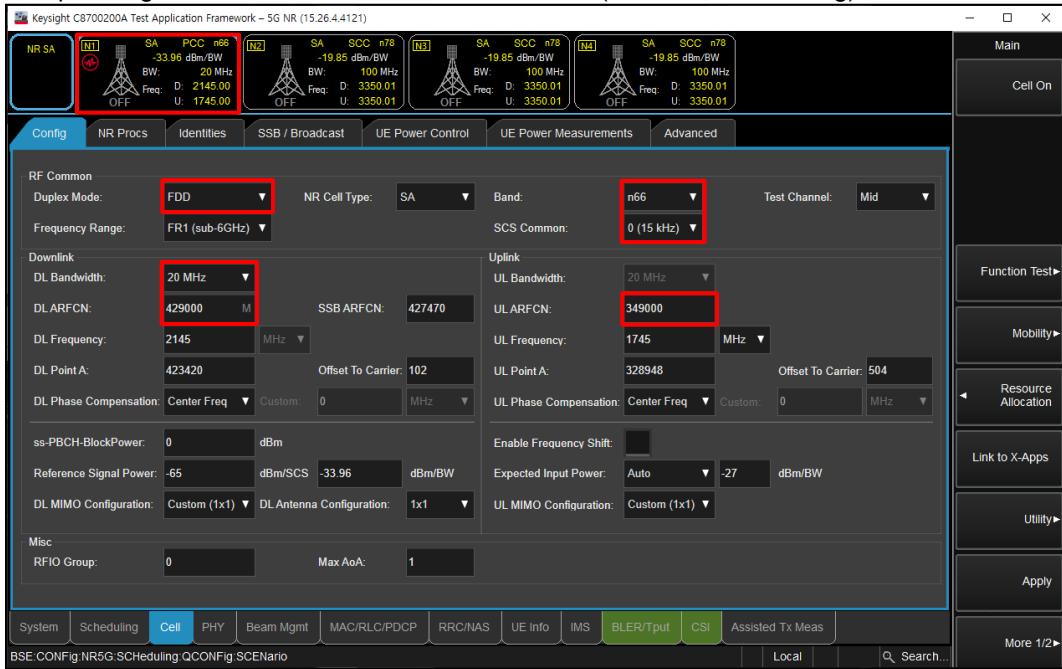
- Select “Channel Power” for LTE output power



(Figure 2-11)

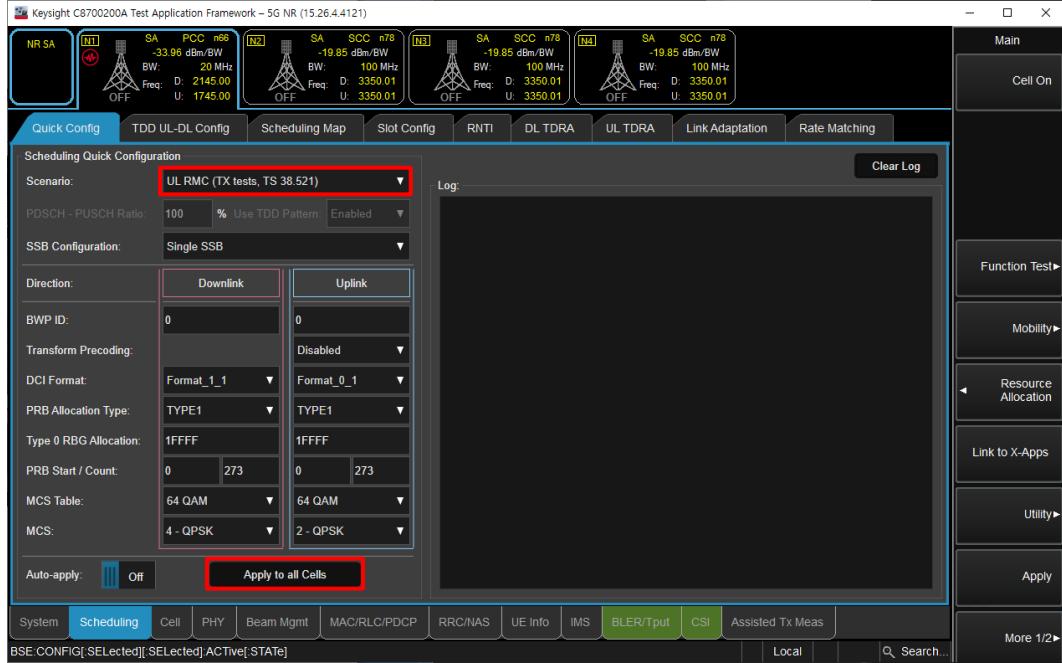
## SA Mode

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



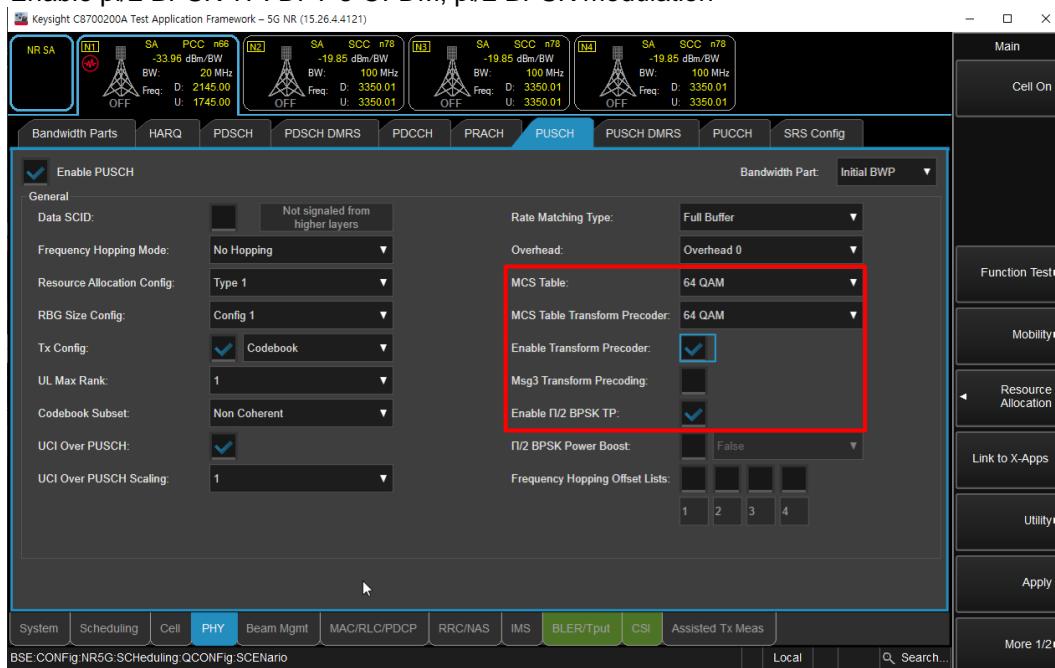
(Figure 3-1)

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



(Figure 3-2)

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



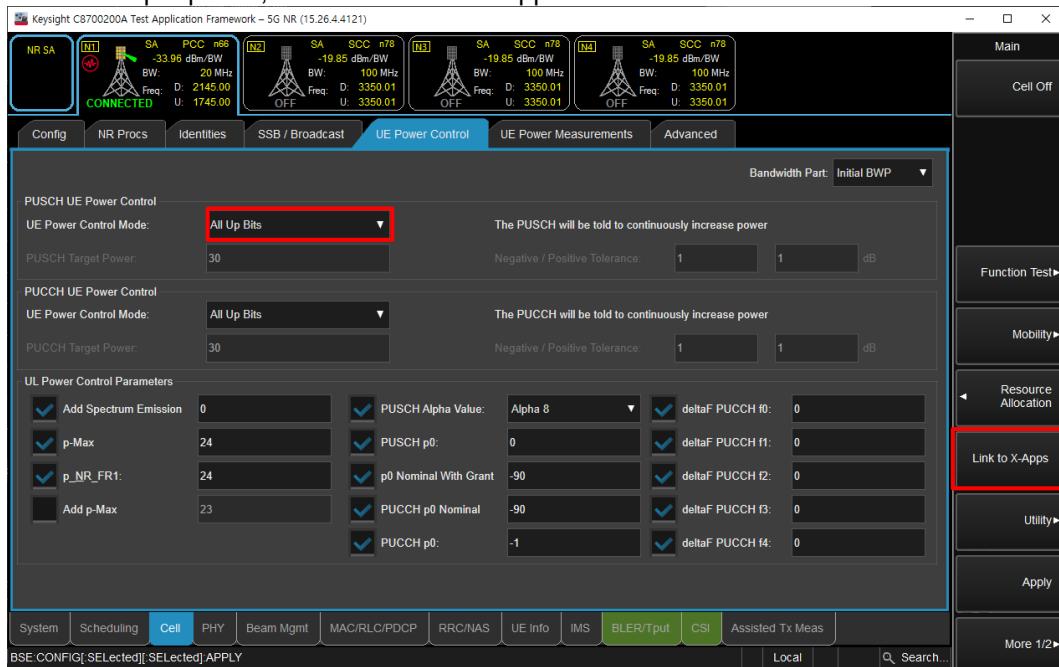
(Figure 3-3)

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



(Figure 3-4)

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



(Figure 3-5)

- Select “Channel Power”



(Figure 3-6)

**NR Band n5 Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)												
					DSI = 0						DSI = 1						
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
					166800	167300	167800			166800	167300	167800					
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.57			0.0	25.0	14.34			0.0	15.0			
			1	53	23.54			0.0	25.0	14.36			0.0	15.0			
			1	104	23.21			0.0	25.0	14.35			0.0	15.0			
			50	0	22.61			0.5	24.5	14.33			0.0	15.0			
			50	28	23.50			0.0	25.0	14.20			0.0	15.0			
			50	56	22.37			0.5	24.5	14.05			0.0	15.0			
			100	0	22.52			0.5	24.5	14.24			0.0	15.0			
		QPSK	1	1	23.60			0.0	25.0	14.48			0.0	15.0			
			1	53	23.50			0.0	25.0	14.42			0.0	15.0			
			1	104	23.25			0.0	25.0	13.98			0.0	15.0			
			50	0	22.63			1.0	24.0	14.40			0.0	15.0			
			50	28	23.51			0.0	25.0	14.41			0.0	15.0			
			50	56	22.37			1.0	24.0	14.08			0.0	15.0			
			100	0	22.52			1.0	24.0	14.25			0.0	15.0			
		16QAM	1	1	22.62			1.0	24.0	14.41			0.0	15.0			
		64QAM	1	1	21.13			2.5	22.5	14.62			0.0	15.0			
		256QAM	1	1	18.99			4.5	20.5	14.40			0.0	15.0			
		CP-OFDM	QPSK	1	1	22.08			1.5	23.5	14.45			0.0	15.0		
15 MHz	DFT-s-OFDM	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
					166300	167300	168300			166300	167300	168300					
					831.5 MHz	836.5 MHz	841.5 MHz			831.5 MHz	836.5 MHz	841.5 MHz					
					1	1	24.18			0.0	25.0	13.96		0.0	15.0		
					1	40	23.94			0.0	25.0	14.02		0.0	15.0		
					1	77	23.87			0.0	25.0	14.11		0.0	15.0		
					36	0	23.21			0.5	24.5	14.42		0.0	15.0		
		QPSK			36	22	24.08			0.0	25.0	14.44		0.0	15.0		
					36	43	22.98			0.5	24.5	14.47		0.0	15.0		
					75	0	23.09			0.5	24.5	14.42		0.0	15.0		
					1	1	24.22			0.0	25.0	14.45		0.0	15.0		
					1	40	23.99			0.0	25.0	14.34		0.0	15.0		
					1	77	23.89			0.0	25.0	14.17		0.0	15.0		
					36	0	23.22			1.0	24.0	14.41		0.0	15.0		
		16QAM			36	22	24.08			0.0	25.0	14.41		0.0	15.0		
					36	43	22.98			1.0	24.0	14.39		0.0	15.0		
					75	0	23.11			1.0	24.0	13.99		0.0	15.0		
					1	1	23.38			1.0	24.0	14.46		0.0	15.0		
					1	40	21.66			2.5	22.5	14.39		0.0	15.0		
		64QAM			1	1	19.71			4.5	20.5	14.06		0.0	15.0		
					1	40	22.73			1.5	23.5	14.21		0.0	15.0		
					1	77	22.73			1.5	23.5	14.21		0.0	15.0		

**NR Band n5 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	167300	168800			166800	167300	168800							
					829 MHz	836.5 MHz	844 MHz			829 MHz	836.5 MHz	844 MHz							
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	24.14			0.0	25.0		14.42			0.0	15.0				
			1	26	24.08			0.0	25.0		14.37			0.0	15.0				
			1	50	23.90			0.0	25.0		14.15			0.0	15.0				
			25	0	23.15			0.5	24.5		14.38			0.0	15.0				
			25	14	24.04			0.0	25.0		14.32			0.0	15.0				
			25	27	23.00			0.5	24.5		14.23			0.0	15.0				
			50	0	23.07			0.5	24.5		14.32			0.0	15.0				
		QPSK	1	1	24.20			0.0	25.0		14.49			0.0	15.0				
			1	26	24.05			0.0	25.0		14.38			0.0	15.0				
			1	50	23.93			0.0	25.0		14.16			0.0	15.0				
			25	0	23.17			1.0	24.0		14.38			0.0	15.0				
			25	14	24.08			0.0	25.0		14.30			0.0	15.0				
			25	27	23.01			1.0	24.0		14.23			0.0	15.0				
			50	0	23.10			1.0	24.0		14.30			0.0	15.0				
		16QAM	1	1	23.36			1.0	24.0		14.33			0.0	15.0				
			64QAM	1	1	21.83		2.5	22.5		14.42			0.0	15.0				
			256QAM	1	1	19.67		4.5	20.5		14.19			0.0	15.0				
	CP-OFDM	QPSK	1	1	22.72			1.5	23.5		14.45			0.0	15.0				
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit					
					165300	167300	169300			165300	167300	169300							
					826.5 MHz	836.5 MHz	846.5 MHz			826.5 MHz	836.5 MHz	846.5 MHz							
					1	24.04	23.86	23.82	0.0	25.0	14.44	14.30	14.10	0.0	15.0				
					1	23.91	23.74	23.75	0.0	25.0	14.36	14.15	13.96	0.0	15.0				
					1	23.94	23.80	23.03	0.0	25.0	14.44	14.19	14.02	0.0	15.0				
					12	0	23.05	22.90	23.92	0.5	24.5	14.47	14.32	14.11	0.0	15.0			
		QPSK			12	7	24.03	23.85	22.89	0.0	25.0	14.44	14.27	14.07	0.0	15.0			
					12	13	23.00	22.83	24.03	0.5	24.5	14.47	14.23	14.04	0.0	15.0			
					25	0	23.04	22.88	22.88	0.5	24.5	14.47	14.27	14.07	0.0	15.0			
					1	24.12	23.91	23.91	0.0	25.0	14.46	14.34	14.12	0.0	15.0				
					1	23.98	23.77	23.77	0.0	25.0	14.40	14.19	13.98	0.0	15.0				
					1	24.01	23.83	23.83	0.0	25.0	14.46	14.22	14.06	0.0	15.0				
					12	0	23.10	22.91	23.02	1.0	24.0	14.47	14.32	14.11	0.0	15.0			
					12	7	24.04	23.86	23.08	0.0	25.0	14.46	14.28	14.07	0.0	15.0			
					12	13	23.02	22.86	23.10	1.0	24.0	14.46	14.25	14.04	0.0	15.0			
					25	0	23.08	22.88	23.36	1.0	24.0	14.46	14.28	14.06	0.0	15.0			
					16QAM	1	1	23.08	22.92	22.32	1.0	24.0	14.51	14.38	14.23	0.0	15.0		
					64QAM	1	1	21.66	21.44	20.32	2.5	22.5	14.44	14.28	14.09	0.0	15.0		
					256QAM	1	1	19.62	19.37	18.99	4.5	20.5	14.38	14.23	13.97	0.0	15.0		
	CP-OFDM	QPSK	1	1	22.60	22.37	21.78	1.5	23.5	14.49	14.38	14.07		0.0	15.0				

**NR Band n12 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				
					141300	141500	141700			141300	141500	141700						
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.49			0.0	25.0		16.06			0.0	16.5			
			1	40	23.50			0.0	25.0		16.18			0.0	16.5			
			1	77	23.39			0.0	25.0		16.23			0.0	16.5			
			36	0	22.57			0.5	24.5		16.14			0.0	16.5			
			36	22	23.61			0.0	25.0		16.22			0.0	16.5			
			36	43	22.55			0.5	24.5		16.18			0.0	16.5			
			75	0	22.61			0.5	24.5		16.22			0.0	16.5			
		QPSK	1	1	23.49			0.0	25.0		16.24			0.0	16.5			
			1	40	23.51			0.0	25.0		16.21			0.0	16.5			
			1	77	23.67			0.0	25.0		16.29			0.0	16.5			
			36	0	22.57			1.0	24.0		16.15			0.0	16.5			
			36	22	23.60			0.0	25.0		16.27			0.0	16.5			
			36	43	22.55			1.0	24.0		16.21			0.0	16.5			
			75	0	22.61			1.0	24.0		16.25			0.0	16.5			
		16QAM	1	1	22.55			1.0	24.0		16.17			0.0	16.5			
		64QAM	1	1	21.01			2.5	22.5		16.27			0.0	16.5			
		256QAM	1	1	18.87			4.5	20.5		16.05			0.0	16.5			
		CP-OFDM	QPSK	1	1	22.05			1.5	23.5		16.17			0.0	16.5		
10 MHz	DFT-s-OFDM	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
					140800	141500	142200			140800	141500	142200						
					704 MHz	707.5 MHz	711 MHz			704 MHz	707.5 MHz	711 MHz						
					1	1	23.93	0.0	25.0		16.04			0.0	16.5			
					1	26	23.96	0.0	25.0		16.14			0.0	16.5			
					1	50	23.92	0.0	25.0		16.08			0.0	16.5			
					25	0	23.01	0.5	24.5		16.18			0.0	16.5			
		QPSK			25	14	24.00	0.0	25.0		16.18			0.0	16.5			
					25	27	23.03	0.5	24.5		16.18			0.0	16.5			
					50	0	23.02	0.5	24.5		16.18			0.0	16.5			
					1	1	24.00	0.0	25.0		16.21			0.0	16.5			
					1	26	24.09	0.0	25.0		16.22			0.0	16.5			
					1	50	23.97	0.0	25.0		16.12			0.0	16.5			
					25	0	23.04	1.0	24.0		16.20			0.0	16.5			
					25	14	24.03	0.0	25.0		16.20			0.0	16.5			
					25	27	23.03	1.0	24.0		16.20			0.0	16.5			
					50	0	23.05	1.0	24.0		16.20			0.0	16.5			
					16QAM	1	1	22.97	1.0	24.0		16.21			0.0	16.5		
					64QAM	1	1	21.57	2.5	22.5		16.25			0.0	16.5		
					256QAM	1	1	19.50	4.5	20.5		16.07			0.0	16.5		
		CP-OFDM	QPSK	1	1	22.53			1.5	23.5		16.14			0.0	16.5		

**NR Band n12 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
					140300	141500	142700			140300	141500	142700		
					701.5 MHz	707.5 MHz	713.5 MHz			701.5 MHz	707.5 MHz	713.5 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.86	24.01	23.84	0.0	25.0	16.09	16.08	15.95	0.0	16.5
			1	13	23.82	23.94	23.68	0.0	25.0	16.02	16.14	15.88	0.0	16.5
			1	23	23.96	24.03	23.74	0.0	25.0	16.11	16.13	15.92	0.0	16.5
			12	0	22.96	23.04	22.87	0.5	24.5	16.12	16.13	16.03	0.0	16.5
			12	7	23.96	24.05	23.82	0.0	25.0	16.13	16.20	15.99	0.0	16.5
			12	13	22.98	23.05	22.82	0.5	24.5	16.13	15.99	15.96	0.0	16.5
			25	0	22.98	23.07	22.85	0.5	24.5	16.13	15.99	16.03	0.0	16.5
		QPSK	1	1	23.95	24.05	23.90	0.0	25.0	16.11	15.96	16.07	0.0	16.5
			1	13	23.89	23.98	23.76	0.0	25.0	16.01	16.03	15.92	0.0	16.5
			1	23	24.01	24.06	23.80	0.0	25.0	16.13	16.07	15.95	0.0	16.5
			12	0	22.98	23.06	22.91	1.0	24.0	16.13	16.21	16.06	0.0	16.5
			12	7	23.96	24.07	23.85	0.0	25.0	16.14	16.22	16.02	0.0	16.5
			12	13	23.00	23.07	22.85	1.0	24.0	16.13	16.21	15.98	0.0	16.5
			25	0	23.00	23.07	22.88	1.0	24.0	16.13	16.21	16.01	0.0	16.5
		16QAM	1	1	22.95	23.06	22.83	1.0	24.0	16.20	16.19	15.99	0.0	16.5
		64QAM	1	1	21.44	21.61	21.51	2.5	22.5	16.22	16.27	16.24	0.0	16.5
		256QAM	1	1	19.43	19.47	19.35	4.5	20.5	16.10	16.05	15.95	0.0	16.5
	CP-OFDM	QPSK	1	1	22.53	22.58	22.45	1.5	23.5	16.13	16.17	16.04	0.0	16.5

**NR Band n25 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	
					372000	376500	381000			372000	376500	381000			
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.51	23.51	23.61	0.0	25.0	12.75	12.53	12.45	0.0	13.5	
			1	53	23.41	23.59	23.45	0.0	25.0	12.79	12.77	12.96	0.0	13.5	
			1	104	23.47	23.73	23.71	0.0	25.0	12.80	12.70	12.97	0.0	13.5	
			50	0	23.07	22.84	22.92	0.5	24.5	12.82	12.74	12.81	0.0	13.5	
			50	28	23.43	23.51	23.41	0.0	25.0	12.81	12.76	13.02	0.0	13.5	
			50	56	23.09	22.92	23.18	0.5	24.5	12.82	12.77	13.04	0.0	13.5	
			100	0	23.08	22.93	23.15	0.5	24.5	12.82	12.78	13.02	0.0	13.5	
		QPSK	1	1	23.51	23.84	23.94	0.0	25.0	12.88	12.81	12.84	0.0	13.5	
			1	53	23.94	24.04	24.01	0.0	25.0	12.87	12.89	12.79	0.0	13.5	
			1	104	23.93	23.91	23.34	0.0	25.0	12.82	12.84	12.79	0.0	13.5	
			50	0	23.17	23.02	23.04	1.0	24.0	12.70	12.74	12.62	0.0	13.5	
			50	28	23.97	24.01	23.94	0.0	25.0	12.65	12.77	12.75	0.0	13.5	
			50	56	23.16	23.03	23.30	1.0	24.0	12.69	12.68	12.67	0.0	13.5	
			100	0	23.16	23.02	23.24	1.0	24.0	12.82	12.80	13.02	0.0	13.5	
		16QAM	1	1	22.76	23.09	22.87	1.0	24.0	12.92	12.83	12.77	0.0	13.5	
		64QAM	1	1	21.60	21.46	21.47	2.5	22.5	13.00	12.81	12.80	0.0	13.5	
		256QAM	1	1	19.50	19.42	19.29	4.5	20.5	12.78	12.66	12.64	0.0	13.5	
	CP-OFDM	QPSK	1	1	22.17	22.40	22.49	1.5	23.5	12.83	12.75	12.72	0.0	13.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Measured Pwr (dBm)				MPR	Tune-up Limit
					371500	376500	381500	371500		376500	381500				
					1857.5 MHz	1882.5 MHz	1907.5 MHz	1857.5 MHz		1882.5 MHz	1907.5 MHz				
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.66	23.93	23.84	0.0	25.0	13.09	12.76	12.87	0.0	13.5	
			1	40	23.51	23.93	23.61	0.0	25.0	12.91	12.69	13.03	0.0	13.5	
			1	77	23.65	23.84	23.65	0.0	25.0	13.00	12.80	13.07	0.0	13.5	
			36	0	23.26	23.09	23.17	0.5	24.5	13.10	12.80	13.05	0.0	13.5	
			36	22	23.61	24.08	23.56	0.0	25.0	13.04	12.80	13.13	0.0	13.5	
			36	43	23.22	23.13	23.30	0.5	24.5	13.04	12.83	13.13	0.0	13.5	
			75	0	23.25	23.11	23.33	0.5	24.5	13.05	12.80	13.14	0.0	13.5	
		QPSK	1	1	23.30	23.60	23.79	0.0	25.0	13.15	12.82	12.93	0.0	13.5	
			1	40	24.05	24.02	23.89	0.0	25.0	12.95	12.74	13.06	0.0	13.5	
			1	77	23.90	23.61	23.11	0.0	25.0	13.04	12.81	13.13	0.0	13.5	
			36	0	23.09	23.14	23.30	1.0	24.0	13.10	12.81	13.04	0.0	13.5	
			36	22	24.08	23.76	23.92	0.0	25.0	13.04	12.80	13.14	0.0	13.5	
			36	43	23.28	23.17	23.30	1.0	24.0	13.03	12.82	13.11	0.0	13.5	
			75	0	23.28	23.14	23.37	1.0	24.0	13.03	12.80	13.12	0.0	13.5	
		16QAM	1	1	22.61	22.98	23.02	1.0	24.0	13.10	12.85	12.92	0.0	13.5	
		64QAM	1	1	21.63	21.65	21.70	2.5	22.5	13.09	12.78	13.03	0.0	13.5	
		256QAM	1	1	19.68	19.58	19.49	4.5	20.5	12.84	12.76	12.89	0.0	13.5	
	CP-OFDM	QPSK	1	1	22.02	22.50	22.68	1.5	23.5	12.97	12.90	13.01	0.0	13.5	

**Note(s):**

NR Band n2 is covered by NR Band n25.

**NR Band n25 Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
					371000	376500	382000			371000	376500	382000					
					1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz					
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.44	23.50	23.72	0.0	25.0	12.91	12.72	13.00	0.0	13.5			
			1	26	23.68	23.58	23.84	0.0	25.0	12.84	12.79	13.04	0.0	13.5			
			1	50	23.25	23.59	23.30	0.0	25.0	12.82	12.76	13.00	0.0	13.5			
			25	0	23.59	22.65	22.91	0.5	24.5	12.90	12.77	13.07	0.0	13.5			
			25	14	22.65	23.63	23.89	0.0	25.0	12.88	12.77	13.05	0.0	13.5			
			25	27	23.63	23.09	23.32	0.5	24.5	12.86	12.79	13.05	0.0	13.5			
			50	0	23.09	23.07	23.34	0.5	24.5	12.89	12.78	13.05	0.0	13.5			
		QPSK	1	1	23.07	24.09	23.91	0.0	25.0	12.93	12.75	13.05	0.0	13.5			
			1	26	24.09	24.07	24.07	0.0	25.0	12.95	12.81	13.20	0.0	13.5			
			1	50	23.80	24.10	23.27	0.0	25.0	12.83	12.77	13.04	0.0	13.5			
			25	0	23.78	23.10	23.40	1.0	24.0	12.93	12.78	13.07	0.0	13.5			
			25	14	23.22	24.10	24.05	0.0	25.0	12.88	12.77	13.05	0.0	13.5			
			25	27	23.78	23.13	23.21	1.0	24.0	12.84	12.80	13.04	0.0	13.5			
			50	0	23.67	23.11	23.32	1.0	24.0	12.89	12.79	13.06	0.0	13.5			
		16QAM	1	1	23.21	23.10	23.23	1.0	24.0	12.99	12.72	13.06	0.0	13.5			
		64QAM	1	1	22.33	21.65	21.96	2.5	22.5	12.92	12.73	13.03	0.0	13.5			
		256QAM	1	1	18.99	19.48	19.86	4.5	20.5	12.94	12.73	12.97	0.0	13.5			
	CP-OFDM	QPSK	1	1	21.78	22.51	22.79	1.5	23.5	12.98	12.80	13.13	0.0	13.5			
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
					370500	376500	382500			370500	376500	382500					
					1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz					
					1	1	23.54	23.48	23.38	0.0	25.0	12.81	12.63	13.00	0.0		
					1	13	23.46	23.41	23.63	0.0	25.0	12.71	12.72	13.04	0.0		
					1	23	23.57	23.55	23.74	0.0	25.0	12.77	12.82	13.00	0.0		
					12	0	22.64	22.59	22.86	0.5	24.5	12.85	12.84	13.07	0.0		
		QPSK			12	7	23.62	23.59	23.86	0.0	25.0	12.83	12.85	13.05	0.0		
					12	13	23.05	23.13	22.90	0.5	24.5	12.81	12.85	13.05	0.0		
					25	0	23.06	23.21	22.94	0.5	24.5	12.82	12.87	13.05	0.0		
					1	1	23.70	24.03	24.01	0.0	25.0	12.85	12.87	13.14	0.0		
					1	13	23.71	23.95	23.97	0.0	25.0	12.74	12.78	12.93	0.0		
					1	23	23.78	24.07	23.50	0.0	25.0	12.83	12.87	13.06	0.0		
					12	0	23.12	23.06	23.41	1.0	24.0	12.84	12.88	13.13	0.0		
					12	7	23.78	24.03	24.03	0.0	25.0	12.81	12.89	13.04	0.0		
					12	13	23.11	23.07	23.19	1.0	24.0	12.81	12.87	12.82	0.0		
					25	0	23.13	23.07	23.38	1.0	24.0	12.82	12.88	12.98	0.0		
		16QAM	1	1	23.05	23.11	23.38	1.0	24.0	12.98	12.87	12.85	0.0	13.5			
		64QAM	1	1	21.57	21.54	21.87	2.5	22.5	12.85	13.03	12.77	0.0	13.5			
		256QAM	1	1	19.55	19.47	19.74	4.5	20.5	12.81	12.67	12.79	0.0	13.5			
	CP-OFDM	QPSK	1	1	22.55	21.55	22.79	1.5	23.5	12.89	12.77	13.05	0.0	13.5			

**Note(s):**

NR Band n2 is covered by NR Band n25.

## NR Band n30 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 MHz			462000							
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	21.97		0.0	23.5	12.78		0.0	13.5				
			1	26	22.07		0.0	23.5	12.87		0.0	13.5				
			1	50	22.32		0.0	23.5	12.92		0.0	13.5				
			25	0	21.11		0.5	23.0	12.90		0.0	13.5				
			25	14	22.13		0.0	23.5	12.91		0.0	13.5				
			25	27	21.28		0.5	23.0	12.96		0.0	13.5				
			50	0	21.15		0.5	23.0	12.90		0.0	13.5				
		QPSK	1	1	22.14		0.0	23.5	12.90		0.0	13.5				
			1	26	22.19		0.0	23.5	12.94		0.0	13.5				
			1	50	22.36		0.0	23.5	12.98		0.0	13.5				
			25	0	21.18		1.0	22.5	12.94		0.0	13.5				
			25	14	22.20		0.0	23.5	13.01		0.0	13.5				
			25	27	21.36		1.0	22.5	12.98		0.0	13.5				
			50	0	21.21		1.0	22.5	12.93		0.0	13.5				
		CP-OFDM	16QAM	1	21.20		1.0	22.5	12.76		0.0	13.5				
		CP-OFDM	64QAM	1	19.59		2.5	21.0	12.91		0.0	13.5				
		CP-OFDM	256QAM	1	17.64		4.5	19.0	12.93		0.0	13.5				
		CP-OFDM	QPSK	1	20.61		1.5	22.0	13.03		0.0	13.5				
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			MPR	Tune-up Limit			
					461500	462000	462500		461500	462000	462500					
					2307.5 MHz	2310 MHz	2312.5 MHz		2307.5 MHz	2310 MHz	2312.5 MHz					
					1	22.51	22.47	0.0	23.5	12.86	12.96	13.01	0.0	13.5		
					1	22.48	22.45	0.0	23.5	12.77	12.89	12.98	0.0	13.5		
					1	22.57	22.61	0.0	23.5	12.89	13.04	13.06	0.0	13.5		
					12	21.61	21.59	0.5	23.0	12.92	12.98	13.04	0.0	13.5		
		QPSK			12	22.64	22.63	0.0	23.5	12.94	13.00	13.06	0.0	13.5		
					12	21.64	21.67	0.5	23.0	12.95	13.03	13.07	0.0	13.5		
					25	21.65	21.67	0.5	23.0	12.96	13.00	13.06	0.0	13.5		
					1	22.67	22.67	0.0	23.5	12.94	12.97	13.03	0.0	13.5		
					1	22.57	22.62	0.0	23.5	12.86	12.89	12.99	0.0	13.5		
					1	22.69	22.75	0.0	23.5	12.96	13.04	13.08	0.0	13.5		
					12	21.69	21.67	1.0	22.5	12.96	12.98	13.05	0.0	13.5		
					12	22.69	22.70	0.0	23.5	12.95	13.01	13.07	0.0	13.5		
					12	21.71	21.75	1.0	22.5	12.96	13.03	13.09	0.0	13.5		
					25	21.71	21.71	1.0	22.5	12.97	12.99	13.07	0.0	13.5		
					16QAM	21.71	21.72	1.0	22.5	13.07	12.98	13.11	0.0	13.5		
					64QAM	20.21	20.25	2.5	21.0	12.91	12.99	12.90	0.0	13.5		
					256QAM	18.11	18.13	4.5	19.0	12.88	12.88	13.00	0.0	13.5		
		CP-OFDM	QPSK	1	21.20	21.14	1.5	22.0	13.09	13.05	13.11	0.0	13.5			

**NR Band n41 (Main.1 SRS0) 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	
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	509202	2592.99 MHz	518598	2640 MHz			509202	2592.99 MHz	518598	2640 MHz			
			1	137	2546.01 MHz				0.0	21.5			13.67		0.0	14.0	
			1	271			20.27		0.0	21.5			13.77		0.0	14.0	
			135	0			20.14		0.5	21.0			13.59		0.0	14.0	
			135	69			20.97		0.0	21.5			13.81		0.0	14.0	
			135	138			19.92		0.5	21.0			13.33		0.0	14.0	
			270	0			20.43		0.5	21.0			13.79		0.0	14.0	
		QPSK	1	1			20.66		0.0	21.5			13.77		0.0	14.0	
			1	137			20.98		0.0	21.5			13.78		0.0	14.0	
			1	271			20.27		0.0	21.5			13.35		0.0	14.0	
			135	0			19.65		1.0	20.5			13.61		0.0	14.0	
			135	69			20.94		0.0	21.5			13.82		0.0	14.0	
			135	138			19.41		1.0	20.5			13.35		0.0	14.0	
			270	0			19.87		1.0	20.5			13.81		0.0	14.0	
		16QAM	1	1			19.63		1.0	20.5			13.78		0.0	14.0	
		64QAM	1	1			18.03		2.5	19.0			13.69		0.0	14.0	
		256QAM	1	1			16.05		4.5	17.0			13.68		0.0	14.0	
		CP-OFDM	QPSK	1	1			19.02		1.5	20.0			13.73		0.0	14.0
90 MHz	DFT-s-OFDM	π/2 BPSK	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit	
			508200				528996			508200				528996			
			2541 MHz				2644.98 MHz			2541 MHz				2644.98 MHz			
			1	1	20.14			20.73	0.0	21.5	13.26				13.64	0.0	14.0
			1	123	20.80			20.30	0.0	21.5	13.63				13.16	0.0	14.0
			1	243	20.81			19.93	0.0	21.5	13.45				13.11	0.0	14.0
			120	0	20.05			19.74	0.5	21.0	13.35				13.11	0.0	14.0
		QPSK	120	63	20.78			20.28	0.0	21.5	13.57				13.08	0.0	14.0
			120	125	20.15			19.71	0.5	21.0	13.42				13.26	0.0	14.0
			243	0	20.17			19.75	0.5	21.0	13.52				13.07	0.0	14.0
			1	1	20.12			20.76	0.0	21.5	13.23				13.55	0.0	14.0
			1	123	20.81			20.30	0.0	21.5	13.61				13.11	0.0	14.0
			1	243	20.79			19.93	0.0	21.5	13.46				13.08	0.0	14.0
			120	0	19.59			19.26	1.0	20.5	13.36				13.08	0.0	14.0
		120	63	20.75			20.29	0.0	21.5	13.55				13.07	0.0	14.0	
		120	125	19.62			19.21	1.0	20.5	13.41				13.25	0.0	14.0	
		243	0	19.64			19.24	1.0	20.5	13.50				13.07	0.0	14.0	
		16QAM	1	1	19.10			19.67	1.0	20.5	13.25				13.54	0.0	14.0
		64QAM	1	1	17.54			18.09	2.5	19.0	13.17				13.48	0.0	14.0
		256QAM	1	1	16.30			16.15	4.5	17.0	13.18				13.51	0.0	14.0
		CP-OFDM	QPSK	1	1	18.50			19.19	1.5	20.0	13.30				13.51	0.0

**NR Band n41 (Main.1 SRS0) Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit		
					507204	2536.02 MHz	2649.99 MHz	529998			507204	2536.02 MHz	2649.99 MHz	529998				
80 MHz	π/2 BPSK	1	1	20.12				19.81	0.0	21.5	13.25				13.49	0.0	14.0	
		1	109	20.09				20.08	0.0	21.5	13.59				13.09	0.0	14.0	
		1	215	20.39				20.32	0.0	21.5	13.36				13.24	0.0	14.0	
		108	0	19.78				19.47	0.5	21.0	13.17				13.04	0.0	14.0	
		108	55	20.09				20.05	0.0	21.5	13.57				13.18	0.0	14.0	
		108	109	19.76				19.27	0.5	21.0	13.53				13.28	0.0	14.0	
		216	0	19.50				19.59	0.5	21.0	13.51				13.06	0.0	14.0	
	DFT-s-OFDM	1	1	20.21				20.04	0.0	21.5	13.24				13.49	0.0	14.0	
		1	109	20.22				20.30	0.0	21.5	13.61				13.10	0.0	14.0	
		1	215	20.39				19.87	0.0	21.5	13.36				13.22	0.0	14.0	
		108	0	18.93				18.94	1.0	20.5	13.14				13.02	0.0	14.0	
		108	55	20.10				19.94	0.0	21.5	13.55				13.17	0.0	14.0	
		108	109	19.24				19.08	1.0	20.5	13.53				13.27	0.0	14.0	
		216	0	19.48				18.95	1.0	20.5	13.51				13.06	0.0	14.0	
	QPSK	16QAM	1	1	19.11			19.05	1.0	20.5	13.07				13.32	0.0	14.0	
		64QAM	1	1	18.00			17.62	2.5	19.0	12.99				13.28	0.0	14.0	
		256QAM	1	1	15.25			15.24	4.5	17.0	13.00				13.31	0.0	14.0	
	CP-OFDM	QPSK	1	1	18.40			18.27	1.5	20.0	13.01				13.27	0.0	14.0	
70 MHz	π/2 BPSK	π/2 BPSK	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 MHz			2531.01 MHz			2655 MHz				
					1	1	20.20				19.72	0.0	21.5	13.14		13.26	0.0	14.0
					1	95	20.10				20.00	0.0	21.5	13.24		13.18	0.0	14.0
					1	188	20.32				20.30	0.0	21.5	13.22		13.21	0.0	14.0
					90	0	19.70				19.44	0.5	21.0	13.27		13.15	0.0	14.0
	DFT-s-OFDM	QPSK	RB Allocation	RB offset	90	50	20.26				20.05	0.0	21.5	13.12		13.19	0.0	14.0
					90	99	19.77				19.40	0.5	21.0	13.13		13.05	0.0	14.0
					180	0	19.56				19.64	0.5	21.0	13.28		13.05	0.0	14.0
					1	1	20.18				19.98	0.0	21.5	13.29		13.20	0.0	14.0
					1	95	20.24				20.18	0.0	21.5	13.35		13.18	0.0	14.0
					1	188	20.41				19.95	0.0	21.5	13.24		13.18	0.0	14.0
					90	0	18.89				18.79	1.0	20.5	13.19		13.12	0.0	14.0
	QPSK	QPSK	RB Allocation	RB offset	90	50	20.06				19.82	0.0	21.5	13.22		13.11	0.0	14.0
					90	99	19.13				19.03	1.0	20.5	13.22		13.04	0.0	14.0
					180	0	19.34				19.09	1.0	20.5	13.15		13.11	0.0	14.0
					16QAM	1	1	18.99			19.10	1.0	20.5	13.30		13.18	0.0	14.0
					64QAM	1	1	17.98			17.49	2.5	19.0	13.13		13.14	0.0	14.0
	CP-OFDM	QPSK	RB Allocation	RB offset	256QAM	1	1	15.20			15.28	4.5	17.0	13.14		13.09	0.0	14.0
					1	1	18.43		18.23		1.5	20.0	13.23		13.17	0.0	14.0	

## **NR Band n41 (Main.1 SRS0) Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Measured Pwr (dBm)				MPR	Tune-up Limit									
					505200		518598			505200		518598												
					2526 MHz		2592.99 MHz			2526 MHz		2592.99 MHz												
60 MHz	π/2 BPSK	1	1	20.17		21.11		19.78	0.0	21.5	13.14		13.69		13.26	0.0	14.0							
		1	81	20.09		21.26		19.99	0.0	21.5	13.27		13.78		13.14	0.0	14.0							
		1	160	20.34		20.82		20.22	0.0	21.5	13.29		13.67		13.12	0.0	14.0							
		81	0	19.78		20.28		19.52	0.5	21.0	13.29		13.61		13.18	0.0	14.0							
		81	41	20.19		20.73		19.98	0.0	21.5	13.17		13.69		13.16	0.0	14.0							
		81	81	19.79		20.42		19.35	0.5	21.0	13.21		13.62		13.05	0.0	14.0							
		162	0	19.58		20.42		19.68	0.5	21.0	13.26		13.59		13.10	0.0	14.0							
		1	1	20.20		20.92		20.05	0.0	21.5	13.23		13.74		13.19	0.0	14.0							
	DFT-s-OFDM	1	81	20.27		20.51		20.20	0.0	21.5	13.36		13.79		13.18	0.0	14.0							
		1	160	20.38		20.93		19.91	0.0	21.5	13.21		13.71		13.07	0.0	14.0							
		81	0	18.97		19.85		18.89	1.0	20.5	13.27		13.58		13.11	0.0	14.0							
		81	41	20.10		20.64		19.91	0.0	21.5	13.29		13.69		13.18	0.0	14.0							
		81	81	19.22		20.01		19.06	1.0	20.5	13.24		13.61		13.14	0.0	14.0							
		162	0	19.41		19.80		19.02	1.0	20.5	13.22		13.57		13.16	0.0	14.0							
		16QAM	1	1	19.06		20.07		19.03	1.0	20.5	13.22		13.58		13.19	0.0	14.0						
		64QAM	1	1	17.91		18.16		17.58	2.5	19.0	13.20		13.53		13.11	0.0	14.0						
		256QAM	1	1	15.29		16.31		15.25	4.5	17.0	13.22		13.55		13.14	0.0	14.0						
	CP-OFDM	QPSK	1	1	18.46		19.52		18.22	1.5	20.0	13.21		13.52		13.10	0.0	14.0						
50 MHz	π/2 BPSK	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Measured Pwr (dBm)				MPR	Tune-up Limit									
					504204		518598			504204		518598												
					2512.02 MHz		2592.99 MHz			2512.02 MHz		2592.99 MHz												
					1	1	20.25			19.79	0.0	21.5	13.22		13.61		13.27	0.0	14.0					
					1	67	20.16			21.23		19.97	0.0	21.5	13.30		13.81		13.10	0.0	14.0			
					1	131	20.39			20.78		20.32	0.0	21.5	13.28		13.76		13.16	0.0	14.0			
					64	0	19.82			20.20		19.59	0.5	21.0	13.27		13.60		13.12	0.0	14.0			
					64	35	20.21			20.82		20.01	0.0	21.5	13.18		13.66		13.09	0.0	14.0			
	DFT-s-OFDM				64	69	19.72			20.44		19.33	0.5	21.0	13.22		13.58		13.06	0.0	14.0			
					128	0	19.68			20.42		19.58	0.5	21.0	13.34		13.69		13.14	0.0	14.0			
	QPSK				1	1	20.11			20.87		20.14	0.0	21.5	13.27		13.71		13.12	0.0	14.0			
					1	67	20.21			20.47		20.13	0.0	21.5	13.28		13.67		13.12	0.0	14.0			
					1	131	20.42			21.00		19.95	0.0	21.5	13.23		13.66		13.10	0.0	14.0			
					64	0	19.04			19.78		18.98	1.0	20.5	13.18		13.63		13.09	0.0	14.0			
					64	35	20.15			20.67		20.01	0.0	21.5	13.27		13.57		13.15	0.0	14.0			
					64	69	19.16			20.04		19.06	1.0	20.5	13.18		13.69		13.07	0.0	14.0			
					128	0	19.41			19.76		19.11	1.0	20.5	13.25		13.61		13.08	0.0	14.0			
					16QAM	1	1	19.09		20.09		19.06	1.0	20.5	13.22		13.65		13.13	0.0	14.0			
					64QAM	1	1	17.91		18.16		17.48	2.5	19.0	13.15		13.60		13.10	0.0	14.0			
					256QAM	1	1	15.34		16.21		15.34	4.5	17.0	13.16		13.58		13.16	0.0	14.0			
	CP-OFDM	QPSK	1	1	18.50		19.53		18.29	1.5	20.0	13.17		13.57		13.10	0.0	14.0						

**NR Band n41 (Main.1 SRS0) Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit		
					503202	513468	2516.01 MHz	2507.34 MHz	523734			503202	513468	2516.01 MHz	2507.34 MHz	523734				
					1	1	20.20	20.86	20.00			13.18	13.60	13.04	13.16	0.0	14.0			
40 MHz	DFT-s-OFDM	π/2 BPSK	1	53	20.24	20.78			20.52	19.87	0.0	21.5	13.17	13.58		13.11	13.10	0.0	14.0	
			1	104	20.29	20.97			20.34	20.24	0.0	21.5	13.30	13.65		13.10	13.24	0.0	14.0	
			50	0	19.75	20.54			19.93	19.55	0.5	21.0	13.27	13.55		13.04	13.17	0.0	14.0	
			50	28	20.19	20.88			20.35	20.05	0.0	21.5	13.23	13.56		13.11	13.14	0.0	14.0	
			50	56	19.82	20.30			20.12	19.42	0.5	21.0	13.12	13.46		13.10	13.07	0.0	14.0	
			100	0	19.77	20.39			20.09	19.66	0.5	21.0	13.35	13.52		13.05	13.08	0.0	14.0	
			1	1	20.01	20.73			20.00	20.07	0.0	21.5	13.27	13.69		13.17	13.16	0.0	14.0	
		QPSK	1	53	20.15	20.65			19.78	20.05	0.0	21.5	13.34	13.57		13.21	13.18	0.0	14.0	
			1	104	20.40	20.88			20.40	20.00	0.0	21.5	13.21	13.59		13.09	13.16	0.0	14.0	
			50	0	19.06	19.68			18.92	18.91	1.0	20.5	13.17	13.51		13.07	13.18	0.0	14.0	
			50	28	20.18	20.76			20.05	19.95	0.0	21.5	13.28	13.53		13.06	13.07	0.0	14.0	
			50	56	19.16	19.88			19.08	19.04	1.0	20.5	13.25	13.56		13.13	13.09	0.0	14.0	
			100	0	19.44	19.79			19.33	19.08	1.0	20.5	13.21	13.54		13.08	13.09	0.0	14.0	
			16QAM	1	1	19.00	19.87			19.15	19.11	1.0	20.5	13.34	13.65		13.00	13.19	0.0	14.0
			64QAM	1	1	17.83	17.92			17.92	17.53	2.5	19.0	13.13	13.58		13.05	13.05	0.0	14.0
			256QAM	1	1	15.42	15.99			15.61	15.38	4.5	17.0	13.22	13.58		12.99	13.16	0.0	14.0
		CP-OFDM	QPSK	1	1	18.50	19.27			18.58	18.33	1.5	20.0	13.28	13.53		12.94	13.07	0.0	14.0
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.11	20.85	21.02	20.06	19.92	0.0	21.5	13.17	13.62	13.67	13.16	13.21	0.0	14.0		
			1	39	20.25	20.79	21.18	20.52	19.89	0.0	21.5	13.22	13.60	13.78	13.21	13.11	0.0	14.0		
			1	76	20.21	20.92	20.91	20.33	20.18	0.0	21.5	13.22	13.63	13.78	13.09	13.18	0.0	14.0		
			36	0	19.79	20.52	20.19	20.00	19.53	0.5	21.0	13.27	13.52	13.57	13.08	13.21	0.0	14.0		
			36	21	20.18	20.93	20.79	20.40	20.10	0.0	21.5	13.22	13.51	13.68	13.08	13.19	0.0	14.0		
			36	42	19.86	20.29	20.34	20.05	19.47	0.5	21.0	13.19	13.49	13.57	13.17	13.12	0.0	14.0		
			75	0	19.77	20.34	20.51	20.08	19.56	0.5	21.0	13.33	13.56	13.69	13.06	13.05	0.0	14.0		
		QPSK	1	1	20.08	20.68	20.85	20.06	20.00	0.0	21.5	13.20	13.69	13.65	13.22	13.22	0.0	14.0		
			1	39	20.25	20.70	20.58	19.88	20.08	0.0	21.5	13.36	13.57	13.76	13.10	13.18	0.0	14.0		
			1	76	20.34	20.89	20.85	20.38	19.95	0.0	21.5	13.26	13.47	13.73	13.15	13.12	0.0	14.0		
			36	0	19.15	19.75	19.72	18.88	18.87	1.0	20.5	13.21	13.51	13.62	12.98	13.14	0.0	14.0		
			36	21	20.21	20.81	20.74	20.10	19.98	0.0	21.5	13.17	13.55	13.70	13.17	13.05	0.0	14.0		
			36	42	19.18	19.81	20.06	19.14	18.94	1.0	20.5	13.17	13.59	13.66	13.05	13.05	0.0	14.0		
			75	0	19.35	19.83	19.80	19.23	18.99	1.0	20.5	13.18	13.50	13.59	13.07	13.17	0.0	14.0		
			16QAM	1	1	19.09	19.86	20.03	19.24	19.10	1.0	20.5	13.32	13.55	13.67	13.05	13.17	0.0	14.0	
			64QAM	1	1	17.74	18.02	18.18	17.82	17.46	2.5	19.0	13.17	13.50	13.55	12.94	13.08	0.0	14.0	
			256QAM	1	1	15.52	16.07	16.23	15.70	15.32	4.5	17.0	13.15	13.56	13.47	13.05	13.12	0.0	14.0	
		CP-OFDM	QPSK	1	1	18.48	19.19	19.35	18.49	18.27	1.5	20.0	13.19	13.47	13.61	13.05	13.13	0.0	14.0	

**NR Band n41 (Main.1 SRS0) Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					501204	509898	518598	527298	535998			501204	509898	518598	527298	535998		
					2506.02 MHz	2549.49 MHz	2592.99 MHz	2630.49 MHz	2679.99 MHz			2506.02 MHz	2549.49 MHz	2592.99 MHz	2630.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.07	20.81	20.95	20.10	19.85	0.0	21.5	13.20	13.54	13.63	13.05	13.23	0.0	14.0
			1	26	20.25	20.70	21.08	20.60	19.99	0.0	21.5	13.23	13.55	13.76	13.19	13.17	0.0	14.0
			1	49	20.29	20.83	20.91	20.41	20.09	0.0	21.5	13.22	13.66	13.80	13.11	13.13	0.0	14.0
			25	0	19.83	20.44	20.29	20.08	19.54	0.5	21.0	13.31	13.57	13.61	13.07	13.14	0.0	14.0
			25	13	20.24	20.84	20.80	20.42	20.18	0.0	21.5	13.20	13.48	13.68	13.06	13.21	0.0	14.0
			25	26	19.78	20.24	20.36	20.02	19.56	0.5	21.0	13.24	13.45	13.53	13.13	13.06	0.0	14.0
			50	0	19.73	20.33	20.58	20.01	19.65	0.5	21.0	13.24	13.55	13.70	13.04	13.17	0.0	14.0
	QPSK	1	1	20.02	20.76	20.89	20.16	20.09	0.0	21.5	13.27	13.71	13.67	13.14	13.18	0.0	14.0	
		1	26	20.18	20.75	20.61	19.94	20.07	0.0	21.5	13.31	13.60	13.70	13.09	13.24	0.0	14.0	
		1	49	20.37	20.87	20.91	20.36	20.04	0.0	21.5	13.19	13.53	13.65	13.16	13.06	0.0	14.0	
		25	0	19.12	19.85	19.74	18.98	18.98	1.0	20.5	13.24	13.53	13.60	13.09	13.07	0.0	14.0	
		25	13	20.25	20.75	20.78	20.01	20.08	0.0	21.5	13.26	13.56	13.58	13.05	13.16	0.0	14.0	
		25	26	19.28	19.86	20.00	19.04	19.03	1.0	20.5	13.17	13.59	13.58	13.15	13.13	0.0	14.0	
		50	0	19.28	19.86	19.83	19.19	18.93	1.0	20.5	13.20	13.52	13.68	13.04	13.10	0.0	14.0	
	16QAM	1	1	19.18	19.89	20.00	19.24	19.12	1.0	20.5	13.30	13.62	13.54	13.12	13.17	0.0	14.0	
		1	1	17.65	18.05	18.14	17.74	17.40	2.5	19.0	13.17	13.55	13.57	12.93	13.11	0.0	14.0	
		1	1	15.56	16.08	16.32	15.60	15.35	4.5	17.0	13.13	13.57	13.47	13.00	13.11	0.0	14.0	
	CP-OFDM	QPSK	1	1	18.52	19.14	19.32	18.52	18.23	1.5	20.0	13.24	13.53	13.53	12.95	13.14	0.0	14.0
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.98	20.73	20.96	20.20	19.94	0.0	21.5	13.17	13.61	13.63	13.11	13.23	0.0	14.0
			1	19	20.20	20.64	21.00	20.50	19.99	0.0	21.5	13.29	13.49	13.74	13.24	13.12	0.0	14.0
			1	36	20.34	20.91	20.98	20.37	20.09	0.0	21.5	13.23	13.53	13.71	13.19	13.21	0.0	14.0
			18	0	19.79	20.43	20.37	19.98	19.52	0.5	21.0	13.30	13.56	13.56	13.08	13.14	0.0	14.0
			18	10	20.19	20.91	20.83	20.49	20.12	0.0	21.5	13.21	13.55	13.57	13.08	13.15	0.0	14.0
			18	20	19.77	20.27	20.28	20.00	19.60	0.5	21.0	13.19	13.57	13.54	13.11	13.13	0.0	14.0
			36	0	19.74	20.43	20.50	19.94	19.60	0.5	21.0	13.33	13.61	13.62	13.09	13.07	0.0	14.0
	QPSK	1	1	20.05	20.85	20.84	20.12	20.06	0.0	21.5	13.23	13.65	13.66	13.22	13.10	0.0	14.0	
		1	19	20.28	20.71	20.63	20.03	20.09	0.0	21.5	13.30	13.66	13.77	13.11	13.20	0.0	14.0	
		1	36	20.36	20.79	20.82	20.29	20.04	0.0	21.5	13.24	13.46	13.71	13.21	13.07	0.0	14.0	
		18	0	19.12	19.91	19.74	18.99	19.03	1.0	20.5	13.20	13.56	13.65	13.07	13.12	0.0	14.0	
		18	10	20.21	20.80	20.70	20.03	20.06	0.0	21.5	13.23	13.56	13.57	13.17	13.15	0.0	14.0	
		18	20	19.31	19.96	19.91	19.09	19.02	1.0	20.5	13.15	13.46	13.63	13.06	13.15	0.0	14.0	
		36	0	19.21	19.92	19.89	19.17	18.91	1.0	20.5	13.20	13.54	13.60	13.13	13.12	0.0	14.0	
	16QAM	1	1	19.09	19.83	19.90	19.29	19.05	1.0	20.5	13.33	13.57	13.55	13.08	13.11	0.0	14.0	
		1	1	17.57	18.15	18.24	17.67	17.44	2.5	19.0	13.13	13.46	13.56	13.00	13.13	0.0	14.0	
		1	1	15.50	16.16	16.37	15.69	15.44	4.5	17.0	13.17	13.53	13.59	12.98	13.10	0.0	14.0	
	CP-OFDM	QPSK	1	1	18.45	19.15	19.30	18.58	18.22	1.5	20.0	13.16	13.57	13.55	13.02	13.08	0.0	14.0

**NR Band n41 (Main.1 SRS 0) 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
					500202	509400	518598	527802	537000			500202	509400	518598	527802	537000		
					2501.01 MHz	2547 MHz	2592.99 MHz	Z039.01 MHz	2685 MHz			2501.01 MHz	2547 MHz	2592.99 MHz	Z039.01 MHz	2685 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	20.04	20.76	20.90	20.17	19.98	0.0	21.5	13.19	13.60	13.67	13.09	13.20	0.0	14.0
			1	12	20.30	20.73	20.91	20.41	20.07	0.0	21.5	13.23	13.55	13.76	13.17	13.13	0.0	14.0
			1	22	20.33	20.85	20.93	20.34	20.01	0.0	21.5	13.27	13.59	13.73	13.13	13.17	0.0	14.0
			12	0	19.77	20.50	20.37	20.04	19.46	0.5	21.0	13.30	13.58	13.60	13.05	13.15	0.0	14.0
			12	6	20.24	20.82	20.92	20.52	20.05	0.0	21.5	13.17	13.50	13.63	13.12	13.15	0.0	14.0
			12	12	19.80	20.34	20.37	19.94	19.61	0.5	21.0	13.18	13.50	13.57	13.12	13.06	0.0	14.0
			24	0	19.75	20.51	20.50	20.01	19.50	0.5	21.0	13.28	13.56	13.63	13.05	13.10	0.0	14.0
	QPSK	QPSK	1	1	20.12	20.78	20.89	20.19	20.02	0.0	21.5	13.25	13.66	13.69	13.15	13.16	0.0	14.0
			1	12	20.21	20.70	20.67	20.11	20.04	0.0	21.5	13.29	13.60	13.73	13.14	13.18	0.0	14.0
			1	22	20.27	20.77	20.73	20.21	20.11	0.0	21.5	13.23	13.52	13.66	13.15	13.12	0.0	14.0
			12	0	19.22	19.84	19.81	19.08	18.97	1.0	20.5	13.23	13.57	13.61	13.02	13.11	0.0	14.0
			12	6	20.23	20.74	20.64	20.06	20.04	0.0	21.5	13.22	13.56	13.63	13.11	13.11	0.0	14.0
			12	12	19.23	19.91	19.97	19.01	19.02	1.0	20.5	13.18	13.52	13.63	13.11	13.09	0.0	14.0
			24	0	19.25	19.86	19.84	19.11	18.98	1.0	20.5	13.21	13.53	13.61	13.08	13.11	0.0	14.0
	16QAM	1	1	19.13	19.77	19.83	19.19	19.04	1.0	20.5	13.27	13.58	13.60	13.05	13.17	0.0	14.0	
	64QAM	1	1	17.56	18.17	18.24	17.59	17.45	2.5	19.0	13.18	13.52	13.53	12.98	13.10	0.0	14.0	
	256QAM	1	1	15.53	16.13	16.28	15.59	15.45	4.5	17.0	13.19	13.53	13.53	13.00	13.12	0.0	14.0	
	CP-OFDM	QPSK	1	1	18.55	19.08	19.40	18.59	18.32	1.5	20.0	13.21	13.52	13.55	12.98	13.11	0.0	14.0

**NR Band n41 (Sub.2 SRS1) Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)											
		DSI =0						DSI =1					
		Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		509202		518598		528000		509202		518598		528000	
100 MHz	SRS CW	2546.01 MHz		2592.99 MHz		2640 MHz		2546.01 MHz		2592.99 MHz		2640 MHz	
		19.1					0.0	20.0		13.4			0.0
													14.0
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		508200				528996		508200				528996	
		2541 MHz				2644.98 MHz		2541 MHz				2644.98 MHz	
90 MHz	SRS CW	19.6				18.9	0.0	20.0	12.3				12.2
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		507204				529998		507204				529998	
		2536.02 MHz				2649.99 MHz		2536.02 MHz				2649.99 MHz	
80 MHz	SRS CW	19.5				19.2	0.0	20.0	12.2				11.5
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		506202				531000		506202				531000	
		2531.01 MHz				2655 MHz		2531.01 MHz				2655 MHz	
70 MHz	SRS CW	18.5				19.5	0.0	20.0	12.3				11.8
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		505200				518598		505200				518598	
		2526 MHz				2592.99 MHz		2526 MHz				2592.99 MHz	
						2659.98 MHz						2659.98 MHz	
60 MHz	SRS CW	19.4			19.1		0.0	20.0	12.3		11.6		11.8
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		504204			518598		532998		504204			518598	
		2512.02 MHz			2592.99 MHz		2664.99 MHz		2512.02 MHz			2592.99 MHz	
													2664.99 MHz
50 MHz	SRS CW	18.9			19.1		0.0	20.0	11.6		11.6		11.7
BW (MHz)	Mode	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 MHz		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	SRS CW	19.0	18.7		19.0	18.7	0.0	20.0	11.9	12.1		12.3	11.9
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		502200	510402	518598	526800	534996		502200	510402	518598	526800	534996	
		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz	
30 MHz	SRS CW	19.1	18.2	18.9	18.4	19.5	0.0	20.0	11.8	12.2	11.6	12.2	11.6
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		501204	509898	518598	527298	535998		501204	509898	518598	527298	535998	
		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
20 MHz	SRS CW	18.5	17.8	18.7	18.0	19.3	0.0	20.0	11.9	12.2	11.7	12.3	12.1
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		500700	509652	518598	527550	536496		500700	509652	518598	527550	536496	
		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz	
15 MHz	SRS CW	18.1	17.8	18.4	17.7	18.6	0.0	20.0	12.1	12.2	11.7	12.2	12.3
BW (MHz)	Mode	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
		500202	509400	518598	527802	537000		500202	509400	518598	527802	537000	
		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz	
10 MHz	SRS CW	18.0	19.1	19.1	17.8	18.3	0.0	20.0	12.1	12.3	11.7	12.3	12.2

**Notes:**

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

**NR Band n41 (Sub.4 SRS2) Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)											
		DSI =0						DSI =1					
		Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		509202		518598		528000		509202		518598		528000	
100 MHz	SRS CW	2546.01 MHz		2592.99 MHz		2640 MHz		2546.01 MHz		2592.99 MHz		2640 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		508200					508200				528996		
90 MHz	SRS CW	2541 MHz					2644.98 MHz					2644.98 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		507204					529998				529998		
80 MHz	SRS CW	2536.02 MHz					2649.99 MHz					2649.99 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		506202					531000				531000		
70 MHz	SRS CW	2531.01 MHz					2655 MHz					2655 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		505200					518598				531996		
60 MHz	SRS CW	2526 MHz					2592.99 MHz					2592.99 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		504204					518598				532998		
50 MHz	SRS CW	2512.02 MHz					2592.99 MHz					2664.99 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		503202					523734				534000		
40 MHz	SRS CW	2516.01 MHz					2567.34 MHz					2618.67 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		502200					513468				523734		
30 MHz	SRS CW	2511 MHz					2552.01 MHz					2670 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		501204					510402				534000		
20 MHz	SRS CW	2506.02 MHz					2549.49 MHz					2674.98 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		500700					509652				535998		
15 MHz	SRS CW	2503.5 MHz					2548.26 MHz					2637.75 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		500202					509400				537000		
10 MHz	SRS CW	2501.01 MHz					2547 MHz					2639.01 MHz	
BW (MHz)	Mode	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
		500700					509652				537000		

**Notes:**

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

**NR Band n41 (Sub.1 SRS3) Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)										
		DSI =0					DSI =1					
		Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				
		509202	518598	528000				509202	518598	528000		
100 MHz	SRS CW	2546.01 MHz	2592.99 MHz	2640 MHz		0.0	17.5		13.2			
		508200	518598	528996		MPR	Tune-up Limit	Measured Pwr (dBm)				
		2541 MHz		2644.98 MHz				508200		528996		
90 MHz	SRS CW	16.9			15.9	0.0	17.5	13.9			13.6	
		507204	518598	529998		MPR	Tune-up Limit	Measured Pwr (dBm)				
		2536.02 MHz		2649.99 MHz				507204		529998		
80 MHz	SRS CW	17.4			16.0	0.0	17.5	13.9			13.2	
		506202	518598	531000		MPR	Tune-up Limit	Measured Pwr (dBm)				
		2531.01 MHz		2655 MHz				506202		531000		
70 MHz	SRS CW	17.0			17.4	0.0	17.5	13.6			12.9	
		505200	518598	531996		MPR	Tune-up Limit	Measured Pwr (dBm)				
		2526 MHz	2592.99 MHz	2659.98 MHz				505200		531996		
60 MHz	SRS CW	16.0			17.4	0.0	17.5	13.4			13.3	
		504204	518598	532998		MPR	Tune-up Limit	Measured Pwr (dBm)				
		2512.02 MHz	2592.99 MHz	2664.99 MHz				504204		532998		
50 MHz	SRS CW	16.1			17.4	0.0	17.5	13.5			12.7	
		503202	513468	523734	534000	MPR	Tune-up Limit	Measured Pwr (dBm)				
		2516.01 MHz	2567.34 MHz	2618.67 MHz	2670 MHz			503202		534000		
40 MHz	SRS CW	17.4	17.0		17.4	16.5	0.0	17.5	12.7	13.1		
		502200	510402	518598	526800	534996	MPR	Tune-up Limit	Measured Pwr (dBm)			
		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz			502200		534996	
30 MHz	SRS CW	17.4	17.0	17.4	15.8	17.3	0.0	17.5	13.5	12.8	12.7	
		501204	509898	518598	527298	535998	MPR	Tune-up Limit	Measured Pwr (dBm)			
		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz			501204		535998	
20 MHz	SRS CW	16.8	16.5	17.4	15.6	17.2	0.0	17.5	13.7	13.3	13.0	
		500700	509652	518598	527550	536496	MPR	Tune-up Limit	Measured Pwr (dBm)			
		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz			500700		536496	
15 MHz	SRS CW	17.0	16.5	17.4	15.3	17.0	0.0	17.5	13.5	13.0	12.8	
		500202	509400	518598	527802	537000	MPR	Tune-up Limit	Measured Pwr (dBm)			
		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz			500202		537000	
10 MHz	SRS CW	16.7	16.5	17.4	15.3	16.9	0.0	17.5	13.5	13.2	13.0	

**Notes:**

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

## NR Band n66 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
40 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	346000 1730 MHz	349000 1745 MHz	352000 1760 MHz			346000 1730 MHz	349000 1745 MHz	352000 1760 MHz		
			1	108	23.49			0.0	25	12.21			0.0	13
			1	214	23.50			0.0	25	12.27			0.0	13
			108	0	22.42			0.5	24.5	12.31			0.0	13
			108	54	23.60			0.0	25	12.28			0.0	13
			108	108	22.72			0.5	24.5	12.25			0.0	13
		QPSK	216	0	22.61			0.5	24.5	12.10			0.0	13
			1	1	23.35			0.00	25	12.08			0.00	13
			1	108	23.69			0.00	25	12.25			0.00	13
			1	214	23.59			0.00	25	12.21			0.00	13
			108	0	22.50			1.00	24	12.11			0.00	13
			108	54	23.69			0.00	25	12.35			0.00	13
			108	108	22.79			1.00	24	12.24			0.00	13
		16QAM	216	0	22.66			1.00	24	12.15			0.00	13
			1	1	22.42			1.0	24	12.16			0.0	13
			1	1	21.00			2.5	22.5	12.11			0.0	13
			1	1	18.95			4.5	20.5	11.71			0.0	13
		CP-OFDM	QPSK	1	1	21.88			1.5	23.5	11.76			0.0
30 MHz	DFT-s-OFDM	$\pi/2$ BPSK	$\pi/2$ BPSK	QPSK	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit

**NR Band n66 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	349000	353500			344500	349000	353500							
					1722.5 MHz	1745 MHz	1767.5 MHz			1722.5 MHz	1745 MHz	1767.5 MHz							
25 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.46			0.0	25		11.77			0.0	13				
			1	67	23.52			0.0	25		11.78			0.0	13				
			1	131	23.77			0.0	25		12.13			0.0	13				
			64	0	22.58			0.5	24.5		11.79			0.0	13				
			64	35	23.66			0.0	25		11.90			0.0	13				
			64	69	22.90			0.5	24.5		12.14			0.0	13				
			128	0	22.69			0.5	24.5		11.88			0.0	13				
		QPSK	1	1	23.26			0.0	25		11.86			0.0	13				
			1	67	23.63			0.0	25		11.87			0.0	13				
			1	131	23.46			0.0	25		12.22			0.0	13				
			64	0	22.64			1.0	24		11.80			0.0	13				
			64	35	23.66			0.0	25		11.90			0.0	13				
			64	69	22.75			1.0	24		12.14			0.0	13				
			128	0	22.73			1.0	24		11.86			0.0	13				
		16QAM	1	1	22.39			1.0	24		11.87			0.0	13				
		64QAM	1	1	21.32			2.5	22.5		11.69			0.0	13				
		256QAM	1	1	19.20			4.5	20.5		11.68			0.0	13				
	CP-OFDM	QPSK	1	1	22.10			1.5	23.5		11.87			0.0	13				
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	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 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz							
					1	1	23.50	23.15	22.98	0.0	25	11.84	11.81	12.05	0.0	13			
					1	53	23.00	23.68	23.64	0.0	25	11.88	11.89	12.03	0.0	13			
					1	104	23.50	23.31	23.45	0.0	25	11.86	12.20	12.07	0.0	13			
					50	0	23.21	22.52	22.45	0.5	24.5	11.93	11.84	12.10	0.0	13			
		QPSK			50	28	22.92	23.58	23.54	0.0	25	11.93	11.94	12.07	0.0	13			
					50	56	22.40	22.66	22.69	0.5	24.5	11.91	12.14	12.08	0.0	13			
					100	0	22.02	22.59	22.55	0.5	24.5	11.91	11.92	12.07	0.0	13			
					1	1	23.01	22.84	22.62	0.0	25	11.93	11.86	12.07	0.0	13			
					1	53	22.73	23.47	23.38	0.0	25	11.97	11.99	12.16	0.0	13			
					1	104	23.29	23.12	23.23	0.0	25	11.90	12.24	12.04	0.0	13			
					50	0	21.56	22.40	22.29	1.0	24	11.93	11.83	12.10	0.0	13			
		16QAM			50	28	22.80	23.50	23.42	0.0	25	11.91	11.92	12.06	0.0	13			
					50	56	22.29	22.58	22.58	1.0	24	11.91	12.15	12.06	0.0	13			
					100	0	21.93	22.54	22.47	1.0	24	11.92	11.91	12.06	0.0	13			
					1	1	22.51	22.04	21.79	1.0	24	11.98	11.85	12.11	0.0	13			
					64QAM	1	1	20.15	20.84	20.79	2.5	22.5	11.86	11.80	12.11	0.0	13		
					256QAM	1	1	18.77	19.11	19.41	4.5	20.5	11.87	11.77	12.08	0.0	13		
	CP-OFDM	QPSK	1	1	21.56	21.84	21.57	1.5	23.5	11.92	11.93	12.09	0.0	13					

## NR Band n66 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		
					343500	349000	354500			343500	349000	354500				
					1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz				
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	22.53	23.29	23.25	0.0	25	11.89	11.94	12.35	0.0	13		
			1	40	23.30	23.55	23.69	0.0	25	11.81	11.95	11.73	0.0	13		
			1	77	23.30	23.42	23.41	0.0	25	11.89	11.80	11.89	0.0	13		
			36	0	22.32	22.61	22.62	0.5	24.5	11.94	11.84	11.90	0.0	13		
			36	22	23.13	23.71	23.68	0.0	25	11.94	12.17	12.03	0.0	13		
			36	43	22.42	22.81	22.72	0.5	24.5	11.93	11.83	11.94	0.0	13		
			75	0	22.11	22.73	22.64	0.5	24.5	11.94	11.95	12.07	0.0	13		
		QPSK	1	1	22.56	22.90	22.80	0.0	25	11.94	12.09	12.04	0.0	13		
			1	40	22.93	23.65	23.50	0.0	25	11.88	11.92	12.06	0.0	13		
			1	77	22.98	23.15	23.12	0.0	25	11.93	11.82	12.09	0.0	13		
			36	0	21.69	22.48	22.42	1.0	24	11.96	11.84	12.06	0.0	13		
			36	22	22.97	23.64	23.52	0.0	25	11.95	12.21	12.07	0.0	13		
			36	43	22.26	22.68	22.59	1.0	24	11.94	11.82	11.98	0.0	13		
			75	0	21.98	22.61	22.52	1.0	24	11.97	11.91	12.10	0.0	13		
		16QAM	1	1	22.54	22.05	21.95	1.0	24	12.11	12.08	12.04	0.0	13		
		64QAM	1	1	20.08	20.91	20.93	2.5	22.5	12.03	11.90	12.04	0.0	13		
		256QAM	1	1	18.81	19.20	19.32	4.5	20.5	11.98	11.97	12.07	0.0	13		
	CP-OFDM	QPSK	1	1	21.56	21.70	21.67	1.5	23.5	11.94	11.98	12.05	0.0	13		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
					343000	349000	355000			343000	349000	355000				
					1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz				
					1	1	23.04	23.54	23.82	0.0	25	12.13	11.96	11.82	0.0	13
					1	26	23.33	23.66	23.88	0.0	25	12.06	11.98	11.91	0.0	13
					1	50	23.45	23.76	23.86	0.0	25	12.18	12.06	12.01	0.0	13
					25	0	22.19	22.68	22.93	0.5	24.5	11.91	12.09	11.94	0.0	13
		QPSK	RB Allocation	RB offset	25	14	23.21	23.77	23.78	0.0	25	11.95	11.96	11.85	0.0	13
					25	27	22.54	22.89	22.97	0.5	24.5	12.13	11.95	12.04	0.0	13
					50	0	22.34	22.78	22.90	0.5	24.5	11.92	11.90	12.24	0.0	13
					1	1	22.62	23.27	23.40	0.0	25	12.05	11.94	11.84	0.0	13
					1	26	23.02	23.54	23.59	0.0	25	11.94	11.71	11.70	0.0	13
					1	50	23.22	23.52	23.58	0.0	25	11.97	11.81	11.89	0.0	13
					25	0	22.01	22.63	22.74	1.0	24	12.00	12.03	12.15	0.0	13
					25	14	23.07	23.63	23.65	0.0	25	11.99	11.80	12.19	0.0	13
					25	27	22.42	22.80	22.84	1.0	24	11.99	11.88	12.23	0.0	13
					50	0	22.22	22.72	22.78	1.0	24	11.96	12.00	12.20	0.0	13
		16QAM	1	1	21.85	22.52	22.58	1.0	24	12.12	11.89	12.22	0.0	13		
		64QAM	1	1	20.76	21.25	21.51	2.5	22.5	11.98	11.80	12.26	0.0	13		
		256QAM	1	1	19.34	19.22	19.43	4.5	20.5	11.96	11.91	12.22	0.0	13		
	CP-OFDM	QPSK	1	1	21.60	22.11	22.30	1.5	23.5	11.97	12.08	12.23	0.0	13		

**NR Band n66 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
					342500	349000	355500			342500	349000	355500		
					1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.07	23.67	23.68	0.0	25	12.37	12.05	12.47	0.0	13
			1	13	23.10	23.68	23.68	0.0	25	12.28	12.05	12.47	0.0	13
			1	23	23.15	23.63	23.81	0.0	25	12.21	11.98	12.50	0.0	13
			12	0	22.12	22.74	22.82	0.5	24.5	12.21	12.06	12.51	0.0	13
			12	7	23.00	23.64	23.85	0.0	25	12.25	12.04	12.50	0.0	13
			12	13	22.25	22.81	22.88	0.5	24.5	12.22	12.05	12.47	0.0	13
			25	0	22.16	22.78	22.89	0.5	24.5	12.20	12.05	12.45	0.0	13
		QPSK	1	1	22.64	23.37	23.72	0.0	25	12.28	12.05	12.51	0.0	13
			1	13	22.75	23.45	23.75	0.0	25	12.25	12.08	12.49	0.0	13
			1	23	22.88	23.49	23.79	0.0	25	12.18	12.00	12.51	0.0	13
			12	0	21.92	22.65	22.90	1.0	24	12.10	12.14	12.52	0.0	13
			12	7	22.81	23.56	23.83	0.0	25	12.26	12.19	12.52	0.0	13
			12	13	22.08	22.73	22.93	1.0	24	11.97	12.03	12.55	0.0	13
			25	0	21.99	22.70	22.92	1.0	24	11.92	12.04	12.45	0.0	13
	16QAM	1	1	21.83	22.60	22.91	1.0	24	12.03	11.89	12.40	0.0	13	
	64QAM	1	1	20.77	21.31	21.24	2.5	22.5	12.01	11.80	12.44	0.0	13	
	256QAM	1	1	19.18	19.22	19.31	4.5	20.5	12.05	11.91	12.17	0.0	13	
CP-OFDM	QPSK	1	1	21.70	22.16	22.30	1.5	23.5	12.05	11.88	12.35	0.0	13	

## NR Band n71 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
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	134600	136100	137600			134600	136100	137600	0.0	20
			1	53	673 MHz	680.5 MHz	688 MHz			673 MHz	680.5 MHz	688 MHz		
			1	104									0.0	20
			50	0				0.0	25				0.0	20
			50	28				0.0	25				0.0	20
			50	56				0.5	24.5				0.0	20
			100	0				0.5	24.5				0.0	20
		QPSK	1	1				0.0	25				0.0	20
			1	53				0.0	25				0.0	20
			1	104				0.0	25				0.0	20
			50	0				1.0	24				0.0	20
			50	28				0.0	25				0.0	20
			50	56				1.0	24				0.0	20
			100	0				1.0	24				0.0	20
		16QAM	1	1				1.0	24				0.0	20
			64QAM	1	1			2.5	22.5				0.0	20
			256QAM	1	1			4.5	20.5				0.0	20
	CP-OFDM	QPSK	1	1				1.5	23.5				0.0	20
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					134100	136100	138100			134100	136100	138100		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	670.5 MHz	680.5 MHz	690.5 MHz			670.5 MHz	680.5 MHz	690.5 MHz		
			1	40				0.0	25				0.0	20
			1	77				0.0	25				0.0	20
			36	0				0.5	24.5				0.0	20
			36	22				0.0	25				0.0	20
			36	43				0.5	24.5				0.0	20
			75	0				0.5	24.5				0.0	20
		QPSK	1	1				0.0	25				0.0	20
			1	40				0.0	25				0.0	20
			1	77				0.0	25				0.0	20
			36	0				1.0	24				0.0	20
			36	22				0.0	25				0.0	20
			36	43				1.0	24				0.0	20
			75	0				1.0	24				0.0	20
		16QAM	1	1				1.0	24				0.0	20
			64QAM	1	1			2.5	22.5				0.0	20
			256QAM	1	1			4.5	20.5				0.0	20
	CP-OFDM	QPSK	1	1				1.5	23.5				0.0	20

**NR Band n71 Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					133600	136100	138600			133600	136100	138600		
					668 MHz	680.5 MHz	693 MHz			668 MHz	680.5 MHz	693 MHz		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	22.79	23.26	23.58	0.0	25	18.52	18.92	19.25	0.0	20
			1	26	23.02	23.44	23.78	0.0	25	18.77	19.09	19.39	0.0	20
			1	50	23.12	23.57	23.68	0.0	25	18.87	19.24	19.32	0.0	20
			25	0	22.42	22.36	22.73	0.5	24.5	18.65	19.03	19.35	0.0	20
			25	14	22.99	23.44	23.76	0.0	25	18.72	19.11	19.40	0.0	20
			25	27	22.12	22.53	22.76	0.5	24.5	18.83	19.19	19.37	0.0	20
			50	0	22.02	22.46	22.78	0.5	24.5	18.72	19.13	19.39	0.0	20
		QPSK	1	1	22.86	23.28	23.66	0.0	25	18.57	18.97	19.29	0.0	20
			1	26	23.02	23.46	23.82	0.0	25	18.78	19.21	19.59	0.0	20
			1	50	23.19	23.58	23.72	0.0	25	18.87	19.26	19.35	0.0	20
			25	0	21.94	22.39	22.75	1.0	24	18.65	19.05	19.35	0.0	20
			25	14	23.02	23.45	23.78	0.0	25	18.73	19.12	19.40	0.0	20
			25	27	22.15	22.54	22.77	1.0	24	18.83	19.20	19.38	0.0	20
			50	0	22.02	22.47	22.77	1.0	24	18.71	19.11	19.40	0.0	20
		16QAM	1	1	21.97	22.28	22.71	1.0	24	18.64	18.99	19.32	0.0	20
		64QAM	1	1	20.37	20.55	21.24	2.5	22.5	18.56	18.96	19.36	0.0	20
		256QAM	1	1	18.56	18.93	19.06	4.5	20.5	18.42	18.79	19.16	0.0	20
	CP-OFDM	QPSK	1	1	21.35	21.81	22.13	1.5	23.5	18.55	18.97	19.23	0.0	20
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					133100	136100	139100			133100	136100	139100		
					665.5 MHz	680.5 MHz	695.5 MHz			665.5 MHz	680.5 MHz	695.5 MHz		
					133100	136100	139100			665.5 MHz	680.5 MHz	695.5 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	22.90	23.30	23.72	0.0	25	18.55	19.03	19.44	0.0	20
			1	13	22.87	23.32	23.63	0.0	25	18.53	19.01	19.34	0.0	20
			1	23	23.02	23.48	23.71	0.0	25	18.67	19.17	19.40	0.0	20
			12	0	22.45	22.39	22.78	0.5	24.5	18.60	19.07	19.46	0.0	20
			12	7	22.99	23.44	23.78	0.0	25	18.64	19.11	19.45	0.0	20
			12	13	22.04	22.48	22.77	0.5	24.5	18.67	19.14	19.43	0.0	20
			25	0	22.01	22.43	22.79	0.5	24.5	18.66	19.13	19.45	0.0	20
		QPSK	1	1	22.96	23.39	23.81	0.0	25	18.60	19.04	19.46	0.0	20
			1	13	22.92	23.36	23.71	0.0	25	18.58	19.01	19.37	0.0	20
			1	23	23.05	23.49	23.75	0.0	25	18.70	19.17	19.43	0.0	20
			12	0	21.97	22.41	22.80	1.0	24	18.63	19.08	19.46	0.0	20
			12	7	23.00	23.43	23.77	0.0	25	18.67	19.11	19.45	0.0	20
			12	13	22.04	22.48	22.78	1.0	24	18.68	19.16	19.44	0.0	20
			25	0	22.02	22.46	22.78	1.0	24	18.66	19.13	19.45	0.0	20
		16QAM	1	1	21.84	22.45	22.81	1.0	24	18.63	19.19	19.47	0.0	20
		64QAM	1	1	20.42	20.91	21.41	2.5	22.5	18.48	18.96	19.54	0.0	20
		256QAM	1	1	18.43	18.85	19.40	4.5	20.5	18.40	18.91	19.14	0.0	20
	CP-OFDM	QPSK	1	1	21.45	21.81	22.25	1.5	23.5	18.60	19.04	19.39	0.0	20

**NR Band n77(Main.2 SRS0)- Lower Band- 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
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.34	633334	3500.01 MHz			9.16		0.0	10.0
			1	137	21.88					9.62		0.0	10.0
			1	271	21.71					9.45		0.0	10.0
			135	0	21.28			0.5	21.5	9.19		0.0	10.0
			135	69	21.88			0.0	22.0	9.59		0.0	10.0
			135	138	21.48			0.5	21.5	9.61		0.0	10.0
			270	0	21.47			0.5	21.5	9.54		0.0	10.0
		QPSK	1	1	21.93			0.0	22.0	9.59		0.0	10.0
			1	137	21.92			0.0	22.0	9.58		0.0	10.0
			1	271	21.76			0.0	22.0	9.43		0.0	10.0
			135	0	20.79			1.0	21.0	9.19		0.0	10.0
			135	69	21.88			0.0	22.0	9.61		0.0	10.0
			135	138	20.91			1.0	21.0	9.60		0.0	10.0
			270	0	20.93			1.0	21.0	9.53		0.0	10.0
		16QAM	1	1	20.68			1.0	21.0	9.11		0.0	10.0
		64QAM	1	1	19.09			2.5	19.5	9.02		0.0	10.0
		256QAM	1	1	17.08			4.5	17.5	9.03		0.0	10.0
	CP-OFDM	QPSK	1	1	20.09			1.5	20.5	9.08		0.0	10.0
90 MHz	DFT-s-OFDM	π/2 BPSK	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
			6333000	633334	6333666	3495 MHz			6333000	633334	6333666		
			3495 MHz	3500.01 MHz	3504.99 MHz				3495 MHz	3500.01 MHz	3504.99 MHz		
			1	1	21.40			0.0	22.0	9.09		0.0	10.0
			1	123	21.86			0.0	22.0	9.59		0.0	10.0
			1	243	21.99			0.0	22.0	9.49		0.0	10.0
			120	0	21.31			0.5	21.5	9.17		0.0	10.0
		QPSK	120	63	21.89			0.0	22.0	9.57		0.0	10.0
			120	125	21.44			0.5	21.5	9.61		0.0	10.0
			243	0	21.39			0.5	21.5	9.52		0.0	10.0
			1	1	21.51			0.0	22.0	9.12		0.0	10.0
			1	123	21.92			0.0	22.0	9.58		0.0	10.0
			1	243	21.92			0.0	22.0	9.48		0.0	10.0
			120	0	20.86			1.0	21.0	9.18		0.0	10.0
		120	63	21.91			0.0	22.0	9.58		0.0	10.0	
		120	125	20.93			1.0	21.0	9.62		0.0	10.0	
		243	0	20.94			1.0	21.0	9.55		0.0	10.0	
		16QAM	1	1	20.84			1.0	21.0	9.13		0.0	10.0
		64QAM	1	1	19.25			2.5	19.5	9.06		0.0	10.0
		256QAM	1	1	17.24			4.5	17.5	9.07		0.0	10.0
	CP-OFDM	QPSK	1	1	20.22			1.5	20.5	9.12		0.0	10.0

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Lower Band- Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
					632668	633334	634000			632668	633334	634000			
					35490.02 MHz	3500.01 MHz	3510 MHz			35490.02 MHz	3500.01 MHz	3510 MHz			
80 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	21.52			0.0	22.0		9.13			0.0	10.00
			1	109	21.93			0.0	22.0		9.59			0.0	10.00
			1	215	21.92			0.0	22.0		9.54			0.0	10.00
			108	0	21.44			0.5	21.5		9.18			0.0	10.00
			108	55	21.94			0.0	22.0		9.56			0.0	10.00
			108	109	21.43			0.5	21.5		9.62			0.0	10.00
		QPSK	216	0	21.41			0.5	21.5		9.54			0.0	10.00
			1	1	21.67			0.0	22.0		9.12			0.0	10.00
			1	109	21.93			0.0	22.0		9.61			0.0	10.00
			1	215	21.92			0.0	22.0		9.56			0.0	10.00
			108	0	20.91			1.0	21.0		9.19			0.0	10.00
			108	55	21.93			0.0	22.0		9.59			0.0	10.00
			108	109	20.91			1.0	21.0		9.63			0.0	10.00
		16QAM	216	0	20.93			1.0	21.0		9.56			0.0	10.00
			1	1	20.98			1.0	21.0		9.16			0.0	10.00
			64QAM	1	1	19.49			2.5	19.5		9.07			0.0
		256QAM	1	1	17.41			4.5	17.5		9.09			0.0	10.00
			CP-OFDM	QPSK	1	1	20.48		1.5	20.5		9.14			0.0
70 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	21.55			0.0	22.0		9.02			0.0	10.00
			1	95	21.93			0.0	22.0		9.55			0.0	10.00
			1	188	21.81			0.0	22.0		9.54			0.0	10.00
			90	0	21.42			0.5	21.5		9.19			0.0	10.00
			90	50	21.90			0.0	22.0		9.57			0.0	10.00
			90	99	21.44			0.5	21.5		9.61			0.0	10.00
			180	0	21.39			0.5	21.5		9.50			0.0	10.00
		QPSK	1	1	21.57			0.0	22.0		9.15			0.0	10.00
			1	95	21.91			0.0	22.0		9.59			0.0	10.00
			1	188	19.59			0.0	22.0		9.55			0.0	10.00
			90	0	20.92			1.0	21.0		9.22			0.0	10.00
			90	50	21.93			0.0	22.0		9.59			0.0	10.00
			90	99	20.91			1.0	21.0		9.65			0.0	10.00
			180	0	20.93			1.0	21.0		9.57			0.0	10.00
			16QAM	1	1	20.64			1.0	21.0		9.19			0.0
		64QAM	1	1	19.15			2.5	19.5		9.12			0.0	10.00
			1	1	17.21			4.5	17.5		9.13			0.0	10.00
		CP-OFDM	QPSK	1	1	19.15			1.5	20.5		9.16			0.0

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Lower Band- Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
					632000	633334	634666			632000	633334	634666					
					3480 MHz	3500.01 MHz	3519.99 MHz			3480 MHz	3500.01 MHz	3519.99 MHz					
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.93			0.0	22.0		9.13			0.0	10.00		
			1	81	22.00			0.0	22.0		9.63			0.0	10.00		
			1	160	21.32			0.0	22.0		9.58			0.0	10.00		
			81	0	21.43			0.5	21.5		9.29			0.0	10.00		
			81	41	21.81			0.0	22.0		9.58			0.0	10.00		
			81	81	21.42			0.5	21.5		9.62			0.0	10.00		
			162	0	21.45			0.5	21.5		9.56			0.0	10.00		
	QPSK	DFT-s-OFDM	1	1	21.98			0.0	22.0		9.18			0.0	10.00		
			1	81	21.98			0.0	22.0		9.63			0.0	10.00		
			1	160	20.85			0.0	22.0		9.59			0.0	10.00		
			81	0	20.92			1.0	21.0		9.28			0.0	10.00		
			81	41	21.28			0.0	22.0		9.61			0.0	10.00		
			81	81	20.93			1.0	21.0		9.65			0.0	10.00		
			162	0	20.85			1.0	21.0		9.57			0.0	10.00		
			16QAM	1	19.29			1.0	21.0		9.22			0.0	10.00		
	CP-OFDM	QPSK	1	1	17.29			2.5	19.5		9.12			0.0	10.00		
			1	1	17.43			4.5	17.5		9.15			0.0	10.00		
			1	1	19.25			1.5	20.5		9.16			0.0	10.00		
50 MHz	DFT-s-OFDM	π/2 BPSK	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	3500.01 MHz	3525 MHz			3475.02 MHz	3500.01 MHz	3525 MHz					
					1	21.28		21.57	0.0	22.0	8.98		9.56	0.0	10.00		
					1	21.52		21.42	0.0	22.0	9.19		9.65	0.0	10.00		
					1	21.97		21.43	0.0	22.0	9.53		9.38	0.0	10.00		
					64	21.39		21.44	0.5	21.5	9.17		9.61	0.0	10.00		
		QPSK			64	21.68		21.63	0.0	22.0	9.23		9.64	0.0	10.00		
					64	21.41		21.49	0.5	21.5	9.32		9.57	0.0	10.00		
					128	21.47		21.43	0.5	21.5	9.22		9.63	0.0	10.00		
					1	21.45		21.72	0.0	22.0	9.07		9.40	0.0	10.00		
					1	21.63		21.85	0.0	22.0	9.26		9.58	0.0	10.00		
					1	21.93		21.76	0.0	22.0	9.52		9.35	0.0	10.00		
					64	20.96		20.92	1.0	21.0	9.17		9.61	0.0	10.00		
					64	21.69		21.63	0.0	22.0	9.25		9.62	0.0	10.00		
					64	20.93		20.94	1.0	21.0	9.35		9.56	0.0	10.00		
					128	20.91		20.92	1.0	21.0	9.22		9.59	0.0	10.00		
					1	20.91		20.83	1.0	21.0	9.10		9.56	0.0	10.00		
					1	19.30		19.48	2.5	19.5	9.03		9.48	0.0	10.00		
					1	17.36		17.44	4.5	17.5	9.02		9.47	0.0	10.00		
		CP-OFDM	QPSK	1	1	20.37		20.42	1.5	20.5	9.08		9.53	0.0	10.00		

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Lower Band- 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	3500.01 MHz	3529.98 MHz			3470.01 MHz	3500.01 MHz	3529.98 MHz									
40 MHz	π/2 BPSK	1	1	21.49			21.68	0.0	22.0	9.03			9.58	0.0	10.00						
		1	53	21.67			21.91	0.0	22.0	9.27			9.64	0.0	10.00						
		1	104	21.79			21.68	0.0	22.0	9.31			9.35	0.0	10.00						
		50	0	21.46			21.41	0.5	21.5	9.14			9.61	0.0	10.00						
		50	28	21.62			21.68	0.0	22.0	9.21			9.59	0.0	10.00						
		50	56	21.41			20.91	0.5	21.5	9.21			9.54	0.0	10.00						
		100	0	20.42			21.17	0.5	21.5	9.18			9.58	0.0	10.00						
	DFT-s-OFDM	1	1	21.68			21.92	0.0	22.0	9.07			9.61	0.0	10.00						
		1	53	21.72			21.76	0.0	22.0	9.25			9.64	0.0	10.00						
		1	104	21.86			21.62	0.0	22.0	9.33			9.39	0.0	10.00						
		50	0	20.93			20.90	1.0	21.0	9.17			9.62	0.0	10.00						
		50	28	21.68			21.94	0.0	22.0	9.24			9.61	0.0	10.00						
		50	56	20.97			20.93	1.0	21.0	9.19			9.55	0.0	10.00						
		100	0	20.94			20.92	1.0	21.0	9.21			9.60	0.0	10.00						
		16QAM	1	1	20.94		20.04	1.0	21.0	9.09			9.63	0.0	10.00						
	CP-OFDM	64QAM	1	1	19.48		18.97	2.5	19.5	9.02			9.54	0.0	10.00						
		256QAM	1	1	17.44		17.43	4.5	17.5	9.03			9.57	0.0	10.00						
		QPSK	1	1	20.44		20.41	1.5	20.5	9.07			9.63	0.0	10.00						
30 MHz	π/2 BPSK	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit							
					631000	633334	635666			631000	633334	635666									
					3465 MHz	3500.01 MHz	3534.99 MHz			3465 MHz	3500.01 MHz	3534.99 MHz									
					1	1	21.35	21.58	21.96	0.0	22.0	8.98	9.25	9.57	0.0	10.00					
					1	39	21.53	21.91	21.89	0.0	22.0	9.21	9.61	9.63	0.0	10.00					
					1	76	21.56	21.99	21.89	0.0	22.0	9.18	9.63	9.39	0.0	10.00					
					36	0	21.25	21.41	21.38	0.5	21.5	9.12	9.39	9.58	0.0	10.00					
	DFT-s-OFDM		DFT-s-OFDM		36	21	21.55	21.94	21.92	0.0	22.0	9.18	9.58	9.58	0.0	10.00					
					36	42	20.80	21.44	21.43	0.5	21.5	9.20	9.63	9.50	0.0	10.00					
					75	0	21.37	21.42	21.38	0.5	21.5	9.17	9.56	9.59	0.0	10.00					
					1	1	21.41	21.65	21.94	0.0	22.0	9.10	9.31	9.62	0.0	10.00					
					1	39	21.52	21.94	21.93	0.0	22.0	9.21	9.61	9.63	0.0	10.00					
					1	76	21.42	21.97	21.89	0.0	22.0	9.21	9.63	9.39	0.0	10.00					
					36	0	20.72	20.92	20.89	1.0	21.0	9.15	9.43	9.61	0.0	10.00					
					36	21	21.39	21.91	21.97	0.0	22.0	9.21	9.59	9.60	0.0	10.00					
	CP-OFDM				36	42	20.72	20.93	20.92	1.0	21.0	9.22	9.64	9.53	0.0	10.00					
					75	0	20.73	20.92	20.94	1.0	21.0	9.20	9.58	9.61	0.0	10.00					
					16QAM	1	1	20.64	20.96	20.93	1.0	21.0	9.14	9.24	9.66	0.0	10.00				
					64QAM	1	1	19.08	19.43	19.44	2.5	19.5	9.04	9.19	9.58	0.0	10.00				
					256QAM	1	1	17.11	17.33	17.43	4.5	17.5	9.07	9.22	9.59	0.0	10.00				
	QPSK	1	1	20.08		20.36	20.48	20.48	1.5	20.5	9.11	9.30	9.62	0.0	10.00						

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Lower Band- Measured Results (Continued)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
					630668	633334	636000			630668	633334	636000						
					3460.02 MHz	3500.01 MHz	3540 MHz			3460.02 MHz	3500.01 MHz	3540 MHz						
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.36	21.62	21.97	0.0	22.0	8.94	9.15	9.54	0.0	10.00				
			1	32	21.41	21.87	21.95	0.0	22.0	8.99	9.39	9.48	0.0	10.00				
			1	63	21.47	21.99	21.82	0.0	22.0	9.05	9.51	9.35	0.0	10.00				
			32	0	21.17	21.43	21.41	0.5	21.5	8.91	9.30	9.51	0.0	10.00				
			32	17	21.41	21.84	21.95	0.0	22.0	8.99	9.42	9.47	0.0	10.00				
			32	33	21.25	21.41	21.43	0.5	21.5	9.01	9.48	9.40	0.0	10.00				
			64	0	21.17	21.42	21.44	0.5	21.5	8.98	9.40	9.48	0.0	10.00				
		QPSK	1	1	21.35	21.65	21.92	0.0	22.0	8.95	9.19	9.54	0.0	10.00				
			1	32	21.38	21.85	21.98	0.0	22.0	8.97	9.39	9.46	0.0	10.00				
			1	63	21.47	21.99	21.83	0.0	22.0	9.02	9.54	9.34	0.0	10.00				
			32	0	20.68	20.94	20.93	1.0	21.0	8.96	9.29	9.50	0.0	10.00				
			32	17	21.41	21.87	21.96	0.0	22.0	8.98	9.41	9.48	0.0	10.00				
			32	33	20.75	20.93	20.91	1.0	21.0	9.00	9.48	9.39	0.0	10.00				
			64	0	20.70	20.91	20.90	1.0	21.0	8.95	9.41	9.48	0.0	10.00				
		16QAM	1	1	20.66	20.94	20.92	1.0	21.0	8.94	9.22	9.59	0.0	10.00				
		64QAM	1	1	19.11	19.36	19.41	2.5	19.5	8.88	9.12	9.47	0.0	10.00				
		256QAM	1	1	17.06	17.38	17.44	4.5	17.5	8.88	9.17	9.53	0.0	10.00				
	CP-OFDM	QPSK	1	1	20.07	20.35	20.43	1.5	20.5	8.92	9.20	9.53	0.0	10.00				
20 MHz	DFT-s-OFDM	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
					630668	633334	636000			630668	633334	636000						
					3460.02 MHz	3500.01 MHz	3540 MHz			3460.02 MHz	3500.01 MHz	3540 MHz						
					1	21.42	21.66	21.98	0.0	22.0	9.03	9.35	9.56	0.0	10.00			
					1	26	21.46	21.84	21.93	0.0	22.0	9.14	9.54	9.53	0.0	10.00		
					1	49	21.53	21.98	21.84	0.0	22.0	9.20	9.63	9.38	0.0	10.00		
					25	0	21.27	21.44	21.44	0.5	21.5	9.12	9.47	9.57	0.0	10.00		
		QPSK			25	13	21.49	21.88	21.88	0.0	22.0	9.18	9.56	9.56	0.0	10.00		
					25	26	21.32	21.43	21.43	0.5	21.5	9.19	9.60	9.47	0.0	10.00		
					50	0	21.28	21.42	21.41	0.5	21.5	9.16	9.58	9.58	0.0	10.00		
					1	1	21.47	21.69	21.94	0.0	22.0	9.12	9.42	9.63	0.0	10.00		
					1	26	21.48	21.90	21.92	0.0	22.0	9.18	9.59	9.60	0.0	10.00		
					1	49	21.21	21.97	21.83	0.0	22.0	9.24	9.64	9.40	0.0	10.00		
					25	0	20.71	20.92	20.94	1.0	21.0	9.14	9.49	9.60	0.0	10.00		
					25	13	21.42	21.87	21.93	0.0	22.0	9.19	9.61	9.59	0.0	10.00		
					25	26	20.75	20.94	20.92	1.0	21.0	9.21	9.63	9.51	0.0	10.00		
					50	0	20.70	20.93	20.93	1.0	21.0	9.20	9.59	9.59	0.0	10.00		
		16QAM	1	1	20.69	20.99	20.91	1.0	21.0	9.15	9.46	9.63	0.0	10.00				
		64QAM	1	1	19.11	19.40	19.41	2.5	19.5	9.06	9.36	9.59	0.0	10.00				
		256QAM	1	1	17.14	17.44	17.43	4.5	17.5	9.10	9.39	9.59	0.0	10.00				
	CP-OFDM	QPSK	1	1	20.13	20.43	20.43	1.5	20.5	9.12	9.41	9.61	0.0	10.00				

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Lower Band- 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							
					3457.5 MHz	3500.01 MHz	3542.49 MHz			3457.5 MHz	3500.01 MHz	3542.49 MHz							
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.43	21.68	21.92	0.0	22.0	9.06	9.42	9.54	0.0	10.00					
			1	19	21.48	21.82	21.96	0.0	22.0	9.18	9.63	9.51	0.0	10.00					
			1	36	21.49	21.97	21.82	0.0	22.0	9.18	9.63	9.37	0.0	10.00					
			18	0	21.25	21.41	21.42	0.5	21.5	9.12	9.50	9.56	0.0	10.00					
			18	10	21.46	21.85	21.93	0.0	22.0	9.16	9.58	9.43	0.0	10.00					
			18	20	21.46	21.43	21.41	0.5	21.5	9.19	9.61	9.39	0.0	10.00					
			36	0	21.24	21.44	21.39	0.5	21.5	9.15	9.58	9.49	0.0	10.00					
	CP-OFDM	QPSK	1	1	21.44	21.73	21.94	0.0	22.0	9.11	9.35	9.57	0.0	10.00					
			1	19	21.44	21.84	21.85	0.0	22.0	9.18	9.56	9.53	0.0	10.00					
			1	36	21.47	21.95	21.79	0.0	22.0	9.23	9.58	9.39	0.0	10.00					
			18	0	20.71	20.93	20.86	1.0	21.0	9.16	9.47	9.57	0.0	10.00					
			18	10	21.44	21.91	21.93	0.0	22.0	9.17	9.54	9.53	0.0	10.00					
			18	20	20.93	20.90	20.91	1.0	21.0	9.19	9.58	9.45	0.0	10.00					
			36	0	20.72	20.92	20.94	1.0	21.0	9.18	9.55	9.52	0.0	10.00					
			16QAM	1	1	20.72	20.99	20.92	1.0	21.0	9.16	9.49	9.62	0.0	10.00				
			64QAM	1	1	19.15	19.38	19.44	2.5	19.5	9.10	9.41	9.54	0.0	10.00				
			256QAM	1	1	17.14	17.42	17.43	4.5	17.5	9.12	9.43	9.58	0.0	10.00				
	CP-OFDM	QPSK	1	1	20.12	20.44	20.40	1.5	20.5	9.14	9.48	9.61	0.0	10.00					
10 MHz	DFT-s-OFDM	π/2 BPSK	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							
					1	1	21.41	21.69	21.97	0.0	22.0	9.06	9.45	9.51	0.0	10.00			
					1	12	21.42	21.72	21.96	0.0	22.0	9.15	9.57	9.49	0.0	10.00			
					1	22	21.46	21.97	21.79	0.0	22.0	9.14	9.61	9.39	0.0	10.00			
					12	0	21.19	21.42	21.42	0.5	21.5	9.11	9.50	9.48	0.0	10.00			
		CP-OFDM			12	6	21.42	21.85	21.86	0.0	22.0	9.12	9.55	9.48	0.0	10.00			
					12	12	21.44	21.44	21.41	0.5	21.5	9.15	9.59	9.45	0.0	10.00			
					24	0	21.22	21.43	21.43	0.5	21.5	9.13	9.57	9.47	0.0	10.00			
					1	1	21.41	21.75	21.93	0.0	22.0	9.13	9.51	9.59	0.0	10.00			
					1	12	21.43	21.76	21.92	0.0	22.0	9.17	9.60	9.48	0.0	10.00			
					1	22	21.43	21.97	21.79	0.0	22.0	9.21	9.63	9.42	0.0	10.00			
					12	0	20.68	20.93	20.94	1.0	21.0	9.14	9.54	9.52	0.0	10.00			
					12	6	21.39	21.86	21.89	0.0	22.0	9.16	9.58	9.50	0.0	10.00			
					12	12	20.94	20.94	20.93	1.0	21.0	9.17	9.61	9.43	0.0	10.00			
					24	0	20.71	20.93	20.94	1.0	21.0	9.16	9.60	9.48	0.0	10.00			
					16QAM	1	1	20.72	20.99	20.87	1.0	21.0	9.16	9.57	9.61	0.0	10.00		
					64QAM	1	1	19.14	19.37	19.39	2.5	19.5	9.08	9.48	9.52	0.0	10.00		
					256QAM	1	1	17.12	17.36	17.35	4.5	17.5	9.11	9.52	9.56	0.0	10.00		
					CP-OFDM	QPSK	1	1	20.08	20.44	20.39	1.5	20.5	9.14	9.54	9.60	0.0	10.00	

**Note(s):**

NR Band n78 is covered by NR Band n77.

## NR Band n77 (Sub.2 SRS1) - Lower Band- Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)							
		DSI =0				DSI =1			
		Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		633334	633666			633334	633666		
		3500.01 MHz	3504.99 MHz			3500.01 MHz	3504.99 MHz		
100 MHz	SRS CW	21.3		0.0	22.0	9.8		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		633000	633334	633666		633000	633334	633666	
		3485.01 MHz	3500.01 MHz	3504.99 MHz		3485.01 MHz	3500.01 MHz	3504.99 MHz	
90 MHz	SRS CW	21.1		0.0	22.0	9.5		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		632668	633334	634000		632668	633334	634000	
		3490.02 MHz	3500.01 MHz	3510 MHz		3490.02 MHz	3500.01 MHz	3510 MHz	
80 MHz	SRS CW	21.2		0.0	22.0	9.5		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		632334	633334	634332		632334	633334	634332	
		3485.01 MHz	3500.01 MHz	3514.99 MHz		3485.01 MHz	3500.01 MHz	3514.99 MHz	
70 MHz	SRS CW	21.2		0.0	22.0	9.5		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		632000	633334	634666		632000	633334	634666	
		3480 MHz	3500.01 MHz	3519.99 MHz		3480 MHz	3500.01 MHz	3519.99 MHz	
60 MHz	SRS CW	21.2		0.0	22.0	9.6		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		631668	633334	635000		631668	633334	635000	
		3475.02 MHz	3500.01 MHz	3525 MHz		3475.02 MHz	3500.01 MHz	3525 MHz	
50 MHz	SRS CW	20.8		0.0	22.0	9.0		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		631334	633334	635332		631334	633334	635332	
		3470.01 MHz	3500.01 MHz	3529.98 MHz		3470.01 MHz	3500.01 MHz	3529.98 MHz	
40 MHz	SRS CW	20.0		0.0	22.0	9.0		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		631000	633334	635666		631000	633334	635666	
		3465 MHz	3500.01 MHz	3534.99 MHz		3465 MHz	3500.01 MHz	3534.99 MHz	
30 MHz	SRS CW	20.0	19.9	0.0	22.0	9.0	9.6	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		630668	633334	636000		630668	633334	636000	
		3460.02 MHz	3500.01 MHz	3540 MHz		3460.02 MHz	3500.01 MHz	3540 MHz	
25 MHz	SRS CW	19.9	19.7	0.0	22.0	9.6	9.6	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		630668	633334	636000		630668	633334	636000	
		3460.02 MHz	3500.01 MHz	3540 MHz		3460.02 MHz	3500.01 MHz	3540 MHz	
20 MHz	SRS CW	19.9	19.7	0.0	22.0	9.0	9.5	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		630500	633334	636166		630500	633334	636166	
		3457.5 MHz	3500.01 MHz	3542.49 MHz		3457.5 MHz	3500.01 MHz	3542.49 MHz	
15 MHz	SRS CW	20.0	19.8	0.0	22.0	8.9	9.6	0.0	10.0
BW (MHz)	Mode	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	SRS CW	19.9	19.7	0.0	22.0	8.9	9.5	0.0	10.0

**Notes:**

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

## NR Band n77 (Sub.4 SRS2) - Lower Band- Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)							
		DSI =0				DSI =1			
		Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		633334	633666			633334	633666		
		3500.01 MHz	3504.99 MHz			3500.01 MHz	3504.99 MHz		
100 MHz	SRS CW	18.8		0.0	19.0	9.8		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		633000	633334	633666		633000	633334	633666	
		3485.01 MHz	3500.01 MHz	3504.99 MHz		3485.01 MHz	3500.01 MHz	3504.99 MHz	
90 MHz	SRS CW	18.7		0.0	19.0	9.6		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		632668	633334	634000		632668	633334	634000	
		3490.02 MHz	3500.01 MHz	3510 MHz		3490.02 MHz	3500.01 MHz	3510 MHz	
80 MHz	SRS CW	18.6		0.0	19.0	9.6		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		632334	633334	634332		632334	633334	634332	
		3485.01 MHz	3500.01 MHz	3514.99 MHz		3485.01 MHz	3500.01 MHz	3514.99 MHz	
70 MHz	SRS CW	18.7		0.0	19.0	9.4		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		632000	633334	634666		632000	633334	634666	
		3480 MHz	3500.01 MHz	3519.99 MHz		3480 MHz	3500.01 MHz	3519.99 MHz	
60 MHz	SRS CW	18.5		0.0	19.0	9.4		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		631668	633334	635000		631668	633334	635000	
		3475.02 MHz	3500.01 MHz	3525 MHz		3475.02 MHz	3500.01 MHz	3525 MHz	
50 MHz	SRS CW	18.7		0.0	19.0	9.3		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		631334	633334	635332		631334	633334	635332	
		3470.01 MHz	3500.01 MHz	3529.98 MHz		3470.01 MHz	3500.01 MHz	3529.98 MHz	
40 MHz	SRS CW	18.2		0.0	19.0	9.2		0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		631000	633334	635666		631000	633334	635666	
		3465 MHz	3500.01 MHz	3534.99 MHz		3465 MHz	3500.01 MHz	3534.99 MHz	
30 MHz	SRS CW	18.1	18.4	0.0	19.0	9.2	9.3	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		630668	633334	636000		630668	633334	636000	
		3460.02 MHz	3500.01 MHz	3540 MHz		3460.02 MHz	3500.01 MHz	3540 MHz	
25 MHz	SRS CW	17.9	18.5	0.0	19.0	9.8	9.6	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		630668	633334	636000		630668	633334	636000	
		3460.02 MHz	3500.01 MHz	3540 MHz		3460.02 MHz	3500.01 MHz	3540 MHz	
20 MHz	SRS CW	17.4	17.6	0.0	19.0	9.4	9.6	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		630500	633334	636166		630500	633334	636166	
		3457.5 MHz	3500.01 MHz	3542.49 MHz		3457.5 MHz	3500.01 MHz	3542.49 MHz	
15 MHz	SRS CW	17.1	17.2	0.0	19.0	9.4	9.6	0.0	10.0
BW (MHz)	Mode	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	SRS CW	17.1	17.2	0.0	19.0	9.4	9.6	0.0	10.0

**Notes:**

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

## NR Band n77 (Sub.3 SRS3) - Lower Band- Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)							
		DSI =0				DSI =1			
		Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
		633334				633334			
100 MHz	SRS CW	3500.01 MHz			0.0	18.0	7.8		0.0
BW (MHz)	Mode	633000	633334	633666	MPR	Tune-up Limit	633000	633334	633666
		3495 MHz	3500.01 MHz	3504.99 MHz			3495 MHz	3500.01 MHz	3504.99 MHz
90 MHz	SRS CW		17.7		0.0	18.0	7.9		0.0
BW (MHz)	Mode	632066	633334	634000	MPR	Tune-up Limit	632066	633334	634000
		3480.02 MHz	3500.01 MHz	3510 MHz			3480.02 MHz	3500.01 MHz	3510 MHz
80 MHz	SRS CW		17.7		0.0	18.0	8.0		0.0
BW (MHz)	Mode	632334	633334	634332	MPR	Tune-up Limit	632334	633334	634332
		3465.01 MHz	3500.01 MHz	3514.99 MHz			3465.01 MHz	3500.01 MHz	3514.99 MHz
70 MHz	SRS CW		17.7		0.0	18.0	8.0		0.0
BW (MHz)	Mode	632000	633334	634666	MPR	Tune-up Limit	632000	633334	634666
		3480 MHz	3500.01 MHz	3519.99 MHz			3480 MHz	3500.01 MHz	3519.99 MHz
60 MHz	SRS CW		17.8		0.0	18.0	8.0		0.0
BW (MHz)	Mode	631668	633334	635000	MPR	Tune-up Limit	631668	633334	635000
		3475.02 MHz	3500.01 MHz	3525 MHz			3475.02 MHz	3500.01 MHz	3525 MHz
50 MHz	SRS CW	17.7		17.9	0.0	18.0	7.8		0.0
BW (MHz)	Mode	631334	633334	635332	MPR	Tune-up Limit	631334	633334	635332
		3470.01 MHz	3500.01 MHz	3529.98 MHz			3470.01 MHz	3500.01 MHz	3529.98 MHz
40 MHz	SRS CW	17.4		17.7	0.0	18.0	7.7		0.0
BW (MHz)	Mode	631000	633334	635666	MPR	Tune-up Limit	631000	633334	635666
		3465 MHz	3500.01 MHz	3534.99 MHz			3465 MHz	3500.01 MHz	3534.99 MHz
30 MHz	SRS CW	17.1	17.4	17.6	0.0	18.0	7.5	7.9	7.9
BW (MHz)	Mode	630668	633334	636000	MPR	Tune-up Limit	630668	633334	636000
		3460.02 MHz	3500.01 MHz	3540 MHz			3460.02 MHz	3500.01 MHz	3540 MHz
25 MHz	SRS CW	17.2	17.5	17.7	0.0	18.0	7.4	7.8	7.8
BW (MHz)	Mode	630668	633334	636000	MPR	Tune-up Limit	630668	633334	636000
		3460.02 MHz	3500.01 MHz	3540 MHz			3460.02 MHz	3500.01 MHz	3540 MHz
20 MHz	SRS CW	17.4	17.6	17.7	0.0	18.0	7.3	7.6	7.8
BW (MHz)	Mode	630500	633334	636166	MPR	Tune-up Limit	630500	633334	636166
		3457.5 MHz	3500.01 MHz	3542.49 MHz			3457.5 MHz	3500.01 MHz	3542.49 MHz
15 MHz	SRS CW	17.3	17.5	17.5	0.0	18.0	7.4	7.7	7.9
BW (MHz)	Mode	630334	633334	636332	MPR	Tune-up Limit	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	17.3	17.5	17.5	0.0	18.0	7.4	7.6	7.8

**Notes:**

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

**NR Band n77(Main.2 SRS0)- Upper Band- 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		
100 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	21.22	656000	656000	662000	662000			656000	656000	662000	662000					
			1	137	20.97	3750 MHz	3840 MHz	3930 MHz	3930 MHz			3750 MHz	3840 MHz	3930 MHz	3930 MHz					
			1	271	21.52											9.56	0.0	10.00		
			135	0	20.86											9.08	0.0	10.00		
			135	69	20.91											9.02	0.0	10.00		
			135	138	20.89											9.42	0.0	10.00		
			270	0	20.69											9.02	0.0	10.00		
		QPSK	1	1	21.57											9.58	0.0	10.00		
			1	137	20.97											9.08	0.0	10.00		
			1	271	21.55											9.56	0.0	10.00		
			135	0	20.35											9.08	0.0	10.00		
			135	69	20.91											9.43	0.0	10.00		
			135	138	20.40											9.39	0.0	10.00		
			270	0	20.20											9.03	0.0	10.00		
		16QAM	1	1	20.54											9.27	0.0	10.00		
			1	1	18.94											9.22	0.0	10.00		
			1	1	16.92											9.23	0.0	10.00		
		CP-OFDM	QPSK	1	1	19.90				19.89	1.5	20.5	9.17			9.26	0.0	10.00		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)							
					649334	656000	662666						649334	656000	662666					
80 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	18.95					18.73	0.0	19.3	8.20			8.37		7.98	0.0	9.50

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Upper Band- Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Measured Pwr (dBm)					MPR	Tune-up Limit				
					649334	656000	662666	3740.01 MHz	3840 MHz		649334	656000	662666	3740.01 MHz	3840 MHz						
			1	1	21.42				21.39		21.06			9.41			8.92				
80 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	109	21.06				21.56		21.31			0.0	22.0	8.83	9.54	9.19	0.0	10.00	
			1	215	21.14				21.44		21.55			0.0	22.0	9.02	9.40	9.45	0.0	10.00	
			108	0	20.96				20.98		21.01			0.5	21.5	9.14	9.14	9.16	0.0	10.00	
			108	55	21.01				21.57		21.22			0.0	22.0	8.84	9.53	9.22	0.0	10.00	
			108	109	20.85				21.01		21.06			0.5	21.5	9.16	9.17	9.30	0.0	10.00	
			216	0	20.81				21.38		21.13			0.5	21.5	8.86	9.54	9.21	0.0	10.00	
			1	1	21.46				21.45		21.18			0.0	22.0	9.28	9.40	9.00	0.0	10.00	
		QPSK	1	109	21.08				21.60		21.49			0.0	22.0	8.89	9.56	9.24	0.0	10.00	
			1	215	21.12				21.46		20.48			0.0	22.0	9.06	9.41	9.49	0.0	10.00	
			108	0	20.56				20.49		20.92			1.0	21.0	9.17	9.14	9.17	0.0	10.00	
			108	55	21.07				21.58		20.64			0.0	22.0	8.89	9.53	9.23	0.0	10.00	
			108	109	20.43				20.50		20.52			1.0	21.0	9.17	9.17	9.34	0.0	10.00	
			216	0	20.21				20.89		20.41			1.0	21.0	8.88	9.53	9.24	0.0	10.00	
			16QAM	1	1	20.64			20.75		20.42			1.0	21.0	9.31	9.42	9.04	0.0	10.00	
			64QAM	1	1	19.07			19.19		18.82			2.5	19.5	9.23	9.34	8.96	0.0	10.00	
			256QAM	1	1	17.07			17.15		16.78			4.5	17.5	9.25	9.38	8.98	0.0	10.00	
		CP-OFDM	QPSK	1	1	20.05			20.17		19.74			1.5	20.5	9.28	9.43	9.03	0.0	10.00	
70 MHz	DFT-s-OFDM	$\pi/2$ BPSK	Measured Pwr (dBm)					MPR	Measured Pwr (dBm)					MPR	Measured Pwr (dBm)						
			649000	653666					658334	663000					649000	653666		658334	663000		
			3735 MHz	3804.99 MHz					3875.01 MHz	3945 MHz					3735 MHz	3804.99 MHz		3875.01 MHz	3945 MHz		
			1	1	21.38	21.20				21.06	21.12	0.0	22.0	9.37	9.18			9.41	9.11	0.0	10.00
			1	95	21.06	21.17				21.32	21.14	0.0	22.0	9.12	9.47			9.25	9.32	0.0	10.00
			1	188	21.04	21.28				21.55	21.35	0.0	22.0	9.16	9.47			9.23	9.44	0.0	10.00
			90	0	21.01	20.90				21.09	20.97	0.5	21.5	9.13	8.99			9.12	9.08	0.0	10.00
		QPSK	90	50	20.98	21.13				21.18	21.11	0.0	22.0	9.10	9.44			9.23	9.29	0.0	10.00
			90	99	20.89	21.42				21.06	21.43	0.5	21.5	8.91	9.23			9.08	9.26	0.0	10.00
			180	0	20.82	20.91				21.12	20.97	0.5	21.5	9.10	9.37			9.21	9.26	0.0	10.00
			1	1	21.46	21.19				21.20	21.14	0.0	22.0	9.35	9.17			9.43	9.13	0.0	10.00
			1	95	21.13	21.16				21.51	21.11	0.0	22.0	9.14	9.45			9.25	9.32	0.0	10.00
			1	188	21.10	21.23				20.52	21.31	0.0	22.0	9.15	9.42			9.24	9.42	0.0	10.00
			90	0	20.59	20.39				20.94	20.49	1.0	21.0	9.13	8.96			9.12	9.08	0.0	10.00
			90	50	21.05	21.13				20.64	21.12	0.0	22.0	9.10	9.43			9.25	9.31	0.0	10.00
			90	99	20.93	20.92				20.41	20.93	1.0	21.0	8.93	9.22			9.09	9.27	0.0	10.00
			180	0	20.35	20.40				20.62	20.44	1.0	21.0	9.10	9.35			9.22	9.26	0.0	10.00
			16QAM	1	1	20.21	20.48			20.62	20.43	1.0	21.0	9.38	9.18			9.46	9.15	0.0	10.00
			64QAM	1	1	19.48	18.93			18.77	18.84	2.5	19.5	9.30	9.09			9.38	9.07	0.0	10.00
			256QAM	1	1	17.02	16.89			16.92	16.83	4.5	17.5	9.32	9.12			9.41	9.08	0.0	10.00
		CP-OFDM	QPSK	1	1	20.08	19.93			19.64	19.86	1.5	20.5	9.38	9.16			9.46	9.13	0.0	10.00

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Upper Band- Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit			
					648668	653556			658444	663332			648668	653556			658444	663332					
					3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz			3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz					
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.41	21.21			21.07	21.08	0.0	22.0	9.21	9.01					9.19	9.12	0.0	10.00	
			1	81	21.08	21.22			21.32	21.09	0.0	22.0	9.16	9.47					9.23	9.44	0.0	10.00	
			1	160	21.00	21.29			21.55	21.48	0.0	22.0	9.12	9.38					9.07	9.39	0.0	10.00	
			81	0	21.03	20.89			21.09	21.03	0.5	21.5	9.10	9.07					8.99	9.08	0.0	10.00	
			81	41	21.08	21.00			21.21	21.14	0.0	22.0	9.08	9.40					9.21	9.35	0.0	10.00	
			81	81	20.81	21.42			21.17	21.44	0.5	21.5	8.86	9.17					9.04	9.22	0.0	10.00	
		QPSK	162	0	20.82	20.95			21.11	21.09	0.5	21.5	9.07	9.39					9.18	9.36	0.0	10.00	
			1	1	21.46	21.22			21.21	21.13	0.0	22.0	9.21	9.03					9.28	9.11	0.0	10.00	
			1	81	21.09	21.26			21.55	21.18	0.0	22.0	9.16	9.46					9.29	9.44	0.0	10.00	
			1	160	21.05	21.18			20.46	21.32	0.0	22.0	9.10	9.37					9.12	9.38	0.0	10.00	
			81	0	20.59	20.38			20.55	20.48	1.0	21.0	9.12	9.09					9.05	9.11	0.0	10.00	
			81	41	21.09	21.08			21.18	21.08	0.0	22.0	9.08	9.42					9.23	9.37	0.0	10.00	
			81	81	20.94	20.92			20.65	20.93	1.0	21.0	8.86	9.19					9.07	9.24	0.0	10.00	
			162	0	20.44	20.42			20.35	20.44	1.0	21.0	9.08	9.39					9.23	9.38	0.0	10.00	
		16QAM	1	1	20.21	20.54			20.59	20.38	1.0	21.0	9.24	9.03					9.32	9.17	0.0	10.00	
		64QAM	1	1	20.56	18.87			18.87	18.82	2.5	19.5	9.17	8.95					9.28	9.06	0.0	10.00	
		256QAM	1	1	17.11	16.58			16.87	16.83	4.5	17.5	9.19	9.00					9.27	9.09	0.0	10.00	
		CP-OFDM	QPSK	1	1	20.08	19.99			18.59	19.92	1.5	20.5	9.23	9.03					9.31	9.13	0.0	10.00
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.44	21.22	21.16		21.12	21.00	0.0	22.0	9.06	9.03	9.09				9.11	8.98	0.0	10.00	
			1	67	21.19	21.23	21.49		21.32	21.17	0.0	22.0	9.01	8.95	9.46				8.94	9.25	0.0	10.00	
			1	131	21.05	21.31	21.18		21.56	21.45	0.0	22.0	8.81	9.32	9.11				9.16	9.32	0.0	10.00	
			64	0	21.11	20.89	21.03		21.11	21.10	0.5	21.5	9.01	9.04	9.14				9.08	9.13	0.0	10.00	
			64	35	20.68	21.04	21.54		21.23	21.08	0.0	22.0	9.04	8.91	9.43				8.96	9.24	0.0	10.00	
			64	69	20.84	21.29	21.14		21.25	21.35	0.5	21.5	8.83	9.20	9.22				9.11	9.12	0.0	10.00	
		QPSK	128	0	20.79	21.04	21.32		21.08	21.12	0.5	21.5	9.03	8.89	9.42				8.97	9.25	0.0	10.00	
			1	1	21.45	21.21	21.17		21.17	21.15	0.0	22.0	9.13	8.94	9.12				9.13	9.00	0.0	10.00	
			1	67	21.16	21.33	21.53		21.64	21.18	0.0	22.0	9.04	8.87	9.43				8.97	9.26	0.0	10.00	
			1	131	21.14	21.20	21.22		20.45	21.32	0.0	22.0	8.84	9.28	9.10				9.20	9.31	0.0	10.00	
			64	0	20.64	20.38	20.51		20.55	20.48	1.0	21.0	9.05	9.02	9.16				9.10	9.16	0.0	10.00	
			64	35	21.11	21.13	21.52		21.21	21.17	0.0	22.0	9.06	8.90	9.47				8.97	9.26	0.0	10.00	
			64	69	20.92	20.90	20.63		20.67	20.89	1.0	21.0	8.86	9.18	9.25				9.14	9.15	0.0	10.00	
			128	0	20.38	20.44	20.81		20.35	20.33	1.0	21.0	9.08	8.89	9.42				8.97	9.29	0.0	10.00	
			16QAM	1	1	20.22	20.52	20.47		20.55	20.27	1.0	21.0	9.18	9.06	9.12				9.15	9.03	0.0	10.00
			64QAM	1	1	19.48	18.89	18.92		18.90	18.77	2.5	19.5	9.10	8.97	9.06				9.06	8.97	0.0	10.00
			256QAM	1	1	17.11	16.62	16.87		16.88	16.74	4.5	17.5	9.13	8.99	9.06				9.09	8.96	0.0	10.00
		CP-OFDM	QPSK	1	1	20.10	20.01	19.89		18.52	19.89	1.5	20.5	9.16	9.05	9.11				9.15	9.01	0.0	10.00

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Upper Band- Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					648000 3720 MHz	651200 3768 MHz	654400 3816 MHz	657600 3864 MHz	660800 3912 MHz	664000 3960 MHz			648000 3720 MHz	651200 3768 MHz	654400 3816 MHz	657600 3864 MHz	660800 3912 MHz	664000 3960 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.38	21.24	21.18	21.26	21.11	20.99	0.0	22.0	9.14	8.81	9.22	9.31	8.94	9.12	0.0	10.00
			1	53	21.18	21.26	21.49	21.08	21.37	21.17	0.0	22.0	9.13	9.11	9.24	9.13	9.16	9.28	0.0	10.00
			1	104	21.12	21.32	21.31	21.17	21.51	21.46	0.0	22.0	8.80	8.97	9.36	9.18	9.06	9.28	0.0	10.00
			50	0	21.11	20.84	21.11	20.94	21.13	21.21	0.5	21.5	9.04	9.00	9.29	9.14	8.92	9.27	0.0	10.00
			50	28	19.66	21.10	21.48	21.08	21.28	21.17	0.0	22.0	9.07	9.05	9.16	9.06	9.10	9.20	0.0	10.00
			50	56	20.82	21.33	21.16	20.98	21.29	21.42	0.5	21.5	9.00	8.88	9.16	9.17	9.11	9.07	0.0	10.00
		QPSK	100	0	20.78	21.18	21.31	20.86	21.16	21.11	0.5	21.5	9.08	9.04	9.17	9.05	9.09	9.19	0.0	10.00
			1	1	21.45	21.21	21.18	21.34	21.24	21.35	0.0	22.0	9.14	8.81	9.23	9.30	8.94	9.11	0.0	10.00
			1	53	21.24	21.32	21.44	21.15	21.51	21.21	0.0	22.0	9.16	9.12	9.24	9.15	9.19	9.26	0.0	10.00
			1	104	21.16	21.22	21.26	21.23	20.47	21.34	0.0	22.0	8.81	8.98	9.36	9.18	9.08	9.30	0.0	10.00
			50	0	20.55	20.38	20.65	20.49	20.51	20.42	1.0	21.0	9.03	9.01	9.30	9.16	8.94	9.27	0.0	10.00
			50	28	21.21	21.12	21.52	21.13	21.13	21.12	0.0	22.0	9.09	9.06	9.16	9.09	9.12	9.21	0.0	10.00
			50	56	20.92	20.92	20.64	20.51	20.69	20.93	1.0	21.0	9.02	8.90	9.18	9.18	9.15	9.10	0.0	10.00
			100	0	20.36	20.38	20.82	20.39	20.38	20.27	1.0	21.0	9.08	9.06	9.19	9.06	9.12	9.22	0.0	10.00
		16QAM	1	1	20.21	20.54	20.48	20.63	20.57	20.31	1.0	21.0	9.17	8.83	9.28	9.35	8.94	9.14	0.0	10.00
		64QAM	1	1	19.44	18.88	18.81	19.08	18.89	18.81	2.5	19.5	9.11	8.77	9.19	9.27	8.88	9.07	0.0	10.00
		256QAM	1	1	17.24	16.62	16.78	17.06	16.71	16.61	4.5	17.5	9.11	8.79	9.23	9.27	8.92	9.08	0.0	10.00
		CP-OFDM	QPSK	1	1	20.12	20.04	19.84	20.07	18.52	19.92	1.5	20.5	9.14	8.83	9.25	9.33	8.96	9.13	0.0
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.41	21.18	21.12	21.33	21.19	21.11	0.0	22.0	9.12	8.81	9.22	9.19	8.87	9.25	0.0	10.00
			1	39	21.21	21.26	21.45	21.14	21.41	21.13	0.0	22.0	9.11	9.08	9.18	9.13	9.15	9.20	0.0	10.00
			1	76	21.00	21.31	21.34	21.25	21.49	21.52	0.0	22.0	9.02	8.86	9.18	9.21	9.06	9.28	0.0	10.00
			36	0	21.13	20.79	21.19	20.92	21.08	21.21	0.5	21.5	9.07	8.97	9.24	9.05	8.99	9.18	0.0	10.00
			36	21	19.74	21.09	21.42	21.13	21.32	21.23	0.0	22.0	9.04	9.04	9.15	9.06	9.08	9.15	0.0	10.00
			36	42	20.82	21.27	21.26	21.06	21.33	21.42	0.5	21.5	9.06	8.96	9.08	9.15	9.11	9.13	0.0	10.00
		QPSK	75	0	20.84	21.18	21.31	20.89	21.18	21.12	0.5	21.5	9.05	9.05	9.14	9.08	9.11	9.12	0.0	10.00
			1	1	21.53	21.19	21.25	21.32	21.25	21.38	0.0	22.0	9.18	8.87	9.28	9.21	8.93	9.27	0.0	10.00
			1	39	21.12	21.29	21.34	21.21	21.46	21.22	0.0	22.0	9.14	9.11	9.21	9.15	9.18	9.20	0.0	10.00
			1	76	21.21	21.21	21.36	21.22	20.45	21.36	0.0	22.0	9.01	8.89	9.20	9.22	9.06	9.28	0.0	10.00
			36	0	20.62	20.38	20.67	20.49	20.51	20.62	1.0	21.0	9.08	9.01	9.27	9.06	9.04	9.21	0.0	10.00
			36	21	21.21	21.18	21.41	21.07	21.11	21.15	0.0	22.0	9.08	9.05	9.17	9.08	9.13	9.14	0.0	10.00
			36	42	20.93	20.87	20.56	20.48	20.75	20.86	1.0	21.0	9.06	9.00	9.10	9.17	9.09	9.18	0.0	10.00
			75	0	20.38	20.37	20.78	20.42	20.33	20.33	1.0	21.0	9.06	9.03	9.16	9.08	9.11	9.14	0.0	10.00
		16QAM	1	1	20.20	20.48	20.41	20.59	20.56	20.36	1.0	21.0	9.20	8.88	9.33	9.27	8.97	9.28	0.0	10.00
		64QAM	1	1	19.39	18.89	18.87	19.08	18.87	18.82	2.5	19.5	9.12	8.81	9.26	9.17	8.89	9.21	0.0	10.00
		256QAM	1	1	17.28	16.54	16.82	17.04	16.72	16.52	4.5	17.5	9.12	8.84	9.28	9.19	8.90	9.23	0.0	10.00
		CP-OFDM	QPSK	1	1	20.07	20.04	19.82	20.08	18.52	19.95	1.5	20.5	9.18	8.88	9.32	9.23	8.93	9.27	0.0

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Upper Band- Measured Results**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647334	650800	654266	657734	661200	664666			647334	650800	654266	657734	661200	664666		
					3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz		
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.31	21.18	21.11	21.32	21.22	21.08	0.0	22.0	9.12	8.91	9.18	9.18	9.01	9.28	0.0	10.00
			1	26	21.11	21.32	21.45	21.16	21.44	21.16	0.0	22.0	9.13	9.08	9.14	9.11	9.14	9.16	0.0	10.00
			1	49	21.07	21.28	21.29	21.33	21.55	21.45	0.0	22.0	9.05	8.94	9.21	9.24	9.16	9.32	0.0	10.00
			25	0	21.08	20.87	21.18	20.82	21.13	21.21	0.5	21.5	9.15	9.01	9.20	9.13	9.02	9.17	0.0	10.00
			25	13	19.81	21.04	21.36	21.08	21.36	21.18	0.0	22.0	9.02	9.04	9.18	9.08	9.08	9.16	0.0	10.00
			25	26	20.82	21.33	21.33	21.11	21.41	21.36	0.5	21.5	9.13	9.03	9.12	9.21	9.09	9.05	0.0	10.00
		QPSK	50	0	20.83	21.24	21.38	20.82	21.21	21.07	0.5	21.5	9.12	9.12	9.06	9.11	9.05	9.06	0.0	10.00
			1	1	21.45	21.19	21.26	21.36	21.29	21.35	0.0	22.0	9.21	8.89	9.04	9.20	8.90	9.28	0.0	10.00
			1	26	21.16	21.28	21.32	21.18	21.45	21.16	0.0	22.0	9.17	9.09	9.05	9.21	9.18	9.17	0.0	10.00
			1	49	21.21	21.24	21.39	21.24	20.52	21.35	0.0	22.0	9.02	8.92	9.08	9.23	9.05	9.32	0.0	10.00
			25	0	20.67	20.44	20.69	20.62	20.55	20.54	1.0	21.0	9.12	9.04	9.26	9.08	9.03	9.20	0.0	10.00
			25	13	21.14	21.25	21.42	21.21	21.18	21.21	0.0	22.0	9.13	9.06	9.21	9.12	9.15	9.18	0.0	10.00
			25	26	20.92	20.79	20.55	20.44	20.82	20.89	1.0	21.0	9.14	9.06	9.08	9.21	9.12	9.18	0.0	10.00
			50	0	20.62	20.36	20.87	20.38	20.34	20.28	1.0	21.0	9.12	9.02	9.18	9.08	9.12	9.12	0.0	10.00
		16QAM	1	1	20.25	20.52	20.39	20.54	20.55	20.38	1.0	21.0	9.11	8.89	9.26	9.29	9.02	9.32	0.0	10.00
		64QAM	1	1	19.44	18.89	18.89	19.16	18.89	18.77	2.5	19.5	9.13	9.00	9.32	9.16	8.92	9.21	0.0	10.00
		256QAM	1	1	17.35	16.48	16.79	17.05	16.67	16.49	4.5	17.5	9.11	8.84	9.24	9.21	8.92	9.18	0.0	10.00
	CP-OFDM	QPSK	1	1	20.35	19.99	19.77	20.08	18.54	19.97	1.5	20.5	9.21	8.92	9.30	9.25	8.84	9.33	0.0	10.00
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.32	21.40	20.81	21.69	21.81	21.91	0.0	22.0	9.26	8.99	9.42	9.16	8.87	9.24	0.0	10.00
			1	26	21.35	21.50	20.97	21.82	21.82	21.92	0.0	22.0	9.15	9.16	9.33	9.19	9.15	9.16	0.0	10.00
			1	49	21.39	21.53	20.97	21.67	21.74	21.85	0.0	22.0	9.19	9.13	9.27	9.31	9.09	9.24	0.0	10.00
			25	0	21.12	21.34	20.81	21.50	21.44	21.41	0.5	21.5	9.21	9.07	9.39	9.12	9.04	9.15	0.0	10.00
			25	13	21.37	21.61	21.08	21.67	21.85	21.93	0.0	22.0	9.16	9.17	9.39	9.22	9.07	9.16	0.0	10.00
			25	26	21.20	21.45	20.85	21.49	21.41	21.44	0.5	21.5	9.16	9.16	9.23	9.26	9.06	9.18	0.0	10.00
		QPSK	50	0	21.15	21.37	20.81	21.43	21.43	21.41	0.5	21.5	9.15	9.18	9.32	9.20	9.08	9.05	0.0	10.00
			1	1	20.87	21.40	20.77	21.40	21.67	21.95	0.0	22.0	9.29	9.04	9.46	9.21	8.92	9.26	0.0	10.00
			1	26	21.06	21.52	20.99	21.50	21.80	21.92	0.0	22.0	9.17	9.19	9.33	9.21	9.13	9.17	0.0	10.00
			1	49	21.08	21.51	20.97	20.42	21.71	21.83	0.0	22.0	9.20	9.16	9.28	9.31	9.04	9.28	0.0	10.00
			25	0	20.48	20.73	20.36	20.89	20.93	20.93	1.0	21.0	9.25	9.12	9.38	9.15	9.05	9.18	0.0	10.00
			25	13	21.12	21.58	21.07	21.59	21.84	21.91	0.0	22.0	9.18	9.19	9.33	9.23	9.07	9.08	0.0	10.00
			25	26	20.58	20.91	20.44	20.91	21.00	20.93	1.0	21.0	9.18	9.17	9.23	9.27	9.09	9.16	0.0	10.00
			50	0	20.62	20.87	20.37	20.95	20.91	20.91	1.0	21.0	9.19	9.17	9.32	9.21	9.08	9.02	0.0	10.00
		16QAM	1	1	20.37	20.64	20.26	20.93	20.89	20.89	1.0	21.0	9.35	9.06	9.46	9.26	9.04	9.27	0.0	10.00
		64QAM	1	1	19.36	19.17	19.44	19.14	19.42	17.43	2.5	19.5	9.23	8.99	9.38	9.16	8.89	9.16	0.0	10.00
		256QAM	1	1	17.27	17.01	17.42	17.45	17.44	17.29	4.5	17.5	9.27	9.01	9.39	9.19	8.84	9.18	0.0	10.00
	CP-OFDM	QPSK	1	1	20.31	20.20	20.35	20.20	20.43	20.43	1.5	20.5	9.31	9.05	9.43	9.23	8.81	9.28	0.0	10.00

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77(Main.2 SRS0)- Upper Band- Measured Results**

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	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz			3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz			
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.29	21.38	20.78	21.68	21.81	21.91	0.0	22.0	9.26	9.01	9.33	9.19	8.99	9.16	0.0	10.00	
			1	19	21.37	21.51	21.00	21.81	21.92	21.92	0.0	22.0	9.16	9.12	9.28	9.23	9.26	9.17	0.0	10.00	
			1	36	21.41	21.51	21.01	21.70	21.82	21.78	0.0	22.0	9.15	9.02	9.29	9.33	9.14	9.23	0.0	10.00	
			18	0	21.08	21.32	20.80	21.39	21.39	21.42	0.5	21.5	9.18	9.03	9.33	9.12	8.99	9.22	0.0	10.00	
			18	10	21.35	21.61	21.12	21.67	21.78	21.99	0.0	22.0	9.16	9.11	9.37	9.20	9.05	9.20	0.0	10.00	
			18	20	21.15	21.41	20.91	21.44	21.35	21.44	0.5	21.5	9.16	9.12	9.31	9.26	9.08	9.26	0.0	10.00	
			36	0	21.10	21.35	20.81	21.43	21.41	21.41	0.5	21.5	9.15	9.14	9.26	9.32	9.07	9.24	0.0	10.00	
		QPSK	1	1	20.89	21.37	20.84	21.42	21.73	21.92	0.0	22.0	9.26	9.23	9.46	9.23	8.92	9.23	0.0	10.00	
			1	19	21.14	21.61	20.91	21.45	21.81	21.95	0.0	22.0	9.15	9.22	9.26	9.22	9.14	9.20	0.0	10.00	
			1	36	21.13	21.46	20.94	20.46	21.69	21.78	0.0	22.0	9.18	9.26	9.28	9.23	9.02	9.18	0.0	10.00	
			18	0	20.46	20.77	20.31	20.91	20.91	20.94	1.0	21.0	9.26	9.28	9.43	9.34	9.14	9.13	0.0	10.00	
			18	10	21.14	21.51	21.11	21.63	21.82	21.98	0.0	22.0	9.15	9.28	9.33	9.35	9.13	9.13	0.0	10.00	
			18	20	20.58	20.92	20.41	20.91	20.89	20.92	1.0	21.0	9.14	9.23	9.34	9.28	9.14	9.08	0.0	10.00	
			36	0	20.57	20.91	20.38	20.94	21.00	20.92	1.0	21.0	9.12	9.26	9.30	9.21	9.13	9.03	0.0	10.00	
		16QAM	1	1	20.44	20.68	20.27	19.21	19.61	20.93	1.0	21.0	9.13	9.36	9.45	9.32	9.05	9.22	0.0	10.00	
		64QAM	1	1	19.41	19.21	19.41	19.21	17.61	19.44	2.5	19.5	9.17	9.00	9.44	9.25	8.92	9.23	0.0	10.00	
		256QAM	1	1	17.28	17.12	17.44	17.46	17.38	17.42	4.5	17.5	9.28	9.02	9.42	9.22	8.88	9.18	0.0	10.00	
	CP-OFDM	QPSK	1	1	20.30	20.21	20.28	20.20	20.32	20.43	1.5	20.5	9.25	9.08	9.39	9.18	8.76	9.32	0.0	10.00	
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	21.30	21.41	20.77	21.66	21.79	21.90	0.0	22.0	9.34	8.97	9.33	9.21	9.08	9.19	0.0	10.00	
			1	12	21.36	21.53	20.96	21.79	21.85	21.94	0.0	22.0	9.27	9.12	9.34	9.22	9.22	9.34	0.0	10.00	
			1	22	21.38	21.51	20.99	21.65	21.77	21.81	0.0	22.0	9.26	9.03	9.31	9.26	9.09	9.40	0.0	10.00	
			12	0	21.10	21.32	20.76	21.47	21.48	21.40	0.5	21.5	9.22	9.02	9.30	9.30	9.14	9.24	0.0	10.00	
			12	6	21.36	21.60	21.06	21.67	21.82	21.88	0.0	22.0	9.21	9.11	9.27	9.10	9.14	9.31	0.0	10.00	
			12	12	21.22	21.44	20.88	21.47	21.39	21.40	0.5	21.5	9.20	9.14	9.36	9.28	9.15	9.35	0.0	10.00	
			24	0	21.14	21.38	20.84	21.45	20.34	21.38	0.5	21.5	9.32	9.16	9.28	9.26	9.18	9.31	0.0	10.00	
		QPSK	1	1	20.87	21.39	20.75	21.41	21.66	21.91	0.0	22.0	9.32	9.12	9.26	9.15	9.22	9.24	0.0	10.00	
			1	12	21.05	21.55	20.92	21.53	21.77	21.95	0.0	22.0	9.24	9.15	9.27	9.13	9.24	9.32	0.0	10.00	
			1	22	21.06	21.53	20.94	20.45	21.70	21.81	0.0	22.0	9.21	9.21	9.25	9.12	9.16	9.42	0.0	10.00	
			12	0	20.47	20.76	20.32	20.92	20.91	20.82	1.0	21.0	9.33	9.20	9.21	9.16	9.21	9.28	0.0	10.00	
			12	6	21.10	21.53	21.05	21.61	21.84	21.90	0.0	22.0	9.26	9.23	9.35	9.24	9.14	9.21	9.32	0.0	10.00
			12	12	20.57	20.90	20.41	20.94	20.99	20.92	1.0	21.0	9.23	9.35	9.21	9.10	9.23	9.37	0.0	10.00	
			24	0	20.64	20.85	20.38	20.92	20.95	20.87	1.0	21.0	9.20	9.31	9.30	9.11	9.21	9.31	0.0	10.00	
		16QAM	1	1	20.36	20.65	20.27	20.92	20.85	20.82	1.0	21.0	9.12	9.32	9.28	9.23	9.28	9.27	0.0	10.00	
		64QAM	1	1	19.35	19.15	19.41	19.18	19.44	19.44	2.5	19.5	9.11	9.10	9.14	9.21	9.17	9.19	0.0	10.00	
		256QAM	1	1	17.28	17.07	17.39	17.41	17.39	17.35	4.5	17.5	9.32	8.92	9.22	9.07	9.21	9.22	0.0	10.00	
	CP-OFDM	QPSK	1	1	20.32	20.24	20.31	20.17	20.41	20.41	1.5	20.5	9.33	9.23	9.31	9.24	9.23	9.25	0.0	10.00	

**Note(s):**

NR Band n78 is covered by NR Band n77.

**NR Band n77 (Sub.2 SRS1) - Upper Band- Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)													
		DSI =0						DSI =1							
		Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit		
		650000	656000	662000	668000			650000	656000	662000	668000				
100 MHz	SRS CW	20.6	20.8	20.8	20.8	0.0	22.0	9.4	9.7	9.7	9.7	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		649668	656000	662332	668000	MPR	Tune-up Limit	649668	656000	662332	668000	MPR	Tune-up Limit		
		3745.02 MHz	3840 MHz	3934.98 MHz	3934.98 MHz			3745.02 MHz	3840 MHz	3934.98 MHz	3934.98 MHz				
90 MHz	SRS CW	20.4	20.3	20.8	20.8	0.0	22.0	9.1	9.6	9.6	9.6	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		649334	656000	662666	668000	MPR	Tune-up Limit	649334	656000	662666	668000	MPR	Tune-up Limit		
		3740.01 MHz	3840 MHz	3939.99 MHz	3939.99 MHz			3740.01 MHz	3840 MHz	3939.99 MHz	3939.99 MHz				
80 MHz	SRS CW	20.2	20.4	20.7	20.7	0.0	22.0	9.2	9.5	9.6	9.6	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		649000	653666	658334	663000	MPR	Tune-up Limit	649000	653666	658334	663000	MPR	Tune-up Limit		
		3735 MHz	3804.99 MHz	3875.01 MHz	3945 MHz			3735 MHz	3804.99 MHz	3875.01 MHz	3945 MHz				
70 MHz	SRS CW	20.3	20.1	20.8	20.7	0.0	22.0	9.2	9.3	9.6	9.5	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		648668	653556	658444	663332	MPR	Tune-up Limit	648668	653556	658444	663332	MPR	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	20.3	20.1	20.8	20.8	0.0	22.0	9.1	9.2	9.6	9.6	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		648334	652166	656000	659834	MPR	Tune-up Limit	648334	652166	656000	659834	MPR	Tune-up Limit		
		3725.01 MHz	3782.49 MHz	3840 MHz	3897.51 MHz			3725.01 MHz	3782.49 MHz	3840 MHz	3897.51 MHz				
50 MHz	SRS CW	20.2	20.1	20.4	20.6	21.0	0.0	22.0	9.1	9.0	9.6	9.7	0.0	10.0	
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		648000	651200	654400	657600	MPR	Tune-up Limit	648000	651200	654400	657600	MPR	Tune-up Limit		
		3720 MHz	3768 MHz	3816 MHz	3864 MHz			3720 MHz	3768 MHz	3816 MHz	3864 MHz				
40 MHz	SRS CW	20.6	19.9	20.2	20.6	20.5	21.0	0.0	22.0	8.8	8.6	9.5	9.7	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647668	651000	654334	657666	MPR	Tune-up Limit	647668	651000	654334	657666	MPR	Tune-up Limit		
		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz			3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz				
30 MHz	SRS CW	19.9	20.1	20.0	20.5	20.5	20.9	0.0	22.0	8.8	8.7	9.6	9.6	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647334	650800	654266	657734	MPR	Tune-up Limit	647334	650800	654266	657734	MPR	Tune-up Limit		
		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz				
25 MHz	SRS CW	19.8	20.0	20.1	20.6	20.4	20.9	0.0	22.0	8.9	8.7	9.6	9.5	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647334	650800	654266	657734	MPR	Tune-up Limit	647334	650800	654266	657734	MPR	Tune-up Limit		
		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz				
20 MHz	SRS CW	19.8	19.7	20.0	19.6	19.7	20.2	0.0	22.0	8.9	8.7	9.6	9.5	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647168	650700	654234	657766	MPR	Tune-up Limit	647168	650700	654234	657766	MPR	Tune-up Limit		
		3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz			3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz				
15 MHz	SRS CW	19.5	19.9	19.6	19.8	19.8	20.2	0.0	22.0	8.9	8.7	9.6	9.5	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647000	650600	654200	657800	MPR	Tune-up Limit	647000	650600	654200	657800	MPR	Tune-up Limit		
		3705 MHz	3759 MHz	3813 MHz	3867 MHz			3705 MHz	3759 MHz	3813 MHz	3867 MHz				
10 MHz	SRS CW	19.6	20.0	19.6	19.7	19.7	20.1	0.0	22.0	9.0	8.6	9.6	9.5	0.0	10.0

**Notes:**

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

**NR Band n77 (Sub.4 SRS2) - Upper Band- Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)													
		DSI =0						DSI =1							
		Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit		
		650000	656000	662000	668000			650000	656000	662000	668000				
100 MHz	SRS CW	18.5	18.9	18.9	18.9	0.0	19.0	8.6	8.8	8.8	8.8	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		649668	656000	662332	668000	MPR	Tune-up Limit	649668	656000	662332	668000	MPR	Tune-up Limit		
		3745.02 MHz	3840 MHz	3934.98 MHz	3934.98 MHz			3745.02 MHz	3840 MHz	3934.98 MHz	3934.98 MHz				
90 MHz	SRS CW	18.9	18.8	18.9	18.9	0.0	19.0	8.7	8.0	8.6	8.6	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		649334	656000	662666	668000	MPR	Tune-up Limit	649334	656000	662666	668000	MPR	Tune-up Limit		
		3740.01 MHz	3840 MHz	3939.99 MHz	3939.99 MHz			3740.01 MHz	3840 MHz	3939.99 MHz	3939.99 MHz				
80 MHz	SRS CW	18.9	18.7	18.8	18.8	0.0	19.0	8.9	8.0	8.7	8.7	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		649000	653666	658334	663000	MPR	Tune-up Limit	649000	653666	658334	663000	MPR	Tune-up Limit		
		3735 MHz	3804.99 MHz	3875.01 MHz	3945 MHz			3735 MHz	3804.99 MHz	3875.01 MHz	3945 MHz				
70 MHz	SRS CW	19.0	18.8	18.8	18.9	0.0	19.0	9.0	7.9	8.3	8.6	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		648668	653556	658444	663332	MPR	Tune-up Limit	648668	653556	658444	663332	MPR	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	18.9	18.7	18.9	18.9	0.0	19.0	9.1	7.8	8.4	8.7	0.0	10.0		
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		648334	652166	656000	659834	MPR	Tune-up Limit	648334	652166	656000	659834	MPR	Tune-up Limit		
		3725.01 MHz	3782.49 MHz	3840 MHz	3897.51 MHz			3725.01 MHz	3782.49 MHz	3840 MHz	3897.51 MHz				
50 MHz	SRS CW	18.8	18.8	18.7	18.7	0.0	19.0	9.0	7.8	8.0	8.3	8.6	0.0	10.0	
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		648000	651200	654400	657600	MPR	Tune-up Limit	648000	651200	654400	657600	MPR	Tune-up Limit		
		3720 MHz	3768 MHz	3816 MHz	3864 MHz			3720 MHz	3768 MHz	3816 MHz	3864 MHz				
40 MHz	SRS CW	18.5	18.8	18.6	18.9	0.0	19.0	7.7	8.0	7.7	8.2	8.3	8.5	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647668	651000	654334	657666	MPR	Tune-up Limit	647668	651000	654334	657666	MPR	Tune-up Limit		
		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz			3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz				
30 MHz	SRS CW	18.5	18.6	18.4	18.9	0.0	19.0	7.7	8.0	7.7	8.2	8.3	8.5	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647334	650800	654266	657734	MPR	Tune-up Limit	647334	650800	654266	657734	MPR	Tune-up Limit		
		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz				
25 MHz	SRS CW	18.5	18.6	16.6	18.9	0.0	19.0	9.2	8.1	8.1	8.1	8.6	8.7	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647334	650800	654266	657734	MPR	Tune-up Limit	647334	650800	654266	657734	MPR	Tune-up Limit		
		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz				
20 MHz	SRS CW	18.5	18.6	18.6	19.0	0.0	19.0	9.2	8.1	8.1	8.1	8.6	8.6	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647168	650700	654234	657766	MPR	Tune-up Limit	647168	650700	654234	657766	MPR	Tune-up Limit		
		3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz			3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz				
15 MHz	SRS CW	18.3	18.3	18.2	18.6	0.0	19.0	9.2	8.2	8.1	8.1	8.6	8.6	0.0	10.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)							
		647000	650600	654200	657800	MPR	Tune-up Limit	647000	650600	654200	657800	MPR	Tune-up Limit		
		3705 MHz	3759 MHz	3813 MHz	3867 MHz			3705 MHz	3759 MHz	3813 MHz	3867 MHz				
10 MHz	SRS CW	18.2	18.5	18.5	18.8	0.0	19.0	9.2	8.1	8.1	8.1	8.6	8.6	0.0	10.0

**Notes:**

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

**NR Band n77 (Sub.3 SRS3) - Upper Band- Measured Results**

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)																
		DSI =0						DSI =1										
		Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit					
		650000	656000	662000	668000			650000	656000	662000	668000							
100 MHz	SRS CW	16.7	16.7	17.8	17.8	0.0	18.0	7.6	7.6	7.6	7.6	0.0	8.0					
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		649668	656000	662332	668000	649668	656000	662332	668000									
3750.02 MHz		3840 MHz	3840 MHz	3934.98 MHz	3934.98 MHz			3745.02 MHz	3840 MHz	3934.98 MHz	3934.98 MHz							
90 MHz	SRS CW	16.5	16.5	17.4	17.4	0.0	18.0	7.5	7.5	7.2	7.2	0.0	8.0					
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		649334	656000	662666	668000	649334	656000	662666	668000									
3740.01 MHz		3840 MHz	3840 MHz	3939.99 MHz	3939.99 MHz			3740.01 MHz	3840 MHz	3939.99 MHz	3939.99 MHz							
80 MHz	SRS CW	16.4	16.4	17.4	17.4	0.0	18.0	7.4	7.4	7.2	7.2	0.0	8.0					
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		649000	653666	658334	663000	649000	653666	658334	663000									
3735 MHz		3804.99 MHz	3804.99 MHz	3875.01 MHz	3945 MHz			3730.02 MHz	3803.34 MHz	3875.01 MHz	3945 MHz							
70 MHz	SRS CW	16.4	16.9	17.7	17.7	17.9	0.0	18.0	7.4	7.4	7.3	7.3	0.0	8.0				
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		648668	653556	658444	663332	648668	653556	658444	663332									
3730.02 MHz		3803.34 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	16.3	16.9	17.7	17.7	18.0	0.0	18.0	7.4	7.4	7.3	7.3	0.0	8.0				
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		648334	652166	656000	659834	663666	648334		652166	656000	659834							
3725.01 MHz		3782.49 MHz	3840 MHz	3897.51 MHz	3954.99 MHz			3725.01 MHz	3782.49 MHz	3840 MHz	3897.51 MHz	3954.99 MHz						
50 MHz	SRS CW	16.2	17.1	17.4	17.4	18.0	0.0	18.0	7.4	7.4	7.3	7.3	0.0	8.0				
BW (MHz)	Mode	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 MHz		3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz		3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz					
40 MHz	SRS CW	16.2	17.1	17.0	17.4	17.6	18.0	0.0	18.0	7.3	7.3	7.1	7.1	0.0	8.0			
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		647668	651000	654334	657666	661000	664332			647668	651000	654334	657666	661000	664332			
3715.02 MHz		3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz					
30 MHz	SRS CW	16.3	17.1	17.0	17.4	17.6	18.0	0.0	18.0	7.4	7.4	7.3	7.3	0.0	8.0			
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		647334	650800	654266	657734	661200	664666			647334	650800	654266	657734	661200	664666			
3710.01 MHz		3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz					
25 MHz	SRS CW	16.1	17.0	17.0	17.5	17.6	18.0	0.0	18.0	7.4	7.4	7.2	7.0	0.0	8.0			
BW (MHz)	Mode	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit	
		647334	650800	654266	657734	661200	664666			647334	650800	654266	657734	661200	664666			
3710.01 MHz		3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz					
20 MHz	SRS CW	15.5	16.3	16.3	16.8	17.0	17.5	0.0	18.0	7.3	7.3	7.1	7.1	0.0	8.0			
BW (MHz)	Mode	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		3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz		3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz					
15 MHz	SRS CW	15.5	15.8	16.8	17.2	17.4	17.7	0.0	18.0	7.3	7.3	7.1	7.0	0.0	8.0			
BW (MHz)	Mode	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 MHz		3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz		3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz					
10 MHz	SRS CW	15.9	16.9	16.8	17.2	17.4	17.6	0.0	18.0	7.3	7.3	7.1	7.0	0.0	8.0			

**Notes:**

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

## 9.4 Wi-Fi 2.4 GHz (DTS Band)

### WLAN output power results

#### SISO power Results

Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Max. Average Power (dBm)			Reduced Average Power		
					Meas. Avg Pwr	Max. Tune-up Limit	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 2.4G SISO Ant.1	802.11b	1 Mbps	1	2412.0	19.14	20.0	Yes	10.96	12.0	Yes
			6	2437.0	18.86			11.01		
			11	2462.0	19.07			11.16		
	802.11g	6 Mbps	1 - 11	2412 - 2462	Not Required	18.0	No	Not Required	12.0	No
	802.11n	6.5 Mbps	1 - 11	2412 - 2462	Not Required	17.0	No	Not Required	12.0	No
	802.11ax	7.3 Mbps	1 - 11	2412 - 2462	Not Required	16.0	No	Not Required	12.0	No

#### MIMO power Results

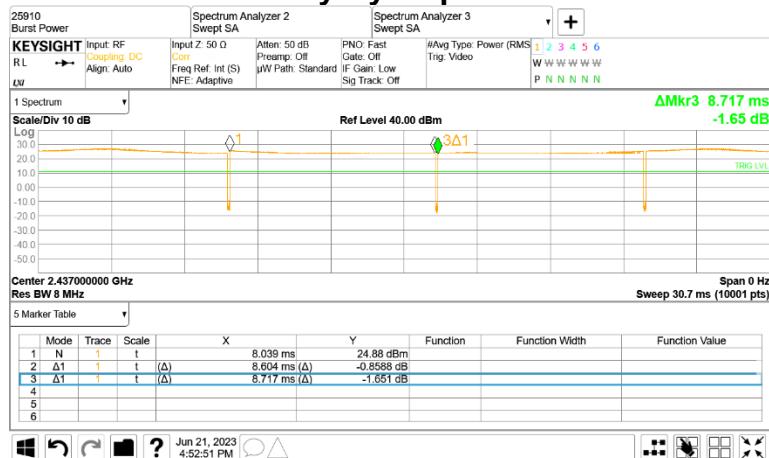
Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Max. Average Power (dBm)			Reduced Average Power		
					Meas. Avg Pwr	Max. Tune-up Limit	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 2.4G MIMO Ant.1	802.11b	1 Mbps	1	2412.0	19.28	20.0	Yes	11.44	12.0	Yes
			6	2437.0	19.09			11.21		
			11	2462.0	19.30			11.40		
	802.11g	6 Mbps	1 - 11	2412 - 2462	Not Required	18.0	No	Not Required	12.0	No
	802.11n	6.5 Mbps	1 - 11	2412 - 2462	Not Required	17.0	No	Not Required	12.0	No
	802.11ax	7.3 Mbps	1 - 11	2412 - 2462	Not Required	16.0	No	Not Required	12.0	No
Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Max. Average Power (dBm)			Reduced Average Power		
					Meas. Avg Pwr	Max. Tune-up Limit	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
	802.11b	1 Mbps	1	2412.0	18.76	20.0	Yes	10.10	12.0	Yes
			6	2437.0	18.50			10.63		
			11	2462.0	18.54			10.33		
	802.11g	6 Mbps	1 - 11	2412 - 2462	Not Required	18.0	No	Not Required	12.0	No
	802.11n	6.5 Mbps	1 - 11	2412 - 2462	Not Required	17.0	No	Not Required	12.0	No
	802.11ax	7.3 Mbps	1 - 11	2412 - 2462	Not Required	16.0	No	Not Required	12.0	No

#### Note(s):

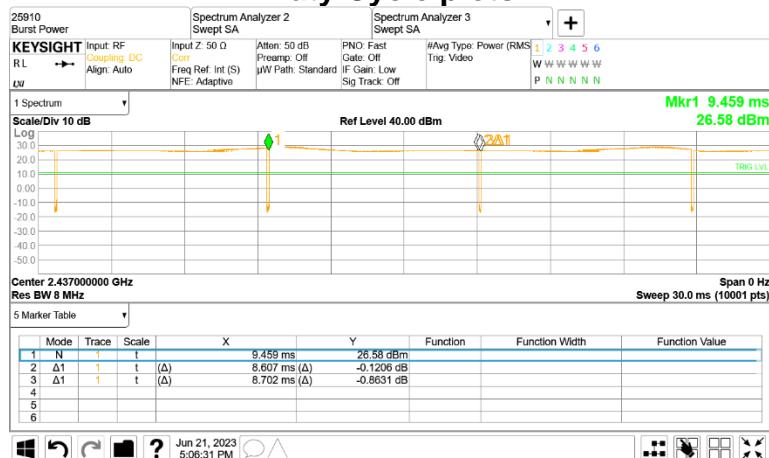
1. SAR is not required for 802.11g/n modes when the adjusted SAR for 802.11b is < 1.2 W/kg.
2. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel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

**Duty Factor Measured Results**

Mode	Ant Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11b	Ant 2	8.604	8.717	98.7%	1.01

**Duty Cycle plots****Duty Factor Measured Results**

Mode	Ant Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11b	MIMO	8.607	8.702	98.9%	1.01

**Duty Cycle plots**

## 9.5 Wi-Fi 5GHz (U-NII Band)

### WLAN SISO Ant.2 output power Results

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
						Max. Average Power			Reduced Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 5GHz SISO Ant.2	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	14.06	15.0	Yes	Not Required	6.5	No
				56	5280.0	14.08					
				60	5300.0	13.81					
				64	5320.0	13.82					
		802.11n (HT20)	6.5 Mbps	Not Required			14.0	No	Not Required	6.5	No
		802.11n (HT40)	13.5 Mbps	Not Required			12.0	No	Not Required	6.5	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			14.0	No	Not Required	6.5	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			12.0	No	Not Required	6.5	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	8.0	No	5.58	6.5	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			14.0	No	Not Required	6.5	No
	5.5 (U-NII 2C)	802.11ax (HE40)	14.6 Mbps	Not Required			12.0	No	Not Required	6.5	No
		802.11ax (HE80)	36 Mbps	Not Required			8.0	No	Not Required	6.5	No
		802.11a	6 Mbps	100	5500.0	16.27	17.0	Yes	Not Required	8.5	No
				120	5600.0	16.32			9.55	10.0	Yes
				124	5620.0	16.15			Not Required	8.5	No
				140	5700.0	16.09			Not Required	8.5	No
				144	5720.0	16.00			Not Required	8.5	No
		802.11n (HT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT80)	29.3 Mbps	Not Required			13.0	No	Not Required	8.5	No
	5.8 (U-NII 3)	802.11ax (HE20)	7.3 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ax (HE80)	36 Mbps	Not Required			13.0	No	Not Required	8.5	No
		802.11a	6 Mbps	149	5745.0	16.15	17.0	Yes	Not Required	8.5	No
				157	5785.0	16.18			9.32	9.5	Yes
				165	5825.0	16.26			Not Required	8.5	No
				802.11n (HT20)	Not Required				Not Required	8.5	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT80)	29.3 Mbps	Not Required			13.0	No	Not Required	8.5	No
		802.11ax (HE20)	7.3 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ax (HE80)	36 Mbps	Not Required			13.0	No	Not Required	8.5	No

#### Note(s):

- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac 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.1 output power Results**

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power							
						Max. Average Power			Reduced Average Power				
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)		
WiFi 5GHz MIMO Ant.1	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	14.58	15.0	Yes	Not Required	6.5	No		
				56	5280.0	14.21							
				60	5300.0	14.87							
				64	5320.0	14.36							
		802.11n (HT20)	6.5 Mbps	Not Required			14.0	No	Not Required	6.5	No		
		802.11n (HT40)	13.5 Mbps	Not Required			12.0	No	Not Required	6.5	No		
		802.11ac (VHT20)	6.5 Mbps	Not Required			14.0	No	Not Required	6.5	No		
		802.11ac (VHT40)	13.5 Mbps	Not Required			12.0	No	Not Required	6.5	No		
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	8.0	No	6.06	6.5	Yes		
		802.11ax (HE20)	7.3 Mbps	Not Required			14.0	No	Not Required	6.5	No		
		802.11ax (HE40)	14.6 Mbps	Not Required			12.0	No	Not Required	6.5	No		
		802.11ax (HE80)	36 Mbps	Not Required			8.0	No	Not Required	6.5	No		
		802.11a	6 Mbps	100	5500.0	16.26	17.0	Yes	Not Required	8.5	No		
				120	5600.0	16.48							
				124	5620.0	16.61							
				140	5700.0	16.55			9.81	10.0	Yes		
				144	5720.0	16.22			Not Required	8.5	No		
		802.11n (HT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No		
		802.11n (HT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No		
		802.11ac (VHT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No		
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No		
		802.11ac (VHT80)	29.3 Mbps	Not Required			13.0	No	Not Required	8.5	No		
		802.11ax (HE20)	7.3 Mbps	Not Required			16.0	No	Not Required	8.5	No		
		802.11ax (HE40)	14.6 Mbps	Not Required			14.0	No	Not Required	8.5	No		
		802.11ax (HE80)	36 Mbps	Not Required			13.0	No	Not Required	8.5	No		
		802.11a	6 Mbps	149	5745.0	16.55	17.0	Yes	Not Required	8.5	No		
				157	5785.0	16.25							
				165	5825.0	16.21							
				Not Required					Not Required	8.5	No		
				Not Required					Not Required	8.5	No		
				Not Required					Not Required	8.5	No		
				Not Required					Not Required	8.5	No		
				Not Required					Not Required	8.5	No		
		802.11n (HT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No		
		802.11n (HT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No		
		802.11ac (VHT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No		
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No		
		802.11ac (VHT80)	29.3 Mbps	Not Required			13.0	No	Not Required	8.5	No		
		802.11ax (HE20)	7.3 Mbps	Not Required			16.0	No	Not Required	8.5	No		
		802.11ax (HE40)	14.6 Mbps	Not Required			14.0	No	Not Required	8.5	No		
		802.11ax (HE80)	36 Mbps	Not Required			13.0	No	Not Required	8.5	No		

**Note(s):**

- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac 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
  - o  $\leq 1.2 \text{ W/kg}$ , SAR is not required for UNII band I
  - o  $> 1.2 \text{ W/kg}$ , both bands should be tested independently for SAR.

**WLAN MIMO Ant.2 output power Results**

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
						Max. Average Power			Reduced Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
WiFi 5GHz MIMO Ant.2	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	14.00	15.0	Yes	Not Required	6.5	No
				56	5280.0	14.09					
				60	5300.0	13.65					
				64	5320.0	13.64					
		802.11n (HT20)	6.5 Mbps	Not Required			14.0	No	Not Required	6.5	No
		802.11n (HT40)	13.5 Mbps	Not Required			12.0	No	Not Required	6.5	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			14.0	No	Not Required	6.5	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			12.0	No	Not Required	6.5	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	8.0	No	5.41	6.5	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			14.0	No	Not Required	6.5	No
	5.5 (U-NII 2C)	802.11ax (HE40)	14.6 Mbps	Not Required			12.0	No	Not Required	6.5	No
		802.11ax (HE80)	36 Mbps	Not Required			8.0	No	Not Required	6.5	No
		802.11a	6 Mbps	100	5500.0	16.09	17.0	Yes	Not Required	8.5	No
				120	5600.0	15.80					
				124	5620.0	15.55					
				140	5700.0	15.56					
				144	5720.0	15.87					
		802.11n (HT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT80)	29.3 Mbps	Not Required			13.0	No	Not Required	8.5	No
		802.11ax (HE20)	7.3 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ax (HE80)	36 Mbps	Not Required			13.0	No	Not Required	8.5	No
	5.8 (U-NII 3)	802.11a	6 Mbps	149	5745.0	15.47	17.0	Yes	Not Required	8.5	No
				157	5785.0	15.60					
				165	5825.0	15.59					
		802.11n (HT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ac (VHT80)	29.3 Mbps	Not Required			13.0	No	Not Required	8.5	No
		802.11ax (HE20)	7.3 Mbps	Not Required			16.0	No	Not Required	8.5	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.0	No	Not Required	8.5	No
		802.11ax (HE80)	36 Mbps	Not Required			13.0	No	Not Required	8.5	No

**Note(s):**

- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac 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
  - o  $\leq 1.2 \text{ W/kg}$ , SAR is not required for UNII band I
  - o  $> 1.2 \text{ W/kg}$ , both bands should be tested independently for SAR.

**Duty Factor Measured Results**

Mode	Ant Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11a	Ant 2	3.127	3.227	96.9%	1.03

**Duty Cycle plots****Duty Factor Measured Results**

Mode	Ant Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11ac	Ant 2	2.211	2.330	94.9%	1.05

**Duty Cycle plots**

**Duty Factor Measured Results**

Mode	Ant Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11a	MIMO	3.126	3.218	97.1%	1.03

**Duty Cycle plots****Duty Factor Measured Results**

Mode	Ant Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11ac	MIMO	1.131	1.241	91.1%	1.10

**Duty Cycle plots**

## 9.6. Bluetooth

### Bluetooth output power Results

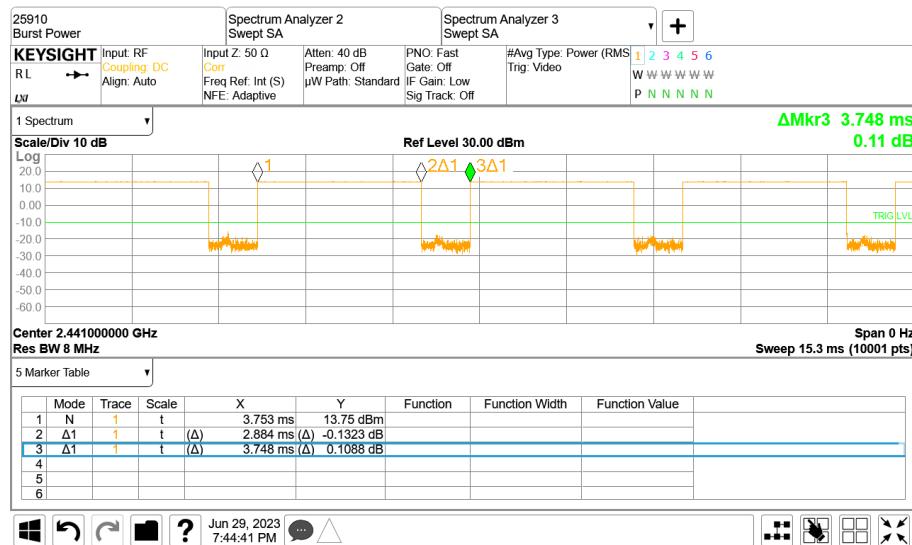
Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Maximum Average Power (dBm)		Reduced Average Power (dBm)	
					Meas Pwr	Tune-up Limit	Meas Pwr	Tune-up Limit
2.4	BT Ant.1	Bluetooth(1Mbps)	0	2402	13.81	15.0	9.19	10.0
			39	2441	13.74		8.67	
			78	2480	13.85		9.08	
		Bluetooth(EDR)	0	2402	10.24	11.0	10.24	11.0
			39	2441	10.45		10.45	
			78	2480	10.38		10.38	
		Bluetooth(LE) (1M/2M)	0	2402	13.43	14.0	9.26	10.0
			19	2440	12.71		8.56	
			39	2480	10.00		5.63	
		Bluetooth(LE) (125/500kbps)	0	2402	13.39	14.0	9.25	10.0
			19	2440	12.69		8.55	
			39	2480	9.96		5.62	

#### **Note(s):**

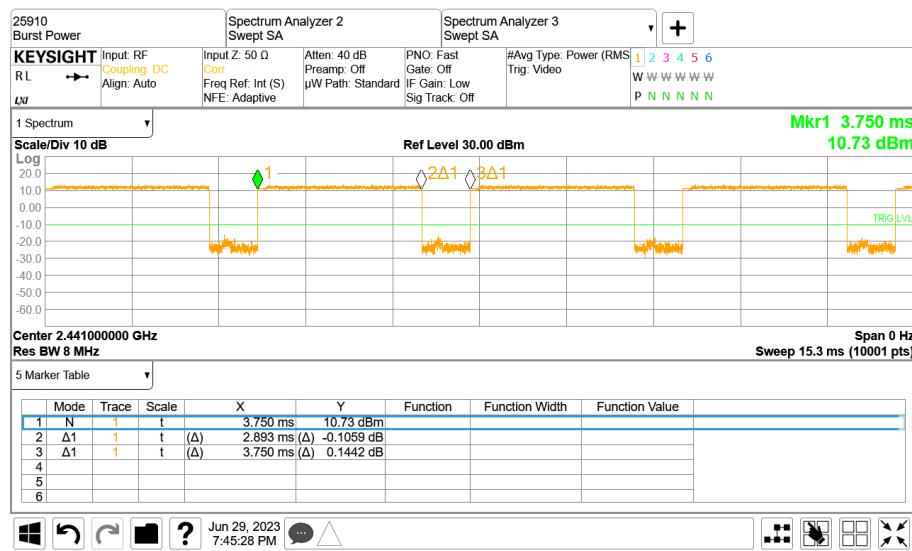
BT SAR are tested at the highest output power of all modes. So Max power SAR is tested using BDR mode and Reduce power SAR is tested using EDR mode.

**Duty Factor Measured Results**

Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
BDR	DH5	2.884	3.748	76.9%	1.30

**Duty Cycle plots****Duty Factor Measured Results**

Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
EDR	DH5	2.893	3.750	77.1%	1.30

**Duty Cycle plots**

## 10. Measured and Reported (Scaled) SAR Results

### SAR Test Reduction criteria are as follows:

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

### KDB 447498 D01 General RF Exposure Guidance:

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

- $\leq 0.8 \text{ W/kg}$  or  $2.0 \text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\leq 100 \text{ MHz}$
- $\leq 0.6 \text{ W/kg}$  or  $1.5 \text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between  $100 \text{ MHz}$  and  $200 \text{ MHz}$
- $\leq 0.4 \text{ W/kg}$  or  $1.0 \text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200 \text{ MHz}$

### 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  $> 1.2 \text{ W/kg}$ , the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

### KDB 648474 D04 Handset SAR (Phablet Only):

For smart phones, with a display diagonal dimension  $> 15.0 \text{ cm}$  or an overall diagonal dimension  $> 16.0 \text{ cm}$ .

When hotspot mode does not apply, 10-g extremity SAR is required for all surfaces and edges with an antenna located at  $\leq 25\text{mm}$

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  $> 1.2 \text{ W/kg}$ ;

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  $1.2 \text{ W/kg}$  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  $< 1.2 \text{ W/kg}$ .

### 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  $\leq \frac{1}{4} \text{ dB}$  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  $\leq 1.2 \text{ W/kg}$ , 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  $> 0.8 \text{ W/kg}$ , 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  $> 0.8 \text{ W/kg}$ . Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation  $< 1.45 \text{ W/kg}$ .
- Testing for 16-QAM modulation is not required because the reported SAR for QPSK is  $< 1.45 \text{ W/Kg}$  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  $< 1.45 \text{ W/Kg}$  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:

- $\leq 0.4 \text{ W/kg}$ , 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.
- $> 0.4 \text{ W/kg}$ , SAR is repeated using the same wireless mode test configuration tested in the initial test position to measure the subsequent next closest/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is  $\leq 0.8 \text{ W/kg}$  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  $> 0.8 \text{ W/kg}$ , measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2 \text{ W/kg}$  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  $\leq 1.2 \text{ W/kg}$ , 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  $\leq 1.2 \text{ W/kg}$ , 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. WCDMA Band II

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	Rel 99 RMC	DSI = 0	19	Rear	9400	1880.0	24.50	23.42	0.535	0.686	
				22	Top	9400	1880.0	24.50	23.42	0.564	0.723	
				19	R/Left	9400	1880.0	24.50	23.42	0.048	0.062	
				19	R/Right	9400	1880.0	24.50	23.42	0.044	0.056	
		Rel 99 RMC	DSI = 1	0	Rear	9262	1852.4	14.50	13.24	0.498	0.666	
						9400	1880.0	14.50	13.44	0.639	0.816	
					9538	1907.6	14.50	13.49	0.499	0.630		
				0	Top	9262	1852.4	14.50	13.24	0.642	0.858	
						9400	1880.0	14.50	13.44	0.688	0.878	1
					R/Left	9400	1880.0	14.50	13.44	0.066	0.084	
					R/Right	9400	1880.0	14.50	13.44	0.026	0.034	

## 10.2. WCDMA Band IV

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	Rel 99 RMC	DSI = 0	19	Rear	1413	1732.6	25.00	23.76	0.402	0.535	
				22	Top	1413	1732.6	25.00	23.76	0.559	0.744	2
				19	R/Left	1413	1732.6	25.00	23.76	0.055	0.073	
				19	R/Right	1413	1732.6	25.00	23.76	0.062	0.082	
		Rel 99 RMC	DSI = 1	0	Rear	1413	1732.6	13.50	12.92	0.608	0.695	
					Top	1413	1732.6	13.50	12.92	0.459	0.525	
					R/Left	1413	1732.6	13.50	12.92	0.049	0.056	
					R/Right	1413	1732.6	13.50	12.92	0.182	0.208	

### 10.3. WCDMA Band V

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	Rel 99 RMC	DSI = 0	19	Rear	4132	826.4	24.50	24.26	0.762	0.805	
						4183	836.6	24.50	23.95	0.787	0.893	
						4233	846.6	24.50	24.06	0.879	0.973	
				22	Top	4183	836.6	24.50	23.95	0.629	0.714	
				19	R/Left	4183	836.6	24.50	23.95	0.058	0.065	
		Rel 99 RMC	DSI = 1	19	R/Right	4183	836.6	24.50	23.95	0.034	0.039	
				0	Rear	4132	826.4	17.50	16.61	0.637	0.782	
						4183	836.6	17.50	16.32	0.674	0.884	
						4233	846.6	17.50	16.33	0.648	0.848	
					Top	4132	826.4	17.50	16.61	0.774	0.950	
						4183	836.6	17.50	16.32	0.789	1.035	3
					R/Left	4183	836.6	17.50	16.33	0.779	1.020	
					R/Right	4183	836.6	17.50	16.32	0.037	0.048	
					R/Right	4183	836.6	17.50	16.32	0.024	0.031	

### 10.4. LTE Band 7 (Main.1) (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	21350	2560.0	1	0	25.00	24.71	0.469	0.501		
									50	0	24.00	23.72	0.356	0.380	
									1	0	25.00	24.71	0.409	0.437	
				22	Top	21350	2560.0	50	0	24.00	23.72	0.321	0.342		
									1	0	25.00	24.71	0.067	0.072	
		QPSK	DSI = 1	19	R/Left	21350	2560.0	50	0	24.00	23.72	0.052	0.056		
									1	0	25.00	24.71	0.005	0.006	
									50	0	24.00	23.72	0.004	0.004	
				19	R/Right	21350	2560.0	1	0	13.00	12.44	0.556	0.633		
									50	0	13.00	12.38	0.557	0.642	
				0	Rear	21350	2560.0	1	0	13.00	12.44	0.469	0.534	4	
									50	0	13.00	12.38	0.456	0.526	
					Top	21350		50	0	13.00	12.44	0.045	0.051		
									1	0	13.00	12.38	0.045	0.052	
				R/Left	R/Left	21350	2560.0	1	0	13.00	12.44	<0.001	<0.001		
									50	0	13.00	12.38	<0.001	<0.001	
					R/Right	21350		50	0	13.00	12.44	<0.001	<0.001		
									1	0	13.00	12.38	<0.001	<0.001	

## 10.5. LTE Band 7 (Sub.2) (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	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	
Sub 2 Ant.	Standalone	QPSK	DSI = 0	19	Rear	20850	2510.0	1	0	24.00	23.50	0.198	0.222	
								50	0	23.00	22.52	0.157	0.175	
				0	R/Left	20850	2510.0	1	0	24.00	23.50	0.259	0.291	
								50	0	23.00	22.52	0.189	0.211	
				19	Bottom	20850	2510.0	1	0	24.00	23.50	0.358	0.402	
								50	0	23.00	22.52	0.289	0.323	
		QPSK	DSI = 1	0	R/Right	20850	2510.0	1	0	24.00	23.50	0.137	0.154	
								50	0	23.00	22.52	0.104	0.116	
					Rear	20850	2510.0	1	0	10.50	10.00	0.545	0.612	
								50	0	10.50	9.99	0.549	0.617	5
					Bottom	20850	2510.0	1	0	10.50	10.00	0.412	0.462	
								50	0	10.50	9.99	0.408	0.459	

## 10.6. LTE Band 12 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	23095	707.5	1	0	25.00	23.56	0.267	0.372	
								25	0	24.00	22.55	0.215	0.300	
				22	Top	23095	707.5	1	0	25.00	23.56	0.253	0.352	
								25	0	24.00	22.55	0.199	0.278	
				19	R/Left	23095	707.5	1	0	25.00	23.56	0.021	0.029	
								25	0	24.00	22.55	0.016	0.022	
		QPSK	DSI = 1	19	R/Right	23095	707.5	1	0	25.00	23.56	0.020	0.028	
								25	0	24.00	22.55	0.015	0.021	
				0	Rear	23095	707.5	1	0	16.50	16.15	0.479	0.519	
								25	0	16.50	15.95	0.481	0.546	
				Top	23095	707.5	707.5	1	0	16.50	16.15	0.499	0.541	
								25	0	16.50	15.95	0.490	0.556	6
				R/Left	23095	707.5	707.5	1	0	16.50	16.15	0.066	0.072	
								25	0	16.50	15.95	0.065	0.074	
				R/Right	23095	707.5	707.5	1	0	16.50	16.15	0.035	0.038	
								25	0	16.50	15.95	0.034	0.039	

## 10.7. LTE Band 13 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	23230	782.0	1	0	25.00	23.52	0.545	0.766	
										25	0	24.00	22.43	0.437
				22	Top	23230	782.0	1	0	25.00	23.52	0.549	0.772	7
										25	0	24.00	22.43	0.446
				19	R/Left	23230	782.0	1	0	25.00	23.52	0.040	0.056	
										25	0	24.00	22.43	0.031
				19	R/Right	23230	782.0	1	0	25.00	23.52	0.030	0.042	
										25	0	24.00	22.43	0.021
		QPSK	DSI = 1	0	Rear	23230	782.0	1	0	16.50	15.26	0.532	0.708	
										25	0	16.50	15.24	0.508
				Top	23230	782.0	1	0	16.50	15.26	0.515	0.685		
										25	0	16.50	15.24	0.509
				R/Left	23230	782.0	1	0	16.50	15.26	0.087	0.116		
										25	0	16.50	15.24	0.085
				R/Right	23230	782.0	1	0	16.50	15.26	0.036	0.048		
										25	0	16.50	15.24	0.035

## 10.8. LTE Band 14 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	23330	793.0	1	0	25.00	24.15	0.606	0.737	8
										25	0	24.00	23.15	0.483
				22	Top	23330	793.0	1	0	25.00	24.15	0.552	0.671	
										25	0	24.00	23.15	0.437
				19	R/Left	23330	793.0	1	0	25.00	24.15	0.049	0.060	
										25	0	24.00	23.15	0.036
				19	R/Right	23330	793.0	1	0	25.00	24.15	0.031	0.038	
										25	0	24.00	23.15	0.030
		QPSK	DSI = 1	0	Rear	23330	793.0	1	0	16.50	15.16	0.449	0.611	
										25	0	16.50	15.13	0.443
				Top	23330	793.0	1	0	16.50	15.16	0.418	0.569		
										25	0	16.50	15.13	0.415
				R/Left	23330	793.0	1	0	16.50	15.16	0.096	0.131		
										25	0	16.50	15.13	0.094
				R/Right	23330	793.0	1	0	16.50	15.16	0.039	0.053		
										25	0	16.50	15.13	0.041

## 10.9. LTE Band 25 (Main.1) (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	26140	1860.0	1	99	25.00	24.05	0.501	0.624	
										50	24.00	23.20	0.389	0.468
				22	Top	26140	1860.0	1	99	25.00	24.05	0.571	0.711	
										50	24.00	23.20	0.495	0.595
				19	R/Left	26140	1860.0	1	99	25.00	24.05	0.050	0.062	
										50	24.00	23.20	0.052	0.063
		QPSK	DSI = 1	19	R/Right	26140	1860.0	1	99	25.00	24.05	0.029	0.036	
										50	24.00	23.20	0.029	0.035
				0	Rear	26140	1860.0	1	99	13.50	12.65	0.496	0.603	
										50	13.50	12.63	0.502	0.613
					Top	26140	1860.0	1	99	13.50	12.65	0.611	0.743	
										50	13.50	12.63	0.630	0.770
					R/Left	26140	1860.0	1	99	13.50	12.65	0.056	0.068	
										50	13.50	12.63	0.052	0.063
					R/Right	26140	1860.0	1	99	13.50	12.65	0.068	0.082	
										50	13.50	12.63	0.066	0.081

## 10.10. LTE Band 25 (Sub.2) (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	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	
Sub 2 Ant.	Standalone	QPSK	DSI = 0	19	Rear	26365	1882.5	1	0	24.00	23.71	0.141	0.151	
										50	23.00	22.78	0.138	0.145
				0	R/Left	26365	1882.5	1	0	24.00	23.71	0.405	0.433	
										50	23.00	22.78	0.400	0.421
				19	Bottom	26365	1882.5	1	0	24.00	23.71	0.183	0.196	
										50	23.00	22.78	0.183	0.193
		QPSK	DSI = 1	0	R/Right	26365	1882.5	1	0	24.00	23.71	0.268	0.287	
										50	23.00	22.78	0.302	0.318
				0	Rear	26365	1882.5	1	0	11.00	10.18	0.622	0.751	
										50	11.00	10.09	0.633	0.781
				Bottom	26365	1882.5	1	0	11.00	10.18	0.489	0.591	10	
										50	11.00	10.09	0.475	0.586

## 10.11. LTE Band 26 (15MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	26865	831.5	1	0	25.00	24.17	0.572	0.692	
										36	0	24.00	23.30	0.463
				22	Top	26865	831.5	1	0	25.00	24.17	0.626	0.758	11
										36	0	24.00	23.30	0.510
				19	R/Left	26865	831.5	1	0	25.00	24.17	0.060	0.072	
										36	0	24.00	23.30	0.044
		QPSK	DSI = 1	19	R/Right	26865	831.5	1	0	25.00	24.17	0.028	0.034	
										36	0	24.00	23.30	0.019
				0	Rear	26865	831.5	1	0	15.00	14.20	0.388	0.466	
										36	0	15.00	14.18	0.391
				Top		26865	831.5	1	0	15.00	14.20	0.452	0.543	
										36	0	15.00	14.18	0.444
				R/Left		26865	831.5	1	0	15.00	14.20	0.039	0.047	
										36	0	15.00	14.18	0.037
				R/Right		26865	831.5	1	0	15.00	14.20	0.009	0.011	
										36	0	15.00	14.18	0.010

## 10.12. LTE Band 30 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	27710	2310.0	1	25	23.00	22.62	0.223	0.243	
										25	25	22.85	0.198	0.205
				22	Top	27710	2310.0	1	25	23.00	22.62	0.283	0.309	
										25	25	22.85	0.212	0.219
				19	R/Left	27710	2310.0	1	25	23.00	22.62	0.026	0.028	
										25	25	22.85	0.022	0.023
		QPSK	DSI = 1	19	R/Right	27710	2310.0	1	25	23.00	22.62	0.021	0.023	
										25	25	22.85	0.020	0.021
				0	Rear	27710	2310.0	1	25	13.50	12.32	0.368	0.483	
										25	25	12.50	0.376	0.473
				Top		27710	2310.0	1	25	13.50	12.32	0.489	0.642	12
										25	25	12.50	0.495	0.623
				R/Left		27710	2310.0	1	25	13.50	12.32	0.030	0.040	
										25	25	12.50	0.031	0.039
				R/Right		27710	2310.0	1	25	13.50	12.32	<0.001	<0.001	
										25	25	12.50	0.002	0.003

## 10.13. LTE Band 41 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	40620	2593.0	1	0	25.00	24.72	0.218	0.233	
										50	0	24.00	23.66	0.160
				22	Top	40620	2593.0	1	0	25.00	24.72	0.212	0.226	
										50	0	24.00	23.66	0.151
				19	R/Left	40620	2593.0	1	0	25.00	24.72	0.050	0.053	
										50	0	24.00	23.66	0.040
				19	R/Right	40620	2593.0	1	0	25.00	24.72	0.005	0.006	
										50	0	24.00	23.66	<0.001
				0	Rear	40620	2593.0	1	0	15.00	14.25	0.453	0.538	13
										50	0	15.00	14.28	0.440
					Top	40620	2593.0	1	0	15.00	14.25	0.352	0.418	
										50	0	15.00	14.28	0.345
					R/Left	40620	2593.0	1	0	15.00	14.25	0.023	0.028	
										50	0	15.00	14.28	0.025
					R/Right	40620	2593.0	1	0	15.00	14.25	<0.001	<0.001	
										50	0	15.00	14.28	<0.001

### LTE Band 41 Power Class 2

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	DSI Status	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	0	DSI = 1	Rear	40620	2593.0	1	0	15.00	14.63	0.311	0.339	

#### 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.

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

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

### Reported SAR vs. Output power linearly scaled

Antenna	RF Exposure Conditions	Power Class 2				Power Class 3				PC2 linearly scaled Reported SAR (W/kg)	Linearly scaled (<10%)
		Duty Cycle (%)	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)	Duty Cycle	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)		
Main 1 Ant.	Standalone	43.3	15.0	13.7	0.339	63.3	15.0	20.0	0.453	0.310	9.4

#### Note(s):

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

### 10.14. LTE Band 66 (Main.1) (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	132322	1745.0	1	0	24.50	23.31	0.444	0.584	
										50	24	23.50	22.51	0.371
				22	Top	132322	1745.0	1	0	24.50	23.31	0.539	0.709	14
										50	24	23.50	22.51	0.469
				19	R/Left	132322	1745.0	1	0	24.50	23.31	0.066	0.086	
										50	24	23.50	22.51	0.073
		QPSK	DSI = 1	19	R/Right	132322	1745.0	1	0	24.50	23.31	0.031	0.040	
										50	24	23.50	22.51	0.038
				0	Rear	132322	1745.0	1	0	13.00	12.35	0.505	0.587	
										50	24	13.00	12.21	0.549
					Top	132322	1745.0	1	0	13.00	12.35	0.511	0.594	
										50	24	13.00	12.21	0.564
					R/Left	132322	1745.0	1	0	13.00	12.35	0.053	0.061	
										50	24	13.00	12.21	0.057
					R/Right	132322	1745.0	1	0	13.00	12.35	0.173	0.201	
										50	24	13.00	12.21	0.186

### 10.15. LTE Band 66 (Sub.2) (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	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	
Sub 2 Ant.	Standalone	QPSK	DSI = 0	19	Rear	132572	1770.0	1	0	24.00	23.59	0.139	0.153	
										50	0	23.00	22.64	0.144
				0	R/Left	132572	1770.0	1	0	24.00	23.59	0.334	0.367	
										50	0	23.00	22.64	0.337
				19	Bottom	132572	1770.0	1	0	24.00	23.59	0.196	0.215	
										50	0	23.00	22.64	0.198
		QPSK	DSI = 1	0	R/Right	132572	1770.0	1	0	24.00	23.59	0.248	0.273	
										50	0	23.00	22.64	0.264
				0	Rear	132572	1770.0	1	0	11.00	10.30	0.631	0.741	
										50	0	11.00	10.33	0.641
				Bottom	132572	1770.0	1	0	11.00	10.30	0.388	0.456		15
										50	0	11.00	10.33	0.394

## 10.16. LTE Band 71 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Standalone	QPSK	DSI = 0	19	Rear	133297	680.5	1	0	25.00	24.15	0.156	0.190	
									50	0	24.00	23.10	0.117	0.144
				22	Top	133297	680.5	1	0	25.00	24.15	0.151	0.184	
									50	0	24.00	23.10	0.113	0.139
				19	R/Left	133297	680.5	1	0	25.00	24.15	0.024	0.030	
									50	0	24.00	23.10	0.017	0.021
		QPSK	DSI = 1	19	R/Right	133297	680.5	1	0	25.00	24.15	0.037	0.045	
									50	0	24.00	23.10	0.024	0.030
				0	Rear	133297	680.5	1	0	20.00	19.74	0.499	0.530	16
									50	0	20.00	19.65	0.476	0.516
				Top	133297	680.5	1	0	20.00	19.74	0.482	0.512		
								50	0	20.00	19.65	0.476	0.516	
				R/Left	133297	680.5	1	0	20.00	19.74	0.047	0.050		
								50	0	20.00	19.65	0.044	0.048	
				R/Right	133297	680.5	1	0	20.00	19.74	0.024	0.025		
								50	0	20.00	19.65	0.023	0.025	

## 10.17. NR Band n5 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	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		
Main 1 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	167300	836.5	1	1	25.00	23.60	0.528	0.729		
										50	28	25.00	23.51	0.356	0.502	
					22	Top	167300	836.5	1	1	25.00	23.60	0.478	0.660		
										50	28	25.00	23.51	0.526	0.741	17
					19	R/Left	167300	836.5	1	1	25.00	23.60	0.052	0.072		
										50	28	25.00	23.51	0.049	0.070	
		DFT-s-OFDM	QPSK	DSI = 1	19	R/Right	167300	836.5	1	1	25.00	23.60	0.045	0.061		
										50	28	25.00	23.51	0.048	0.067	
					0	Rear	167300	836.5	1	1	15.00	14.48	0.469	0.529		
										50	28	15.00	14.41	0.464	0.532	
					Top	167300	836.5	1	1	1	15.00	14.48	0.394	0.444		
									50	28	15.00	14.41	0.426	0.488		
					R/Left	167300	836.5	1	1	1	15.00	14.48	0.034	0.039		
									50	28	15.00	14.41	0.035	0.040		
					R/Right	167300	836.5	1	1	1	15.00	14.48	0.016	0.018		
									50	28	15.00	14.41	0.018	0.021		
		CP-OFDM	QPSK	DSI = 1	0	Rear	167300	836.5	1	1	15.00	14.45	0.412	0.468	1	

**Note(s):**

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

## 10.18. NR Band n12 (15MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	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		
Main 1 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	141500	707.5	1	77	25.00	23.67	0.292	0.397		
					19	Top	141500	707.5	36	22	24.00	23.60	0.217	0.238		
					22	R/Left	141500	707.5	1	77	25.00	23.67	0.205	0.278		
					19	R/Right	141500	707.5	36	22	24.00	23.60	0.212	0.232		
					19	R/Right	141500	707.5	1	77	25.00	23.67	0.022	0.029		
		DFT-s-OFDM	QPSK	DSI = 1	0	Rear	141500	707.5	36	22	24.00	23.60	0.017	0.019		
					0	Top	141500	707.5	1	77	16.50	16.29	0.445	0.467		
					0	R/Left	141500	707.5	36	22	16.50	16.27	0.412	0.434		
					0	R/Right	141500	707.5	1	77	16.50	16.29	0.455	0.478	18	
					0	CP-OFDM	QPSK	DSI = 1	36	22	16.50	16.27	0.422	0.445		

**Note(s):**

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

## 10.19. NR Band n25 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	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		
Main 1 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	376500	1882.5	1	53	25.00	24.04	0.438	0.546		
					19	Top	376500	1882.5	50	28	25.00	24.01	0.476	0.598		
					22	R/Left	376500	1882.5	1	53	25.00	24.04	0.500	0.624		
					22	R/Right	376500	1882.5	50	28	25.00	24.01	0.554	0.696		
					0	R/Right	376500	1882.5	1	53	25.00	24.04	<0.001	<0.001		
		DFT-s-OFDM	QPSK	DSI = 1	0	Rear	376500	1882.5	50	28	25.00	24.01	<0.001	<0.001		
					0	Top	376500	1882.5	1	53	13.50	12.89	0.520	0.598		
					0	R/Left	376500	1882.5	50	28	13.50	12.77	0.512	0.606		
					0	R/Right	376500	1882.5	1	53	13.50	12.89	0.587	0.676	19	
					0	CP-OFDM	QPSK	DSI = 1	50	28	13.50	12.77	0.606	0.717		

**Note(s):**

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

## 10.20. NR Band n30 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	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		
Main 1 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	462000	2310.0	1	50	23.50	22.36	0.166	0.216		
									25	14	22.50	22.20	0.210	0.225		
					22	Top	462000	2310.0	1	50	23.50	22.36	0.196	0.255		
									25	14	22.50	22.20	0.232	0.249		
					19	R/Left	462000	2310.0	1	50	23.50	22.36	0.020	0.027		
		DFT-s-OFDM	QPSK	DSI = 1					25	14	22.50	22.20	0.024	0.026		
					0	R/Right	462000	2310.0	1	50	23.50	22.36	0.016	0.021		
									25	14	22.50	22.20	0.018	0.019		
		CP-OFDM	QPSK	DSI = 1	0	Top	462000	2310.0	1	50	13.50	12.98	0.412	0.464		
									25	14	13.50	13.01	0.410	0.459		
																20

### Note(s):

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

## 10.21. NR Band n41 (Main.1 SRS0) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	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		
Main 1 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	518598	2593.0	1	137	21.50	20.98	0.150	0.169		
									135	69	21.50	20.94	0.112	0.127		
					22	Top	518598	2593.0	1	137	21.50	20.98	0.148	0.167		
									135	69	21.50	20.94	0.115	0.131		
					19	R/Left	518598	2593.0	1	137	21.50	20.98	0.031	0.035		
		DFT-s-OFDM	QPSK	DSI = 1					135	69	21.50	20.94	0.023	0.027		
					19	R/Right	518598	2593.0	1	137	21.50	20.98	0.012	0.013		
									135	69	21.50	20.94	0.008	0.009		
		CP-OFDM	QPSK	DSI = 1	0	Rear	518598	2593	1	137	14.00	13.78	0.730	0.768		
									135	69	14.00	13.82	0.778	0.811		21

### Note(s):

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

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

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Sub.2 -SRS1-	Standalone	SRS CW	19	Rear	518598	2593.0	20.00	19.07	0.076	0.095	
			0	R/Left	518598	2593.0	20.00	19.07	0.345	0.427	
			19	Bottom	518598	2593.0	20.00	19.07	0.118	0.146	
			0	R/Right	518598	2593.0	20.00	19.07	0.067	0.083	
	Standalone	SRS CW	0	Rear	518598	2593.0	14.00	13.43	0.594	0.677	
			Bottom	518598	2593.0	14.00	13.43	0.953	1.087	22	
		SRS CW	19	Rear	518598	2593.0	20.00	19.60	0.028	0.030	
			0	R/Left	518598	2593.0	20.00	19.60	0.011	0.012	
Sub.4 -SRS2-	Standalone	SRS CW	19	Bottom	518598	2593.0	20.00	19.60	0.039	0.043	
			0	R/Right	518598	2593.0	20.00	19.60	0.257	0.282	
			0	Rear	518598	2593.0	14.00	13.10	0.473	0.582	23
			Bottom	518598	2593.0	14.00	13.10	0.137	0.169		
	Standalone	SRS CW	19	Rear	518598	2593.0	17.50	16.78	0.062	0.073	
			0	R/Left	518598	2593.0	17.50	16.78	0.010	0.011	
			19	Bottom	518598	2593.0	17.50	16.78	0.064	0.076	
			19	R/Right	518598	2593.0	17.50	16.78	0.088	0.104	
Sub.1 -SRS3-	Standalone	SRS CW	0	Rear	518598	2593.0	14.00	13.18	0.985	1.190	24
			Bottom	518598	2593.0	14.00	13.18	0.431	0.521		
			0	R/Right	518598	2593.0	14.00	13.18	0.945	1.141	

### Note(s):

- NR Band n41 (SRS1/SRS2/SRS3) tested using FTM mode.

## 10.23. NR Band n66 (40MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	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		
Main 1 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	349000	1745.0	1	108	25.00	23.69	0.588	0.795		
					108	54			108	54	25.00	23.69	0.591	0.799		
					22	Top	349000	1745.0	1	108	25.00	23.69	0.591	0.799		25
					108	54			108	54	25.00	23.69	0.577	0.780		
		DFT-s-OFDM	QPSK	DSI = 1	19	R/Left	349000	1745.0	1	108	25.00	23.69	0.055	0.074		
					108	54			108	54	25.00	23.69	0.053	0.071		
				DSI = 1	19	R/Right	349000	1745.0	1	108	25.00	23.69	0.058	0.078		
					108	54			108	54	25.00	23.69	0.055	0.074		
	Standalone	DFT-s-OFDM	QPSK	DSI = 1	0	Rear	349000	1745.0	1	108	13.00	12.25	0.528	0.628		
					108	54			108	54	13.00	12.35	0.490	0.569		
				DSI = 1	0	Top	349000	1745.0	1	108	13.00	12.25	0.541	0.643		
					108	54			108	54	13.00	12.35	0.540	0.627		
		CP-OFDM	QPSK	DSI = 1	0	R/Left	349000	1745.0	1	108	13.00	12.25	0.050	0.059		
					108	54			108	54	13.00	12.35	0.046	0.053		
				DSI = 1	0	R/Right	349000	1745.0	1	108	13.00	12.25	0.085	0.101		
					108	54			108	54	13.00	12.35	0.088	0.102		

### Note(s):

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

## 10.24. NR Band n71 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	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		
Main 1 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	136100	680.5	1	53	25.00	23.82	0.216	0.283		
					19	Top	136100	680.5	1	53	25.00	23.82	0.088	0.115		
					22	Top	136100	680.5	50	28	24.00	23.74	0.171	0.182		
					19	R/Left	136100	680.5	1	53	25.00	23.82	0.014	0.018		
					19	R/Right	136100	680.5	50	28	24.00	23.74	0.013	0.014		
		DFT-s-OFDM	QPSK	DSI = 1	0	Rear	136100	680.5	1	53	20.00	19.44	0.438	0.498		
					0	Top	136100	680.5	50	28	20.00	19.45	0.461	0.523		26
					0	R/Left	136100	680.5	1	53	20.00	19.44	0.366	0.416		
					0	R/Right	136100	680.5	50	28	20.00	19.45	0.357	0.405		
					CP-OFDM	QPSK	DSI = 1	0	Rear	136100	680.5	1	53	20.00	19.44	0.031
															0.032	0.036
															0.406	0.528
																1

### Note(s):

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

## 10.25. NR Band n77(Main.2 SRS0) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	DSI Status	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Standalone	DFT-s-OFDM	QPSK	DSI = 0	19	Rear	662000	3930.0	1	1	22.00	21.61	0.124	0.136	
									135	69	22.00	20.93	0.092	0.118	
					19	R/Left	662000	3930.0	1	1	22.00	21.61	0.286	0.313	
									135	69	22.00	20.93	0.245	0.313	
					19	Bottom	662000	3930.0	1	1	22.00	21.61	0.122	0.133	
									135	69	22.00	20.93	0.106	0.136	
		DFT-s-OFDM	QPSK	DSI = 1	0	R/Right	662000	3930.0	1	1	22.00	21.61	0.018	0.019	
									135	69	22.00	20.93	0.019	0.024	
					0	Rear	662000	3930.0	1	1	10.00	9.58	0.309	0.340	
									135	69	10.00	9.43	0.306	0.349	
						R/Left	633334	3500.0	1	1	10.00	9.59	0.681	0.748	
									135	69	10.00	9.61	0.677	0.741	
						Bottom	650000	3750.0	1	1	10.00	9.56	0.620	0.686	
									135	69	10.00	9.18	0.657	0.794	27
						R/Left	662000	3930.0	1	1	10.00	9.58	0.587	0.647	
									135	69	10.00	9.43	0.469	0.535	
						Bottom	662000	3930.0	1	1	10.00	9.58	0.180	0.198	
									135	69	10.00	9.43	0.149	0.170	
		CP-OFDM	QPSK	DSI = 1	0	R/Left	650000	3750.0	1	1	10.00	9.17	0.598	0.724	

### Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.
2. NR Band n77-DoD are tested at worst configuration of NR Band n77 band.
3. NR Band n77 tested using FTM mode.
4. In case of R/Right position, additional measurement due to simultaneous combination

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

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Sub.2 -SRS1-	Standalone	SRS CW	19	Rear	662000	3930.0	22.00	20.77	0.117	0.155	
			0	R/Left	633334	3500.0	22.00	21.32	0.255	0.298	
					650000	3750.0	22.00	20.56	0.457	0.637	
					662000	3930.0	22.00	20.77	0.671	0.891	28
			19	Bottom	662000	3930.0	22.00	20.77	0.162	0.215	
	Standalone	SRS CW	0	R/Right	662000	3930.0	22.00	20.77	0.067	0.089	
			0	Rear	662000	3930.0	10.00	9.66	0.264	0.285	
				Bottom	662000	3930.0	10.00	9.66	0.333	0.360	
Sub.4 -SRS2-	Standalone	SRS CW	19	Rear	662000	3930.0	19.00	18.94	0.097	0.098	
			0	R/Left	662000	3930.0	19.00	18.94	0.224	0.227	
			19	Bottom	662000	3930.0	19.00	18.94	0.153	0.155	
			0	R/Right	633334	3500.0	19.00	18.84	0.895	0.929	29
					650000	3750.0	19.00	18.45	0.720	0.817	
					662000	3930.0	19.00	18.94	0.702	0.712	
	Standalone	SRS CW	0	Rear	633334	3500.0	10.00	9.77	0.646	0.681	
					650000	3750.0	10.00	8.62	0.258	0.355	
					662000	3930.0	10.00	8.81	0.323	0.425	
			0	Bottom	633334	3500.0	10.00	9.77	0.641	0.676	
					650000	3750.0	10.00	8.62	0.386	0.530	
					662000	3930.0	10.00	8.81	0.400	0.526	
Sub.3 -SRS3-	Standalone	SRS CW	19	Rear	662000	3930.0	18.00	17.75	0.046	0.049	
			22	Top	662000	3930.0	18.00	17.75	0.020	0.021	
			19	R/Right	662000	3930.0	18.00	17.75	0.116	0.123	
	Standalone	SRS CW	0	Rear	633334	3500.0	8.00	7.80	0.340	0.356	
					650000	3750.0	8.00	7.63	0.381	0.415	
					662000	3930.0	8.00	6.20	0.108	0.163	
			0	Top	650000	3750.0	8.00	7.63	0.179	0.195	
					633334	3500.0	8.00	7.80	0.680	0.712	30
					650000	3750.0	8.00	7.63	0.596	0.649	
			0	R/Right	662000	3930.0	8.00	6.20	0.298	0.451	

### Note(s):

1. NR Band n77-DoD are tested at worst configuration of NR Band n77 band.
2. NR Band n77 (SRS1/SRS2/SRS3) tested using FTM mode.

## 10.27. LTE-uplink 2CA

### 5B test results

Antenna	RF Exposure Conditions	Mode	DSI State	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						
Main 1 Ant.	Standalone	QPSK	DSI=0	19	Rear	20525	836.5	1	0	20453	829.3	1	24	25.0	24.1	0.487	0.599	31

### 41C test results

Antenna	RF Exposure Conditions	Mode	DSI State	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						
Main 1 Ant.	Standalone	QPSK	DSI=1	0	Rear	40620	2593	1	0	40422	2573.2	1	99	15.0	14.1	0.496	0.607	32

### 66C test results

Antenna	RF Exposure Conditions	Mode	DSI State	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						
Main 1 Ant.	Standalone	QPSK	DSI=0	22	Top	132322	1745	1	0	132212	1725.2	1	99	24.5	23.3	0.519	0.684	33

### 66B test results

Antenna	RF Exposure Conditions	Mode	DSI State	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						
Main 1 Ant.	Standalone	QPSK	DSI=0	22	Top	132322	1745	1	0	132229	1735.7	1	24	24.5	23.0	0.561	0.794	34

## 10.28. Wi-Fi (DTS Band)

### DTS SISO Results

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
2.4GHz	WLAN SISO Ant.1	802.11b 1 Mbps	Standalone	Off	19	Rear	1	2412.0	98.7%	20.00	19.14	0.077	0.095	
					22	Top	1	2412.0	98.7%	20.00	19.14	0.091	0.113	
					19	R/Left	1	2412.0	98.7%	20.00	19.14	0.068	0.083	
				On	0	Rear	11	2462.0	98.7%	12.00	11.16	0.552	0.679	35
						Top	11	2462.0	98.7%	12.00	11.16	0.252	0.310	
						R/Left	11	2462.0	98.7%	12.00	11.16	0.518	0.637	

### DTS MIMO Results

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
2.4GHz	WLAN MIMO Ant.1	802.11b 1Mbps	Standalone	Off	19	Rear	11	2462.0	98.9%	20.00	19.30	0.115	0.137	
					22	Top	11	2462.0	98.9%	20.00	19.30	0.112	0.133	
					19	R/Left	11	2462.0	98.9%	20.00	19.30	0.082	0.097	
					19	R/Right	11	2480.0	98.9%					
				On	0	Rear	1	2412.0	98.9%					
							11	2462.0	98.9%	12.00	11.40	0.553	0.642	
					0	Top	1	2412.0	98.9%					
						R/Left	1	2412.0	98.9%	12.00	11.44	0.476	0.547	
						R/Right	1	2402.0	98.9%					
	WLAN MIMO Ant.2	802.11b 1Mbps	Standalone	Off	19	Rear	11	2462.0	98.9%	20.00	18.54	0.087	0.123	
					22	Top	11	2462.0	98.9%					
					19	R/Left	11	2462.0	98.9%					
					19	R/Right	11	2480.0	98.9%	20.00	18.54	0.155	0.219	
				On	0	Rear	1	2412.0	98.9%	12.00	10.10	0.573	0.897	36
							11	2462.0	98.9%	12.00	10.33	0.557	0.827	
					0	Top	1	2412.0	98.9%	12.00	10.10	0.250	0.391	
						R/Left	1	2412.0	98.9%					
						R/Right	1	2402.0	98.9%	12.00	10.10	0.493	0.772	

#### Note(s):

1. 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). If second channel SAR is not over 1.2 or 3.0 W/kg (1-g or 10-g respectively), remain channels SAR test are not required.
2. SAR testing is not required for OFDM mode(s) when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
3. Additional SAR tested.

## 10.29. Wi-Fi (U-NII Bands)

### U-NII 2A SISO Results

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
5.3 GHz U-NII 2A	WLAN SISO Ant.2	802.11a 6 Mbps	Standalone	Off	19	Rear	56	5280.0	96.9%	15.00	14.08	0.040	0.051	
					22	Top	56	5280.0	96.9%	15.00	14.08	0.034	0.044	
					19	R/Right	56	5280.0	96.9%	15.00	14.08	0.171	0.218	
		802.11ac VHT80 29.3 Mbps	Standalone	On	0	Rear	58	5290.0	94.9%	6.50	5.58	0.207	0.270	
						Top	58	5290.0	94.9%	6.50	5.58	0.061	0.079	
						R/Right	58	5290.0	94.9%	6.50	5.58	0.670	0.873	37

### U-NII 2A MIMO Results

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
5.3 GHz U-NII 2A	WLAN MIMO Ant.1	802.11a 6 Mbps	Standalone	Off	19	Rear	60	5300.0	97.1%	15.00	14.87	0.037	0.040	
					22	Top	60	5300.0	97.1%	15.00	14.87	0.019	0.020	
					19	R/Left	60	5300.0	97.1%	15.00	14.87	0.121	0.128	
					19	R/Right	60	5300.0	97.1%	15.00	14.87			
	802.11ac VHT80 29.3 Mbps	Standalone	On	0	Rear	58	5290.0	91.1%	6.50	6.06				
					Top	58	5290.0	91.1%	6.50	6.06	0.059	0.072		
					R/Left	58	5290.0	91.1%	6.50	6.06	0.353	0.429		
					R/Right	58	5290.0	91.1%	6.50	6.06				
	WLAN MIMO Ant.2	802.11a 6 Mbps	Standalone	Off	19	Rear	60	5300.0	97.1%	15.00	13.65			
					22	Top	60	5300.0	97.1%	15.00	13.65			
					19	R/Left	60	5300.0	97.1%	15.00	13.65			
					19	R/Right	60	5300.0	97.1%	15.00	13.65	0.123	0.173	
	802.11ac VHT80 29.3 Mbps	Standalone	On	0	Rear	58	5290.0	91.1%	6.50	5.41	0.257	0.362		
					Top	58	5290.0	91.1%	6.50	5.41				
					R/Left	58	5290.0	91.1%	6.50	5.41				
					R/Right	58	5290.0	91.1%	6.50	5.41	0.534	0.753		38

#### Note(s):

- 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). If second channel SAR is not over 1.2 or 3.0 W/kg (1-g or 10-g respectively), remain channels SAR test are not required.

**Wi-Fi (U-NII Bands) (Continued)****U-NII 2C SISO Results**

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
5.5 GHz U-NII 2C	WLAN SISO Ant.2	802.11a 6 Mbps	Standalone	Off	19	Rear	132	5660.0	96.9%	17.00	16.34	0.020	0.024	
					22	Top	132	5660.0	96.9%	17.00	16.34	0.036	0.044	
					19	R/Right	132	5660.0	96.9%	17.00	16.34	0.104	0.125	
	WLAN MIMO Ant.1	802.11a 6 Mbps	Standalone	On	0	Rear	140	5700.0	96.9%	10.00	9.55	0.340	0.389	
						Top	140	5700.0	96.9%	10.00	9.55	0.006	0.006	
						R/Right	140	5700.0	96.9%	10.00	9.55	0.418	0.478	39

**U-NII 2C MIMO Results**

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
5.5 GHz U-NII 2C	WLAN MIMO Ant.1	802.11a 6 Mbps	Standalone	Off	19	Rear	132	5660.0	97.1%	17.00	16.62	0.035	0.040	
					22	Top	132	5660.0	97.1%	17.00	16.62	0.043	0.048	
					19	R/Left	132	5660.0	97.1%	17.00	16.62	0.149	0.167	
					19	R/Right	132	5660.0	97.1%	17.00	16.62			
	WLAN MIMO Ant.2	802.11a 6 Mbps	Standalone	On	0	Rear	140	5700.0	97.1%	10.00	9.81			
						Top	140	5700.0	97.1%	10.00	9.81	0.064	0.069	
						R/Left	140	5700.0	97.1%	10.00	9.81	0.508	0.546	
						R/Right	140	5700.0	97.1%	10.00	9.81			

**Note(s):**

1. 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). If second channel SAR is not over 1.2 or 3.0 W/kg (1-g or 10-g respectively), remain channels SAR test are not required.
2. Additional SAR tested.

**Wi-Fi (U-NII Bands) (Continued)****U-NII 3 SISO Results**

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
5.8 GHz U-NII 3	WLAN SISO Ant.2	802.11a 6 Mbps	Standalone	Off	19	Rear	165	5825.0	96.9%	17.00	16.26	0.126	0.154	
					22	Top	165	5825.0	96.9%	17.00	16.26	0.068	0.083	
					19	R/Right	165	5825.0	96.9%	17.00	16.26	0.132	0.162	
		802.11a 6 Mbps	Standalone	On	0	Rear	157	5785.0	96.9%	9.50	9.32	0.673	0.724	41
						Top	157	5785.0	96.9%	9.50	9.32	0.037	0.040	
						R/Right	157	5785.0	96.9%	9.50	9.32	0.518	0.557	

**U-NII 3 MIMO Results**

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
5.8 GHz U-NII 3	WLAN MIMO Ant.1	802.11a 6 Mbps	Standalone	Off	19	Rear	149	5745.0	97.1%	17.00	16.55				
					22	Top	149	5745.0	97.1%	17.00	16.55				
					19	R/Left	149	5745.0	97.1%	17.00	16.55	0.096	0.110		
					19	R/Right	149	5745.0	97.1%	17.00	16.55				
		802.11a 6 Mbps	Standalone	On	0	Rear	157	5785.0	97.1%	9.50	9.49				
						Top	157	5785.0	97.1%	9.50	9.49				
						R/Left	157	5785.0	97.1%	9.50	9.49	0.350	0.361		
	WLAN MIMO Ant.2	802.11a 6 Mbps	Standalone	Off	19	Rear	149	5745.0	97.1%	17.00	15.47	0.082	0.120		
						22	Top	149	5745.0	97.1%	17.00	15.47	0.049	0.071	
						19	R/Left	149	5745.0	97.1%	17.00	15.47			
						19	R/Right	149	5745.0	97.1%	17.00	15.47	0.107	0.157	
		802.11a 6 Mbps	Standalone	On	0	Rear	157	5785.0	97.1%	9.50	9.20	0.556	0.613	42	
						Top	157	5785.0	97.1%	9.50	9.20	0.043	0.048		
						R/Left	157	5785.0	97.1%	9.50	9.20				
						R/Right	157	5785.0	97.1%	9.50	9.20	0.325	0.358		

**Note(s):**

1. 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). If second channel SAR is not over 1.2 or 3.0 W/kg (1-g or 10-g respectively), remain channels SAR test are not required.
2. Additional SAR tested.

## 10.30. Bluetooth

Frequency Band	Antenna	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
2.4GHz	BT SISO Ant.1	BDR DH5	Standanloe	Off	19	Rear	78	2480.0	76.9%	15.00	13.85	0.028	0.037		
					22	Top	78	2480.0	76.9%	15.00	13.85	0.053	0.070		
		EDR DH5	Standanloe		19	R/Left	78	2480.0	76.9%	15.00	13.85	0.045	0.059		
					0	R/Right	78	2480.0	76.9%	15.00	13.85	0.002	0.003		
	BT SISO Ant.1	EDR DH5	Standanloe	On	0	Rear	39	2441.0	77.1%	11.00	10.45	0.431	0.494	43	
						Top	39	2441.0	77.1%	11.00	10.45	0.238	0.273		
						R/Left	39	2441.0	77.1%	11.00	10.45	0.320	0.367		

**Note(s):**

- In case of R/Right position, additional measurement due to simultaneous combination

## 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	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 Band 12	Standalone	Top	No	0.499	N/A	N/A
	LTE Band 13	Standalone	Top	No	0.549	N/A	N/A
	LTE Band 14	Standalone	Rear	No	0.606	N/A	N/A
	LTE Band 71	Standalone	Rear	No	0.499	N/A	N/A
	NR Band n12	Standalone	Top	No	0.455	N/A	N/A
	NR Band n71	Standalone	Rear	No	0.461	N/A	N/A
850	WCDMA Band V	Standalone	Rear	Yes	0.879	0.871	1.01
	LTE Band 26	Standalone	Top	No	0.626	N/A	N/A
	NR Band n5	Standalone	Rear	No	0.528	N/A	N/A
1750	WCDMA Band IV	Standalone	Rear	No	0.608	N/A	N/A
	LTE Band 66	Standalone	Rear	No	0.641	N/A	N/A
	NR Band n66	Standalone	Top	No	0.591	N/A	N/A
1900	WCDMA Band II	Standalone	Top	No	0.688	N/A	N/A
	LTE Band 25	Standalone	Rear	No	0.633	N/A	N/A
	NR Band n25	Standalone	Top	No	0.606	N/A	N/A
2300	LTE Band 30	Standalone	Top	No	0.495	N/A	N/A
	NR Band n30	Standalone	Top	No	0.616	N/A	N/A
2450	DTS	Standalone	Rear	No	0.573	N/A	N/A
	Bluetooth	Standalone	Rear	No	0.431	N/A	N/A
2600	LTE Band 7	Standalone	Rear	No	0.557	N/A	N/A
	LTE Band 41	Standalone	Rear	No	0.453	N/A	N/A
	NR Band n41	Standalone	Rear	Yes	0.985	0.965	1.02
3500	NR Band n77	Standalone	R/Right	Yes	0.895	0.891	1.00
3700	NR Band n77	Standalone	R/Right	No	0.720	N/A	N/A
5250	UNII	Standalone	R/Right	No	0.670	N/A	N/A
5600	UNII	Standalone	R/Left	No	0.508	N/A	N/A
5750	UNII	Standalone	Rear	No	0.673	N/A	N/A

### Note(s):

1. In above table, Only some bands above 0.8 or 2.0 W/kg (1-g or 10-g Measured SAR) were listed.
2. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not  $>$  1.20.

## 12. Simultaneous Transmission SAR Analysis

### Simultaneous Transmission Condition

RF Exposure Condition	Item	Capable Transmit Configurations		
Standalone	1	WWAN (3G/LTE/NR)	+	DTS Ant.1
	2	WWAN (3G/LTE/NR)	+	DTS MIMO
	3	WWAN (3G/LTE/NR)	+	UNII Ant.2
	4	WWAN (3G/LTE/NR)	+	UNII MIMO
	5	WWAN (3G/LTE/NR)	+	BT Ant.1
	6	WWAN (3G/LTE/NR)	+	UNII Ant.2 + BT Ant.1
	7	WWAN (3G/LTE/NR)	+	UNII MIMO + BT Ant.1
	8	ENDC(LTE+NR)	+	DTS Ant.1
	9	ENDC(LTE+NR)	+	DTS MIMO
	10	ENDC(LTE+NR)	+	UNII Ant.2
	11	ENDC(LTE+NR)	+	UNII MIMO
	12	ENDC(LTE+NR)	+	BT Ant.1
	13	ENDC(LTE+NR)	+	UNII Ant.2 + BT Ant.1
	14	ENDC(LTE+NR)	+	UNII MIMO + BT Ant.1

Notes:

1. DTS supports Wi-Fi Direct, Hotspot and VoIP.
2. U-NII supports Wi-Fi Direct, Hotspot and VoIP.
3. W-CDMA, LTE, NR supports Hotspot and VoIP
4. U-NII Radio can transmit simultaneously with Bluetooth Radio in certain scenario
5. NR Radio support to both SA and NSA(ENDC) Radio.

### Note(s):

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

## Simultaneous transmission SAR test exclusion considerations

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

### Sum of SAR

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

### SAR to Peak Location Separation Ratio (SPLSR)

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

$$\text{SPLSR} = (\text{SAR}_1 + \text{SAR}_2)^{1.5}/\text{R}_i$$

Where:

**SAR<sub>1</sub>** is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

**SAR<sub>2</sub>** is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

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

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

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

$$(\text{SAR}_1 + \text{SAR}_2)^{1.5}/\text{R}_i \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine **SAR<sub>1</sub>** or **SAR<sub>2</sub>**. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

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

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

## Simultaneous transmission SAR measurement

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

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

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

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

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

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

## SPLSR Hotspot Combination

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

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

## Test procedure

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

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

## Sum to Peak Location Separation Ratio

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

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

## 12.1. Sum of the SAR for WWAN(Standalone) & Wi-Fi & BT in (Rear) position

RF Exposure	Test Position	WWAN Bands	Antenna	Standalone SAR (W/kg)						Sum of SAR (W/kg)						
				WWAN	WiFi & BT & NFC					WWAN + DTS Ant.1	WWAN + DTS MIMO	WWAN + UNII Ant.2	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + UNII Ant.2 + BT Ant.1	
					1-1	2	3	4	5							
Standalone	Rear	WCDMA Band V	Main.1 Ant.	0.973	0.679	0.897	0.724	0.613	0.494	1.652	1.870	1.697	1.586	1.467	2.191	2.080
		WCDMA Band IV	Main.1 Ant.	0.695	0.679	0.897	0.724	0.613	0.494	1.374	1.592	1.419	1.308	1.189	1.913	1.802
		WCDMA Band II	Main.1 Ant.	0.816	0.679	0.897	0.724	0.613	0.494	1.495	1.713	1.540	1.429	1.310	2.034	1.923
		LTE Band 7	Main.1 Ant.	0.642	0.679	0.897	0.724	0.613	0.494	1.321	1.539	1.366	1.255	1.136	1.860	1.749
		LTE Band 7	Sub.2 Ant.	0.617	0.679	0.897	0.724	0.613	0.494	1.296	1.514	1.341	1.230	1.111	1.835	1.724
		LTE Band 12	Main.1 Ant.	0.546	0.679	0.897	0.724	0.613	0.494	1.225	1.443	1.270	1.159	1.040	1.764	1.653
		LTE Band 13	Main.1 Ant.	0.766	0.679	0.897	0.724	0.613	0.494	1.445	1.663	1.490	1.379	1.260	1.984	1.873
		LTE Band 14	Main.1 Ant.	0.737	0.679	0.897	0.724	0.613	0.494	1.416	1.634	1.461	1.350	1.231	1.955	1.844
		LTE Band 25/2	Main.1 Ant.	0.624	0.679	0.897	0.724	0.613	0.494	1.303	1.521	1.348	1.237	1.118	1.842	1.731
		LTE Band 25/2	Sub.2 Ant.	0.781	0.679	0.897	0.724	0.613	0.494	1.460	1.678	1.505	1.394	1.275	1.999	1.888
		LTE Band 26/5	Main.1 Ant.	0.692	0.679	0.897	0.724	0.613	0.494	1.371	1.589	1.416	1.305	1.186	1.910	1.799
		LTE Band 30	Main.1 Ant.	0.483	0.679	0.897	0.724	0.613	0.494	1.162	1.380	1.207	1.096	0.977	1.701	1.590
		LTE Band 41	Main.1 Ant.	0.607	0.679	0.897	0.724	0.613	0.494	1.286	1.504	1.331	1.220	1.101	1.825	1.714
		LTE Band 66/4	Main.1 Ant.	0.659	0.679	0.897	0.724	0.613	0.494	1.338	1.556	1.383	1.272	1.153	1.877	1.766
		LTE Band 66/4	Sub.2 Ant.	0.748	0.679	0.897	0.724	0.613	0.494	1.427	1.645	1.472	1.361	1.242	1.966	1.855
		LTE Band 71	Main.1 Ant.	0.530	0.679	0.897	0.724	0.613	0.494	1.209	1.427	1.254	1.143	1.024	1.748	1.637
		NR Band n5	Main.1 Ant.	0.729	0.679	0.897	0.724	0.613	0.494	1.408	1.626	1.453	1.342	1.223	1.947	1.836
		NR Band n12	Main.1 Ant.	0.467	0.679	0.897	0.724	0.613	0.494	1.146	1.364	1.191	1.080	0.961	1.685	1.574
		NR Band n25/n2	Main.1 Ant.	0.606	0.679	0.897	0.724	0.613	0.494	1.285	1.503	1.330	1.219	1.100	1.824	1.713
		NR Band n30	Main.1 Ant.	0.464	0.679	0.897	0.724	0.613	0.494	1.143	1.361	1.188	1.077	0.958	1.682	1.571
		NR Band n41	Main.1 Ant.	0.811	0.679	0.897	0.724	0.613	0.494	1.490	1.708	1.535	1.424	1.305	2.029	1.918
		NR Band n41-SRS1	Sub.2 Ant.	0.677	0.679	0.897	0.724	0.613	0.494	1.356	1.574	1.401	1.290	1.171	1.895	1.784
		NR Band n41-SRS2	Sub.4 Ant.	0.582	0.679	0.897	0.724	0.613	0.494	1.261	1.479	1.306	1.195	1.076	1.800	1.689
		NR Band n41-SRS3	Sub.1 Ant.	1.190	0.679	0.897	0.724	0.613	0.494	1.869	2.087	1.914	1.803	1.684	2.408	2.297
		NR Band n66	Main.1 Ant.	0.799	0.679	0.897	0.724	0.613	0.494	1.478	1.696	1.523	1.412	1.293	2.017	1.906
		NR Band n71	Main.1 Ant.	0.523	0.679	0.897	0.724	0.613	0.494	1.202	1.420	1.247	1.136	1.017	1.741	1.630
		NR Band n77	Main.2 Ant.	0.349	0.679	0.897	0.724	0.613	0.494	1.028	1.246	1.073	0.962	0.843	1.567	1.456
		NR Band n77-SRS1	Sub.2 Ant.	0.285	0.679	0.897	0.724	0.613	0.494	0.964	1.182	1.009	0.898	0.779	1.503	1.392
		NR Band n77-SRS2	Sub.4 Ant.	0.681	0.679	0.897	0.724	0.613	0.494	1.360	1.578	1.405	1.294	1.175	1.899	1.788
		NR Band n77-SRS3	Sub.3 Ant.	0.415	0.679	0.897	0.724	0.613	0.494	1.094	1.312	1.139	1.028	0.909	1.633	1.522

### Note(s):

- If some simultaneous transmission scenarios are over FCC limit(Red values in table), SPLSR criteria was performed in Appendix I. According to the results of Appendix I, all combination exceeding the FCC limit of above table satisfied the SPLSR criteria. Please refer to Appendix I.

## 12.2. Sum of the SAR for WWAN(Standalone) & Wi-Fi & BT in (Top) position

RF Exposure	Test Position	WWAN Bands	Antenna	Standalone SAR (W/kg)						Sum of SAR (W/kg)						
				WWAN	WiFi & BT & NFC					WWAN + DTS Ant.1	WWAN + DTS MIMO	WWAN + UNII Ant.2	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + UNII Ant.2 + BT Ant.1	
					1-1	2	3	4	5							
Standalone	Top	WCDMA Band V	Main.1 Ant.	1.035	0.310	0.391	0.083	0.072	0.273	1.345	1.426	1.118	1.107	1.308	1.391	1.380
		WCDMA Band IV	Main.1 Ant.	0.744	0.310	0.391	0.083	0.072	0.273	1.054	1.135	0.827	0.816	1.017	1.100	1.089
		WCDMA Band II	Main.1 Ant.	0.878	0.310	0.391	0.083	0.072	0.273	1.188	1.269	0.961	0.950	1.151	1.234	1.223
		LTE Band 7	Main.1 Ant.	0.534	0.310	0.391	0.083	0.072	0.273	0.844	0.925	0.617	0.606	0.807	0.890	0.879
		LTE Band 7	Sub.2 Ant.	0.085	0.310	0.391	0.083	0.072	0.273	0.395	0.476	0.168	0.157	0.358	0.441	0.430
		LTE Band 12	Main.1 Ant.	0.556	0.310	0.391	0.083	0.072	0.273	0.866	0.947	0.639	0.628	0.829	0.912	0.901
		LTE Band 13	Main.1 Ant.	0.772	0.310	0.391	0.083	0.072	0.273	1.082	1.163	0.855	0.844	1.045	1.128	1.117
		LTE Band 14	Main.1 Ant.	0.671	0.310	0.391	0.083	0.072	0.273	0.981	1.062	0.754	0.743	0.944	1.027	1.016
		LTE Band 25/2	Main.1 Ant.	0.770	0.310	0.391	0.083	0.072	0.273	1.080	1.161	0.853	0.842	1.043	1.126	1.115
		LTE Band 25/2	Sub.2 Ant.	0.087	0.310	0.391	0.083	0.072	0.273	0.397	0.478	0.170	0.159	0.360	0.443	0.432
		LTE Band 26/5	Main.1 Ant.	0.758	0.310	0.391	0.083	0.072	0.273	1.068	1.149	0.841	0.830	1.031	1.114	1.103
		LTE Band 30	Main.1 Ant.	0.642	0.310	0.391	0.083	0.072	0.273	0.952	1.033	0.725	0.714	0.915	0.998	0.987
		LTE Band 41	Main.1 Ant.	0.418	0.310	0.391	0.083	0.072	0.273	0.728	0.809	0.501	0.490	0.691	0.774	0.763
		LTE Band 66/4	Main.1 Ant.	0.794	0.310	0.391	0.083	0.072	0.273	1.104	1.185	0.877	0.866	1.067	1.150	1.139
		LTE Band 66/4	Sub.2 Ant.	0.087	0.310	0.391	0.083	0.072	0.273	0.397	0.478	0.170	0.159	0.360	0.443	0.432
		LTE Band 71	Main.1 Ant.	0.516	0.310	0.391	0.083	0.072	0.273	0.826	0.907	0.599	0.588	0.789	0.872	0.861
		NR Band n5	Main.1 Ant.	0.741	0.310	0.391	0.083	0.072	0.273	1.051	1.132	0.824	0.813	1.014	1.097	1.086
		NR Band n12	Main.1 Ant.	0.478	0.310	0.391	0.083	0.072	0.273	0.788	0.869	0.561	0.550	0.751	0.834	0.823
		NR Band n25/n2	Main.1 Ant.	0.717	0.310	0.391	0.083	0.072	0.273	1.027	1.108	0.800	0.789	0.990	1.073	1.062
		NR Band n30	Main.1 Ant.	0.694	0.310	0.391	0.083	0.072	0.273	1.004	1.085	0.777	0.766	0.967	1.050	1.039
		NR Band n41	Main.1 Ant.	0.650	0.310	0.391	0.083	0.072	0.273	0.960	1.041	0.733	0.722	0.923	1.006	0.995
		NR Band n41-SRS1	Sub.2 Ant.	0.076	0.310	0.391	0.083	0.072	0.273	0.386	0.467	0.159	0.148	0.349	0.432	0.421
		NR Band n41-SRS2	Sub.4 Ant.	0.085	0.310	0.391	0.083	0.072	0.273	0.395	0.476	0.168	0.157	0.358	0.441	0.430
		NR Band n41-SRS3	Sub.1 Ant.	0.057	0.310	0.391	0.083	0.072	0.273	0.367	0.448	0.140	0.129	0.330	0.413	0.402
		NR Band n66	Main.1 Ant.	0.799	0.310	0.391	0.083	0.072	0.273	1.109	1.190	0.882	0.871	1.072	1.155	1.144
		NR Band n71	Main.1 Ant.	0.416	0.310	0.391	0.083	0.072	0.273	0.726	0.807	0.499	0.488	0.689	0.772	0.761
		NR Band n77	Main.2 Ant.	0.226	0.310	0.391	0.083	0.072	0.273	0.536	0.617	0.309	0.298	0.499	0.582	0.571
		NR Band n77-SRS1	Sub.2 Ant.	0.210	0.310	0.391	0.083	0.072	0.273	0.520	0.601	0.293	0.282	0.483	0.566	0.555
		NR Band n77-SRS2	Sub.4 Ant.	0.105	0.310	0.391	0.083	0.072	0.273	0.415	0.496	0.188	0.177	0.378	0.461	0.450
		NR Band n77-SRS3	Sub.3 Ant.	0.195	0.310	0.391	0.083	0.072	0.273	0.505	0.586	0.278	0.267	0.468	0.551	0.540

### Note(s):

- All Sum results are below FCC limit (1.6 W/kg). So additional evaluation are not required.
- Green value is estimated SAR according to calculate of KDB 447498 D04. Please refer to Section.7.

### 12.3. Sum of the SAR for WWAN(Standalone) & Wi-Fi & BT in (R/Left) position

RF Exposure	Test Position	WWAN Bands	Antenna	Standalone SAR (W/kg)						Sum of SAR (W/kg)						
				WWAN	WiFi & BT & NFC					WWAN + DTS Ant.1	WWAN + DTS MIMO	WWAN + UNII Ant.2	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + UNII Ant.2 + BT Ant.1	
					1-1	2	3	4	5							
Standalone	R/Left	WCDMA Band V	Main.1 Ant.	0.065	0.637	0.547	0.079	0.546	0.367	0.702	0.612	0.144	0.611	0.432	0.511	0.978
		WCDMA Band IV	Main.1 Ant.	0.073	0.637	0.547	0.079	0.546	0.367	0.710	0.620	0.152	0.619	0.440	0.519	0.986
		WCDMA Band II	Main.1 Ant.	0.084	0.637	0.547	0.079	0.546	0.367	0.721	0.631	0.163	0.630	0.451	0.530	0.997
		LTE Band 7	Main.1 Ant.	0.072	0.637	0.547	0.079	0.546	0.367	0.709	0.619	0.151	0.618	0.439	0.518	0.985
		LTE Band 7	Sub.2 Ant.	0.291	0.637	0.547	0.079	0.546	0.367	0.928	0.838	0.370	0.837	0.658	0.737	1.204
		LTE Band 12	Main.1 Ant.	0.074	0.637	0.547	0.079	0.546	0.367	0.711	0.621	0.153	0.620	0.441	0.520	0.987
		LTE Band 13	Main.1 Ant.	0.116	0.637	0.547	0.079	0.546	0.367	0.753	0.663	0.195	0.662	0.483	0.562	1.029
		LTE Band 14	Main.1 Ant.	0.131	0.637	0.547	0.079	0.546	0.367	0.768	0.678	0.210	0.677	0.498	0.577	1.044
		LTE Band 25/2	Main.1 Ant.	0.068	0.637	0.547	0.079	0.546	0.367	0.705	0.615	0.147	0.614	0.435	0.514	0.981
		LTE Band 25/2	Sub.2 Ant.	0.433	0.637	0.547	0.079	0.546	0.367	1.070	0.980	0.512	0.979	0.800	0.879	1.346
		LTE Band 26/5	Main.1 Ant.	0.072	0.637	0.547	0.079	0.546	0.367	0.709	0.619	0.151	0.618	0.439	0.518	0.985
		LTE Band 30	Main.1 Ant.	0.040	0.637	0.547	0.079	0.546	0.367	0.677	0.587	0.119	0.586	0.407	0.486	0.953
		LTE Band 41	Main.1 Ant.	0.053	0.637	0.547	0.079	0.546	0.367	0.690	0.600	0.132	0.599	0.420	0.499	0.966
		LTE Band 66/4	Main.1 Ant.	0.092	0.637	0.547	0.079	0.546	0.367	0.729	0.639	0.171	0.638	0.459	0.538	1.005
		LTE Band 66/4	Sub.2 Ant.	0.367	0.637	0.547	0.079	0.546	0.367	1.004	0.914	0.446	0.913	0.734	0.813	1.280
		LTE Band 71	Main.1 Ant.	0.050	0.637	0.547	0.079	0.546	0.367	0.687	0.597	0.129	0.596	0.417	0.496	0.963
		NR Band n5	Main.1 Ant.	0.072	0.637	0.547	0.079	0.546	0.367	0.709	0.619	0.151	0.618	0.439	0.518	0.985
		NR Band n12	Main.1 Ant.	0.033	0.637	0.547	0.079	0.546	0.367	0.670	0.580	0.112	0.579	0.400	0.479	0.946
		NR Band n25/n2	Main.1 Ant.	0.082	0.637	0.547	0.079	0.546	0.367	0.719	0.629	0.161	0.628	0.449	0.528	0.995
		NR Band n30	Main.1 Ant.	0.048	0.637	0.547	0.079	0.546	0.367	0.685	0.595	0.127	0.594	0.415	0.494	0.961
		NR Band n41	Main.1 Ant.	0.055	0.637	0.547	0.079	0.546	0.367	0.692	0.602	0.134	0.601	0.422	0.501	0.968
		NR Band n41-SRS1	Sub.2 Ant.	0.427	0.637	0.547	0.079	0.546	0.367	1.064	0.974	0.506	0.973	0.794	0.873	1.340
		NR Band n41-SRS2	Sub.4 Ant.	0.012	0.637	0.547	0.079	0.546	0.367	0.649	0.559	0.091	0.558	0.379	0.458	0.925
		NR Band n41-SRS3	Sub.1 Ant.	0.011	0.637	0.547	0.079	0.546	0.367	0.648	0.558	0.090	0.557	0.378	0.457	0.924
		NR Band n66	Main.1 Ant.	0.074	0.637	0.547	0.079	0.546	0.367	0.711	0.621	0.153	0.620	0.441	0.520	0.987
		NR Band n71	Main.1 Ant.	0.057	0.637	0.547	0.079	0.546	0.367	0.694	0.604	0.136	0.603	0.424	0.503	0.970
		NR Band n77	Main.2 Ant.	0.794	0.637	0.547	0.079	0.546	0.367	1.431	1.341	0.873	1.340	1.161	1.240	1.707
		NR Band n77-SRS1	Sub.2 Ant.	0.891	0.637	0.547	0.079	0.546	0.367	1.528	1.438	0.970	1.437	1.258	1.337	1.804
		NR Band n77-SRS2	Sub.4 Ant.	0.227	0.637	0.547	0.079	0.546	0.367	0.864	0.774	0.306	0.773	0.594	0.673	1.140
		NR Band n77-SRS3	Sub.3 Ant.	0.269	0.637	0.547	0.079	0.546	0.367	0.906	0.816	0.348	0.815	0.636	0.715	1.182

#### Note(s):

1. Green value is estimated SAR according to calculate of KDB 447498 D04. Please refer to Section.7.
2. If some simultaneous transmission scenarios are over FCC limit(Red values in table), SPLSR criteria was performed in Appendix I. According to the results of Appendix I, all combination exceeding the FCC limit of above table satisfied the SPLSR criteria. Please refer to Appendix I.

## 12.4. Sum of the SAR for WWAN(Standalone) & Wi-Fi & BT in (Bottom) position

RF Exposure	Test Position	WWAN Bands	Antenna	Standalone SAR (W/kg)						Sum of SAR (W/kg)						
				WWAN	WiFi & BT					WWAN + DTS Ant.1	WWAN + DTS MIMO	WWAN + UNII Ant.2	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + UNII Ant.2 + BT Ant.1	
					1-1	2	3	4	5							
Standalone	Bottom	WCDMA Band V	Main.1 Ant.	0.189	0.036	0.073	0.018	0.035	0.009	0.225	0.262	0.207	0.224	0.198	0.216	0.233
		WCDMA Band IV	Main.1 Ant.	0.110	0.036	0.073	0.018	0.035	0.009	0.146	0.183	0.128	0.145	0.119	0.137	0.154
		WCDMA Band II	Main.1 Ant.	0.097	0.036	0.073	0.018	0.035	0.009	0.133	0.170	0.115	0.132	0.106	0.124	0.141
		LTE Band 7	Main.1 Ant.	0.108	0.036	0.073	0.018	0.035	0.009	0.144	0.181	0.126	0.143	0.117	0.135	0.152
		LTE Band 7	Sub.2 Ant.	0.462	0.036	0.073	0.018	0.035	0.009	0.498	0.535	0.480	0.497	0.471	0.489	0.506
		LTE Band 12	Main.1 Ant.	0.258	0.036	0.073	0.018	0.035	0.009	0.294	0.331	0.276	0.293	0.267	0.285	0.302
		LTE Band 13	Main.1 Ant.	0.231	0.036	0.073	0.018	0.035	0.009	0.267	0.304	0.249	0.266	0.240	0.258	0.275
		LTE Band 14	Main.1 Ant.	0.228	0.036	0.073	0.018	0.035	0.009	0.264	0.301	0.246	0.263	0.237	0.255	0.272
		LTE Band 25/2	Main.1 Ant.	0.109	0.036	0.073	0.018	0.035	0.009	0.145	0.182	0.127	0.144	0.118	0.136	0.153
		LTE Band 25/2	Sub.2 Ant.	0.591	0.036	0.073	0.018	0.035	0.009	0.627	0.664	0.609	0.626	0.600	0.618	0.635
		LTE Band 26/5	Main.1 Ant.	0.212	0.036	0.073	0.018	0.035	0.009	0.248	0.285	0.230	0.247	0.221	0.239	0.256
		LTE Band 30	Main.1 Ant.	0.068	0.036	0.073	0.018	0.035	0.009	0.104	0.141	0.086	0.103	0.077	0.095	0.112
		LTE Band 41	Main.1 Ant.	0.107	0.036	0.073	0.018	0.035	0.009	0.143	0.180	0.125	0.142	0.116	0.134	0.151
		LTE Band 66/4	Main.1 Ant.	0.098	0.036	0.073	0.018	0.035	0.009	0.134	0.171	0.116	0.133	0.107	0.125	0.142
		LTE Band 66/4	Sub.2 Ant.	0.460	0.036	0.073	0.018	0.035	0.009	0.496	0.533	0.478	0.495	0.469	0.487	0.504
		LTE Band 71	Main.1 Ant.	0.265	0.036	0.073	0.018	0.035	0.009	0.301	0.338	0.283	0.300	0.274	0.292	0.309
		NR Band n5	Main.1 Ant.	0.212	0.036	0.073	0.018	0.035	0.009	0.248	0.285	0.230	0.247	0.221	0.239	0.256
		NR Band n12	Main.1 Ant.	0.258	0.036	0.073	0.018	0.035	0.009	0.294	0.331	0.276	0.293	0.267	0.285	0.302
		NR Band n25/n2	Main.1 Ant.	0.109	0.036	0.073	0.018	0.035	0.009	0.145	0.182	0.127	0.144	0.118	0.136	0.153
		NR Band n30	Main.1 Ant.	0.077	0.036	0.073	0.018	0.035	0.009	0.113	0.150	0.095	0.112	0.086	0.104	0.121
		NR Band n41	Main.1 Ant.	0.107	0.036	0.073	0.018	0.035	0.009	0.143	0.180	0.125	0.142	0.116	0.134	0.151
		NR Band n41-SRS1	Sub.2 Ant.	1.087	0.036	0.073	0.018	0.035	0.009	1.123	1.160	1.105	1.122	1.096	1.114	1.131
		NR Band n41-SRS2	Sub.4 Ant.	0.169	0.036	0.073	0.018	0.035	0.009	0.205	0.242	0.187	0.204	0.178	0.196	0.213
		NR Band n41-SRS3	Sub.1 Ant.	0.521	0.036	0.073	0.018	0.035	0.009	0.557	0.594	0.539	0.556	0.530	0.548	0.565
		NR Band n66	Main.1 Ant.	0.110	0.036	0.073	0.018	0.035	0.009	0.146	0.183	0.128	0.145	0.119	0.137	0.154
		NR Band n71	Main.1 Ant.	0.265	0.036	0.073	0.018	0.035	0.009	0.301	0.338	0.283	0.300	0.274	0.292	0.309
		NR Band n77	Main.2 Ant.	0.198	0.036	0.073	0.018	0.035	0.009	0.234	0.271	0.216	0.233	0.207	0.225	0.242
		NR Band n77-SRS1	Sub.2 Ant.	0.360	0.036	0.073	0.018	0.035	0.009	0.396	0.433	0.378	0.395	0.369	0.387	0.404
		NR Band n77-SRS2	Sub.4 Ant.	0.676	0.036	0.073	0.018	0.035	0.009	0.712	0.749	0.694	0.711	0.685	0.703	0.720
		NR Band n77-SRS3	Sub.3 Ant.	0.064	0.036	0.073	0.018	0.035	0.009	0.100	0.137	0.082	0.099	0.073	0.091	0.108

### Note(s):

- Green value is estimated SAR according to calculate of KDB 447498 D04. Please refer to Section.7.
- All Sum results are below FCC limit (1.6 W/kg). So additional evaluation are not required.

## 12.5. Sum of the SAR for WWAN(Standalone) & Wi-Fi & BT in (R/Right) position

RF Exposure	Test Position	WWAN Bands	Antenna	Standalone SAR (W/kg)						Sum of SAR (W/kg)						
				WWAN	WiFi & BT					WWAN + DTS Ant.1	WWAN + DTS MIMO	WWAN + UNII Ant.2	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + UNII Ant.2 + BT Ant.1	
					DTS Ant.1	DTS MIMO	UNII Ant.2	UNII MIMO	BT Ant.1							
Standalone	R/Right	WCDMA Band V	Main.1 Ant.	0.039	0.143	0.772	0.873	0.753	0.003	0.182	0.811	0.912	0.792	0.042	0.915	0.795
		WCDMA Band IV	Main.1 Ant.	0.208	0.143	0.772	0.873	0.753	0.003	0.351	0.980	1.081	0.961	0.211	1.084	0.964
		WCDMA Band II	Main.1 Ant.	0.056	0.143	0.772	0.873	0.753	0.003	0.199	0.828	0.929	0.809	0.059	0.932	0.812
		LTE Band 7	Main.1 Ant.	0.006	0.143	0.772	0.873	0.753	0.003	0.149	0.778	0.879	0.759	0.009	0.882	0.762
		LTE Band 7	Sub.2 Ant.	0.154	0.143	0.772	0.873	0.753	0.003	0.297	0.926	1.027	0.907	0.157	1.030	0.910
		LTE Band 12	Main.1 Ant.	0.039	0.143	0.772	0.873	0.753	0.003	0.182	0.811	0.912	0.792	0.042	0.915	0.795
		LTE Band 13	Main.1 Ant.	0.048	0.143	0.772	0.873	0.753	0.003	0.191	0.820	0.921	0.801	0.051	0.924	0.804
		LTE Band 14	Main.1 Ant.	0.056	0.143	0.772	0.873	0.753	0.003	0.199	0.828	0.929	0.809	0.059	0.932	0.812
		LTE Band 25/2	Main.1 Ant.	0.082	0.143	0.772	0.873	0.753	0.003	0.225	0.854	0.955	0.835	0.085	0.958	0.838
		LTE Band 25/2	Sub.2 Ant.	0.318	0.143	0.772	0.873	0.753	0.003	0.461	1.090	1.191	1.071	0.321	1.194	1.074
		LTE Band 26/5	Main.1 Ant.	0.034	0.143	0.772	0.873	0.753	0.003	0.177	0.806	0.907	0.787	0.037	0.910	0.790
		LTE Band 30	Main.1 Ant.	0.025	0.143	0.772	0.873	0.753	0.003	0.168	0.797	0.898	0.778	0.028	0.901	0.781
		LTE Band 41	Main.1 Ant.	0.006	0.143	0.772	0.873	0.753	0.003	0.149	0.778	0.879	0.759	0.009	0.882	0.762
		LTE Band 66/4	Main.1 Ant.	0.223	0.143	0.772	0.873	0.753	0.003	0.366	0.995	1.096	0.976	0.226	1.099	0.979
		LTE Band 66/4	Sub.2 Ant.	0.287	0.143	0.772	0.873	0.753	0.003	0.430	1.059	1.160	1.040	0.290	1.163	1.043
		LTE Band 71	Main.1 Ant.	0.045	0.143	0.772	0.873	0.753	0.003	0.188	0.817	0.918	0.798	0.048	0.921	0.801
		NR Band n5	Main.1 Ant.	0.067	0.143	0.772	0.873	0.753	0.003	0.210	0.839	0.940	0.820	0.070	0.943	0.823
		NR Band n12	Main.1 Ant.	0.029	0.143	0.772	0.873	0.753	0.003	0.172	0.801	0.902	0.782	0.032	0.905	0.785
		NR Band n25/n2	Main.1 Ant.	0.043	0.143	0.772	0.873	0.753	0.003	0.186	0.815	0.916	0.796	0.046	0.919	0.799
		NR Band n30	Main.1 Ant.	0.021	0.143	0.772	0.873	0.753	0.003	0.164	0.793	0.894	0.774	0.024	0.897	0.777
		NR Band n41	Main.1 Ant.	0.013	0.143	0.772	0.873	0.753	0.003	0.156	0.785	0.886	0.766	0.016	0.889	0.769
		NR Band n41-SRS1	Sub.2 Ant.	0.083	0.143	0.772	0.873	0.753	0.003	0.226	0.855	0.956	0.836	0.086	0.959	0.839
		NR Band n41-SRS2	Sub.4 Ant.	0.282	0.143	0.772	0.873	0.753	0.003	0.425	1.054	1.155	1.035	0.285	1.158	1.038
		NR Band n41-SRS3	Sub.1 Ant.	1.141	0.143	0.772	0.873	0.753	0.003	1.284	1.913	2.014	1.894	1.144	2.017	1.897
		NR Band n66	Main.1 Ant.	0.102	0.143	0.772	0.873	0.753	0.003	0.245	0.874	0.975	0.855	0.105	0.978	0.858
		NR Band n71	Main.1 Ant.	0.036	0.143	0.772	0.873	0.753	0.003	0.179	0.808	0.909	0.789	0.039	0.912	0.792
		NR Band n77	Main.2 Ant.	0.024	0.143	0.772	0.873	0.753	0.003	0.167	0.796	0.897	0.777	0.027	0.900	0.780
		NR Band n77-SRS1	Sub.2 Ant.	0.089	0.143	0.772	0.873	0.753	0.003	0.232	0.861	0.962	0.842	0.092	0.965	0.845
		NR Band n77-SRS2	Sub.4 Ant.	0.929	0.143	0.772	0.873	0.753	0.003	1.072	1.701	1.802	1.682	0.932	1.805	1.685
		NR Band n77-SRS3	Sub.3 Ant.	0.712	0.143	0.772	0.873	0.753	0.003	0.855	1.484	1.585	1.465	0.715	1.588	1.468

### Note(s):

- Green value is estimated SAR according to calculate of KDB 447498 D04. Please refer to Section.7.
- If some simultaneous transmission scenarios are over FCC limit(Red values in table), SPLSR criteria was performed in Appendix I. According to the results of Appendix I, all combination exceeding the FCC limit of above table satisfied the SPLSR criteria. Please refer to Appendix I.

## Appendices

Refer to separated files for the following appendixes.

**4790841154-S1 FCC Report SAR\_App A\_Photos & Ant. Locations**

**4790841154-S1 FCC Report SAR\_App B\_Highest SAR Test Plots**

**4790841154-S1 FCC Report SAR\_App C\_System Check Plots**

**4790841154-S1 FCC Report SAR\_App D\_SAR Tissue Ingredients**

**4790841154-S1 FCC Report SAR\_App E\_Probe Cal. Certificates**

**4790841154-S1 FCC Report SAR\_App F\_Dipole Cal. Certificates**

**4790841154-S1 FCC Report SAR\_App G\_Proximity Sensor feature**

**4790841154-S1 FCC Report SAR\_App H\_LTE Carrier Aggregation**

**4790841154-S1 FCC Report SAR\_App I\_SPLSR criteria**

**END OF REPORT**